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Teacher Perspectives of Their Experiences in a Professional Learning Community and How These Experiences Contribute to a Collaborative School Culture

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Teacher Perspectives of Their Experiences in a Professional Learning Community and How These Experiences Contribute to a Collaborative School Culture

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Approval Page

This dissertation was submitted by Kimberly Janette Kelley under the direction of the persons listed below. It was submitted to the Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

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Abstract

Teacher Perspectives of Their Experiences in a Professional Learning Community and How These Experiences Contribute to a Collaborative School Culture. Kelley, Kimberly Janette, 2018: Dissertation, Gardner-Webb University, Professional Learning Community/Collaboration/Collaborative Culture

Fullan (1998) stated, "Student achievement increases substantially in schools with collaborative work cultures that foster a professional learning community among teachers and others" (p. 8). Vandevoort, Amrein-Beardsley, and Berliner (2004) also found that the quality of the teacher in the classroom is the single most important factor in determining how well a child learns.

The purpose of this study was to determine practices and experiences within a Professional Learning Community (PLC) that contribute to a collaborative culture and student performance. The research question for this study was, "What experiences in a PLC do teachers perceive contribute to a collaborative culture?"

This mixed-method, single case research study used the School Culture Survey (SCS) developed by Gruenert and Valentine (1998) to gather data of teacher perceptions of practices and experiences in their PLC meeting. Survey data were collected electronically, and all survey responses were used in the final statistical analysis. Interviews were conducted based on emerging themes in order to validate the study further.

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Chapter 1: Introduction

Introduction to the Research

This study examined the perceptions teachers have of their professional learning within Professional Learning Community (PLC) meetings and how these experiences contribute to a collaborative culture. A PLC is an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve. PLCs operate under the assumption that the key to improved learning for students is continuous job-embedded learning for educators (DuFour, DuFour, Eaker, & Many, 2006). Collaboration is a more common term that may include teachers, administrators, and other support staff within a school. "Educators who are building a professional learning community recognize that they must work together to achieve their collective purpose of learning for all" (DuFour, 2004, p. 3).

High-Quality Teachers

Ballard and Bates (2008), researchers from Illinois State University, examined the relationship between classroom instruction and standardized test content and the effect this has on students, parents, and teachers. One emerging theme that came out of their study was that student performance on standardized achievement tests is used to a great extent in reflecting the quality of instruction students receive from teachers.

Supporting the idea of the importance of the classroom teacher, Vandevoort, Amrein-Beardsley, and Berliner (2004) found that the quality of the teacher in the classroom is the single most important factor in determining how well a child learns. Gallagher (2004) also concluded that teachers must remember that external factors affect student achievement; but when those factors are controlled, teachers are the most

important influence on student achievement.

The National Commission on Teaching and America's Future (NCTAF), founded in 1994, is a bipartisan effort to engage education policymakers and practitioners. The group addressed the national challenge of recruiting, developing, and retaining excellent teachers to ensure that all students have access to quality teaching in schools organized for success. NCTAF (1996) outlined many implications for school reform. Researchers reported that current school reform has ignored the fact that teacher expertise is the most important factor in student achievement. Furthermore, the way school systems organize the work teachers do can also make a big difference in what teachers are able to accomplish. Researchers stated that although there may be new courses, tests, and curriculum reforms, they become meaningless if teachers cannot use them productively. The report concluded that student learning in this country will improve only when we focus our efforts on improving teaching. Another topic discussed by NCTAF is the importance of teacher knowledge as related to student achievement. The report stated that when teachers can work together to build a consistent learning experience for students throughout the grades and within and across subject areas, they can engender greater student achievement.

A recent NCTAF (1996) study of more than 1,000 school districts concluded that every additional dollar spent on more highly qualified teachers netted greater improvements in student achievement than did any other use of school resources. In the same report, high-achieving and low-achieving elementary schools with similar student characteristics were compared. NCTAF found that differences in teacher qualifications accounted for more than 90% of the variation in student achievement in reading and mathematics. At a time when all students must meet higher standards for learning, access

to good teaching is a necessity. Competent instruction depends on educators who deeply understand the subject matter and how to teach in ways that motivate children and help them learn. The bottom line is that there is just no way to create good schools without good teachers. Through multiple research studies, NCTAF determined that highly skilled teachers who work in collaborative cultures are successful in aspects of reform.

With the adoption of the No Child Left Behind Act (NCLB) in 2001 and tougher state standards, schools and teachers are being held accountable in more ways than ever before on student performance (Klein, 2015). DuFour et al. (2006) stated that United States schools are being evaluated based on student performance on state-mandated tests given every year.

Collaborative Learning

Brownell, Yeagar, Rennels, and Riley (1997) defined effective teacher collaboration as teachers who communicate about their classroom experiences in order to strengthen pedagogical expertise and encourage colleagues to try new things. DuFour (2004) discussed the idea of developing a culture of collaboration. DuFour stated that educators recognize that they must work together during PLC meetings in order to achieve the goal of all students learning. This collective goal of learning for all helps direct and promote a collaborative culture. Further, DuFour stated that although current research shows evidence of success when working in collaborative teams, many teachers continue to work in isolation within their classrooms. Teaching has been described as a lonely profession with few opportunities to collaborate with other school personnel (Sarason, Sarason, & Shearin, 1986). Sarason et al. (1986) also reported that the teacher's work environment and the conditions in which they work contribute to teachers having little time to interact and collaborate with colleagues. Collaborative conversations

require team members to make their teaching, goals, materials, pacing, questions, concerns, and results more public. These collaborative discussions give every teacher someone to turn to and talk to, and they are explicitly structured to improve the individual classroom and common practice of teachers.

The Annenberg Institute for Research (AIR, 2004) is one of the world's largest behavioral and social science research and evaluation organizations. Their goal is to use the best science available to bring the most effective ideas and approaches to enhancing every life. AIR, a not-for-profit organization, was founded in 1946 and currently has 1,800 employees who bring together experts from many fields of study. Through their research published in the American Sociological Association (2013), AIR found that teachers learn more in collaborative teacher networks and study groups than with mentors or in traditional classes and workshops. In another study conducted by the AIR, researchers looked at data on 4,490 students in Grades K-5 between the years 1998-2003. Their studies found that student math scores can rise when teachers collaborate with one another and have PLCs. Wong (2003), a popular educational author, stated that effective schools have a culture where all teachers take responsibility for the learning of all students. This collaborative culture recognizes that it is not the responsibility of only one teacher to increase student achievement, but it is the responsibility of all teachers (Perez, 2015).

Teacher Collaboration and Student Achievement

Amy Edmondson is a professor of Leadership and Management at the Harvard Business School. In 2012, Edmondson reported that through collective learning, organizations can assess changes in the environment, learn about requirements needed to meet goals, improve members' mutual understanding, or discover consequences of their

previous actions. Edmondson also reported that collective learning is a willingness to take interpersonal risks in discussing mistakes. One example of this was a study in New York City that revealed that teachers were more likely to produce student achievement gains if they taught in schools where they had strong ties to colleagues with whom they often worked on instructional issues, regardless of their education, experience, or previous student achievement levels. This study also revealed that teachers have reported being more likely to work on instructional issues with a peer teacher than a principal or district-designated professional resource.

Poulos, Culbertson, Piazza, and d'Entrement (2016) stated that requiring teacher collaboration is a key element in driving school improvement and creating an environment where teachers can improve their teaching skills. This collaborative culture will also facilitate action needed to address the diverse needs of students. These researchers continue to report that one reason why teacher collaboration has received limited attention in current policy discussions is that it is hard to achieve, in particular through state or district directives. In large urban schools, often characterized by higher than average rates of teacher turnover, the task is even harder; however, educators in some urban schools have found a way to transform school cultures into collaborative work environments where leaders and teachers set expectations for shared responsibility for whole-school improvement. Through this process, "some schools were able to overcome many of the challenges endemic to the urban environment and become models of practice" (Poulos et al., 2016, p. 17). Another comprehensive research study was conducted by Poulos et al. and focused on teacher collaboration in Boston Public Schools. Researchers found that schools with the most effective collaborative practices exhibited a school culture oriented toward norms of collective responsibility and

continual learning. Through this research study, teachers reported that the thoughtful conversations they have with their peers are critical to improving their classroom practice.

Gruenert (2005) conducted a study to investigate the relationship between collaborative cultures and student achievement. School culture data were collected from the faculties of 81 schools in Indiana during the spring semester of the 2002-2003 school year. Gruenert found significant relationships between school culture, school climate, leadership, and student achievement. Goddard, Goddard, and Tschannen-Moran (2007) revealed that when teachers have opportunities to collaborate professionally, they build upon their distinctive experiences, pedagogies, and content. Through a study in a large urban school district, Goddard et al. found that teacher collaboration positively influenced 47 of the schools in the district. Through this study, there was a direct link between teacher collaboration for school improvement and student achievement.

Valentine (2006) discussed the significance of an effective, collaborative school culture. He stated that a school with an effective learning culture includes maintaining the image of a professional community; having a clear mission with high expectations for everyone; encouraging teachers to work collaboratively with each other; and finally, the professional community is a place where both teachers and students learn. Darling-Hammond (1997) supported the idea that developing an effective learning culture within a school produces students with higher achievement and better levels of skills and understanding than do traditionally organized schools. Support can also be found with Fullan (1998) who found that when schools have a collaborative work culture and a focus on improving instructional practice that is linked to curriculum standards and staff development, student achievement will increase substantially.

Building Collaborative Cultures in Schools

Researchers state that a collaborative culture best builds and sustains effective teaching and learning in schools. The foundation for building a collaborative culture in a school community consists of a shared belief that working collaboratively is the best way to reach the school's goals. A collaborative culture will develop organizational structures that allow teachers to form teams and work together, agree on norms so teams can work effectively, define a vision for the school based on what students should know and be able to do, and set goals to achieve the vision (Glickman, 1993). Leana (2011) studied over 1,000 fourth- and fifth-grade teachers in New York City. She found that students showed higher gains in math achievement when their teachers reported frequent conversations with their peers that centered on math and when there was a feeling of trust or closeness among educators. Leana also cited three ways to foster collaboration within a school. The first step is to build relationships. "The relationships you build with colleagues aren't just good for your mental well-being, but they are also the foundation of collaboration that can result in increased student achievement" (Leana, 2011, p. 2). Second, shared planning time allows teachers to collaborate during the school day which will aid in planning rigorous and appropriate lessons for their students. Finally, there is a need for shared responsibility. "The best teacher teams complement each other" (Leana, 2011, p. 2).

Poulos et al. (2016) examined the role of teacher collaboration in driving school improvement. Poulos et al. focused their research on EdVestors' "School on the Move" (SOM) prize winner and finalist schools in Boston that are recognized for exemplary progress. Findings highlight the value of establishing school-wide structures and collaborative cultural norms to school leaders and teachers committed to working

together. In these schools, collaboration is seen as the standard for the way they work. Teachers articulated feeling far more isolated in other schools in which they taught and described their current pedagogical practice as being defined by the daily routines of learning things from other teachers. The research found that teachers universally point to the impact of teacher collaboration on student learning by improving classroom practice, promoting data use, increasing academic rigor, and supporting student nonacademic needs. One school leader described teacher collaboration as the highest leverage strategy that can be implemented in schools.

Poulos et al. (2016) continued to state that school leaders must pay attention to building a vibrant collaborative culture. Their comprehensive research study of teacher collaboration also found that schools with the most effective collaborative practices exhibited a school culture oriented towards norms of collective responsibility and continual learning. Additionally, collaboration supports improvements in teacher practice. Teachers will discuss particular students with colleagues, explore new pedagogical techniques, and review curricular materials when working with other teachers. As one teacher noted,

> We spend an hour fine-tuning teaching and different protocols we use in the classroom. Next, we have a direct discussion of how to make something better, and fundamentally, collaboration presents opportunities to try new skills or techniques in service of student learning. (Poulos et al., 2016, p. 16)

Student Achievement

Student achievement is part of a new focus on education reform. While there are a lot of data and discussion about student achievement, few may understand what they entail. According to Cunningham (2012), a standard indicator of student achievement is

student performance in academic areas as measured by achievement tests. Student achievement, however, cannot be linked to one particular test, and "academic achievement also depends on a child's circumstances and situations, the quality of schools and teachers and many other factors" (Cunningham, 2012, p. 1).

Student learning and student achievement can often be used interchangeably as they are closely related. "Student achievement is the status of subject-matter knowledge, understandings, and skills at one point in time" (Linn, Bond, Darling-Hammond, Hess, & Shulman, 2011, p. 9). According to this report, the most commonly used measure of student achievement is a standardized test, and these results can be useful for identifying gaps between what students are expected to know and what they know (Linn et al., 2011). The information gained from these tests can help focus instruction on areas where students struggle (Linn et al., 2011).

New courses, tests, and curriculum reforms can be important starting points, but they are meaningless if teachers cannot use them productively. Policies can improve schools only if the people in them are armed with the knowledge, skills, and supports they need. Student learning in this country will improve only when we focus our efforts on improving teaching (NCTAF, 1996). Furthermore, studies show that teacher expertise is the most important factor in student achievement. No top-down mandate can replace the insights and skills teachers need to manage complex classrooms and address the different needs of individual students, whatever their age. No textbook, packaged curriculum, or testing system can discern what students already know or create the rich array of experiences they need to move ahead (NCTAF, 1996).

In a research report by Rivers and Sanders (2002), an examination of cumulative teacher effects in mathematics from Grades 3-5 in two large Tennessee school systems

was examined. Through their research, Rivers and Sanders found that as teacher effectiveness increases, lower-achieving students benefit. Furthermore, Rivers and Sanders stated that the teacher and what the teacher knows and can do in the classroom are the determining factors in student achievement.

Purpose of the Study

To create a collaborative culture in schools, many are turning to the use of PLCs. PLCs are defined by DuFour (2004) as a model that shifts from a focus on teaching to a focus on learning. This shift in thinking allows the core mission of education to ensure that students are not only taught but also learn. To maintain the integrity of PLCs, DuFour outlined several big ideas for successful implementation. The first big idea from DuFour was ensuring that students learn. There are three guiding questions that schools should be asking themselves regarding student learning: "What do we want each student to learn? How will we know when each student has learned it? How will we respond when a student experiences difficulty in learning?" (DuFour, 2004, p. 2). It is the last question that DuFour said separates our learning communities from traditional schools. Once teachers determine those students who are struggling to learn, it is their actions that can determine if these students will fall further behind or if a plan of action is implemented. DuFour suggested three ideas that are critical to students who experience difficulty. The first approach is comprised of three primary directives that guide this design. First, be timely when making decisions. Schools should quickly identify students who need additional time and support. Second, look for ways to intervene with students and provide them with help as soon as they experience difficulty rather than relying on summer school, retention, and remedial courses. Finally, impose directives where instead of inviting students to seek additional help, the systematic plan requires

students to devote extra time and receive additional assistance until they have mastered the necessary concepts.

The second idea for successful implementation is to develop a culture of collaboration. "Educators who are building a professional learning community recognize that they must work together to achieve their collective purpose of learning for all. Therefore, they create structures to promote a collaborative culture" (DuFour 2004, p. 4).

The third step in the successful implementation of a PLC is to focus on results. "Professional learning communities judge their effectiveness by results. Working together to improve student achievement becomes the routine work of everyone in the school" (DuFour, 2004, p. 7). It is through a continued focus on student achievement that teachers can bring about the highest results for their students. This idea requires from all team members a continuous focus on the results of the students within the classroom. With higher student achievement as the primary focus for a PLC, it is the focus on the results and the adjustments which are needed that will drive future discussions and work products.

The purpose of this mixed-methods study was to assess the perceptions teachers have of their experiences in a PLC and how they contribute to a collaborative culture. The quantitative data provided important information, and the researcher followed up on trends through the use of interviews. The research model gave feedback to the school about the effectiveness of its PLC and indicated several areas to focus on for improvement.

Research Question

The following question guided the study: "What experiences in a PLC do teachers perceive contribute to a collaborative culture?"

Significance of the Study

The significance of this study was to add to the current knowledge base of the perceptions teachers have of their professional learning and collaborative culture and what experiences they feel contribute to a collaborative culture within their school. Studies have indicated the significant influence that an effective teacher has on increasing student achievement. Professional development (PD) for teachers has been around for a long time. PD generally refers to ongoing learning opportunities available to teachers and is often seen as vital to school success and teacher satisfaction (Rebora, 2011). While teachers have access to PD, including the use of PLC meetings, the results of their PD are only revealed in the change in their students' achievements.

Teacher comprehension of and commitment to PLC components are determined by information disseminated to teachers in PD. A study led by the Boston Consulting Group (2015) that worked with the Bill and Melinda Gates Foundation conducted research about PD for teachers to identify their needs and opportunities for improvement. This study took place between January and March 2014 and involved 1,300 stakeholders who included teachers, district leaders, principals, PD providers, and other leaders. Additional research was done with 1,600 additional teachers. Teachers in this study were asked about their perceptions of the effectiveness of PD. In terms of PLC meetings, teachers responded that although they spend a lot of time in PLCs, they do not view them to be effective in improving classroom instruction.

It is important to understand the perception teachers have of their professional learning in a PLC in order to develop professional learning that will help teachers improve their teaching practice. A survey was used to gain insight into teacher perceptions. The findings from this study can potentially influence future PD with regard

to PLCs and teacher practices in the classroom. This analysis could help improve PLC meetings and other PLC components, thereby improving collaboration, teacher learning, and increased student achievement.

Research Design

This case study investigated elementary teacher perceptions of their professional learning in PLCs and the impact this has on increasing student achievement. The quantitative research was performed through the utilization of the School Culture Survey (SCS; Gruenert & Valentine, 1998). Interviews were conducted as well. The use of the qualitative measures was used to validate the study further.

Survey

This study used a mixed-method design to measure the perceptions of K-5 teachers in an urban Title I elementary school in the piedmont/triad area of North Carolina. The researcher used the SCS by Gruenert and Valentine (1998). This assessment inventory is used to determine if teachers perceive collaboration as a means for increasing teaching effectiveness and student achievement for students. The SCS is a 35-item, Likert survey. Studies show that schools organized around democratic and collaborative cultures produce students with higher achievement levels than do traditionally organized schools (Darling-Hammond, 1997). School systems can use this tool as a way to measure teacher perceptions of professional learning and to guide the planning, facilitation, implementation, and evaluation of professional learning to maximize its impact and investment.

Interview

Interviews were conducted to provide added insight into the responses given on the SCS. Using Creswell's (2014) recommended interview protocols, interviews were

conducted based on a sampling of survey responses. Interviews were recorded, adequate space was provided to write interviewee responses, and an appropriate site for the interview was be chosen. The researcher obtained consent from participants, and the interviewer remained respectful and on topic.

Study Participants

Participants in this current study were selected from an urban, Title I elementary school in the piedmont/triad area in North Carolina. Participants included K-5 teachers who participated in a PLC meeting on a weekly basis with the purpose of creating a collaborative culture among their grade levels and the school.

Limitations of the Research

The research had limitations that may have affected the outcome of the study. Participants in this study had varied experiences in working on collaborative teams. The overall teaching experiences and years in the profession varied. These variations may affect how teachers perceive collaboration as a means to increase student achievement. The role of leadership is an important part of developing a collaborative culture in a school; however, the leadership in this school was not the focus.

Assumptions of the Research

The following are assumptions were made about the research.

1. Teachers received the same amount of training at this school on the use of collaboration as a way to increase student achievement.
2. All grade-level teams at this school were given the same amount of direction and leadership in creating a collaborative culture among their grade-level teams.
3. All grade-level teams had the same willingness to collaborate as a means of

PD to increase student achievement.

4. All staff members involved understood the importance of collaboration.
5. The leaders of the PLC meetings had the necessary training needed to implement key components of the meetings.

Definition of Key Terms

Action orientation. Turn learning and insight into action. Recognize the importance of engagement and experience in learning and testing new ideas. Learn by doing.

Collaboration. Educators are working together interdependently in teams to achieve common goals for which they are mutually accountable.

Collaborative culture. A community is working to achieve a common purpose through the sharing of practice, knowledge, and problems.

Collective inquiry. Relentlessly question the status quo, seek new methods of teaching and learning, test the methods, and then reflect on the results.

Continuous improvement. Not content with the status quo. Continually seek better ways to achieve mutual goals and accomplish their fundamental purpose of learning for all.

Implementation. The carrying out of a plan, method, or idea.

Perception. An opinion derived from reflective thinking and conversation.

PLCs. A group of educators who meet on a regular basis, share expertise, and work collaboratively to improve teaching skills and the academic performance of students.

Results oriented. Assessing efforts by tangible results. Hungry for evidence of student learning and use that evidence to inform and improve their practice.

Student achievement. The amount of academic content a student learns in a determined amount of time.

PD. Specialized training intended to help educators improve their professional knowledge, competence, skill, and effectiveness.

Single school culture (SSC). A way to organize and run a school. It is based on shared norms, beliefs, values, and goals.

Conceptual Framework

Collaboration is an example of PD that schools are implementing to improve classroom practices (DuFour, 2004). While there are many different ways to collaborate within a school setting, weekly PLC meetings were chosen as the setting to evaluate the perceived impact of collaboration among teachers in order to increase student achievement. Collaboration and shared learning have been identified as vital components in the development of a school's culture (Hoy & Miskel, 2008). Hoy and Miskel (2008) also stated that a strong school culture, characterized by teachers who collaborate, promotes student achievement.

Context of the Study

A large K-12 suburban school district in North Carolina was selected as the location of this study. The education system has been researching and learning about PLCs since 2007. In the beginning, the district sent a representative to Palm Beach, Florida to learn about SSC. During the 2008-2009 school year, the first cohort of schools began an introduction to SSC in their schools. Program managers were provided to help implement this program. In the fall of 2009, all schools that were not a part of SSC were required to begin implementation of the PLC model. The implementation of SSC would include 63 schools. Curriculum coordinators were the first to be trained. During the

2013-2014 school year, someone was hired to evaluate SSC. An extensive analysis was completed, and the question of why the district was running two separate programs was addressed. The suggestion was made to move to one model. Beginning in the spring of 2014 and into the summer, program managers from both programs came together to develop a unified program. Training was provided to the district coaches on collaboration and implementation of PLCs. During the summer of 2014, the PLC model was introduced for all 81 schools. The district provided a program manager and six PLC coaches. A case study was conducted on one particular Title I school within this district at the elementary level. At the time of the study, this school had 546 students and 26 classroom teachers.

Title I, Part A of the Elementary and Secondary Education Act is a federally funded program that provides financial assistance to local education agencies (LEAs) and schools. The purpose of the Title I program is to help at-risk students meet the state's challenging academic content and performance standards. Schools qualify for Title I funds based on economic need. The Title I program offers a variety of services for participating schools which may include additional teachers and support staff, extra time for instruction, a variety of teaching methods and materials, smaller classes, and additional training for staff. Title I is the largest federal educational program, founded in 1965 as the Elementary and Secondary Education Act, reauthorized in 2002 as part of NCLB, Amended as the Elementary and Secondary Education Act. Its purpose is to make sure all children have the opportunity to have a high-quality education.

Summary

This chapter defined collaboration and provided the background knowledge for creating a collaborative culture within a school. Collaborative cultures and their effect on

student achievement were also discussed. Research studies presented in Chapter 1 document collaborative practices in schools and the value of establishing a collaborative culture as a way to improve student achievement. Teachers also point to the impact of teacher collaboration on student learning by improving classroom instruction, use of data, and increasing academic rigor. This current research project focused on the perception teachers have of the professional learning they have in PLCs and how this professional learning affects their student achievement.

Chapter 2: Literature Review

Introduction

As researchers work to determine the most compelling way to increase student achievement, many are looking at collaborative cultures within a school. The development of a collaborative culture can begin in PLC meetings. DuFour et al. (2006) stated that the interdependence that can be found in a PLC, where teachers meet to achieve common goals, is what makes the difference in student achievement. Teachers respond to data, and they have a sense of mutual accountability and changing classroom practices.

The purpose of this section is to review the current literature regarding collaboration, collaborative cultures, student achievement, and PLCs as a form of PD. The continued need to improve student achievement has led many school systems to take a look at their current practices and find new ways to reform their educational system. One way educators are seeking to improve education and increase student achievement is to devise strategies that will bring about more collaboration among teachers and focus on building collaborative cultures within schools. Mulford (2007) reported that being a valuable part of a group is important for everyone involved and provides for potentially more positive change for both teachers and students. In a study of 283 middle school teachers from nine schools, researchers found that schools that made adequate yearly progress for at least 2 years scored higher on collegial behaviors than schools that did not make adequate yearly progress (Styron & Nyman, 2008). These researchers also revealed that teachers who work collaboratively create a healthy environment conducive to learning. Greater gains in student achievement can be accomplished as teachers collaborate to improve instruction for all students.

Collaboration

The Australian Institute for Teaching and School Leadership (AITSL, 2014) provides national leadership for the Australian, State, and Territory Governments in promoting excellence in the profession of education and school leadership. Hattie, AITSL chair, stated that their mission is to foster excellence so teachers and school leaders have the maximum impact on student learning in all Australian schools (AITSL, 2014). In the AITSL (2014) annual report, researchers stated that collaboration can create a community that works to achieve common goals through the sharing of practice, knowledge, and problems. Effective collaboration encourages ongoing observation and feedback among colleagues where a culture of professional sharing, dialogue, experimentation, and critique becomes commonplace and collaboration on all aspects of teaching leads to shared collective responsibilities for the outcomes (Killion, 2012).

In the AITSL (2014) annual report, Hattie stated that collaboration will promote change that goes beyond individual classrooms, and educators increase their expertise by learning together. In the same report, Killion (2012) discussed a study that examined teacher collaboration practices in 336 Miami-Dade Public schools between 2010 and 2012. This particular study involved over 9,000 teachers and sought to discover whether teacher collaboration positively influences teacher performance and student achievement. Results from this study found that teacher collaboration does have positive effects on teachers and their students, and nearly all teachers (90%) reported that their collaboration was helpful. Also, the study found that teachers who participated in higher quality collaboration had better achievement gains in math than those with lower quality collaboration.

Berry, Daughtrey, and Wieder (2009) reported on a national survey of 1,210

teacher leaders through the support of the Ford Foundation and the Teachers Network. Researchers undertook this survey to better understand the role that participation in teacher leadership networks plays in supporting and retaining effective teachers in high-needs urban schools. Follow-up interviews with 29 network participants provided a complete view of ways in which opportunities for collaboration and leadership can increase teacher efficacy and improve the retention of effective classroom teachers that students deserve. This research study also supports the idea that collaboration among teachers increases effective teaching practices and improves outcomes for students. "Opportunities for peer learning among teachers build collective expertise" (Berry et al., 2009, p. 2). The research showed that teacher effectiveness has to do with the extent that teachers work with each other and provide collective leadership for their schools and communities. Berry et al. (2009) revealed that accomplished teachers understand that teaching is a collaborative effort and requires significant peer support and input for success. Sixty-four percent of the teachers in this study reported that they joined collaborative networks because they wanted a professional community of other teachers to exchange ideas and best practices for their classrooms. The second finding from this study revealed that access to collective expertise made teachers more effective in advancing student learning. The study showed that students performed better on math and reading tests in schools that had higher levels of teacher collaboration. Over 90% of teachers in this study also reported that participation in collaborative networks improved their teacher practice and three-fourths felt that it has improved their school overall.

Flinders (1988) reflected on teacher isolation through his research. He revealed that teacher isolation is a condition under which many teachers work. He stated that teachers lack the opportunities to interact with colleagues because of the physical

organization of schools. Teachers are also isolated in a psychological sense as they filter and process information within themselves.

Leana (2011), a professor of Organization and Management at the University of Pittsburgh, wrote about a study of more than 1,200 kindergarten through fifth-grade teachers in New York City. Leana found that students showed higher gains in math achievement when their teachers reported frequent conversations with their peers that centered on math and when there was a feeling of trust or closeness among educators. In other words, teacher social capital was a significant predictor of student achievement gains above and beyond teacher experience or ability in the classroom. In the same article, Branham (2011), the Connecticut Education Association's (CEA) director of policy and practice, supported these results and advocated for professional learning for educators. Branham stated,

> When teachers work together with their colleagues to look at student learning data, use it to determine student learning needs, and then identify their learning needs based on what students need, they design programs that help improve instruction. That's social capital at its finest. (p. 2)

Friend and Cook (2007) stated that collaboration takes place when members of a learning community work together as equals to assist students to succeed in the classroom. These researchers found six characteristics of collaboration. First, collaboration is voluntary. People will choose whether they want to collaborate or not and cannot be forced into it. Second, collaboration requires that each participant sees contributions as equal. There must be an equal power in collaboration and no one person's ideas are valued more than others. Third, there must be shared goals. The attention of the group must be centered on the same values and goals. The fourth

characteristic of collaboration has a shared responsibility. Collaboration requires active engagement with the activity and the decision making. The fifth component needed for effective collaboration is shared resources. Members must be willing to share their time, materials, and knowledge. Finally, collaboration requires members to share the responsibility of the outcomes. Whether the result is positive or negative, it is a group responsibility.

Researchers from the University of North Carolina at Charlotte (2013) conducted a study which was funded by the U.S. Department of Education. Researchers worked with data on 4,490 students who were in Grades K-5 between 1998 and 2003. The focus of the study was individual math performance and how teacher collaboration affected performance. Based on the study's findings, student math scores can rise when teachers collaborate with one another and participate in PLCs. Also, according to the researchers, these communities help educators feel like they belong at a school and understand its mission. Instructor skills are always undergoing improvements which, in turn, affect student achievement. It was concluded that student math scores rise when teachers collaborate with one another and have PLCs. PLCs help educators feel like they belong to a school and understand its mission. As teachers continuously improve, student achievement will continue to increase.

Collaborative Cultures

The Center for Collaborative Culture and Shared Leadership (2001) in Boston, Massachusetts works to help develop schools into collaborative cultures that strive to improve student achievement. In their 2001 report, researchers determined members of a collaborative culture work together effectively and are guided by a common purpose. By setting goals and having a shared vision, a culture of discourse is created. Members of a

collaborative culture respect each other, respect and value differences, and are open to the ideas and suggestions of others. To build a collaborative culture in schools, Goldberg et al. (2001) from the Center for Collaborative Education stated five main components are needed. First, members of the academic community must share the belief that working collaboratively is the best way to reach the needs of the school. Support and structures must be put in place that give teachers the time and organization necessary to meet as teams and work together. The school community must also agree to norms that will guide their collaborative planning to work efficiently. The fourth component necessary to build collaborative cultures is to define the vision for the school based on the needs of the students. Finally, the collaborative teams must set goals that will allow them to achieve the vision of the school.

Through their work, the Center for Collaborative Culture and Shared Leadership (2001) helps schools develop collaborative cultures and convert them into "Turning Points" schools. Once schools develop collaborative cultures, several components set them apart from other schools. First, the entire school is involved and included in deciding the key issues of the school that need to be addressed. Next, the entire school will work together to develop a shared vision, and teams of teachers will plan and implement curriculum and assessments for the students. The staff will work in collaborative teams to analyze data, identify challenges, and come up with school-wide solutions. Other components of collaborative cultures include using teams of teachers to look at student and teacher work and to investigate the challenges of the school. Cross-team collaboration is done through regular communication across grade levels so that all stakeholders know all school-wide difficulties and goals.

Professional Development

In a report from the Center for Public Education, Gulamhussein (2013) discussed the need and importance of providing effective PD to teachers for increasing collaboration. He argued that the issue is not that teachers are not provided with PD but that the standard offerings are ineffective at changing teacher practice or student learning. To increase PD as a vehicle for improvement, districts need to know how teachers learn new skills. Districts have typically assumed teacher education is straightforward, with teachers merely needing to be presented with information about effective teaching strategies; but research suggests a teacher's learning process is more complicated than that. PD can no longer just be about exposing teachers to a concept in a one-time workshop or giving teachers basic knowledge about a teaching methodology. Instead, PD requires a fundamental change in teacher practice that leads to increases in student learning in the classroom.

Richardson (2003) stated that most of the staff development that is conducted with K-12 teachers derives from the short-term transmission model. This type of staff development does not pay attention to what is already going on in a particular classroom, school, or school district and offers little opportunity for participants to become involved in the conversation and provides no follow-up.

PD is an essential expectation for teachers in today's schools. All employees are required to attend PD opportunities; but many times, what is learned in these PD workshops is never implemented the classroom. While the traditional approach to PD has been a 1- or 2-day experience, research has now defined a more effective way to engage teachers. Because of the problems associated with PD in today's practices, it is imperative that new methods of delivery are implemented (Darling-Hammond &

Richardson, 2009; Sparks, 2002).

Through the research of Hunzicker (2010), six effective characteristics of PD are outlined as a way to engage teachers. Teacher learning opportunities should include a supportive environment that addresses the learning needs of schools, classrooms, grade levels, and educators. Effective PD is also job embedded. Guskey (1995) reported that teachers see their PD relevant when it addresses specific needs and concerns of the teachers or when they see a connection between their learning and daily instruction. The job-embedded PD also requires teachers to engage in learning on a daily basis, try new ideas, and analyze the effectiveness of their learning on student success. PD should be instructionally focused as well as emphasize subject content and learning outcomes. Since the primary goal of PD is to increase student achievement, instructional-focused PD will support teachers. Collaboration is the fourth characteristic of effective PD. Collaboration emphasizes active and inactive experiences and requires teachers to participate in a learning community. Research also shows that teachers feel it is important to work toward common goals and learn from one another (Lieberman & Porter Mace, 2008). Finally, effective PD must be ongoing. Researchers have determined that the more time teachers spend engaged in PD, the more likely their teaching practice is to improve (Quick, Holtzman, & Chaney, 2009).

Prilleltensky, Neff, and Bessell (2016) discussed teacher stress and how it can be alleviated. Dr. Prilleltensky is the dean of education at the University of Miami. He and colleagues were part of a project for the American Psychological Association on alleviating stress that teachers experience. In their study, one of the most prevalent risk factors for new teachers was a sense of isolation. "The lack of opportunity to share concerns with fellow teachers can lead to helplessness" (Prilleltensky, et al., 2016, p.

105). Prilleltensky et al. continued to express that support for teachers is important because once they hit the classroom, they often feel lonely and isolated. Also, teachers often lack the practical resources and knowledge needed to run a successful classroom, and they require the necessary support to become effective teachers. These researchers reported that PLCs "offer a safe space for teachers to problem solve and foster a sense of belonging" (Prilleltensky et al., 2016, p. 108). Teacher isolation can be a big hindrance for teachers, and it is important to create support groups within schools.

Prilleltensky et al. (2016) also reported that a lot of school districts are providing this support through PLCs. Other researchers report that PD within the context of a school promotes active learning and builds coherence more than traditional venues. Instructional-focused PD emphasizes subject area content as well as student learning outcomes (Quick et al., 2009).

Through his research, Mundry (2005) stated that the ultimate goal of PD is to increase student achievement. Instructional-focused PD supports teachers toward increasing student achievement. It pushes teachers to keep the emphasis on the subject area content which is relevant to their daily responsibilities. Lieberman and Pointer Mace (2008) stated that collaboration emphasizes both active and interactive learning experiences. Teacher collaboration focuses on instruction and provides opportunities for teachers to learn from one another. Guskey (1995) also supported the idea that effective PD engages teachers through collaboration by having regular opportunities to share problems and ideas and work together toward solutions. He continued that there must be a balance of teamwork and collaboration, with the expectation that all involved in the process are always seeking and assessing potentially better practices.

Walker (2013) provided research to support the idea that when professional

learning is centered around job-embedded collaboration with a focus on student results, teachers feel less isolated and experience more confidence and job satisfaction. Hunzicker (2010) discussed the need for PD to connect learning to experiences which will increase the effectiveness of PD. PD should connect teachers to clear goals such as a school improvement plan. This approach of providing shared experiences as well as connecting to the school goals allows teachers to see a big picture.

King and Newmann (2004) reported that collaborative work can support the ongoing inquiry into the implementation of curriculum, instruction, and assessment. Collaborative work will cause teachers to perceive their learning experiences as more valuable which will make them more likely to change their teaching practice to affect student outcomes. Finally, Porter, Garet, Desimore, and Birman (2003) stated through their research that the more time teachers spend engaged in PD, the more likely their teaching practice is to improve. Effective PD should involve a combination of contact hours, duration, and coherence.

Research shows clearly that to increase student achievement, teachers must be involved in active PD. While there are many opportunities for PD, most of the PD programs are not successful in raising student achievement. A PLC is one system schools are implementing as a way to increase collaboration and improve student achievement.

PLCs and Collaboration

DuFour (2004) explained that as schools move forward, every professional in the building must engage with colleagues in the ongoing exploration of three crucial questions that drive the work of those within a PLC. "What do we want each student to learn? How will we know when each student has learned it? How will we respond when

a student experiences difficulty in learning?" (DuFour, 2004, p. 2). Educators must also begin to focus on student learning and not just on teachers teaching. Through the use of a PLC, teachers in all roles within a school building can begin to take the necessary steps to ensure a collective response to pressing issues affecting student learning (DuFour, 2004). DuFour also revealed that the PLC model flows from the assumption that the core mission of formal education is not merely to ensure that students are taught but to ensure that they learn. This simple shift—from a focus on teaching to a focus on learning—has profound implications for schools.

Definitions of PLCs

Researchers state that there is no universal definition of a PLC. A PLC may have shades of interpretation in different contexts. There appears to be a broad international consensus that a PLC suggests a group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth-promoting way (Mitchell & Sackney, 2000; Toole & Louis, 2002). Although there is not one universal definition for a PLC, researchers have begun to document a set of defined characteristics that when viewed collectively gives a holistic view of an effective PLC. Mullen and Schunk (2010) described a PLC as a model of school organization designed to foster collaboration and continuous learning among educators for facilitating school improvement through cultural and organizational changes. Mullen and Schunk focused their definition on collaboration and lifelong learning for the adults within the organization, which begins to steer agencies in a way that puts the emphasis on the adults within the building. How teachers work together can foster an improved learning environment for the students.

PLCs are defined by Darling-Hammond and Richardson (2009) as a paradigm

where teachers work together and engage in continual dialogue to examine their practice and student performance to develop and implement more effective instruction practices. These researchers believe that a continuous dialogue is needed to uncover ineffective teaching strategies and work towards developing strategies that will help their students be more successful. Again, the focus is on what the adults should do to improve student learning instead of placing all the responsibility on the child. The word "continual" means teachers must not stop communicating with other professionals about what is working and what is not working with students. It implies the need for teachers to engage in dialogue as a core strategy to ensure the success of their students. For students to learn, teachers must be successful in implementing the most effective teaching tools available. DuFour (2004) continued with the idea of beginning with the teachers and how they can be more effective in their delivery of instruction.

The Annenberg Institute for School Reform (2004) at Brown University stated that PLCs strive for continual growth and learning which speaks to the changing nature of schools and districts, and they support the use of PLCs as a central element for effective PD. These researchers believed that PLCs provide opportunities for adults in a school to learn and think together about how to improve their practice in ways that lead to improved student achievement. The Annenberg Institute for School Reform encouraged the evolution of teaching and learning in individuals, in a collective of dedicated learners, and throughout an entire system. Educators must not become complacent in their quest to deliver the most practical instruction that will bring about the greatest gains for students. It is through this determination and willingness to evolve as educators that students will become students of high achievement.

The definitions of PLCs as defined by leading researchers in the field provide a

platform for which educators can begin to structure meetings in a way that leads to more effective changes within the classroom and school building. Through the use of PLCs, collaboration among staff members can result in a focus on student learning that will bring about the most effective changes needed to improve student achievement in every classroom.

Common Characteristics of PLCs

Despite the differences in definitions used to describe PLCs, some commonalities can be found within the research and through leading researchers in the field. These shared characteristics help lead school personnel to begin to develop and implement PLC learning teams within their schools.

PLCs are not considered a model but rather an approach or process. Most PLC definitions assume a set of characteristics that reflect the nature of a real PLC. An understanding of these features provides educators with a shared lens through which they may examine their own PLCs. These characteristics can also provide an infrastructure for shaping practice and assessing progress (Center for Comprehensive School Reform and Improvement, 2009). Scott, Clarkson, and McDonough (2011) presented an overview of the essential characteristics of effective PLCs through the research of six researchers in the field. They reported that the following components are present during PLC meetings and, when used by members, promote effective PLC meetings: have shared values and vision, a collective responsibility for pupil learning, continuous focus on student learning, take an inquiry stance, make teaching more public, share experiences and expertise, and engage in reflective dialogue. Bolam et al. (2005), Darling-Hammond and Richardson (2009), and Coburn and Russell (2008) also stated that these are essential characteristics found in an effective PLC.

Have shared values and vision. Hord (1997) stated that a shared vision is not just agreeing with a good idea, it is a particular mental image of what is important to an individual and an organization. The staff is encouraged not only to be involved in the process of developing a shared vision but to use that vision as a guidepost in decision-making about teaching and learning in the school. She stated that shared values and ideas lead to norms that bind behaviors the staff shares. Students are pictured as academically capable, and the team envisions learning environments that will support each student's potential. DuFour (2004) stated that educators who are building a PLC recognize that they must work together to achieve their collective purpose of learning for all; therefore, they create structures to promote a collaborative culture. DuFour also stated that the important collaboration that characterizes PLCs is a systematic process in which teachers work together to analyze and improve their classroom practice. Teachers work in teams, engaging in an ongoing cycle of questions that promote deep team learning. This process, in turn, leads to higher levels of student achievement.

Have collective responsibility for pupil learning. Collective responsibility brings together the entire education community, including members of the education workforce – teachers, support staff, school system staff, and administrators – as well as families, policymakers, and other stakeholders to increase effective teaching in every classroom. Within learning communities, peer accountability rather than formal or administrative accountability ignites commitment to professional education. Every student benefits from the strengths and expertise of every educator when communities of teachers learn together and are supported by local communities whose members value education for all students (Hord, 2004).

Collective responsibility and participation foster peer-to-peer support for learning

and maintain a consistent focus on shared goals within and across communities. Through PLCs, there is a sense of community support for each child in the building. This community support includes not only teachers and administrators but also key support personnel. Having the support of colleagues within the building helps maintain a clear focus and shared goals for all students. Teachers are no longer solely responsible for the success of learning for each child. It is through this collective responsibility that educators can work together to offer the most effective teaching in each classroom (Hord, 2004).

Buffum, Mattos, and Weber (2009) alleged that no teacher can possess all the knowledge, skills, time, and resources needed to ensure high levels of learning for all his or her students. Other researchers agree and back up the claim that if schools wish to establish sustainable cultures of professional praxis that ensure high levels of individual and collective efficacy, our schools and districts require a shift both symbolically and linguistically from my students to our students (Hewson, 2015).

Many classroom teachers have operated in a way where they close their classroom doors and operate with a single mentality. Having a collective responsibility requires teachers to open the doors of their classrooms and invite others to the collective table of finding the best way to reach all students. This shift in thinking and moving to a more community responsibility to children is necessary if schools wish to meet and exceed the learning goals of students.

Focus on student learning. Another characteristic of PLCs is a focus on student learning. Staff envisions learning environments to support and realize each student's potential achievement. These shared values and visions lead to binding norms of behavior that the team shares (Hord, 1997). The U.S. Department of Education's

Comprehensive School Reform Program was developed out of studies conducted throughout the country on high-achieving, high-poverty schools. A study of 26 high-achieving, high-poverty schools in Texas revealed that effective schools exhibit the following characteristics: a strong focus on ensuring academic success for each student, a refusal to accept excuses for poor performance, a willingness to experiment with a variety of strategies, intensive and sustained efforts to involve parents and the community, an environment of mutual respect and collaboration, and a passion for continuous improvement and professional growth (U.S. Department of Education, 1997). This focus on learning for all students and encompassing families and communities is necessary to meet the needs of the whole child.

Rentfro (2007) discussed the importance of having a focus on student learning. She stated that schools must monitor student learning by using common assessments and progress monitoring so teachers can identify students who need additional support. She believed that systematic focus on student learning and interventions contribute significantly to student learning.

Research states that there is no single program or new practice that can transform low-performing schools into effective schools. States and districts must help schools choose and sustain a coherent improvement strategy appropriate to each school by focusing all schools on the need to improve curriculum and classroom instruction and aligning all other school operations with that focus. To support these improvements, state and local leaders need to implement district-wide policies to create a safe environment for learning. Also, young children need to be ready for school; teachers must be prepared to carry out high-quality instruction, offer students challenging course work, extend learning time for students who do not meet challenging standards, and share

current research on effective school improvement models.

An effective development strategy must look at the current classroom instruction that is being delivered. The culprit of only looking at what the students are capable of has often created a false sense of where improvement needs to begin. The school community must take the responsibility and work together to help teachers provide the most effective instruction to their students. A final finding is that teachers matter more to student achievement than any other aspect of schooling. Many factors contribute to a student's academic performance including individual characteristics and family and neighborhood experiences; but research suggests that among school-related factors, teachers matter most. When it comes to student performance on reading and math tests, a teacher is estimated to have two to three times the impact of any other school factor including services, facilities, and even leadership. Most learning experiences begin with the teacher. As research has stated, the teacher matters most in the classroom. Our focus must start with the teacher and how effective he or she is at delivering quality instruction to students (U.S. Department of Education, 1997).

Take an inquiry stance. Taking an inquiry stance is another important component of a PLC. An inquiry stance must focus on finding the best ways students can learn within the classroom. Taking an inquiry stance means practitioners must commit to the processes of self-reflection and the continual investigation into, and systematic, data-based critique of, our practices and the contexts that shape them (DuFour, 2004). Cochran-Smith and Lytle (2009) stated that with practitioner inquiry, the larger project is not making schools into communities so test scores will go up and practices will be more standardized. The more important project is about generating a deeper understanding of how students learn—from the perspective of those who do the work. The larger project is

about enhancing educators' sense of social responsibility and social action in the service of a democratic society.

Friesen (2009) explained that we now live in a knowledge society, and we must address these differences within the classroom. Addressing these disparities requires new thinking about what makes effective classroom instruction and focuses on what students can do with the knowledge they obtain. Further, schools and teachers need to thoughtfully and intentionally design learning environments and tasks in which teachers can explore issues that are relevant and develop pedagogies that are useful for a knowledge era. Furthermore, the power of an inquiry-based approach to teaching and learning is its potential to increase intellectual engagement and foster deep understanding. Inquiry-based learning can be accomplished through the development of a hands-on, minds-on, and "research-based disposition" towards teaching and learning. This inquiry-based learning approach will not only strengthen the learning ability of students but will also foster the thinking, learning, and approach methods designed by teachers within the classroom (DuFour, 2004).

Make teaching more public. Friesen (2009) revealed that teachers have worked in isolated classrooms with only brief interludes in the staffroom to discuss professional learning for a long time and that research is clear that teachers improve their practice and hence their effectiveness in the company of their peers. Friesen also revealed through a study of top-performing school systems in the world that one of the most critical components is when teachers have an opportunity to learn from one another. Friesen also stated that it is crucial for teachers to have a familiarity with one another's work that comes with frequent conversations of a professional nature centered on the work, access to each other's classrooms, and collaborative planning time. Through this research, it

was found that we can learn that the time for teachers to go into their individual classrooms and close the door is a thing of the past. An atmosphere of trust and open communication and dialogue is needed for teachers to begin to collaborate and allow their teaching to become more public to others (Friesen, 2009).

Friesen (2009) reminded us that it is also very clear that as self-reflective as a teacher may be, receiving constructive feedback from one's peers is imperative to improve teaching. Continuing, Friesen stated that teachers have had the expectation that they are solely responsible for the success of the students in their classrooms. This solely responsible thinking has led many teachers to a more closed-door approach to teaching. This research tells us that it is now time to open the doors, not only figuratively but literally, and invite others to the table to offer ideas and suggestions on how the entire school community can teach and assist all students. While this move to a more public platform can be awkward for some teachers, it is a necessary step to reach all students and to help all teachers learn important strategies to use in their classrooms (Friesen, 2009).

Share experiences and expertise. Isolation within education is not conducive to student achievement. It is important to note that sharing experiences can have a greater impact on student learning and growth of teachers within the classroom. For example, one shared experience can spark creativity and possibility beyond the ability of one person (DuFour, 2004). Research also suggests that we can learn so much from the people around us. We are a collection of our experiences. They form and shape us into the people we are today; and when you take an interest in others' experiences, you can grow exponentially. Shared experience is a way of gathering and using the knowledge and experiences of others to increase student achievement within a classroom. Sharing

experiences also changes the dynamic of the group. Instead of judging, you are sharing a story. You can talk freely about what you have done in the past and how it may be relevant for someone else. You are not telling them what to do. Rather, you are telling a story and providing an opportunity for them to learn from your experiences. Sharing experiences which allow you to become vulnerable on some level is important in the process of implementing successful PLCs. This idea of sharing and collaborating without the fear of judgment can open many doors for improvement and staff growth (Miller, 2012).

Engage in reflective dialogue. Marchel (2007) stated that critical and thoughtful discussions are beneficial for educators. Marchel outlined the importance of thoughtful dialogue as a key component of educational practice. Educators will need to go beyond solitary, reflective practice currently among the most popular methods for analyzing teaching and most usually recommended to preservice teachers. The collaborative inquiry will require new skills that go beyond what we now think of as reflection.

Marchel (2007) stated that collaborative inquiry, of which critical dialogue is a variant, is like super-reflection where teaching practices and policies are examined not by one but by many. It is a common practice of educators to think of themselves as individuals within the organization. Having a reflective dialogue with colleagues will allow teachers to begin expanding their thinking and problem-solving in ways they may not have thought about before. Marchel also explained that this critical dialogue is evident in schools when educators within a school openly discuss their teaching and challenges with one another. Each person will bring biases to the meetings; and if no other viewpoint is expressed, educators will continue to operate only within their thinking, and opportunities for learning will be lost.

Reflective dialogue also provides value in teaching and learning, because it encourages one to view issues from different perspectives. Furthermore, when teachers learn to identify and articulate what they know about children, learning, and teaching, it can be seen as empowerment (Rarieya, 2005). Darling-Hammond, Hammerness, Grossman, Rust, and Shulman (2005) all supported reflective dialogue by viewing teaching as a process of ongoing investigation which is integral to an approach to teacher professional learning where the goal is to promote a lifelong ability to learn from teaching rather than short-term learning for teaching.

Theoretical Framework

This study incorporates the social learning theories of Bandura, Ross, and Ross (1961) and Vygotsky (1962). Bandura et al.'s social learning theory, also known as social cognitive theory, provides a framework for understanding human behavior. The goal of this framework is to understand how behavior develops, how it is maintained, and through which processes it can be modified. Bandura et al.'s most notable experiment came in 1961 and was called the Bobo Doll experiment. During this experiment, children would observe adults model either violent or passive behaviors towards a doll. Through their observations, it was found that they were influenced in how they would also interact with the doll. If children observed violent behavior, they would in turn exhibit violent behaviors to the doll; and the opposite was true as well (Bandura et al., 1961).

There are four mediational processes described by Bandura et al. (1961). The first process is attention. Bandura et al. stated that in order for a behavior to be imitated, it must first grab our attention. The second process is retention. This refers to how well the behavior is remembered. A memory of the behavior must be formed in order for it to be repeated later. The third process is reproduction. This is the ability to perform the

behavior that was observed. There are times that we are limited by our physical abilities, and we cannot reproduce the behavior that we see. The final process described by Bandura et al. is motivation. This is our will to perform the behavior. Our motivation is influenced by rewards or punishments we may receive from our behavior.

Behaviors in a PLC can be influenced by another teacher on the adult learner (Culatta, 2012). A learning strategy that focuses on adult learners was introduced by Knowles, Holton, and Swanson (2005). They named this adult learning andragogy, which is a strategy that focuses on adult learners. There are four components to Knowles's (1984) theory of andragogy. First, adults need to understand why they need to learn something. Second, adults need to learn experientially. Third, adults will approach learning as problem-solving. Finally, adults learn best when the topic is of immediate value. The four components outlined by Knowles are important elements in a PLC. Fullan (2001) stressed that if ineffective methods of teaching are modeled in a PLC and there is no feedback or redirection, the process for change will fade away.

Vygotsky (1962) was a Russian teacher and psychologist who examined how our social environments influence the learning process. He stated that we learn through our interactions and communications with others. Consequently, this can be applied to teachers who create a learning environment that maximizes the learner's ability to interact with each other through discussion, collaboration, and feedback. Although his Social Learning Theory is primarily based on how educators should create a classroom environment that maximizes student learning, his theory can also be applied to teacher education. Through the work of Vygotsky, three major themes emerged. The first theme is that of social interaction. Vygotsky stated that social interaction plays a key role in the process of cognitive development. He explained that a child's cultural development

actually occurs in two ways. The first is on a social level between people and then inside the child. The second theme he called the "More Knowledgeable Other" (MKO). This refers to someone who has more knowledge and understanding than the learner does. Examples of an MKO could be a teacher, peer, older adult, or coach. The final theme in Vygotsky's work is called the "Zone of Proximal Development" (ZPD). This refers to the distance between a student's ability to perform a task under guidance and the student's ability to perform a task independently. Vygotsky focused on the connections people make when they interact with others in a shared experience.

Vygotsky (1962) stated that collaborative dialogues help individuals internalize information and use it in real-life settings. His theories stressed the fundamental role of social interaction in the development of cognition, as he believed firmly that community plays a central role in the process of making meaning. Vygotsky also stated that sharing pedagogical knowledge and experiences will help to foster a collaborative community of learners. When educators work to develop learning communities and support decision-based learning, they can create a cultural lens in which to view student learning.

The work of Vygotsky (1962) is an important theory to consider within a PLC. His theory promotes learning when students play an active part. This can also be accomplished with adults in a PLC setting. Teachers are asked to collaborate with one another in order to facilitate meaning. The learning then takes place between the adults in a PLC.

Goddard et al. (2007) stated that "schools with higher levels of teacher collaboration are associated with stronger student performance" (p. 878). The findings from this study reveal that fourth-grade students have higher achievement in mathematics and reading when they attend schools characterized by higher levels of teacher

collaboration for school improvement. These researchers also reported that when teachers collaborate, they are creating a social environment that allows them to learn from one another.

> Social learning theories help us to understand how people learn from one another and informs us on how we construct active learning communities. Teacher collaboration transforms teachers into resources for one another and has been linked to enhanced teacher learning and higher student achievement. (Neff, n.d., p. 1)

In this current study, the works of Bandura et al. (1961) and Vygotsky (1962) were useful in determining the learning patterns of adults in PLCs and how to better understand the dynamics that will make the PLC a more effective way of increasing student achievement in the classroom.

Implementation

Pirtle and Tobia (2014) discussed six key steps that lead to the successful implementation of PLCs within an organization. The six steps they proposed were

1. Provide a clear structure and purpose for PLC meetings.
2. Address the most pressing instructional challenges.
3. Provide support from all levels of the school system.
4. Foster an atmosphere of trust.
5. Monitor the work of PLCs and provide constructive feedback.
6. Support teachers' sense of efficacy and level of professionalism.

Through their research, Pirtle and Tobia (2014) indicated there is a strong correlation between the use of effective PLCs in schools, improved teacher learning and

instruction, and student learning. These researchers have drawn on their experiences in working with schools when outlining the six most effective characteristics of successful implementation. District and school leaders must focus on increasing teacher collaborative professional learning and self-reflection to improve classroom instruction for enhanced student gains. During the process of implementing a PLC, researchers discuss the need for a very focused approach that requires studying standards, selecting research-based strategies, planning lessons, implementing these lessons, analyzing student work, and then adjusting instruction based on the challenges that emerge. During this process, staff share their experiences, observations, and questions with one another to gain more insight.

To address the most pressing instructional challenges teachers face, they must "examine formative, benchmark, and state assessment data before their meetings" (Pirtle & Tobia, 2014, p. 3). Through this examination of data, staff will have the opportunity to collectively determine if all teachers align their teaching and use of the standards. Teachers are encouraged to bring student samples and provide evidence of student learning. It is important that once student work is analyzed, the group can "identify instructional practices that support or do not support student learning, discussing how to adjust their instruction, and make a plan to better support students in meeting standards" (Pirtle & Tobia, 2014, p. 3). The third step in a successful implementation of a PLC is to provide support to the teachers. This support will generate a commitment not only at the building level but also at the district level. This support should come in the form of providing adequate time for meetings and all the tools needed to run a successful PLC as well as knowledge on how to unpack and analyze the data.

A modeling approach has managed to show participants how to begin

conversations about student learning. "There is mounting evidence of a strong correlation between relational trust in a district and school and student achievement" (Pirtle & Tobia, 2014, p. 4). School leaders must model trusting relationships and provide conditions that allow teachers to be vulnerable and feel safe at the same time. Instructional leaders should be providing nonjudgmental structures and supports to strengthen the collaborative work of faculty and to monitor progress made toward the practical implementation of PLCs. The fifth step in the actual application of a PLC is to follow the work of the PLC and provide constructive feedback. Pirtle and Tobia (2014) suggested four norms and guidelines for the PLC meetings. First, arrive at meetings on time and prepared. Second, staff must remain focused on their task and avoid any distractions. Teachers and PLC facilitators must also be willing to openly share their successes and their challenges; and finally, everyone must commit to using the learning they gain from a PLC meeting and carry it over into their classrooms. The last step suggested is that a support of teacher sense of efficacy and level of professionalism must be in place. Pirtle and Tobia stated that when leaders create the conditions where educators support one another's practice in PLCs, teachers feel more confident and develop a strong sense of self-efficacy; they believe in their ability to influence student learning and make a difference in student outcomes and achievement.

Summary

In this literature review, the importance of collaboration and establishing a collaborative culture within a school was discussed. Also, the different components of PLCs were examined. When collaboration within PLCs is implemented successfully, schools, staff, and most importantly, students will become more capable learners and high-achieving students. It will take an entire community to bring the standards of the

school to its highest levels and to develop a collaborative culture that can be used effectively.

Chapter 3: Methodology

Introduction

The purpose of this study was to examine the perceptions teachers have of their professional learning and experiences within PLC meetings. Collaboration, collaborative cultures, characteristics of PLCs, and how effective PD can raise student achievement scores were discussed in previous chapters. While there is a lot of research about the components of a PLC and the role leadership plays in effective implementation, there is a lack of information regarding teacher perceptions of the use of collaboration in a PLC for raising student achievement. The researcher designed a mixed-methods, single-case study using the SCS and interviews. The researcher conducted an analysis of data collection through a survey and interviews to determine and validate emergent themes. By analyzing these themes, the researcher utilized the data gathered from teachers to determine how teachers felt about their professional learning within a PLC.

The following research question served as a guide for data collection and analysis: "What experiences in a PLC do teachers perceive contribute to a collaborative culture?" The SCS identified dimensions the staff at the chosen school believed contribute to a collaborative culture within their school. This information provided staff and leaders of the school data to help determine problematic areas that were preventing the school from showing growth in professional learning.

In order to effectively analyze the perceptions of teachers, this study gathered data from participants in a prekindergarten through fifth-grade elementary school who participate in weekly PLC meetings.

Participants

The participants included teachers from all grade levels and departments in the

school. Teacher certification, credentials, and years of experience were documented for each participant. Appendices A and B provide information about Quality Teachers at this school. The researcher gave the SCS to all participating teachers and staff members who met the requirement of a minimum of 2 years of PLC experience at this particular school. The teachers were emailed a request to complete the survey. Individual interviews were also conducted after analysis of the survey.

Setting

The research was conducted at a Title I, prekindergarten through fifth-grade elementary school in the piedmont/triad area of North Carolina. The participants in this study were kindergarten through fifth-grade teachers employed by the school where the study was conducted. Staff members participated in weekly PLC meetings. The superintendent and the principal of the school were contacted after the dissertation committee approved the study. The school served approximately 511 students in prekindergarten through fifth grade. The school involved in this study implemented PLCs for 3 years with a PLC leader and support from a district PLC coach. Consent was given before any part of the study began. The School Profile can be found in Appendix C.

Research Study

According to Creswell (2014), quantitative research is an interrelated set of constructs (or variables) formed into propositions or hypotheses that specify the relationship among variables. Furthermore, Creswell stated that quantitative theory appears in a research study as a way to help explain phenomena that occur in the world. There are several ways qualitative theory is used in studies. According to Creswell, qualitative theory can be used as a broad explanation for behavior or attitudes; and

secondly, researchers use a theoretical lens or perspective that provides an overall orienting lens for the study. Qualitative data analysis was used in this case study in order to add depth to the current study.

Case study research is concerned with investigating single or multiple units of study, using familiar research methods for data collection such as interviews or surveys. Case studies are empirical investigations, in that they are based on knowledge and experience or, more practically speaking, involve the collection and analysis of data. By circumscribing the area of a study to a small number of units, the case study researcher is able to look in depth at a topic of interest or phenomenon (Yin, 2014).

The current study is a single case study. This allowed the researcher to explore a phenomenon within real-life context using multiple sources of evidence (Yin, 2014). The researcher used two methods of data collection (survey and interviews) to gather information and recommend improvements of collaborative efforts by the participants. The researcher also used these data to determine and validate emergent themes. A mixed-method study involves the combination of qualitative and quantitative research and data in a research study (Creswell, 2014). Jick (1979) discussed that a mixed-methods approach is used because all methods have bias and weaknesses, and the collection of both quantitative and qualitative data neutralize the weakness of each other. Creswell (2014) stated four ways a mixed-methods approach can be used to validate data. Four ways mixed methods can validate data are as follows:

> The integration of quantitative and qualitative data can be used to check for validity of the other database; One database could help explain another database; One database could lead to better instruments when other instruments need to be considered; and one database could build on the other database. (Creswell, 2014,

p. 15)

For the purpose of this research study, a mixed-methods approach was used. This approach required the researcher to first conduct quantitative research, analyze the results using a descriptive analysis, and then explain trends further using qualitative research (Creswell, 2014).

By utilizing the case study methodology, with a survey and interviews, the researcher explored the research question. By analyzing the data collected, the researcher gained insight into the use of collaboration during PLC meetings. "Collaboration refers to individuals or organizations 'working together' to address problems and deliver outcomes that are not easily or effectively achieved by working alone" (Queensland Council of Social Service, n.d., p. 1). Conducting a case study as the research methodology required the researcher to use varied sources of data collection to add breadth and depth to the information gathered and to assist and improve the validity of the research (Yin, 2014). Thus, a mixed-method case study design provided the necessary flexibility to analyze the perception of teachers through the SCS and follow-up interview questions.

Research Design

The methodological design for this study was a mixed-methods, single-case study which analyzed perceptions of teachers about their professional learning in PLC meetings. Creswell (2014) defined case study as, "a design of inquiry found in many fields, in which the researcher develops an in-depth analysis of a case, often a program, event, activity, process, of one or more individuals" (p. 14). By utilizing the case study methodology with a survey and interviews, the researcher explored the research question mentioned above. The data were analyzed, and the researcher gained insight into

perceptions of professional learning during PLC meetings. Quantitative data analysis provided the flexibility to analyze the perceptions of teachers through the SCS.

Instrumentation

Yin (2014) suggested that "by using many varied sources of evidence, any case study finding or conclusion is likely to be more convincing and accurate if it is based on several different sources of information" (p. 116). Yin also stated that there are six sources of evidence for gathering data. "Observations, documents, archival reports, open-ended interviews, focus interviews, and surveys" (Yin, 2014, p. 117). This researcher used interviews and a survey to gather data. By gathering more than one source of data, the researcher added validity and credibility to this study. The SCS was the chosen instrument for data collection of this study. The SCS is a valid and reliable survey that provided insight about shared values and beliefs and the relationships within the school (Gruenert & Valentine, 1998). There are six aspects of a school's collaborative culture that were measured. Collaboration Leadership measured the extent to which school leaders establish and maintain relationships with their school staff. Teacher Collaboration analyzed how teachers engage in dialogue with one another. PD measured how much teachers value personal development and school-wide improvement. Collegial Support determined how well teachers work together. Unity of Purpose analyzed how well teachers work toward a common mission; and Learning Partnership determined how well teachers, parents, and students work together for the common good of the student (Gruenert & Valentine, 1998).

The SCS is a 35-item, Likert description questionnaire that measures six dimensions. The Likert ranges from 1 (Strongly Disagree) to 5 (Strongly Agree). The dimensions of school cultures are Collaborative Leadership, Teacher Collaboration, PD,

Collegial Support, and Learning Partnerships. The dimensions of school culture and the questions that correlate to them can be found in Table 1. The SCS was developed by analyzing 632 useable teacher response surveys from 27 schools at the Missouri Center for School Improvement's Project ASSIST. These dimensions are research based and developed from literature on school culture, effective school cultures, and collaborative school cultures (Gruenert & Valentine, 1998).

Table 1

Dimensions of School Culture (SCS)

Dimensions	Questions
Collaborative Leadership	2, 7, 11, 14, 18, 20, 22, 26, 28, 32
Teacher Collaboration	3, 8, 15, 23, 29, 33, 34
PD	1, 9, 16, 24, 30
Unity of Purpose	5, 12, 19, 27, 31
Collegial Support	4, 10, 17, 25
Learning Partnerships	6, 13, 21, 35

Gruenert and Valentine (1998) found that the six dimensions of the school culture factors had a high correlation with a minimum of two of the four climate factors of the SCS. These correlations can be found in Table 2.

Table 2

Dimensions of School Culture Factors

Dimensions	Climate Factors	
Collaborative Leadership	Teacher-Student Relations	r = .633
	Administration	r = .657
	Instructional Management	r =.488
Teacher Collaboration	Teacher-Student Relations	r =.532
	Student Academic Orientation	r =.483
Unity of Purpose	Teacher-Student Relationships	r =.387
	Student Academic Orientation	r =.485
	Administration	r =.384
	Instructional Management	r=.454
PD	Teacher-Student Relations	r =.436
	Student Academic Orientation	r =.475
Collegial Support	Teacher-Student Relations	r =.506
	Administration	r =.544
Learning Partnership	Student Academic Orientation	r =.416
	Instructional Management	r =.439
Overall	15 of 24 correlations were significant at the 0.5 level	
Overall	Seven were significant at the .01 level	

A descriptive analysis was used to analyze the result of the SCS. Each of the six dimensions was compared based on the over percentage of positive or negative responses. Survey results were ranked, and questions were developed in order to understand these results in more detail.

Interviews

In addition to using a survey to gather data, the researcher used open-ended interview questions to gain a deeper understanding of teacher perceptions of collaboration as a way to increase student achievement. The interview consisted of seven questions that were asked based on the data results of the quantitative data analysis. Creswell (2014) stated there are seven protocols that need to be developed when conducting an interview. The seven components are include a heading that states the date, place, interviewer and interviewee; the interviewer has instructions to ensure that the same procedures are used for everyone being interviewed; the questions include an

ice-breaker question at the beginning, followed by three additional questions, and then follow up with a concluding statement or question; probes for the four questions to follow up and ask individuals to explain their ideas in more detail or elaborate more on their answer; spaces between the questions to record responses; a final thank you statement; and interviewer should keep a log of collected documents.

Study Procedures

The following are the steps that were taken during this study. First, an IRB approval was sought for this study. A letter stating the purpose of the study and a participant consent form were emailed to all participants. This was done a week prior to sending out the SCS. Third, a formal request was sent to those who consented to participate in the study; and a link was provided for the survey. A follow-up email was sent 7 days after the initial request to complete the survey. Once the survey was completed, a thank you email was sent to all participants. Ten days after the initial request, a final appeal was sent out to participate in the study. Finally, data collected were analyzed and presented in table form, and a descriptive analysis was conducted. Based on the analysis of the survey, interview questions were developed to investigate trends further.

Data Collection Sources

The researcher acquired permission to use the SCS from the Middle Level Leadership Center (MLLC) for this study. Interview questions were developed based on the results of the SCS. The researcher administered the SCS, a 35-item, web-based survey to assess the presence of behaviors at the school level associated with collaborative professional learning. Next, the researcher used a proxy to conduct interviews to gain a deeper understanding of teacher perceptions of their professional

learning. Each interview was recorded and listened to numerous times. A transcript of each interview was made so appropriate coding could be completed. As themes emerge from the interviews and the data analysis, a chart was created in order to detail the findings and generate categories.

Test and Data Analysis

Research shows the importance of collaboration as a means for increasing student achievement. By analyzing the SCS results and interviews, data were used from different sources in order to strengthen the understanding of emerging themes and perspectives (Creswell, 2014).

Interviews were coded using a "grounded" approach (Miles & Huberman, 1994) where the researcher collected the data from interviews first and then found the emerging themes. When analyzing and interpreting qualitative data, there are several considerations Creswell (2014) discussed. First, data analysis can proceed hand in hand with data collection. The researcher can conduct interviews while analyzing an interview previously done. The researcher can write memos and begin to organize the structure of the final report. Second, because of the wealth of information collected in qualitative research, the researcher can focus on some of the data and disregard other parts of it. Creswell (2014) stated, "The impact of this process is to aggregate data into a small number of themes, something like five to seven themes" (p. 195). Hand coding the interviews is one way to analyze the data; however, Creswell stated, "Hand coding is a laborious and time-consuming process, even for data from a few individuals" (p. 195). Another option is the use of a qualitative software program. These programs were developed in order to store and locate qualitative data in a more efficient manner (Creswell, 2014). For this study, a qualitative software program was used.

An IRB application was submitted to Gardner-Webb University requesting permission to conduct the study. An IRB application was also submitted to the district's department of research requesting permission to conduct the study. Following approval to conduct research, a meeting was scheduled with the principal of the chosen elementary school to explain the details of the study. During this meeting, the researcher requested the names and years of experience of potential participants. The potential participants were chosen based on their experience working in a PLC for at least 2 years at this school. The researcher contacted potential participants with an invitation to participate in the study. Once approved, the researcher distributed and collected potential participants' informed consent forms using privacy envelopes. Next, the SCS was distributed to each of the participants of the study. Based on the results of the survey, a proxy was used to contact selected participants to schedule a date, time, and location to conduct one-on-one interviews. Participants for this study were chosen using the following criteria: (a) participant was a certified teacher who taught students in one or more Grades K-5; (b) participant was a teacher at the elementary school chosen for this study; and (c) participant participated in PLCs at this elementary school for at least 2 years.

Validity and Credibility

According to Creswell (2014), "The explanatory sequential mixed methods approach is a two-phase project in which the researcher collects quantitative data in the first phase, analyzes the results, and then uses the results to plan the second qualitative phase" (p. 224). Furthermore, Creswell explained that this type of approach is typically designed to have the qualitative data help explain in more detail the results of the quantitative data. Creswell stated several considerations to be taken into account with this type of research in order to ensure its validity. First, the researcher considered and

weighed all of the options for following up on the quantitative results. Second, the samples must stay the same for each set of gathering and analyzing the data. This minimizes one part of the survey becoming more important than another. Finally, the researcher must determine an adequate sample size for both quantitative and qualitative research.

Delimitations

Delimitations narrow the scope of the study. The following were delimitations of this study. First, the researcher only used subjects from one school in the district who have implemented weekly PLC meetings. The study only included teachers who have participated in PLC for at least 2 years. Finally, participation in this study was voluntary.

Limitations

This qualitative case study contained potential weaknesses or limitations (Creswell, 2014) due to the researcher's biases. The researcher has been a classroom teacher at this school in previous years and also the assistant principal; however, the researcher is no longer working at this school. The researcher's previous role in the school did not affect data collection; participant responses were kept secure and completely confidential; and informed consent guidelines were upheld throughout the entire research period to ensure the integrity of the study. As mentioned in Chapter 1, participants in this study have varied experiences in working on collaborative teams, and their teaching experiences and years in the profession vary.

Summary

The purpose of the study was to examine the perceptions of teachers in a prekindergarten through fifth grade, urban, elementary school in the piedmont/triad area of North Carolina. The research study was designed to assess the perceptions teachers

have of their professional learning and the collaborative culture in their PLC. Through this research and study design, the researcher attempted to add to the current knowledge base of the perceptions teachers have of their professional learning and how this contributes to increased student achievement.

Chapter 4: Results

Introduction

The purpose of this chapter is to report the results of the SCS and interview data collected on teacher perceptions of the experiences they perceive to contribute to a collaborative culture. This mixed-method, single-case study was developed to gather data about the perceptions teachers have of their professional learning and the collaborative culture within a PLC. It is intended to contribute to the body of knowledge on the use of PLCs, collaboration, school culture, and teacher input. Data were gathered through an electronic survey of the SCS developed by Gruenert and Valentine (1998). Further development of these findings was explored through interviews. There was one guiding question for this study. The research question was, "What experiences in a PLC do teachers perceive contribute to a collaborative culture?"

To investigate the research question, the following data collection events took place: (a) SCS and (b) individual participant interviews. This chapter presents the population and demographic information of the participants and the school in which this study took place. The results from the SCS and emerging themes from interviews are presented and discussed. The findings of the survey are organized by the six dimensions of the survey, and interview questions were developed based on the SCS. A general summary of the results is provided. The researcher gives specific excerpts of interview responses that relate to the research question of the study.

Survey Participant Results

A total of 20 participants received an invitation to participate in the study. The invitation and consent documents were sent through their school email address with a letter documenting the purpose and procedures of the study and a consent form. A total

of 14 participants (70%) agreed to participate in the study.

Population and Demographic Information

The population of this study was comprised of instructional personnel who work at a Title I, prekindergarten through fifth grade elementary school in the piedmont/triad area of North Carolina. Participants have been employed at this school for a minimum of 2 years and have participated in weekly PLC meetings for a minimum of 2 years. Of the teachers participating in the study, two (14%) participants had between 0-3 years of teaching experience, one (7%) had between 4-6 years of teaching experience, four (29%) had between 7-9 years of teaching experience, and seven (50%) had 10 or more years of teaching experience. Data gathered from the North Carolina Report Card indicated that 15.6% of the entire staff had 0-3 years of experience, 26.7% of the staff had 4-10 years of experience, and 57.8% of the staff had 10 or more years of experience.

Interviewees

Of the 14 participants, six were selected to be interviewed in order to further investigate emerging trends from the survey. Three participants with 2-5 years of experience in a PLC were chosen as well as three with 6 or more years of experience in a PLC. Participants to be interviewed were also chosen based on their grade level in order to have representation from across the school. The interviews were conducted in 20- to 30-minute sessions over the course of 2 weeks. Table 3 represents the respective grade levels, years of experience, and years participating in a PLC of the participants selected to be interviewed.

Table 3

Interview Participant Demographics

Participant	Grade Level	Years of Experience	Years in PLC
1	3rd	0-3	2
2	4th	10+	8
3	5th	0-3	2
4	1st	10+	3
5	2nd	10+	8
6	Facilitator	10+	6

All participant experiences were drawn from their participation in a PLC at the site of this study. The participants chosen for the interviews represented Grades 1, 2, 3, 4, and 5 and a PLC facilitator.

Survey Description

This study was conducted using information from an elementary school in the western part of North Carolina. The SCS has 35 items (questions) related to the shared values, beliefs, and patterns of behavior within a school. The survey uses a scale of SD – Strongly Disagree = 1; D – Disagree = 2; U – Undecided = 3; A – Agree = 4; and SA – Strongly Agree = 5. The SCS categories can be found in Table 4.

Table 4

Dimensions of School Culture Questions (SCS)

Dimensions	Questions
Collaborative Leadership	2, 7, 11, 14, 18, 20, 22, 26, 28, 32
Teacher Collaboration	3, 8, 15, 23, 29, 33, 34
PD	1, 9, 16, 24, 30
Unity of Purpose	5, 12, 19, 27, 31
Collegial Support	4, 10, 17, 25
Learning Partnerships	6, 13, 21, 35

The survey was used to determine the patterns of perceptions and shared beliefs from the perspective of school personnel participating in a weekly PLC.

Dimensions of the Survey

The 35-question SCS measures six dimensions. An explanation of each dimension is provided below.

Collaborative leadership. According to Valentine (2006), collaborative leadership measures the degree that school leadership has established a collaborative learning culture among staff. These dimensions seek to understand how much teachers' ideas and decision-making are valued within the school. Anderson-Butcher, Lawson, Lachini, Wade-Mdivanian, and Bean (2008) reported that leadership fosters shared commitments, helps resolve conflicts, facilitates lasting relationships, and stimulates effective action. A Collaborative Leadership approach must involve team approaches rather than single-person approaches (Anderson-Butcher et al., 2008, p. 3.4).

Teacher collaboration. Teacher collaboration measures how much teachers engage in constructive dialogue, teaching practices, evaluating programs, and developing an awareness of the practices and programs of other teachers. The U.S. Department of State stated that teacher collaboration involves members working together as equals to assist students to succeed in the classroom (Powell, n.d.).

PD. PD indicates the degree to which teachers achieve continuous personal development and school-wide improvement (Valentine, 2006). Guskey (1995) stated that the purpose of PD is to increase student achievement by providing instructional-focused PD to teachers.

Collegial support. Valentine (2006) stated that collegial support measures how well teachers work together effectively. This dimension evaluates how much teachers trust one another, value each other's ideas, and assist each other.

Unity of purpose. Unity of purpose measures how well teachers work toward a

common mission for the school. Davidson and Dell (1995) stated that teachers discover that their relationships with one another are central to building a unity of purpose.

Learning partnership. This dimension measures how well teachers, parents, and students work together for the common good of the students.

Survey Results

The mean (in %) and number of the responses (in parentheses) for each dimension were calculated and are presented in Tables 5-10.

Table 5

SCS Participant Results for Collaborative Leadership

Question	SD=1	D=2	U=3	A=4	SA=5
2	0	14.3% (2)	0	71.4% (10)	14.3% (2)
7	0	21.4% (3)	21.4% (3)	42.9% (6)	14.3% (2)
11	7.1% (1)	14.3% (2)	14.3% (2)	57.1% (8)	7.1% (1)
14	0	21.4% (3)	21.4% (3)	35.7% (5)	21.4% (3)
18	0	14.3% (2)	7.2% (1)	57.1% (8)	21.4% (3)
20	0	21.4% (3)	0	64.3% (9)	14.3% (2)
22	0	14.3% (2)	28.6% (4)	42.9% (6)	14.3% (2)
26	14.3% (2)	21.4% (3)	42.9% (6)	21.4% (3)	0
28	7.1% (1)	14.3% (2)	21.4% (3)	50% (7)	7.1% (1)
32	7.1% (1)	21.4% (3)	7.3% (1)	57.1% (8)	7.1% (1)
Mean	3.6%	17.9%	16.5%	50%	12.1%
Combined Mean	21.5%		16.5%	62.1%	

Collaborative Leadership showed a mean score of 3.6% for Strongly Disagree; 17.9% for Disagree; 16.5% Undecided; 50% chose Agree; and 12.1% chose Strongly Agree. Table 5 shows that the mode for Collaborative Leadership is Agree (4). Question 26, which stated, “Teachers are rewarded for experimenting with new ideas and techniques,” is an outlier. The most popular answer for 26 was undecided at 42.9%.

Table 6

SCS Participant Results for Teacher Collaboration

Question	SD=1	D=2	U=3	A=4	SA=5
3	0	28.6% (4)	14.3% (2)	42.9% (6)	7.1% (1)
8	7.1% (1)	0	7.1% (1)	42.9% (6)	42.9% (6)
15	21.4% (3)	64.3% (9)	7.2% (1)	7.1% (1)	0
23	7.1% (1)	21.4% (3)	0	64.3% (9)	7.1% (1)
29	0	14.3% (2)	28.6% (4)	42.9% (6)	14.3% (2)
33	14.3% (2)	21.4% (3)	28.6% (4)	21.4% (3)	14.3% (2)
34	0	0	0	57.1% (8)	42.9% (6)
Mean	7.1%	21.4%	12.2%	39.8%	18.4%
Combined Mean	28.5%		12.2%	58.2%	

Teacher Collaboration showed a mean score of 7.1% for Strongly Disagree; 21.4% for Disagree; 12.2% Undecided; 39.8% chose Agree; and 18.4% chose Strongly Agree. The mode for Table 6 is Agree (4). The primary question that did not have majority Agree (4) responses was Question 15 which stated, "Teachers take time to observe each other teaching." For this question, 64.3% indicated Disagree. Those who marked Disagree or Strongly Disagree account for a total of 85.7% of responses.

Table 7

SCS Participant Results for PD

Question	SD=1	D=2	U=3	A=4	SA=5
1	0	7.1% (1)	0	50% (7)	42.9% (6)
9	0	21.4% (3)	0	64.3% (9)	14.3% (2)
16	7.1% (1)	14.3% (2)	14.3% (2)	57.1% (8)	7.1% (1)
24	0	7.1% (1)	0	64.3% (9)	28.6% (4)
30	0	7.1% (1)	21.4% (3)	28.6% (4)	42.9% (6)
Mean	1.4%	11.4%	7.1%	52.9%	27.2%
Combined Mean	12.8%		7.1%	80.1%	

PD showed a mean score of 1.4% for Strongly Disagree; 11.4% for Disagree; 7.1% Undecided; 52.9% chose Agree; and 27.2% chose Strongly Agree. Table 7 shows that the mode is Agree (4); however, Question 30 only had four responses for Agree (4).

Question 30 stated, “The faculty values school improvement.” This question revealed that the majority of participants Strongly Agree with this statement.

Table 8

SCS Participant Results for Unity of Purpose

Question	SD=1	D=2	U=3	A=4	SA=5
5	0	0	21.4% (3)	50% (7)	28.6% (4)
12	0	0	35.7% (5)	42.9% (6)	21.4% (3)
19	0	14.3% (2)	14.3% (2)	50% (7)	21.4% (3)
27	0	7.1% (1)	21.4% (3)	64.3% (9)	7.1% (1)
31	0	0	21.4% (3)	35.7% (5)	42.9% (6)
Mean	0	4.3%	22.8%	48.6%	24.3%
Combined Mean		4.3%	22.8%	72.9%	

Unity of Purpose showed a mean score of 0 for Strongly Disagree; 4.3% for Disagree; 22.8% Undecided; 48.6% chose Agree; and 24.3% chose Strongly Agree. Table 8 shows that Agree (4) is the mode, and this is shown fairly consistent for all questions.

Table 9

SCS Participant Results for Collegial Support

Question	SD=1	D=2	U=3	A=4	SA=5
4	0	7.1% (1)	28.6% (4)	64.3% (9)	0
10	0	7.1% (1)	0	42.9% (6)	50% (7)
17	0	14.3% (2)	21.4% (3)	35.7% (5)	28.6% (4)
25	0	14.3% (2)	14.3% (2)	50% (7)	21.4% (3)
Mean	0	10.7%	16.1%	48.2%	25.0%
Combined Mean		10.7%	16.1%	73.2%	

Collegial Support showed a mean score of 0% for Strongly Disagree; 10.7% for Disagree; 16.1% Undecided; 48.2% chose Agree; and 25.0% chose Strongly Agree. Table 9 shows the mode as Agree (4), and the responses ranged from five to nine participants and remained fairly consistent.

Table 10

SCS Participant Results for Learning Partnership

Question	SD=1	D=2	U=3	A=4	SA=5
6	0	42.9% (6)	14.3% (2)	35.7% (5)	7.1% (1)
13	0	28.6% (4)	7.1% (1)	57.1% (8)	7.2% (1)
21	0	14.3% (2)	0	64.3% (9)	21.4% (3)
35	14.3% (2)	21.4% (3)	14.3% (2)	50% (7)	0
Mean	3.6%	26.8%	9.1%	51.8%	8.9%
Combined Mean	30.4%		9.1%	60.7%	

Learning Partnership showed a mean score of 3.6% for Strongly Disagree; 26.8% for Disagree; 9.1% Undecided; 51.8% chose Agree; and 8.9% chose Strongly Agree. Table 10 shows the mode is Agree (4) except for Question 6. The mode for Question 6 was 42.9% (Disagree).

Table 11

SCS Participant Results for, "Does a PLC contribute to a collaborative school culture?"

Question	SD=1	D=2	U=3	A=4	SA=5
36	14.3% (2)	14.3% (2)		7.1% (1)	64.3% (9)
Combined Mean	28.6%			7.1%	64.3%

Responses show that the mean is Agree (4), with 64.3% of participants choosing this answer.

Table 11 shows respondent levels of experience in education.

Table 12

SCS Participant Results for, "How many years of experience do you have in education?"

Question	1-3 years	4-6 years	7-9 years	10 or more years
1	14.3%	0	0	85.7%

Responses show that the majority of participants have 10 or more years of experience. Table 12 shows respondent levels of experience working in a PLC.

Table 13

SCS Participant Results for, "How many years of experience do you have in a PLC?"

Question	1-3 years	4-6 years	7-9 years	10 or more years
2	14.3%	7.1%	28.6%	50%

Table 13 shows that the majority of participants (78.6%) have 7 or more years of experience in a PLC.

Table 14

SCS Mean Participant Results for the SCS Dimensions

Dimensions	D/SD	U	A/SA
Collaborative Leadership	21.5%	16.5%	62.1%
Teacher Collaboration	28.5%	12.2%	58.2%
PD	12.8%	7.1%	80.1%
Unity of Purpose	4.3%	22.8%	72.9%
Collegial Support	10.7%	16.1%	73.2%
Learning Partnership	30.4%	9.1%	60.7%

Participant responses show that Collaborative Leadership received an average of 62.1% positive responses; Teacher Collaboration received positive responses for 58.2% of the participants; PD received an average of 80.1% positive responses; Unity of Purpose received an average of 72.9% positive responses; Collegial Support received an average of 73.2% positive responses; and Learning Partnership received an average of 60.7% positive responses.

Table 15 shows years of experience in education, years of experience in a PLC, and all participant responses to whether or not they feel a PLC contributes to a collaborative school culture.

Table 15

SCS Participant Results for, "Does a PLC contribute to a collaborative school culture?"

Participant	Years of Experience	Years in a PLC	#36
1	10+	7-9	Agree
2	10+	10+	Disagree
3	10+	10+	Agree
4	10+	10+	Agree
5	10+	10+	Strongly Disagree
6	10	7-9	Disagree
7	1-3	1-3	Agree
8	10+	10+	Agree
9	10+	7-9	Agree
10	10+	10+	Undecided
11	10+	7-9	Agree
12	10+	10+	Agree
13	10+	4-6	Agree
14	1-3	1-3	Strongly Disagree

Table 15 reports the responses of participants in reference to the last question on the survey, "Does a PLC contribute to a collaborative school culture?" Of the 14 participants, two chose Strongly Disagree, two chose Disagree, one was undecided, nine chose Agree, and no one chose Strongly Agree.

Table 16 shows the overall results of participants based on their responses to whether or not they feel a PLC contributes to a collaborative school culture.

Table 16

SCS Participant Results for "Does a PLC contribute to a collaborative school climate?"

Years of Experience	SD	D	U	A	SA
10+	1	1	1	4	0
7-9	0	1	0	3	0
4-6	0	0	0	1	0
1-3	1	0	0	1	0
Total	2	2	1	9	0

The results from Table 16 show the breakdown of responses by years of

experience. Teachers with 10 or more years of experience had one participant choose Strong Disagree; one chose Disagree; one was Undecided; and four chose Agree. Participants with 7-9 years of experience had one participant choose Disagree, and three chose Agree. The one participant with 4-6 years of experience chose Agree. Participants with 1-3 years of experience had one choose Strongly Disagree, and one chose Agree.

Individual Interviews

After the SCS was completed, a series of individual interviews were conducted. The interviews were conducted during 20-30 minute segments over the course of 2 weeks. During the interviews, participants were asked about their experiences working in a PLC and the overall data the survey provided.

For the purpose of this study, open coding was used when analyzing interviews. Each individual interview was recorded and transcribed by the researcher. Significant words and phrases were noted in a separate document in order to determine emerging themes. The various trends that emerged from the interviews can be found in Tables 17-25. The seven interview questions are listed below.

1. What specific part of a PLC contributes the most to a collaborative culture?
2. What experiences in a PLC contribute to your own personal development and school-wide improvement?
3. In what ways do you believe that your time in a PLC contributes to how well teachers work together effectively, trust one another, value each other, and assist each other?
4. How does a PLC contribute to collegial support within the school?
5. How comfortable are you engaging other teachers in dialogue that discusses their practices and programs?

6. How would you encourage other teachers to offer you constructive criticism in a way that made everyone feel emotionally safe?
7. Is there anything else about a PLC that you would like for me to know?

Interview Results

A final question was added to the survey in order to gain an overview of participant perceptions of PLCs. Table 17 shows the results of the six participants who were interviewed for the study and their responses to the question, "Does a PLC contribute to a collaborative school culture?"

Table 17

Interview Participant Results for, "Does a PLC contribute to a collaborative school culture?"

Participant	Grade Level	Years of Experience	Years in a PLC	#36
1	3rd	0-3	2	Agree
2	4th	10+	8	Disagree
3	5th	0-3	2	Strongly Disagree
4	1st	10+	3	Agree
5	2nd	10+	8	Agree
6	Facilitator	10+	6	Agree

Table 17 shows the results of the question, "Does a PLC contribute to a collaborative school culture," as outlined by grade level and years of experience.

Table 18

Interview Participant Results for, "Does a PLC contribute to a collaborative school culture?"

Participant	Grade Level	Years of Experience	Years in a PLC	#36
4	1st	10+	3	Agree
5	2nd	10+	8	Agree
1	3rd	0-3	2	Agree
6	Facilitator	10+	6	Agree
2	4th	10+	8	Disagree
3	5th	0-3	2	Strongly Disagree

Table 18 presents additional results of the interviewees based on their grade level. One participant chose Strongly Disagree; 1 participant chose Disagree; and 4 participants chose Agree. Participants who teach in Grades 1-3 and the PLC facilitator all chose Agree, while participants who taught in Grades 4-5 responded with Disagree. When the responses to the question, "Does a PLC contribute to a collaborative school culture," was divided into upper and lower grade teachers, all teachers in the lower grades chose Agree and all teachers in the upper grades chose Disagree or Strongly Disagree.

Research Question and Significant Findings

The research question that guided this study was, "What experiences in a PLC do teachers perceive contribute to a collaborative culture?" To understand the perception of teachers, transcripts from the interviews were coded and analyzed.

Grounded theory was used as the framework for analysis of the data. Grounded theory involves the progressive identification and integration of categories of meaning from data (Strauss, 1998, p. 70). Grounded theory is a qualitative research approach that was originally developed by Glaser and Strauss (1967). The self-defined purpose of grounded theory is to develop a theory about phenomena of interest (Trochim, 2006).

First, the researcher transcribed each interview and coded the interviews in order to identify emerging phenomena and categories. For the purpose of this study, open coding was the first method of analysis. Each interview was recorded and then transcribed into a google doc. The recorded interviews were listened to several times in order to get a general feel for the overall viewpoints of each interview. Once all the interviews were transcribed, the researcher began looking for commonalities among them. Similar words were assigned a color, and each transcription was color coded. A key was set up at the beginning of each transcription. After this initial analysis, the researcher began to list the different phenomenon from the interviews. Using the process of axial coding, common phenomena were grouped together and assigned a color for coding. The results of the initial coding are presented in Tables 19-27.

Table 19

Commonalities from Interview Coding

Coded Blue		
Together	All in room together	Feeling Safe
Allowed to talk	Share	
Set time	Different perspectives	Share ideas
Reflect	Conversations	Express Opinions
Listen	Listening to others talk	Perceptions
Forces team to get together		

Table 20

Commonalities from Interview Coding

Coded Purple		
Collaborate	Clarify conversations	Effective discussions
Math Coach	Reading Coach	ESL teachers
Hone in on skills	Support Staff Members	Specialists
Teachers run it	Teachers do most of the talking	

Table 21

Commonalities from Interview Coding

Coded Red		
Strategies	How to fix our classrooms	Close the gaps

Table 22

Commonalities from Interview Coding

Coded Green		
Data	Assessments	Data Wall
Creating Common Formative Assessments		Analyzing data

Table 23

Commonalities from Interview Coding

Coded Gray		
Trust	Open Mind	Friendly
Respectful	Effective	Value each other
Kind	Relationships	My own team
Approach	Approachable	Pleasant
Tone of voice	Speak freely	

Table 24

Commonalities from Interview Coding

Coded Berry		
Support	Set agenda	Certain amount of time
Productive	On topic	Specific Expectations
Norms	Protected Time	Behind closed doors
Focused	Positive	Guidelines
Accomplish something		

Table 25

Commonalities from Interview Coding

Coded Light Green		
Don't get along	Not always a safe place	Doubt each other
Trust is objective	Trust is not part of a PLC	

Table 26

Commonalities from Interview Coding

Coded Orange	
Feedback	Staying on task

Table 27

Commonalities from Interview Coding

Coded Yellow		
Vertical Alignment	Grade above	School-wide improvement

The codes were then analyzed further and combined to create six categories. These categories are presented in Tables 28-33.

Table 28

Commonalities from Interview Coding

Blue/Purple		
Together	All in room together	Feeling Safe
Allowed to talk	Share	
Set time	Different perspectives	Share ideas
Reflect	Conversations	Express Opinions
Listen	Listening to others talk	Perceptions
Forces team to get together	Specialist	ESL teachers
Collaborate	Clarify conversations	Effective discussions
Math Coach	Reading Coach	Hone in on skills
Support Staff Members	Teachers run it	
Teachers do most of the talking		

Table 29

Commonalities from Interview Coding

Coded Red and Green		
Strategies	How to fix our classrooms	Close the gaps
Data	Assessment	Data Wall
Analyzing Data	Creating Common Formative Assessments (CFA)	

Table 30

Commonalities from Interview Coding

Coded Light Green		
Don't get along	Not always a safe place	Doubt each other
Trust is objective	Trust is not part of PLC	

Table 31

Commonalities from Interview Coding

Coded Gray		
Trust	Open Mind	Friendly
Respectful	Effective	Kind
Relationships	My own team	Pleasant
Approach	Approachable	Speak freely
Tone of voice	Value each other	

Table 32

Commonalities from Interview Coding

Coded Berry/Orange		
Support	Set agenda	Certain amount of time
Productive	On topic	Specific Expectations
Norms	Protected Time	Behind closed doors
Focused	Positive	Guidelines
Accomplish something	Feedback	Staying on task

Table 33

Commonalities from Interview Coding

Coded Yellow		
Vertical Alignment	Grade above and below	School-wide improvement

Further classification was done using the selective coding phase. During this phase, the researcher reviewed all interviews and initial coding phenomenon in order to determine common characteristics and themes. Based on this analysis, three main attributes emerged that encompassed all previous categories. These attributes are presented in Tables 34-37.

Table 34

Category Support

Blue/Purple/Gray	Support	
Working Together	All in room together	Feeling Safe
Allowed to talk	Share with one another	
Set time	Different perspectives	Share ideas
Reflect	Conversations	Express Opinions
Listen	Listening to others talk	Perceptions
Forces team to get together	Specialist	ESL teachers
Collaborate	Clarify conversations	Effective discussions
Math Coach	Reading Coach	Hone in on skills
Support Staff Members	Teachers run it	
Teachers do most of the talking		
Trust one another	Open Mind	Friendly
Respectful	Effective	Kind
Relationships	My own team	Pleasant
How we approach one another	Approachable	Speak freely
Tone of voice	Value each other	

Table 35

Commonalities from Interview Coding

Coded Red and Green	Analysis	
Analyze Strategies	How to fix our classrooms	Close the gaps
Data	Assessment	Data Wall
Analyzing Data	Creating Common Formative Assessments	

Table 36

Commonalities from Interview Coding

Coded Berry/Orange	Productivity	
Support	Set agenda	Certain amount of time
Productive	On topic	Specific Expectations
Norms	Protected Time	Behind closed doors
Focused	Positive	Guidelines for PLC
Accomplish something	Feedback	Staying on task

Table 37

Commonalities from Interview Coding

Coded Light Green/Yellow	Conflict	
Don't get along	Not always a safe place	Doubt each other
Trust is objective	Trust is not part of PLC	
No vertical alignment		

The following three attributes were identified by staff members as important characteristics of a PLC that contribute to the overall collaborative culture of the school.

1. Blue/Purple/Gray – Support
2. Red/Green – Analysis
3. Berry/Orange – Productivity

A commonality arose about how to avoid conflicts within a PLC that could ultimately cripple the growth and collaborative culture of the school.

After the initial analysis of data, individual interviews were conducted with six

participants. There were a number of common characteristics and themes that emerged from the interviews. In the following section, the researcher uses the data gathered to answer the research question for this study: "What experiences in a PLC contribute to a collaborative culture?" Quotes from the individual interviews are provided to support the context for the three main attributes identified by participants as experiences in a PLC that contribute to a collaborative culture.

Support. Interview Participant 2 talked about the importance of support by stating,

> I think when you are able to get your entire team together and sometimes you even have other staff members who may not be a part of your team per se, and you are able to get lots of feedback from other people and lots of different ideas.

Participant 4 agreed that support is important: "We get the chance to talk with each other and bounce ideas around. When we bring things to the table and we share and show; that helps me the most."

Analysis. Participant 1 shared her experiences within a PLC by stating,

> When teachers are allowed to talk about what they are doing in the classroom and when they are able to collaborate about strategies and about data and share what works for them. I benefit the most when I am able to sit down with my peers and discuss the data that we've collected based on assessments.

Productivity. Interviewed participants shared the importance of these norms within their PLC. Participant 1 stated,

> I think they are most effective when the teachers are running it and the teachers are allowed to do most of the talking. There is a set agenda and you actually stick to the agenda. And when there is constructive feedback with support on how you

> can improve. And when specific expectations are laid out in the beginning of the year and the beginning of each meeting and carried through.

Participant 2 agreed, stating,

> But I feel like I should be able to talk to my team-mates and by being in a PLC room together it's a lot of time behind a closed door where if you're in a classroom and a kid walks in or you get interrupted somehow. And that's usually a protected time. Nobody's really going to bother you in there and you have more time to share because we're there together.

Summary

The purpose of this study was to determine teacher experiences in a PLC that contribute to a collaborative culture. A descriptive analysis of the data obtained from the SCS (Gruenert & Valentine, 1998) given in November 2017 has been presented in this chapter. An analysis of the data for the research question was also presented. Results from the survey and interview questions were also displayed.

The survey consisted of two demographic questions, 35 questions from the SCS (Gruenert & Valentine, 1998), and a final question about their perceptions of a PLC contributing to the school culture. The first part of the survey identified the years of experience and the numbers of years participants have been a part of a PLC. The 35-question survey was coded on a 1-5 scale with 1 being Strongly Disagree and 5 being Strongly Agree. A summary and discussion of the findings of the study are presented in Chapter 5. Conclusions and recommendations are presented.

Chapter 5: Discussion

Introduction

The purpose of this mixed-methods study was to assess the perceptions teachers have of their experiences in a PLC and how those experiences contribute to a collaborative culture. The quantitative data from the SCS (Gruenert & Valentine, 1998) provided important information, and the researcher followed up on trends through the use of interviews. The research model will contribute to the body of knowledge about common attributes that staff members found were a part of its PLC, potential barriers that could occur, and how a collaborative culture could be strengthened. The following research question guided this study: "What experiences in a PLC do teachers perceive contribute to a collaborative culture?"

A total of 20 participants received an invitation to participate in the study. Fourteen responded (70%) and agreed to participate. Six participants agreed to an interview. In this chapter, a brief overview of the findings from this study is provided. The three main attributes that surfaced while analyzing the SCS are used as the framework. A review of study limitations, further research studies, and conclusions are included in this chapter.

Instrumentation

The SCS is a 35-item, Likert description questionnaire that measures six dimensions. The Likert ranges from 1 (Strongly Disagree) to 5 (Strongly Agree). The dimensions of school cultures are Collaborative Leadership, Teacher Collaboration, PD, Collegial Support, and Learning Partnerships. The dimensions of school culture and the questions that correlate to them can be found in Chapter 4. The SCS was developed by analyzing 632 useable teacher response surveys from 27 schools at the Missouri Center

for School Improvement's Project ASSIST. These dimensions are research based and developed from literature on school culture, effective school cultures, and collaborative school cultures (Gruenert & Valentine, 1998). The SCS was electronically delivered to participants. Once the results were analyzed, seven interview questions were developed in order to explore trends further. The seven interview questions were

1. What specific part of a PLC contributes the most to a collaborative culture?
2. What experiences in a PLC contribute to your own personal development and school-wide improvement?
3. In what ways do you believe that your time in a PLC contributes to how well teachers work together effectively, trust one another, value each other and assist each other?
4. How does a PLC contribute to collegial support within the school?
5. How comfortable are you engaging other teachers in dialogue that discusses their practices and programs?
6. How would you encourage other teachers to offer you constructive criticism in a way that made everyone feel emotionally safe?
7. Is there anything else about a PLC that you would like for me to know?

Responses were color coded, analyzed, and categorized in order to understand common themes that emerged from the study.

Analysis of the SCS

The electronic survey revealed that only 28.6% of participants felt that a PLC does not contribute to a collaborative school culture. Of the six dimensions of the SCS, the researcher found that PD contributed to a collaborative culture more than any other dimension (80.6%). Unity of Purpose and Collegial Support followed closely with close

to three fourths of participants perceiving these dimensions as positive (72.9% and 73.2% respectfully). It may be significant to note that less than 5% of the participants perceived Unity of Purpose as negative. Additionally, over half of the participants agreed that Collaborative Leadership and Learning Partnerships contribute to a collaborative culture (62.1% and 60.7% respectfully). Almost 60% of participants perceived Teacher Collaboration as positive, about 40% also perceived it as negative or unknown. This analysis could determine that this dimension is unknown in its affect; however, these data do not take away the importance of Teacher Collaboration but rather that participants do not perceive Teacher Collaboration as a major contributor to the school culture when compared to the other dimensions.

During the process of gathering data from the interviews, several common attributes emerged: (a) support, (b) analysis, and (3) productivity. During the interview process, participants shared their experiences and personal viewpoints about their time spent in a PLC and how it contributes to the overall collaborative culture of the school. The SCS revealed that the majority of participants felt that support was strong during their PLC.

Support in PLC Meetings

There were three emerging themes that were discovered. First, interview participants discussed the importance of having support during PLC meetings. Participants revealed that support was not only needed from their grade-level colleagues but also from support staff at the school. Brownell et al. (1997) defined effective teacher collaboration as teachers who communicate about their classroom experiences in order to strengthen pedagogical expertise and encourage colleagues to try new things. DuFour (2004) discussed the idea of developing a culture of collaboration and stated that

educators recognize that they must work together during PLC meetings in order to achieve the goal of all students learning. This collective goal of learning for all helps direct and promote a collaborative culture. Hattie (2009) stated that collaboration will promote change that goes beyond individual classrooms, and educators increase their expertise by learning together. Participant 6 supported this by saying, "It is nice when teachers get comfortable with one another and the process of PLC. This is when we can really see what they know and learn from one another." Participant 5 stated, "being able to be with my teammates and having those conversations and being there together. And you know like what did you do to make your kids grow?" Participant 6 stated that support also contributes to personal development and school-wide improvement: "So when someone brings something to discuss and we talk about how can we teach this better, those are very productive and powerful discussions. These types of conversations always help me grow." Participants 2, 5, and 6 stated that having staff members outside of their grade-level teams also contributes to feeling supported in the classroom. Participant 5 stated, "When the Reading Coach was there last week, she gave us great feedback on what we were doing and how we should be teaching certain standards." Participant 2 added, "my PLT meeting sometimes involves the ESL teacher that works with our kids so she is able to add a lot of perspective from things that she sees."

A third participant added, "Sometimes the coaches come in and can give us some feedback and we can then look at what they asked of us and things that I am doing and see if it coincides with each other." Most of the participants agreed that there are important attributes that make support more meaningful. Participant 1 stated, "If everybody has an open mind then you know you are able to trust one another and you are able to value each other and each other's opinions." Participant 6 talked about the use of

icebreakers in PLC meetings: “Icebreakers are silly but they also build trust and connections with people. It humanizes people. I think they help a lot in PLC.” Participant 3 stated,

> If there are issues that the team feels like they need to address when you are meeting, then address those issues instead of trying to go elsewhere for clarification. We try in PLCs to throw ideas in place for new standards and stuff so that helps with trying to assist one another and stuff. We like to collaborate with the other teams and other grade levels to see how well they taught the subject and how they taught it you know what I mean?

Participant 4 agreed that the support is more meaningful when with her team and when facilitators share information from the county and the state that they bring back from their meetings. Participant 5 shared her experiences by adding,

> I think it forces us to be together in the first place. I believe that putting us together and saying that it is not about you personally and tearing down the walls and looking at how you work well with this and getting those kids to move and you work well with that and getting those kids to move, helps us see that we do each have strengths even if your test scores are not the highest ones on your grade level.

Eaker, Keating, and Rhoades (2008) reported that studies have shown the power of collaborative teams. Eaker et al. reported that support is not limited to teachers but includes support staff. Participant 2 stated the importance of getting the entire team together with other staff members who also work with the students and getting a lot of feedback and hearing different perspectives. Participant 3 agreed that listening to other teachers and administrators talk helps her understand things better. Leana (2011) found

that students show higher achievement when their teachers reported frequent conversations with their peers that centered on math.

The second emerging theme is the importance of analyzing data and looking into how students learn best.

Analysis of Data in PLC Meetings

DuFour (2004) stated that the PLC model flows from the assumption that the core mission of formal education is not merely to ensure that students are taught but to ensure that they learn. This simple shift—from a focus on teaching to a focus on learning—has profound implications for schools. The Annenberg Institute for School Reform (2004) at Brown University stated that educators must not become complacent in their quest to deliver the most practical instruction that will bring about the greatest gains for students. It is through this determination and willingness to evolve as educators that students will become students of high achievement. Rentfro (2007) discussed the importance of having a focus on student learning. Rentfro stated that schools must monitor student learning by using common assessments and progress monitoring so teachers can identify students who need additional support. Rentfro believed that systematic focus on student learning and interventions contributes significantly to student learning. Participant 2 discussed the importance of having determination in order to understand what came before and what is in the future for each student.

> I would say times when we actually do get to spend a lot of the PLC working together on a topic. Times when we've discussed data and I am able to see how things I'm doing, the methods I am using to teach, based on the data I see. There are times when we often wonder how well they learned this in the grade below or what's expected of them in the grade above. It would be neat to have crossed it

> like that. I think it is called vertical alignment. I would like to come out of it feeling like we accomplished something. Go over the data. Let's pull out the questions and look at them and come away with an idea or a new way to teach it.

Every student benefits from the strengths and expertise of every educator when communities of teachers learn together and are supported by local communities whose members value education for all students (Hord, 2004). Mundry (2005) stated that the ultimate goal of PD is to increase student achievement. Instructional-focused PD supports teachers toward increasing student achievement. It pushes teachers to keep the emphasis on the subject-area content which is relevant to their daily responsibilities. Participant 3 shared the overall work they are trying to accomplish in PLCs by stating,

> We talked about a lot of data and it helps with trying to reflect on how well students did on a certain assignment and it helps to go back and reflect and create new assignments for school-wide improvement. We're really working on bringing up reading scores and math scores so we have up standards that we know our kids have struggled with in the past. We are definitely trying to work on and hone in on those skills to perfect them as a school. We also have a data wall up in our PLCs. And so it helps us to be able to see every grade level and see what they want to focus on and what they feel they need to work on. So we definitely talk a lot about each other's grade level data.

Prilleltensky et al. (2016) stated that a lot of school districts are providing this support through PLCs. Other researchers also report that PD within the context of a school promotes active learning and builds coherence more than traditional venues. Instructional-focused PD emphasizes subject area content as well as student learning outcomes (Quick et al., 2009). Participant 5 stated,

> I think school-wide is looking at the data and that pushes a lot of the school improvement. Tearing the data apart in PLC and looking and seeing where our strengths and weaknesses are what drives what we try and improve on as a school.

Participant 6 stated,

> I think we get school-wide improvement when we learn to talk about data. There is a lot of shame sometimes when we talk about data. It you look at data well it has high impact in school improvement. We taught it and the kids didn't get it. Here is what we need to do to move forward. It can be powerful and help us have school wide improvement. Standardized testing only gives you so much. Unpacking standards, CFA's and analysis is one of the best pictures of how well students are doing.

Branham (2011) supported these results and advocated for professional learning for educators. Branham stated that

> When teachers work together with their colleagues to look at student learning data, use it to determine student learning needs, and then identify their learning needs based on what students need, they design programs that help improve instruction. That's social capital at its finest. (p. 1)

DuFour (2004) stated the importance of focusing on results within a PLC is to have everyone in the school work together to improve student achievement. DuFour also stated that this focus on student achievement is what will bring about the highest results for students. Participants 1, 3, 5, and 6 agreed by stating that a focus on the data and how to improve student learning is most valuable. The results of this research are supported by DuFour who stated that the focus on student achievement will bring about the highest results for students.

The third emerging theme was the use of time and actual productivity of the meetings themselves.

Importance of Productivity in PLC Meetings

Pirtle and Tobia (2014) suggested four norms and guidelines for the PLC meetings. First, arrive at meetings on time and prepared. Second, staff must remain focused on their task and avoid any distractions. Teachers and PLC facilitators must also be willing to openly share their successes and their challenges; and finally, everyone must commit to using the learning they gain from a PLC meeting and carry it over into their classrooms. The last step suggested is that a support of teacher sense of efficacy and level of professionalism must be in place. Pirtle and Tobia stated that when leaders create the conditions where educators support one another's practice in PLCs, teachers feel more confident and develop a strong sense of self-efficacy; they believe in their ability to influence student learning and make a difference in student outcomes and achievement.

Participant 2 continued to state,

> And if I've got to be in a meeting every week I want it to be productive and feel like, okay my time was well spent because there's many things in my classroom I could be doing. I could be working on plans with my teammate that I can't do in there because we have an agenda and there are things we are supposed to do. Because to me that goes back to some of the other questions about collaboration and a collaborative culture. I want to accomplish something and sometimes when we are together in a PLC, things don't always get accomplished.

"Teachers work with school leaders to develop structures, like teacher teams, and common professional protocols for regularly occurring team meetings, including agendas

and procedures for addressing and responding to teachers' concerns about their own instructional practice" (Poulos et al., 2016, p. 9). Participant 3 shared the importance of having norms in PLC meetings by stating,

> I do feel like we always start off with our norms and the norms are how to keep everybody on the same page and how to keep our meetings and collaborative meetings going very fluently so the norms are basically there as a guideline for everybody to follow.

Participant 4 added,

> We value each other's opinions and ideas. We are very respectful. We do have 5 norms that we developed in our PLC and respect was one of them. Everyone on our team is always willing to help one another. We also value the five norms that we made. Some are trust, respect, be on time, so it doesn't force us but we chose those norms so we do them.

Participant 4 also discussed the importance of feeling safe in a PLC:

> On my team, as long as you are speaking to me in a helpful kind of a way, rather than a demeaning way, or telling me I am doing something wrong, then I am fine. Just be respectful when you speak to me. And like in PLCs we feel emotionally safe there.

In addition to the three common attributes participants found important in a PLC, participants also spoke of potential conflict that could arise and hurt the success of their time together. Participant 1 shared, "And first start off with the positives and then what you can improve on. And give suggestions on how I can get better. Specific suggestions and ideas or some activities are best." Participant 2 added,

> I would definitely want somebody to approach me with a very pleasant,

> interested, and concerned tone of voice rather than a defensive in my face pointing fingers and a harsh voice. Because as a teacher to teacher we should be able to speak freely but I would not want the teacher to approach me as an administrator might would say okay you've got a problem in this area.

Participant 3 agreed that being comfortable enables successful conversations:

> The approach is important. Feeling safe would be not in front of a lot of people, not in front of my students, not in front of my colleagues and the way that it is presented to me will make me feel a certain way. I would feel more comfortable if it was more private or something small. Constructive criticism, sometimes it happens too much and you just feel like you're breaking down because it is a lot of constructive criticism and it can be a lot sometimes.

A study by the Center on Education Policy, which interviewed 3,328 public school teachers, found that the majority of teachers feel that their voices are not considered in decision-making within their district or schools (Will, 2016). As discussed in previous chapters, the importance of hearing directly from school personnel is limited. This study examined the perceptions teachers have of their experiences in a PLC and how they contribute to a collaborative culture. It is the hope of the researcher that the study will contribute to the research on the value of including teachers in the process of developing and implementing new programs.

Grade Level Perceptions

While there were three common emerging themes from the study, the researcher noted an additional factor based on the results of the six participants who were interviewed. As noted in Chapter 4, there is a distinct difference in the perceptions of teachers in Grades K-3 and those of the fourth- and fifth-grade teachers. While the

sample size is small, the researcher found that lower-grade teachers perceived their time in PLCs as contributing to the overall collaborative culture; however, the upper-grade teachers perceived the opposite. Hunzicker (2010) discussed six effective characteristics of PD as a way to engage teachers. Teacher learning opportunities should include a supportive environment that addresses the learning needs of schools, classrooms, grade levels, and educators (Hunzicker, 2010, p. 26). Addressing the needs of not only the school but individual grade levels could prove powerful in making PLC meetings more meaningful and effective for upper-grade teachers.

There may be important considerations to effective PLCs when looking at the mode. Question 26 looks at whether teachers are rewarded for experimenting with new ideas and techniques. This question had a mode of 78.6% of the teachers choosing either Strongly Disagree, Disagree, or Undecided when responding to this question. Further investigation of this could result in uncovering whether teachers feel there is an atmosphere of trust with school leadership to try new approaches, not knowing if they will be successful or not. Question 15 found that 85.7% of the teachers responded either Strongly Disagree or Disagree. This question addressed whether teachers are allowed to observe each other. These implications may signal a culture of isolation for teachers that could result in profound improvements in their own teaching and student learning. Finally, over 70% of respondents responded affirmatively to whether the faculty values school improvement.

Barriers

One interesting concept emerged from the study that could result in potential barriers for the success of a PLC and the overall collaborative culture of a school. Several participants spoke about trust within a PLC. Returning to the research presented

in Chapter 1, Leana (2011) sited three ways to build collaboration in a school: build relationships, share planning time, and have shared responsibility. Participant 1 supported this by stating, "I don't feel that it is effective if the team does not get along. That may be the reason they do not collaborate and you don't feel like it is a safe place to share." Participant 2 suggested that the comradery among team members is necessary to build trust by stating, "It is the team members that I have now versus the team I had when there were times when you feel you can't trust to say what you need to say and it not go anywhere." Participant 4 added, "Trust is objective. Trust is not built because of a PLC. We build it when we plan together on our own. We value each others opinions and ideas. We are very respectful." Participant 5 agreed that trust "has to come from within the grade level and it comes from everyday interactions and how we treat one another, and how we think we have been treated and what we perceive as being honest and truthful." This is important to understand and acknowledge and leads to the question of how to build trust among staff members. If trust is not perceived to be accomplished through a PLC, how can administrators help teams build trust outside of the PLC in order for them to be more effective during their time in a PLC? These implications could result in further research about trust within a school and how to build it from the ground up.

Study Limitations

There were several limitations with this study. One limitation to the study was the case study design, because it had a small sample size. A larger sample size could lead to somewhat different data and implications. A second limitation to the study was a focus solely on staff member perceptions of their time in a PLC. This study did not look at the leadership within the school or the effectiveness of the PLC facilitators. These are also important factors in developing a collaborative culture and could be subject to

further research studies. A third limitation was that there was a low consistency rating for the six dimensions of the SCS, particularly Unity of Purpose. Finally, this study only used participants who participated in a PLC for at least 2 years. Hearing the voices of new teachers could also provide important insight into the use of a PLC and how to build trust among the staff.

Recommendations for Further Studies

This mixed-methods case study sought information from a small group of people in one county and one school in North Carolina. There are several recommendations for further study based on the results of the study.

1. This study focused on one school with a small sample size. Expanding this study to all schools within the district may identify additional information that could be used to improve the function and effectiveness of a PLC and school-wide collaboration.
2. This study could also be expanded to include middle and high school PLCs. This would give the district a better overview of the needs of teachers throughout the entire district.
3. This study did not focus on the leadership at the school. A further analysis of the leadership and leadership style could uncover important implications for improvement in district-wide PLCs.
4. This study did not focus on the leadership of the PLC facilitator. All PLC facilitators attend monthly meetings and follow district protocols for PLC meetings; however, the leadership style of a PLC facilitator is not taken into account. An in-depth study of the leadership qualities of PLC facilitators could have important implications for the district.

5. This study focused on the importance of hearing the voice of teachers who are often left out of discussion for school reform and improvement. A larger study population could lend itself to providing more of the teacher voice in future research studies. These results could have a wider impact on the development and implementation of future education reform.

Recommendations for Further Practice

An analysis of the current data gathered from this study shows several implications for further practice. These implications for further practice could result in stronger PLCs and insight into specific needs of the teachers and provide the school and district with areas of improvement for teachers that could lead to improved student performance.

1. This study uncovered the importance of trust among staff members. School leaders may need to focus on building trust among grade levels within grade-level meetings and across the school before staff members can fully benefit from their time in a PLC. When trust is lacking, staff members do not feel they can open themselves up and expose their weaknesses to one another in a way that will benefit the students and overall school growth. The Center for Collaborative Culture and Shared Leadership (2001) in Boston, Massachusetts works to help develop schools into collaborative cultures that strive to improve student achievement. In their 2011 report, researchers determined members of a collaborative culture respect each other, respect and value differences, and are open to the ideas and suggestions of others. Friesen (2009) found that an atmosphere of trust and open communication and dialogue is needed for teachers to begin to collaborate and allow their teaching

to become more public to others. Pirtle and Tobia (2014) stated, "There is mounting evidence of a strong correlation between relational trust in a district and school and student achievement" (p. 4). Pirtle and Tobia also revealed that school leaders must model trusting relationships and provide conditions that allow teachers to be vulnerable and feel safe at the same time. Instructional leaders should be providing nonjudgmental structures and supports to strengthen the collaborative work of faculty and to monitor progress made toward the practical implementation of PLCs.

2. There may be a discrepancy among upper- and lower-grade teachers and their perceptions of their experiences in a PLC. This study showed that the needs of individual grade levels may be different and therefore adjustments will need to be made in order to provide meaningful use of a PLC for all grade levels. Further analysis could help fine-tune and decipher the different needs by grade level. Killion (2012) found that teachers who participated in higher quality collaboration had better achievement gains in math than those with lower quality collaboration.
3. Another important implication emerged from the study. Teachers revealed that they do not observe other teachers. DuFour (2004) stated that although current research shows evidence of success when working in collaborative teams, many teachers continue to work in isolation within their classrooms. Sarason et al. (1986) found that teaching has been described as a lonely profession with few opportunities to collaborate with other school personnel. Killion (2012) stated, "Sustained teacher collaboration about instructional strategies, curriculum, students, and assessment, as well as general

collaboration is the primary vehicle for continuous improvement of teacher practice, for sharing accountability, and collective responsibility" (p. 63). The research showed that teacher effectiveness has to do with the extent teachers work with each other and provide collective leadership for their schools and communities (Killion, 2012). Flinders (1988) reflected on teacher isolation through his research. Flinders revealed that teacher isolation is a condition under which many teachers work. Flinders stated that teachers lack the opportunities to interact with colleagues because of the physical organization of schools. Teachers are also isolated in a psychological sense as they filter and process information within themselves. Friesen (2009) revealed that teachers have worked in isolated classrooms with only brief interludes in the staffroom to discuss professional learning for a long time and that research is clear that teachers improve their practice and hence their effectiveness in the company of their peers.

Conclusion

Based on the findings of this study, teachers perceive three main attributes of PLCs as contributing the most to the overall collaborative culture within the school. These attributes include (a) support, (b) analysis, and (c) productivity.

Research shows that teachers are the single most important factor contributing to the success of a student (Gallagher, 2004). Even though the research is clear, many times, the voices of teachers are left out of the conversation when developing programs such as PLCs. Based on the findings of this study, educational program leaders need to seek out and listen to the voices of teachers when implementing programs in schools. In addition, every school leader should have an understanding of the attributes their staff

feel are most important in their PLC. This transparency can help any school with their growth of the collaborative culture and school-wide improvement. Finally, school leaders must devise ways to build trust among their staff members. The trust that is developed and fostered among grade level teams can have significant impact on student achievement. Based on the findings from this research study, building trust among grade-level teams should be a top priority that begins early in the school year and continues until the last day of school.

References

American Sociological Association. (2013, June 5). Teacher collaboration, professional communities improve many elementary school students' math scores. *ScienceDaily*. Retrieved May 29, 2017, from www.sciencedaily.com/releases/2013/06/130605130219.htm

Anderson-Butcher, D., Lawson, H., Lachini, A., Wade-Mdivanian, R., & Bean, J. (2008). *The Ohio community collaboration model for school improvement. lessons learning from school and district pilots* (pp. 1-48, Rep.). OH: Ohio Department of Education. doi:http://cayci.osu.edu/wp-content/uploads/2015/03/OCCMSIPublicReport_pressquality_reducedfilesize.pdf

Annenberg Institute for School Reform. (2004). *Professional learning communities: Professional development strategies that improve education.* (Rep.). Providence, RI.

Australian Institute for Teaching and School Leadership (2014). *The essential guide to professional learning: Collaboration*. Melbourne: AITSL.

Ballard, K., & Bates, A. (2008). Making a connection between student achievement, teacher accountability, and quality classroom instruction. *The Qualitative Report, 12*(4), 560-580.

Bandura, A., Ross, D., & Ross, S. A. (1961). Transmission of aggression through the imitation of aggressive models. *Journal of Abnormal and Social Psychology, 63,* 575-582.

Berry, B., Daughtrey, A., & Wieder, A. (2009). Collaboration: Closing the effective teaching gap. *Center for Teaching Quality,* 1-10.

Bolam, R., McMahon, A., Stoll, L., Thomas, S., Wallace, M., Greenwood, A., . . . Smith, M. (2005). *Creating and sustaining effective professional learning communities* (Rep. No. 637). London: DfES.

Boston Consulting Group. (2015). *Teachers know best. Teachers' views on professional development* (pp. 1-20, Rep.). doi:https://s3.amazonaws.com/edtech-production/reports/Gates-PDMarketResearch-Dec5.pdf

Branham, L. (2011, September 30). Research show teacher collaboration helps raise student achievement [Web log post]. Retrieved from https://blogcea.org/tag/teacher-collaboration/

Brownell, M. T., Yeager, E., Rennells, M. S., & Riley. T. (1997). Teachers working together: What learning educators and researchers should know. *Teacher Education and Special Education, 20,* 340-359.

Buffum A., Mattos, M., & Weber, C. (2009). *Pyramid response to intervention: RTI, professional learning communities, and how to respond when students don't learn.* Bloomington, IN: Solution Tree.

Center for Collaborative Culture and Shared Leadership (2001). *Turning points: Transforming middle schools. A guide to collaborative culture and shared leadership* (pp. 1-42, Rep.). Boston, MA. (Lummis).

Center for Comprehensive School Reform and Improvement. (2009). Professional learning communities: Information brief. Retrieved from http://www.centerforcsri.org/plc/

Coburn, C., & Russell, J. (2008). Getting the most out of professional learning communities and coaching: Promoting interactions that support instructional improvement. *Learning Policy Brief, 1*(3), 1-5.

Cochran-Smith, M., & Lytle, S. L. (2009). *Inquiry as stance: Practitioner research for the next generation*. New York: Teachers College Press.

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

Culatta, R. (2012). Instructional design. Retrieved from http://www.instructionaldesign.org/theories/andragogy.html

Cunningham, J. (2012). *Defining and evaluation student achievement* (pp. 1-6, Issue brief). Washington, DC: National Conference of State Legislatures.

Darling-Hammond, L. (1997). *The right to learn: A blueprint for creating schools that work.* San Francisco: Jossey-Bass.

Darling-Hammond, L., Hammerness, K., Grossman, P., Rust, F., & Shulman, L. (2005). The design of teacher education programs. In L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp. 390-441). San Francisco: Jossey-Bass.

Darling-Hammond, L., & Richardson, N. (2009, February). Research review/teacher learning: What matters? *How Teachers Learn, 66*(5), 46-53.

Davidson, B., & Dell, G. (1995). *Discovering the meaning of unity of purpose: A case study of fourteen accelerated schools.* (pp. 1-38, Rep.). doi:https://files.eric.ed.gov/fulltext/ED380887.pdf

DuFour, R. (2004). What is a professional learning community? *Educational Leadership, 61*, 1-6.

DuFour, R., DuFour, R., Eaker, R., & Many, T. (2006). *Learning by doing: A handbook for professional learning communities at work*. Bloomington, IN: Solution Tree.

Eaker, R., Keating, J., & Rhoades, M., (2008, November 11). The role of support staff in a professional learning community. *All Things PLC*. Retrieved from http://www.allthingsplc.info/blog/view/38/the-role-of-support-staff-in-a-professional-learning-community

Edmondson, A. C. (2012). *Teaming: How organizations learn, innovate, and compete in the knowledge economy*. San Francisco: Jossey-Bass.

Flinders, D. J. (1988, Fall). Teacher isolation and the new reform. *Journal of Curriculum and Supervision,4*(1), 17-29.

Friend, M., & Cook, L. (2007). *Interactions: Collaboration skills for school professionals* (5th ed.). Boston: Pearson Education Inc.

Friesen, S. (2009). *What did you do in school today? Teaching effectiveness: A framework and rubric.* Toronto: Canadian Education Association.

Fullan, M. (1998). Leadership for the 21st century—breaking the bonds of dependency. *Educational Leadership 55(7),* 6-10.

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

Gallagher, H. A. (2004). Vaughn elementary's innovative teacher evaluation system: Are teacher evaluation scores related to growth in student achievement? *Peabody Journal of Education, 79*(4), 79-107.

Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Piccataway, NJ: Aldine Transaction.

Glickman, C. D. (1993). *Reviewing America's schools: A guide for school-based action* (1st ed.). San Francisco, CA: Jossey-Bass.

Goddard, Y., Goddard, M., & Tschannen-Moran, M. (2007). A theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools. *Teachers College Record, 109*(4), 877-896. Retrieved April 14, 2009, from http://www.tcrecord.org. ID Number: 1287.

Goldberg, A., Herndon, T., Connolly, J., French, D., Lummis, B., Blumer, I., . . . Groover, G. (2001). *Turning points: Transforming middle schools. Guide to collaborative culture and shared leadership* (pp. 1-42, Rep.). Boston, MA. doi:www.turningpts.org

Gruenert, S. (2005). Correlations of collaborative school cultures and student achievement. *NASSP Bulletin 89*(645), 43-55.

Gruenert, S., & Valentine, J. (1998). *School culture survey.* Columbia, MO: Middle Level Leadership Center, University of Missouri.

Gulamhussein, A. (2013, September). Teaching the teachers: Effective professional development in an era of high stakes accountability. Retrieved from http://www.centerforpubliceducation.org/teachingteachers

Guskey, T.R. (1995). Professional development in education: In search of the optimal mix. In T. Guskey and M. Huberman (Eds.), *Professional development in education: New paradigms and practices* (pp. 114-131) New York: Teachers College Press.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to student achievement.* New York: Routledge.

Hewson, K. (2015, April 6). From my students to our students: Collective responsibility of students and teacher efficacy. *The Canadian Journal for Teacher Research - Teacher and Student Efficacy, 1*(2), 29-31.

Hord, S. M. (1997). *Professional learning communities: Communities of continuous inquiry and improvement.* Austin, TX: Southwest Educational Development Laboratory.

Hord, S. M. (Ed.). (2004). *Learning together, leading together: Changing schools through professional learning communities.* New York: Teachers College Press & NSDC.

Hoy, W. K., & Miskel, C. G. (2008). *Educational administration: Theory, research and practice.* New York: McGraw-Hill.

Hunzicker, J. (2010, June). *Characteristics of effective professional development: A checklist.* Peoria, IL: Bradley University Department of Teacher Education.

Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly, 24*(4), 602-611. Retrieved from https://www.jstor.org/stable/2392366?seq=1#page_scan_tab_contents

Killion, J., (2012). *Meet the promise of content standards: Professional learning required.* Oxford, OH: Learning Forward.

King, B., & Newmann, F. (2004). Key link: Successful professional development must consider school capacity. *Journal of Staff Development, 25*(1), 26-30.

Klein, A. (2015). No Child Left Behind: An overview. *Education Week, 34(27),* 1-8. Retrieved from http://www.edweek.org/ew/section/multimedia/no-child-left-behind-overview-definition-summary.html#Definition

Knowles, M. (1984). *The adult learner: A neglected species* (3rd Ed.). Houston, TX: Gulf Publishing.

Knowles, M., Holton, E. I., & Swanson, R. (2005). *The adult learner: The definitive classic in adult education and human resource development.* Burlington, MA: Elsevier.

Leana, C. (2011, Fall). The missing link in school reform [Review]. *Stanford Social Innovation Review, 11,* 1-35.

Lieberman, A., & Pointer Mace, D. (2008). Teacher learning: The key to education reform. *Journal of Teacher Education, 59*(3), 226-234.

Linn, R., Bond, L., Darling-Hammond, L., Hess, F., & Shulman, L. (2011). *Student learning, student achievement: how do teachers measure up?* (pp. 1-70, Rep.). Arlington, VA: National Board for Professional Teaching Standards.

Marchel, C. A. (2007). Learning to talk/talking to learn: Teaching critical dialogue. *Teaching Critical Dialogue, 2*(1), 1-15.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). Thousand Oaks, CA: Sage.

Miller, J. (2012, November 22). Shared experiences: Learn through others [web log post]. Retrieved from https://stickybranding.com/shared-experiences-learn-through-others/

Mitchell, C., & Sackney, L. (2000). *Profound improvement: Building capacity for a learning community* (2nd ed.). London and New York: Routledge.

Mulford, B. (2007). Building social capital in professional learning communities: Importance, challenges and a way forward. In Stoll, L., & Seashore, L. K. (Eds.), *Professional learning communities: Divergence, depth, and dilemmas* (pp. 166-180). London: Open University Press and McGraw Hill.

Mullen, C. A., & Schunk, D. H. (2010). A view of professional learning communities through three frames: Leadership, organization, and culture. *McGill Journal of Education, 45,* 185-203.

Mundry, S. (2005). Changing perspectives in professional development. *Science Educator, 14*(1), 9-15.

National Commission on Teaching and America's Future. (1996). *What matters most: Teaching for America's future.* Report of the National Commission on Teaching and America's Future (pp. 1-161, Rep.). New York, NY: Carnegie Corporation.

Neff, L. S. (n.d.). Lev Vygotsky and social learning theories. Retrieved from https://jan.ucc.nau.edu/lsn/educator/edtech/learningtheorieswebsite/learningtheories.html

No Child Left Behind Act. (2001). Retrieved March 3, 2009, from www.ed.gov/policy/elsec/leg/esea02/pg.1.html#sec1001

Perez, J. (2015, January 7). Taking the doors off the classroom through collaboration. *HotChalk Education Network*, 1-3. Retrieved from www.hotchalkeducationnetwork.com

Pirtle, S. S., & Tobia, E. (2014, Winter). Implementing effective professional learning communities. *SEDL, 2*(3).

Porter, A., Garet, M., Desimone, L., & Birman, B. (2003). Providing effective professional development: Lessons from the Eisenhower program. *Science Educator, 12*(1), 23-40.

Poulos, J., Culbertson, N., Piazza, P., & D'Entrement, C. (2016). *Making space: The value of teacher collaboration* (pp. 1-23, Rep.). Boston, MA: Edvestors.

Powell, W. (n.d.). U.S. Department of State. Diplomacy in Action. Chapter 5: Collaboration (pp. 1-8). doi:https://www.state.gov/m/a/os/43980.htm

Prilleltensky, I., Neff, M., & Bessell, A. (2016). Teacher stress: What it is, why it is important, how it can be alleviate it. *Theory into Practice, 55,* 104-111.

Queensland Council of Social Service. (n.d.). What is collaboration and collaborative practice? [Web log post]. Retrieved February 20, 2018, from https://communitydoor.org.au/organisational-resources/collaboration/what-is-collaboration-and-collaborative-practice

Quick, H., Holtzman, D., & Chaney, K. (2009). Professional development and instructional practice: Conceptions and evidence of effectiveness. *Journal of Education for Students Placed at Risk (JESPAR), 14*(1), 45-71.

Rarieya, J. F. (2005). Reflective dialogue: What's in it for teachers? A Pakistan case. *Journal of In-Service Education, 31*(2), 313-336.

Rebora, A. (2011). Guidelines on teacher learning revamped. *Education Week. Teacher PD Sourcebook, 4*(1), 4.

Rentfro, E. R. (2007, Winter). Professional learning communities impact student success. *Leadership Compass, 5*(2), 1-3.

Richardson, V. (2003). The dilemmas of professional development. *Phi Delta Kappan, 84*(5), 401-406.

Rivers, J. C., & Sanders, W. L. (2002). Teacher quality and equity in educational opportunity: Findings and policy implications. In L. T. Izumi & W. M. Evers (Eds.), *Teacher quality* (pp. 13-23). Stanford, CA: Hoover Press. Retrieved December 6, 2007, from http://media.hoover.org/documents/0817929320_13.pdf

Sarason, I. G., Sarason, B. R., & Shearin, E. N. (1986). Social support as an individual difference variable: Its stability, origins, and relational aspects. *Journal of Personality and Social Psychology, 50*(4), 845-855. Retrieved from http://dx.doi.org/10.1037/0022-3514.50.4.845

Scott, A., Clarkson, P., & McDonough, A. (2011). Fostering professional learning communities beyond school boundaries. *Australian Journal of Teacher Education, 36*(6), 1-17.

Sparks, D. (2002). *Designing powerful professional development for teachers and principals.* Oxford, OH: National Staff Development Council.

Strauss, C. A. (1998). Grounded theory methodology: An overview. In *Strategies of Qualitative Inquiry* (pp. 158-183). Thousand Oaks, CA: Sage Publications.

Styron, R., & Nyman, T. (2008). Key characteristics of middle school performance. *National Middle School Association, 31*(5), 1-17.

Toole, J. C., & Louis, K. S. (2002). The role of professional learning communities in international education. In K. Leithwood & P. Hallinger (eds), *Second international handbook of educational leadership and administration.* Dordrecht: Kluwer.

Trochim, W. (2006, October 20). Qualitative approaches. Retrieved from https://www.socialresearchmethods.net/kb/qualapp.php

U.S. Department of Education. (1997). *Turning around low-performing schools. A guide for state and local leaders* (pp. 1-79, Rep.). Washington, D.C.

University of North Carolina at Charlotte. (2013, June 7). Teacher collaboration, professional communities improve many elementary school students' math scores. *ScienceDaily*. Retrieved December 29, 2017, from www.sciencedaily.com/releases/2013/06/130607160331.htm

Valentine, J. (2006). *A collaborative culture for school improvement: Significance, definition, and measurement* (pp. 1-7, Rep.). Westerville, OH: Middle Level Leadership Center.

Vandevoort, L. G., Amrein-Beardsley, A., & Berliner, D. C. (2004, August 8). National board certified teachers and their students' achievement. *Education Policy Analyses Archives, 12*(46), 1-117.

Vygotsky, L. S. (1962). *Thought and language*. Cambridge: M.I.T. Press, Massachusetts Institute of Technology.

Walker, T. (2013). No more "sit and get": Rebooting teacher professional development. *NeaToday*, 1. Retrieved from http://neatoday.org/2013/04/29/no-more-sit-and-get-rebooting-teacher-professional-development/

Will, M. (2016, May 4). Teachers feel their voices aren't heard in policy discussions, survey finds [Web log post]. Retrieved from http://blogs.edweek.org/teachers/teaching_now/2016/05/teacher_voices_study.html

Wong, H. K. (2003). Collaborating with colleagues to support student learning. In A. L. Breaux (Ed.), *New teacher induction: How to train, support, and retain new teachers* (pp. 1-3). Saratoga, CA: Harry K. Wong. Retrieved from http://www.enc.org

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage Publishing.

Appendix A

Quality Teachers 2016-2017

	Total Number of Classroom Teachers	Fully Licensed Teachers	Teachers with Advanced Degrees	National Board Certified Teachers
School	45	100%	44.4%	3
District	40	96.80%	34.6%	3
State	34	96.30%	29.80%	4

Appendix B

Quality Teachers 2016-2017

	Years of Teaching Experience	Years of Teaching Experience	Years of Teaching Experience	Teacher Turnover Rate
	0-3 years	4-10 years	10+ years	
School	13.3%	22.2%	64.5%	9.1%
District	18.5%	25.1%	56.4%	14.5%
State	21.5%	27.4%	51.1%	12.90%

Highly Qualified Teachers: Percentage of classes taught by Highly Qualified teachers as defined by federal law.

School	100.0%
District	98.8%
State	98.5%

Appendix C

School Profile

Class Size

Grade	Our School	Our District	State
Kindergarten	15	19	19
Grade 1	19	19	19
Grade 2	18	19	19
Grade 3	19	19	19
Grade 4	17	21	28
Grade 5	19	21	20

School Size

	Our School	Our District	State
	511	567	498

School Attendance

	Our School	Our District	State
	95.5%	94.0%	95.1%