Implementing a Professional Learning Community in a Private School in the Dominican Republic: An Instrumental Case Study

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IMPLEMENTING A PROFESSIONAL LEARNING COMMUNITY IN A PRIVATE SCHOOL IN THE DOMINICAN REPUBLIC: AN INSTRUMENTAL CASE STUDY

by

Miguelina Adelaida Coronado Cornelio

A dissertation submitted to the Graduate College
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
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The initiative of turning schools into Professional Learning Communities (PLC) is being implemented by many schools and school systems in different countries. PLC processes have shown to be successful in enhancing teachers’ and students’ learning (Gumus, 2013; Michalak, 2009; Mullen & Schunk, 2010). The fact that the Dominican Republic (DR) is committed to improving the quality of education, the implementation of PLC processes seems to be a compelling option to reach this goal. The Dominican Ministry of Education has followed the guidelines that research in the U.S. and other countries have set and has recently adopted PLCs’ features and processes through an initiative that promotes teacher collaboration and continuous learning (Instituto Nacional para la Formación y Capacitación del Magisterio, 2016).

Since the adoption of this research-based initiative is recent in the DR and highly contextual, this study examined the issues that a Dominican early adopter school experiences as it changes to a different operational method and responds to those issues. The study was conducted as an instrumental case study using a mixed methodology to obtain a thorough description of the PLC’s implementation and how stakeholders experienced the changes inherent to it. More specifically, the study focuses on identifying the issues the stakeholders encounter in the process, how they solve those issues, and the current status of the school’s implementation strengths and weaknesses.

The qualitative data were obtained through semi-structured interviews with teachers, school leaders, and a focus group to develop a thorough description of the factors that
stakeholders encountered that either detract or facilitate the PLC processes’ implementation in the Dominican context. The quantitative data were obtained through the administration of the instrument: Professional Learning Community Assessment-Revised (PLCA-R) (Hipp & Huffman, 2010). This instrument measured the level of implementation of the PLC dimensions by identifying its strengths and weaknesses at the practice level. The qualitative data revealed: (a) the PLC process’s complexity because teaching and learning require adjustments and adaptations; (b) teacher decision-making was limited to the instructional planning level because the leadership team makes the decisions at the school operations level; (c) PLC processes develop a collaborative culture and require teachers to open themselves to new ideas and strategies, make decisions in collaborative teams, and support each other’s learning and growth; (d) an environment in which prevails trust, honesty, ethics, and authenticity promote positive interactions that lead to teacher learning and professional growth, even though some teachers resist open sharing and acknowledgment of weaknesses; (e) ongoing support, feedback, and communication are fundamental to implement PLCs.

Results of the PLCA-R teacher survey revealed both areas of strength and weakness for the current state of PLC implementation in the case school system. The weaknesses were shared leadership and the level of trust. Shared leadership did not develop as well as the other dimensions because administrators limited teachers’ decision-making to the instruction level. Additionally, teachers’ level of trust was not yet well developed.

Despite the weaknesses and issues, the PLC promoted a culture of collaboration, job-embedded professional learning, a more student-centered approach, greater use of student data to inform instruction, and application of research-supported instructional practices, especially those that increase student engagement and differentiation for student learning needs. However, these
results make evident that in the Dominican context, the change in culture that a PLC requires (i.e., the change from teacher isolation to collaboration, communication, and trust among teachers and between teachers and school leaders) may require special attention in the PLC implementation process. Results of this study also suggest that teachers and school leaders in the DR have little or no experience in sharing leadership. This can interfere with the development of the PLC in its full capacity if not addressed by both teachers and school leaders in the early stages of implementation.
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A moment that I have cherished for a long time is already here. The opportunity to complete a Ph.D. came to my life as a blessing from Heaven. For this reason, today, I have to thank God, My Lord, in the first place. He has given me the strength to be consistent and to persevere despite the challenging moments. As a lifelong learner, I committed to this journey with enthusiasm, passion, and joy, but this is not something that one can accomplish alone. Some people have left their footprints along the way. Those who were there for me, I thank you today, and I will always keep you in my heart and memories.

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Miguelina Adelaida Coronado Cornelio
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CHAPTER 1
INTRODUCTION

The Dominican Government is aware of the importance of having a well-educated population. They believe that a country’s progress cannot be achieved apart from the progress of its people. In fact, it needs to start with them. For this reason, the Dominican constitution states that education is a right, and it is the government’s responsibility to create an educational system that is efficient, effective and can provide quality instruction (Constitución de la República Dominicana, 2010). Specifically, the Dominican constitution states: Every person has the right to an integral education, of quality, permanent, in equal conditions and opportunities, without other limitations than those derived from their aptitudes, vocation, and aspirations (p. 33). Based on this principle, the Dominican Government is committed to improving the Dominican people's quality of education. Because of this commitment, the government has invested many resources and taken many measures. However, given that Dominican students continue to score lower in standardized tests than students from other countries of similar economic and developmental conditions (Hausmann, Hidalgo, & Jimenez, 2011), many educators and policymakers believe there is a critical need for more robust measures and initiatives. Thus, looking at what other countries have done successfully to enhance student learning seems crucial to reach quality education in DR.

Research studies conducted in the U.S. and other countries suggest that ongoing professional development based on a team learning approach positively impacts teaching and learning. Because of such research findings, teacher teaming and collaboration processes are becoming an important strategy for increasing education quality (Vescio, Ross, & Adams, 2008). This interest in collaborative teaching processes is directly influenced by the results of many
studies indicating an increase in student achievement when teachers work collaboratively in teams to develop their skills and knowledge (Angelle, 2010; DuFour & Eaker, 1998).

This study examined the implementation of a model for developing a culture, a system, and processes for ongoing collaborative work by teams of teachers. This model, commonly called the Professional Learning Community (PLC) model (DuFour & Eaker, 1998), is a new approach for organizing teachers in the Dominican Republic. This instrumental case study examined how educators in an early adopter Dominican school experienced and adapted to the change in professional and cultural norms required to adopt the PLC process, in order to learn if and how existing systems, processes, and school culture in the DR either detract from or support PLC implementation.

**Background**

The PLC model emerged as a focus in the United States educational research literature in the late 1980s, with a study by Rosenhultz (1989). Since its introduction, several researchers have confirmed that the PLC model for professional engagement among teachers promotes schools’ effectiveness by improving student learning (Berry, Johnson, & Montgomery, 2005; Bolam, McMahon, Stoll, Thomas, & Wallace, 2005; Hollins, McIntyre, DeBose, Hollings, & Towner, 2004; Owen, 2015). The PLC process requires teachers to work together collaboratively to focus on, among other things, student learning, motivation, and achievement. One such study found that when teachers utilize the PLC process effectively, student achievement increases because teachers work together to share their expertise and reflect on their practice in a collaborative process that promotes their professional growth (Mullen & Schunk, 2010).

Mullen and Schunk (2010) explain the PLC model through three theoretical frames: (a) leadership, (b) organization, and (c) culture. They found that leadership in PLCs must be
transformational and shared between administrators and teachers and that leaders should focus on improving the school through a learning process for both teachers and students. The teacher learning process is based on collaboration, the reflection of practice, and sharing. Mullen and Schunk’s second frame relates to the PLC organization, through which a school provides a compelling strategy to bring change to schools by establishing organizational structures that support collaborative processes. According to Mullen and Schunk, PLCs are not limited to schools. They work for a group of schools, the schools of a district, and other types of partnerships or networks.

Since the PLC model encompasses change, the final frame of the Mullen and Schunk (2010) model is about transforming the culture of a school community. In these communities, goals are shared, and teachers’ isolation changes to teamwork and collaboration to improve teacher capacities and effectiveness. In schools that implement PLCs as the primary means for fostering reflective practice and professional growth, the culture shifts from the traditional individualism of teaching practice to collectivism, whereby teachers share responsibility for mutual growth and development. This cultural shift is possible because the school establishes both the expectation and the means for teachers to work together regularly. Vescio, Ross, and Adams’ (2008) findings confirm that the school requires a change in other school systems and processes, or culture to implement the PLC process with fidelity when adopting the PLC model.

Research in the U.S. has demonstrated that implementing PLCs can increase teacher capacity, efficacy, effectiveness, and improved student outcomes when implemented well (DuFour & Eaker, 1998; Erdem & Uçar, 2013). According to Senge (2006), this school organization model offers educational institutions a way to become learning organizations (Senge, 2006) that enhance teaching, thus promoting the quality of education. Since the
Dominican government is committed to improving the quality of education delivered, adopting a strategy based on team learning may be a compelling way to reach this goal (*Instituto Nacional para la Formación y Capacitación del Magisterio* [INAFOCAM], 2016).

Recently, INAFOCAM released the School-Centered Continuous Development Strategy (*Estrategia de Formación Continua Centrada en la Escuela*, 2016), which encourages innovation and school-embedded professional development, similar to the PLC model. However, since the implementation is in its early stages, government efforts aim to expand and deepen the implementation scope. As with any innovation or evidence-based strategy, the education community needs time to respond, and early adopters learn from it.

**Problem Statement**

Studies that have addressed the quality of Dominican K-12 education have indicated Dominican students’ scores on standardized tests are lower than other countries of similar economic and developmental conditions (Alvarez, 2000; Hausmann et al., 2011; *Tercer Estudio Regional Comparativo y Explicativo, Resumen Ejecutivo*, 2013). To reverse this trend, the Dominican government has committed to improving the education delivered to the people by investing resources in different areas of the public education sector and creating strategies, policies, regulations, and law. Despite these commitments, however, Dominican students have continued to score low on standardized tests. Thus, more robust measures, more effective initiatives, and consistent follow-up are needed. As a result, the DR government has looked at what other countries are doing (*Instituto Nacional para la Formación y Capacitación del Magisterio*, 2016).

One of those countries to look up is the US, where research has clearly associated student learning with such factors as the school's organization, leadership style, teaching style,
curriculum, culture, and values. These studies suggest that improving student outcomes in the DR will require a combination of research-supported strategies. Among these strategies, the PLC model offers much promise for creating school culture and processes in Dominican schools that increase teacher development, autonomy, and collaboration. Besides, efforts have been made to change the hierarchical culture of the Dominican education system (Alvarez, 2000) that has been characterized by teacher isolation. This organizational structure runs counter to a PLC culture, which encourages educators to work cooperatively and learn from one another to enhance student learning (Mullen & Schunk, 2010). Despite the government's efforts, student achievement is still low, making it necessary to continue reinforcing and improving the measures already taken and creating new ones. Hence, the interest in reducing teacher isolation and increasing teacher autonomy and efficacy through the incorporation of the PLC process into Dominican schools' organizational structure.

**Practical Problem**

The National Pact for the Educational Reform 2014-2015 emphasizes the importance of the life-long learning process of teachers. Additionally, INAFOCAM created a strategy that promotes continuous teacher education and professional development. Basically, they state that significant professional development is based on data from which teachers can identify both their student learning needs and their own. Since teacher professional development must be continuous and collaborative, INAFOCAM has created a program called *Estrategia de Formación Continua Centrada en la Escuela* (EFCC), to promote continuous, collaborative teacher learning (*Instituto Nacional para la Formación y Capacitación del Magisterio*, 2016). This initiative is supported by the Regulations for Quality Teacher Training published in 2015 by the Ministry of Higher Education, Science, and Technology (MESCYT, acronym in Spanish).
The EFCC and MESCOY regulations are aligned with research on school improvement and the actions taken by other countries to improve their student outcomes. Educational institutions are more efficient when they work with a shared vision and as learning organizations promoting collaborative work and providing a space for reflection of practice (Senge, 2006). In other contexts, the PLC approach has provided a platform for schools to work collaboratively and for staff and leaders to learn from one another to enhance the quality of teaching, thus increasing student learning (DuFour & Eaker, 2015; Mullen & Schunk, 2010).

In response to the evidence that the PLC process can foster professional growth for teachers that result in improved student outcomes, the government-sponsored educational improvement initiatives directly focus on bringing the PLC process to Dominican schools. Efforts to establish the PLC process as part of a multi-faceted improvement strategy are in the early stages of implementation and development, especially in the public sector. Simultaneously, the features of hierarchical organizational structures that predominated in the Dominican educational system until very recently are still intact within most Dominican schools. Such a hierarchical structure does not facilitate or align with implementing PLCs and the change in culture that this implementation requires (Ministry of Education, 2013; Vescio, Ross & Adams, 2008).

**Researchable Problem**

Given that the initiative to implement the features of the PLC model in Dominican public schools is in its early stages, there has been little or no information about how schools in the public or private sector of Dominican education respond to government-sponsored initiatives to change school cultures and organizational structures. Further, it was not known how Dominican schools that have established or are in the process of implementing PLCs are experiencing and
addressing issues that can come up with this type of change initiative. Because the Dominican K-12 educational system comprises a combination of private and public schools, it is possible that PLC implementation for early-adopters Dominican schools can be both similar and different in specific ways.

The PLC approach has been employed extensively in other countries to increase teaching and learning quality with some impressive results (Gumus, 2013; Michalak, 2009). Such results indicate that PLCs can be a promising strategy for Dominican schools as well. However, implementing a change of the magnitude that is required to implement PLCs well can be difficult, especially when the prevailing organizational structures and norms are more aligned with and designed to sustain a hierarchical system in which teachers primarily work in isolation and share little decision-making with either the school administration or each other. Thus, there is a need for early exploratory studies that examine how Dominican schools experience the shift to a different operational model through the PLC process. The transition to becoming a school characterized by shared leadership and collaborative learning and improvement has been studied in the U.S. context, but not yet in the Dominican context. Moreover, Dominican schools may experience variations in transitioning to a PLC school, depending on whether they are part of the Dominican private or public education system.

Dominican schools implementing PLCs may be facing issues. Identifying and describing them early on could enlighten the process for other schools in the DR. Since the nature of implementing any significant change in schools is highly contextual (Vescio, Ross, & Adams, 2008), research on the implementation of PLCs in Dominican schools could serve to isolate some issues that the early adopters encounter, draw insights from how early adopters respond to those issues and isolate factors that either facilitate or hinder the ability of Dominican schools to
adapt to the PLC process and/or adapt the PLC process to the Dominican context. Furthermore, it is not clear how Dominican schools that are trying to implement the PLC process (or any similar teacher teaming process) are adhering to the six dimensions of PLCs: (a) shared and supportive leadership, (b) shared values and vision, (c) collective inquiry and application, (d) shared personal practice, (e) supportive conditions-relationships, and (f) supportive conditions-structures (Hipp & Huffman, 2010). No previous studies had addressed the issues that Dominican schools (whether public or private) encounter as they change from a traditional hierarchical type of organization to a PLC type organization characterized by shared decision-making and collaborative learning.

**Purpose Statement**

Given the need for studies addressing issues that Dominican schools encounter as they change from a traditional type of organization to a PLC and knowing that in the early stages of any new improvement initiative, it is essential to identify the issues that schools encounter and how they respond to those issues (Mullen & Schunk, 2010), the purpose of this research study is to describe the implementation process and status of an instrumental case study of a Dominican school that has recently made a multi-year commitment to implement the PLC process. For this instrumental case study, I identified a private school with sufficient experience implementing the PLC process to inform the case description and analysis. In the Dominican context, private schools tend to be the earliest adopters of change initiatives for many reasons, including more decision-making autonomy at the school level. Thus, for this study, recruiting a school’s participation well into PLC implementation was more feasible.

This mixed-methods, instrumental case study offers a detailed, multi-perspective description of the case school’s experience implementing the PLC model for professional staff
engagement and school operations. The study’s qualitative strand focuses on developing a multi-perspective description of the case study school’s experience implementing the PLC process. Within this description, this study illuminates the issues that teachers and school leaders in the sample school encounter in the process of implementing the PLC process and how they respond to those issues. For the quantitative strand of the study, I utilized a validated descriptive instrument to develop a profile of the PLC implementation status within the case study school at the time of the study. This profile provides a contextual picture of the case study school’s implementation status and strengths and weaknesses that teachers perceive in each of the PLC implementation dimensions and their attributes. The PLC dimensions are: (a) shared and supportive leadership, (b) shared values and vision, (c) collective learning and application, (d) shared personal practice, (e) supportive conditions-relationships, and (f) supportive conditions-structures (Olivier, Hipp & Huffman, 2010). This portion of the study helps triangulate information derived from the qualitative data sources and add another dimension to the full case description. It also enabled me to engage as many teachers as possible in addition to those who participate in the one-on-one and focus group interviews. In cross-analyzing the data from both the qualitative and quantitative sources, I was particularly interested in how the descriptions of the school’s PLC implementation process related to the profile of its implementation status and revealed any connections between the implementation issues identified by case study participants and the picture of implementation strengths and weakness revealed by the teacher survey.

Research Questions

As a mixed-method study, there are two overarching questions, one quantitative and one qualitative.
**Quantitative Research Question**

The quantitative research question that I address is: What do the responses of case study school stakeholders on the Professional Learning Community Assessment (PLCA-R) instrument identify as the strengths and weaknesses in the school’s implementation of each of the PLC dimensions and attributes at the time of the study?

**Qualitative Research Questions**

The overarching qualitative research question is: What does the process of implementing the PLC professional engagement model look like in an instrumental early adopter school in Santo Domingo, Dominican Republic? For this study, the Dominican early adopter PLC school participating serves as an individual case for this instrumental single-case mixed-method study.

The following sub-questions guided an in-depth exploration of their experiences:

1. How do various stakeholders in the case study Dominican school account for the decision to implement the PLC model (i.e., Who decided and why? How was the decision communicated and enacted)?

2. How has the process of implementation transpired from initial school commitment to the time of the study?

3. What issues have the study participants encountered as they implement the PLC model?

4. How do the case study participants describe their response and the school’s response to those issues? Which issues have they be able to resolve; which have they not been able to resolve?
5. What changes do teachers describe in their professional relationships with each other, their principal, other staff, students, and parents as they work to implement the PLC process?

6. What changes in teaching do the teachers and principals describe as a result of implementing the PLC process?

7. What changes do the principals describe in their role as the school leader and their professional relationship with teachers, other staff, students, and parents as they implement the PLC process?

8. What connections can be identified between the PLC implementation issues identified by case study participants and the strengths and weaknesses revealed by the teacher survey?

**Conceptual Framework and Narrative**

The conceptual framework presented in Figure 1 (below) illustrates the study's big picture and its main features. It begins at the left side of Figure 1 graphic with a blue box representing early attempts to introduce the PLC collaborative process into Dominican teachers’ practice. Specifically, the box represents the case study of PLC's early adopter school. It is connected first to a light orange box representing the shared values and vision that the school has established as a first step in the PLC implementation process. Shared values and vision is an essential dimension of the PLC process because it is necessary that all members of the community work towards the same goal while shared values and vision are preferably established to guide PLC work; the PLC process can also serve to deepen, solidify, and clarify shared values and vision as teachers work together to carry out the mission of the school.

Whereas the Dominican education system has been slow to acknowledge and pursue changes
that increase teacher collaboration and reduce reliance on hierarchical structures to achieve quality, both the Ministry of Education and individual schools have started to consider and introduce team learning and collaboration into the work of teaching and the norms of teacher practice. The dashed lines in Figure 1 enclose the features of the process that I want to study. Having access to an early adopter school in the DR provides the perfect opportunity to develop a case study description of the Dominican context's PLC process.

A connecting arrow in the Figure 1 graphic joins the PLC early adopter school with the word “experience” because the study seeks a thick description of the experience teachers and leaders have had during the implementation process. These experiences involve a change in many school processes and structures. Thus, the word “change” is connected with the other five dimensions of the PLC process, like Olivier et al. (2010) define. These dimensions characterize the PLC process's critical features and provide a conceptual lens to create a profile of the case study school. To apply this lens, I used a teacher survey that determined the extent to which the school is working as a PLC and how the individual attributes of the dimensions are either strengths or weaknesses in the school's PLC process. This same set of five PLC implementation dimensions also served as an interpretive lens for analyzing the qualitative data in this case study. Profound change must occur in all aspects of the school to develop the PLC dimensions to the fullest. According to DuFour and Eaker (1998), if the focus of this change to the PLC process is directly on student achievement, the school is likely to improve its achievement profile, gain more parent support, and provide more satisfaction for teachers in their work.

The box labeled “teachers” connects with the dimensions of shared personal practice, collective learning, and relationship building. Leaders, who are the catalysts of this process, relate to the dimensions of relationship building, supportive structures, and shared leadership
because leaders must support the collaborative work of teachers by creating structures that facilitate collaboration and promote honest relationships, as well as empowering teachers to make decisions as they share their leadership. The principal's role in a PLC is one of a transformational leader who envisions the path and serves as a guide and facilitator of the change (Gumus, 2013). Finally, the goal in a PLC is to prepare teachers to accomplish their work efficiently and effectively and to improve student achievement. This learning process of the teachers will produce a transformation of the school (Choi, 2015). The concept of professional learning is connected to both teachers and school leaders because the former are compelled to learn continuously to improve their practice, while the latter need to support this process by developing a culture that supports continuous learning for all. While professional learning refers to the actions teachers engage in to improve their practice with the goal of increasing student
achievement (Sheninger & Murray, 2017), it can also refer to the actions leaders take to improve their practice and support the growth of teacher practices at the same time.

Collaboration is a significant feature of PLCs. The collaborative process involves teachers working with other teachers to develop teaching skills and sharpen or acquire new strategies to enhance practice. Furthermore, teacher leadership is a cornerstone in PLCs because decision-making concerning teaching and learning is put in the teachers' hands with the principal acting as the agent of teacher engagement and, ultimately, shared leadership by engaging with and supporting the PLC teams. The word “issues” is connected to “change” because this study will identify situations that the early adopter school encounters as it implements the PLC process as the mechanism for change.

The PLC model is grounded in theories that work as the foundation of this study. The blue bars surrounding the process inside the dashed lines of Figure 1 represent Senge’s (2006) Theory of Learning Organizations; Mezirow’s Theory of Adult Learning (1983); Bush’s Theory of Collegiality (2003); Nordin’s (2016), and Sachs’ (2016), and Vanassche and Kelchtermans’ (2016) Theories of Teacher Professionalism. These theories served as part of the interpretive lens for understanding how the process of implementing PLCs is playing out in one Dominican school selected as an instrumental case, and for interpreting where and how the school encounters and responds to issues that are related to implementing the PLC process in the Dominican educational context.

**Significance of the Study**

The pursuit of quality in the education sector has led both the Dominican government and the private education sector to look for an alternative to schools' traditional hierarchical organization. Not much information is available yet about Dominican private schools, but it is
known that recently, the Ministry of Education is leading the way with the adoption of new initiatives and strategies to implement features of the Professional Learning Community. The implementation of PLC processes seeks to improve the teaching and learning processes. Research has confirmed that PLCs help develop teaching skills, and, as a result of the improvement in teaching, students' achievement also improves (Erdem & Uçar, 2013). However, implementing PLCs in schools sometimes requires a change in other school systems, processes, or culture to implement PLC with fidelity.

This study was designed to learn if and how existing systems, processes, and school culture in the Dominican Republic either detract from or support PLCs' implementation. Additionally, this study helps learn how schools work through or around detracting or inhibiting circumstances from implementing PLCs with fidelity. Finally, this study provides some early insight into how implementing the PLC process changes the roles and professional relationships within the school.

This single case study was conducted in one of the Dominican private school systems because that was the context in which the researcher could gain full access to the staff and leaders of an early adopter PLC school. Since a significant portion of the Dominican K-12 educational system still operates in the private sector but within most of the government education policy structures, this case provides essential insights that apply across the Dominican education system to some extent, acknowledging that eventually, similar case studies should be conducted with both public and private early adopter schools. The perspectives of multiple players in the case study school, the insights, and the situations they encounter in the PLC process may guide other schools and facilitate their way to PLC implementation.
Methods Overview

This instrumental case study used a mixed-method approach. Mixed methods case studies seek a thorough understanding of specific phenomena within a specific context and use qualitative and quantitative methods (Plano Clark & Ivankova, 2016). In this study, the phenomenon is implementing the PLC process, and the context is an instrumental case, early adopter school well into the implementation process. Blending quantitative and qualitative methods facilitated an even more profound understanding of an early adopter school’s current state and transition experience in becoming a PLC school. Of particular interest to this study was how the school experiences implementing the PLC process and solve the issues that emerge as it implements or follows-up with those processes.

The qualitative data was obtained from individual semi-structured interviews with teachers and leaders and a focus group discussion. The researcher’s reflexivity is included to avoid bias and was facilitated by memoing and bracketing during data collection and analysis. The quantitative data was obtained through the administration of the instrument, Professional Learning Community Assessment-Revised (PLCA-R) (Olivier et al., 2010). The data provided by the PLCA-R was analyzed to determine the level of implementation of the five PLC dimensions (i.e., the school’s current state of PLC implementation), based on teacher ratings of the extent to which teachers agree that various aspects of each dimension of the PLC process are in place in the school. This survey's yield identified some of the strengths and areas needing further attention in the PLC implementation process. A cross-analysis of both qualitative and quantitative results was intended to find if and how connections exist between the identified issues revealed through the qualitative data and the PLC dimensions’ strengths and weaknesses measured with the PLCA-R.
Chapter 1 Closure

Chapter I provides a broad vision of the study, the background information it was based on, the purpose, and the methodology that will guide the investigation. This study was designed to obtain an in-depth knowledge of the issues that Dominican schools face as they change from the traditional organization of schools to a culture of collaboration and a team-learning approach to improve students’ achievement via continuous professional learning of their teachers.

Chapter 2 begins with the Dominican education system’s history and its current situation to provide context for the study. Then, it continues with a review of the literature on change, schools’ organization, PLCs, and the role that leadership and culture play in PLC implementation and follow-up. Chapter 3 explains the methodology and procedures used to research, and Chapters 4, 5, and 6 present the findings, a description of the case analysis, and a conclusion.
CHAPTER 2
LITERATURE REVIEW

The Dominican Republic is a developing country amid an educational revolution. Suggestions for improving education in the DR are plentiful. However, with each call for change comes a simultaneous avalanche of new strategies that claim to be the solution for effective teaching and learning (Green, 2000). As a result, school leaders are faced with the problem of deciding what direction they should take. However, this is not a task for just one person because making the best decision requires well-informed stakeholders (Angelle, 2010).

One way to encourage shared stakeholder participation is by adopting a collegial model of organization (Bush, 2003). This model is most appropriate for educational institutions versus other leadership models because the collegial model takes advantage of the knowledge and experience of the different constituents who would be affected by the change. Dominican educational institutions could embrace Senge’s Theory of Learning organization to increase their effectiveness and thereby student achievement by implementing an organizational model that promotes collective learning in an environment of trust and respect (Angelle, 2010). By implementing a form of collegiality known as distributed leadership, school leaders share their vision, goals, and decision-making with other stakeholders of the institution (Angelle, 2010; Connolly, James, & Beales, 2011; Lee, Robert, & Smith, 1991; Spillane, Halverson, & Diamond, 2001).

This literature review begins with a brief history of the Dominican education system and an overview of DR student achievement to provide a historical context for the present study on the usefulness of PLCs in DR schools. After that, the literature review on organizational change sheds light on how adopting new strategies or initiatives requires facing challenges, changing
mental models, and going through a process of adaptation. Next, the literature on school organization explains how educational institutions design their organizational structure to be more efficient and productive and if and how this can impact student achievement. Following how the literature explains schools' organization, presenting the research on PLC indicates how this is a way of organizing schools that increase teacher effectiveness and student achievement. Finally, the review of existing findings on leadership and culture clarifies how in PLCs, leaders' role is crucial to produce change, not only in the stakeholders but also in the culture of the schools.

**A Brief History of the Dominican Education System**

The DR has suffered multiple setbacks during its quest for independence. Both the Haitians, who wanted this territory, and the Spaniards, who wanted to keep it as a colony, were continuous threats to the Dominican people's sovereignty. Even after Dominicans gained their independence in 1844, Haitians continued battling to gain the territory. This fact limited the new Dominican government's capacity and the ones that followed it to invest resources in anything else but a strong military to maintain independence (Sadler & Wilson, 2013).

Despite this limitation, the new government turned its attention to educating its citizens. The formal public education system began with the primary level in 1845, and a year later, in 1846, higher grade levels were added. New programs of studies were also created and distributed by “commune and provincial county towns” (p. 14). By 1855, a new education law passed, and other laws soon followed during the governments of Pedro Santana and Buena Ventura Baez (Sadler & Wilson, 2013).

In 1861, the DR was briefly annexed to Spain again, but it gained its independence in 1865. This period was one of many changes in all aspects of life: political, social, and economic.
During this time, the public education system was reorganized, and religious institutions established private institutions. The 1866 Regulation of Public Education regulated the new school system and turned to a law sometime later (Sadler & Wilson, 2013). Years later, two important institutions were established. The first one was founded in 1880 by Eugenio Maria de Hostos: the Normal School for teacher preparation under an educational model that appealed for “respect and freedom of learning” (Sadler & Wilson, 2013, p. 15). In 1881, Salome Ureña, a great Dominican writer and poet, founded the Instituto de Señoritas (Ladies Institute) to train female teachers.

Between the years 1938 to 1997, several education laws followed the ones mentioned earlier, for example, the General Law of Learning, the Organic Law on Public Education, the Law on the Management of Public Education, the Law on Higher Learning, and the Law on the Conciliar Seminary. Despite the passing of these laws, the education system did not change much until the 1990s (Sadler & Wilson, 2013), when changes started with the Decree 517-96, which established three levels of higher education: technical, graduate, and post-graduate. The higher education regulating body was initially called the National Council of Higher Education (Consejo Nacional de Educación Superior [CONES]). Later, this name changed to the Ministry of Higher Education, Science, and Technology (Ministerio de Educación Superior, Ciencia y Tecnología [MESCYT]).

Great efforts have been made since the 1990s to improve the Dominican people's quality of education (Gajardo, 2007). The Ten Years Plan (Plan Decenal), one of the first significant reforms to the education system, created policies, and established measures to improve the Dominican education system. The Ten Years Plan led to the creating the General Law of Education, approved by the Dominican Congress in 1997. The Ten Years Plan results assessment
paved the way for planning and applying new strategies that focused on improving education quality. These initiatives, formally known as the Strategic Plan for the Dominican Republic Educational Development, presented five national education priorities: (a) equity and democracy, (b) quality of education, (c) teaching quality, (d) decentralization, and (e) finance (Gajardo, 2007, p. 9).

Other ways the Dominican Republic sought to ensure the quality of the learning process were to: (a) increase the number of children who completed the primary grades, (b) implement multigrade schooling to fast forward literacy and student preparation, and (c) reinforce “community-based school management” (Gajardo, 2007, p. 34). Attempts were also made to increase the number of adults who complete their secondary education and adult education programs, especially vocational programs. More recently, the national program *Quisqueya Learns With You (Quisqueya Aprende Contigo*, 2013) was designed to teach reading to every illiterate Dominican citizen.

Haussman et al. (2011) indicated that only 80% of children in the Dominican Republic attend school at the primary level, representing one of the lowest attendance rates for countries with the same per capita GDP. The picture was not much better at the secondary level. The increase in the number of students gained with the implementation of multiple shifts in the same school resulted in an offsetting decrease in instruction hours.

Since 2013, the Dominican government has increased the education sector's budget to 4% of the Dominican GDP. This budget allowed the Ministry of Education to invest resources in teacher professional development, implementation of the extended-time schooling, construction of new schools, and remodeling of existing schools, among other actions. However, the test scores of Dominican students on both the Third Regional Comparative and Explicative Study
(TERCE), reported by the Oficina Regional de Educación para América Latina y el Caribe (2015), and the Program for International Student Assessment (PISA) (2015) did not show promising indication of impact from these initiatives. These studies showed Dominican students’ scores among the lowest in the region. The country’s persistently low student achievement profile prompted an urgent call to reinforce efforts and resources that can help increase school effectiveness in the DR and the quality of education for Dominican youth.

Specifically, TERCE (2015), which evaluated the learning achievement of third and sixth-grade students in reading, math, and science, showed that 89% of third-grade students were placed on reading levels I and II of four performance levels. Just 2.1% of third graders are at the level of mastery (level IV). In sixth grade, 90% of students were on levels I and II. In mathematics, 95.1% of third graders and 98.6% of sixth-graders were on levels I and II. In science, 95.7% of the students were at levels I and II. Unfortunately, these results showed that Dominican students had just basic knowledge of the evaluated subject areas, and they were scoring below the regional average in all three subjects. Despite some recent increases in Dominican student achievement, in the last few years (TERCE, 2015), the distribution of scores in the DR had low variability, meaning the students’ low scores were, on average, evenly distributed throughout the country.

The factors that were identified as the ones that produce this low level are: (a) student characteristics, (b) family, (c) school characteristics, (d) teacher characteristics, and (e) classroom characteristics. Since it is not possible to change either student characteristics or families, strong measures and initiatives must be put in place to change the way schools operate to improve teacher practice and classroom characteristics. The Dominican Education System, including private schools, will have to embrace change and follow the path for school
improvement that research in other countries has paved.

**Theories and Processes of Organizational Change.**

We are living in times were circumstances change regularly and very fast. The education field is no exception; thus, schools need to be aware of this fact and adopt strategies and initiatives that could help the institutions adapt to and keep up with those changes. DuFour and Eaker (1998) affirm that the change process is convoluted, ambiguous, and troubled. Under these circumstances, school leaders must prepare their staff with the knowledge and skills that will allow them to face new challenges (Bolman & Deal, 2013). Teachers’ inclusion in the decision-making process concerning the implementation of change is crucial to ensure success, but effective communication, collaboration, and culture are three main ingredients to sustain change (Bolman & Deal, 2013; DuFour & Eaker, 1998).

**Single vs. Double-Loop Learning and Change**

Profound change, a change that produces transformation, is achieved when people shift their paradigms or mental models and adopt new ones through the practice of reflection (Mezirow, 1997). Argyris (1977) explained that the modifications of one’s current beliefs or mental models are single-loop learning. Double-loop learning, however, requires a change in our mental models and assumptions, so it is transformative. It involves changing preconceived ideas to new ones and learning how to make the implementation of those new ideas feasible.

Usually, double-loop learning occurs after a crisis or significant event that affects the organization (Argyris, 1977). To reach double-loop learning, one must face one’s own beliefs, norms, and aims. Argyris, now in unison with Schon, revisited these ideas in 1997. At that time, they confirmed that in order to reach the state of creating innovative solutions, members of the organization need to go through a process in which they will find conflicting feelings, frustration,
and they will probably feel incapable of doing these things, but that process is necessary to reach double-loop learning. During this rather painful process, small successes will help build confidence and the desire to continue the process until the full capacity to produce innovative ideas is reached.

Double-loop learning must happen at the individual and organizational levels in a continuous cycle that shifts from one to the other. At this moment, organizational learning occurs, and having clear goals illuminates the path that the organization is heading toward (Argyris & Schon, 1997). Therefore, organizations that do not learn at the double-loop level will not adapt so easily to changes, thus becoming easy to defeat by others. More importantly, Argyris (1977) affirmed that “the capacity for double-loop learning does not inhibit single-loop learning; indeed, it usually helps it. So an organization does not threaten its present level of effectiveness by striving to become more effective in the learning” (p. 124).

In the same line of thought, Bartunek and Moch (1987) discussed the relationship between organizational development and “schemata” (p. 483). Schemata is defined as “templates, that when pressed against experience, give it form and meaning” (p. 484); schemata also guides behavior. Bartunek and Moch explained that first-order change or single-loop learning occurs when the current schemata are altered, but stays within the same framework. Second-order change or double-loop learning, on the other hand, occurs when the framework itself is altered. Bartunek and Moch added a new order in the change, the third-order change, which occurs when individuals get conscious of their schemata, and this consciousness makes them more inclined to change it.

In 2002, Argyris conducted a case study to investigate how a new learning methodology helped leaders identify and solve problems. The participants were 34 chief executive officers
(CEOs) who participated in a leadership and learning conference. The three sessions taken for the study lasted two hours each. The purpose of the study was two-fold. First, to help the CEOs increase their capacity to identify and fix problems, and second to examine the characteristics of the theory used to create the learning experience.

Argyris (2002) designed this quasi-experimental study using a theory-of-action perspective. After participants receive the case of an appointed chief operating officer (COO) who failed to be appointed as the CEO, the first step was to create discussions about the case that moved around Model I or single-loop learning. Next, discussions built up to modify the previous way of reasoning (mixing single and double-loop learning), and finally, discussions acquired a new perspective, getting closer to double-loop learning. The findings were that participants understood that they needed to move towards more profound conversations than single-loop learning allowed, so as their companies' heads, they had the responsibility to lead the way to change their “defensive routines” (p. 213). Argyris defined defensive routines as “any action, policy, or practice that prevents organizational participants from experiencing embarrassment or threat and, at the same time, prevents them from discovering the causes of the embarrassment or threat” (p. 213).

Synnott (2013) explored how double-loop learning and reflection can facilitate a process of policy analysis and shared learning in the case of community opposition to a proposed high-speed railway project in England. He used the experience of the high-speed-railway project to analyze social or collective learning. The high-speed railway project (known as HS2) would connect important cities in the Southeast of England, like London, to other major cities in the north. It was conceived in 2010. The project produced the coalition of community groups into a federation with the purpose to learn together about the project. From a single-loop learning
perspective, many people thought that the HS2 was a product of “short-term thinking and opportunism” (p. 125).

Proponents and supporters of the HS2 project claimed that it would solve the congestion of the current rail system; it will also help the North part of England develop economically, creating a better balance with the already well developed and wealthy South East. As any project, HS2 gained supporters, but also detractors. The supporters highlighted that it would activate the economy of the northern cities. The detractors, mostly people who lived close to the rail's projected path, argued that it would cause environmental problems and destruct natural and cultural patrimony resources, for example, beautiful landscape and very valuable houses and lodges that had been there for centuries. Additionally, it would create noise pollution affecting close by households. They also argued that the cost-benefit relationship was not favorable due to the project's high cost in a problematic time for the economy. These concerns were part of the social learning, especially for those who, in the beginning, opposed due to personal interest. The campaign created through the community groups served its purpose to change the perspective from a personal perspective to a communal one. Through this experience, Synnot (2013) determined that reflection, not market forces nor technology, were the keys to social learning; thus, critical reflection was crucial for double-loop learning resulting in shifting perspective to occur.

Even though change and transformation theories started in the business field, educational institutions are not so different concerning the change process. Therefore, such theories can be applied to schools when the purpose is to produce changes that improve teaching and learning. For example, Peeters and Robinson (2015) conducted a case study in Ghana, a developing country, to understand the part that teacher educators play in professional development failure
intended to change teaching practices. Peeters used a self-study approach, supported with action science, to investigate how his actions as a facilitator produced what Argyris (2002) called “defensive routines” in teachers, rather than a willingness to learn. He wanted to learn from his own mistakes to help teachers enhance their teaching practice. Robinson helped Peeters to reflect on his actions by maintaining constant communication throughout the time of the research.

The study was conducted in two out of the 89 schools assigned to Peeters (2015) to provide professional development. These two schools expressed an interest in improving students’ ability to read; thus, they were willing to work directly with him. Eleven teachers in these two schools were selected to help as facilitators for other teachers. Peeters collected data through reflective journals (reflection-on-action), eight semi-structured interviews, and over six months of e-mail communications with Robinson, who gave feedback on Peeters’ analyses of his own behavior as a teacher educator. Peeters also created a study group that had the responsibility of checking his self-study.

Peeters and Robinson (2015) found that at the beginning of the study, Peeters was using single-loop learning; thus, he did not recognize that his approach was not helping the teachers improve their practice because he was not directly communicating the mistakes teachers were making. More importantly, he believed that he was right, so he did not need to “test his thinking” (p. 224). The lack of communication and shared understanding of the problem prevented him and the teachers from learning together on the real problem affecting students’ reading skills. The co-researchers concluded that teacher educators must have the ability to help teachers to overcome the obstacles that might prevent them from using newly learned strategies. It is necessary to convince teachers to use newly learned strategies by offsetting their worries, instead of understanding why they cannot apply them. In summary, teacher educators need to inquire and
reflect on their assumptions to produce a change in teachers through professional development (Peeters & Robinson, 2015).

**Factors that Support and Hinder Change Efforts**

The learning process that Peeters (2015) went through suggests that, in order to change, people need to reach a point in which they are capable of questioning their own assumptions. It is at this point that an individual acquires double-loop learning. Modern organizations adapt to change by reaching double-loop learning through constant learning (Senge, 2006). Senge (2006) describes how organizations learn as their people interact in a process that involves collaboration and reflection. The theory of learning organizations comprises five disciplines. One of these disciplines is systems thinking, a theoretical framework that allows change to be effective because system thinkers can visualize the full picture of a situation, making them able to address the root of the problem to solve it.

The other four disciplines of learning organizations are personal mastery, mental models, shared vision, and team learning. According to Senge (2006), organizations are capable of learning and changing to the extent that their members embrace the five disciplines. However, it is customary to see resistance in the change process because people feel that change is threatening their status quo. Senge affirmed that “artful leaders discern the source of the resistance” (p. 88) instead of trying to avoid it or oppose it.

Senge (2006) identified limiting factors for change: managers who want to be in control, high cost of change versus deferred benefits, resistance to changing the culture, and existing structures that prevent making relationships with other people in the organization. Fear is a factor that hinders change as well, for example, fear of the unknown and fear of failure. Thus, the
identification and elimination of the factors that are hindering change and growth are crucial. However, this will be a never-ending process because new limiting factors will appear.

Due to its complexity, change can take time, and it might require more prolonged periods than the organization can wait to see results. Kotter (2014), concerned with the time it takes to accomplish change and to innovate, created a dual system that allows organizations to increase the pace and adapt to change in a reduced amount of time. Like Senge, Kotter believes dialogue is a critical tool in the change process. He also believes that organizational learning occurs when teams engage in reflective dialogue, share ideas, reflect on their work, and collectively find solutions to problems and innovate. Thus, collaboration is a factor that both enhances and accelerates organizational learning.

**Fidelity of Implementation and Sustainability**

The investment of time and resources in a change process must be ensured by actions that maintain the new actions and behavior for an extended time. Sustainability can be understood as the institutionalization of an initiative in a way that would last for a long time (Mcintosh, Horner, & Sugai, 2009). Organizations of any type that embark on change processes would have to look for ways to maintain implemented initiatives over an extended period. According to Senge (2006), sustainable results are needed as part of the change process. People in organizations must know how to keep up with the changes they are committed to achieving, and these changes must last for long periods to justify the resources invested in such changes.

Senge, Lichtenstein, Kaeufer, Bradbury, and Carroll (2007) stated that globalization had brought sustainability problems for businesses. For example, problems such as climate change, pollution of resources, and biodiversity loss had been set aside by corporations as external to them and pertaining to the governments. However, in our current reality, leaving these and other
sustainability problems to be solved by government actions is not responsible social behavior, neither for companies nor for people. Senge et al. also pointed out that, among other things, sustainability requires both collaborative work and system thinking skills.

Senge et al. (2007) conducted a six-year qualitative study using traditional ethnomethodology. The research focused on the efforts of the Society for Organizational Learning (SoL) to find solutions to various sustainability problems using systems thinking, promoting shared vision, and trying to change existing mental models. Researchers took field notes of each of the meetings of the SoL, acted as participant observers of the collaborative projects, and conducted 42 semi-structured interviews with individuals at different levels of the organization’s hierarchy. Senge et al. included case studies of each of the collaborative projects. The comparison of the case studies aided in the identification of standard practices across the projects. The researchers used the principles of “participatory action research and community action research” (p. 46), which means that they actively participated in both meetings and projects.

The findings were portrayed as lessons learned from different perspectives. The lessons learned from the conceptual framework included that the solutions found by collaborative work were more likely to be implemented because they were the community’s product and the sense of community gets stronger as people find solutions through collaborative work. Moreover, tools like system dynamics and stock-flow diagrams can help emphasize important variables and their relationships. From relational work, among the lessons presented was that conversations emerged and could be maintained more easily by posing and reflecting on profound questions. In this way, the solutions that came up from those conversations were more meaningful. The lesson
was that systemic thinking arose from all stakeholders' input and that such input was conducive to more innovative solutions from the action-oriented work.

Metcalf and Benn (2013) conducted another study on sustainability. They analyzed the relationship between leadership style and sustainability in organizations. Metcalf and Benn stated that sustainability is complex and requires skillful leaders with the ability to deal with complexity, help their people adapt to continuous change, and lead the way to the solution of complex problems. The complexity of a problem resides in that it is neither static nor explicit, and its goal is multi-faceted, thus difficult to manage. In like manner, the solution of complex problems involves emotion and motivation, which are not necessarily a critical part of solving more straightforward problems.

As a result of their analysis, Metcalf and Benn (2013) concluded that the assurance of sustainability in organizations depends on “the complex nature of sustainability itself” (p. 381) because it includes different levels of complexity, i.e., starting with sustainability, continuing with the solution of complex problems, and ending with the leaders’ abilities to lead through the complexity of the change process.

Similar to other organizations, schools also are subjects of change. With this in mind, Holmes, Clement, and Albright (2013) conducted a multiple case study to investigate the qualities and abilities a leader needs to successfully lead a complex change process in a school's culture. The study called the Sustainable Whole School Renewal and Innovation (SWSRI) Pilot Project was conducted in Australia as part of the school reforms implemented to prepare students for the 21st-century challenges. The amount and complexity of these reforms could be threatened if measures to ensure sustainability were not taken. Thus, effective leadership was needed to guide the process by supporting teachers and solving complex problems that might arise.
The sample consisted of two schools selected because of the stability, dynamicity, and motivation of leaders and staff. The research team worked with teachers using a backward approach to elaborate on a school vision (where they wanted the school to be five years from now). Based on that vision and data analysis from standardized tests, they established short and long-term goals and got involved in action research and planning.

Recording of meetings was one of the means to collect data, also analysis of meeting minutes and other documents semi-structured interviews with principals, teachers, and parents. For the qualitative data analysis, Holmes et al. (2013) reviewed the literature. They found that to lead change, leaders must build a shared vision and establish common goals. Leaders must also build trust among their followers, be aware of the broader context or environment within which the school works, use multiple sources of information to solve complex problems, and focus on teaching and learning.

They also found that the principals got involved in elaborating on the goals, building relationships with their staff, and communicating effectively with the staff encouraging them to participate in the process. Principals attended to the school's daily activities and the external demands of the environment. Principals maintained their attention to enhancing teaching and learning and facilitated processes to ensure teachers also remained attentive to improving student learning. All these findings are aligned with previous research.

**School Organization**

The most important asset for any country is its people, and the best way to take advantage of this asset is to provide an education to sustain progress. As mentioned earlier, school characteristics are one source of factors that influence student achievement in DR (TERCE, 2015). One of those characteristics is being organized to facilitate attaining the ultimate goal,
which is to provide an education of quality that prepares individuals to perform effectively and efficiently in this changing world (Senge, 2006). Educational institutions need to adapt to these changes by creating policies, procedures, and measures that enhance quality education. School leaders may benefit from sharing these tasks with other stakeholders who are well informed of the schools’ endeavors and empowered to act on that knowledge. As they act in this way, they help the institution become a learning organization (Senge, 1990, 2006).

Green (2000) investigated the insights of distributed leadership practices. In a case study school, she found that more than 70% of participants strongly agreed that when people feel relationships are valued and respected, and when there is a strong perception of low levels of power, control, and threats, there is high probability of an “open, honest, and respectful communication” (Green, 2000, p. 75) within the organization. Green used a purposeful sampling approach and collected data through observations, interviews with 11 principals, two assistant principals, and 49 teachers. Green found that leadership was shared in an atmosphere of trust that was part of the school culture, students’ achievement was the main shared goal, and each of the stakeholders felt responsible for attaining it. She also found that well-established relationships supported collegiality. Thus, educational leaders need to create an environment of trust and respect, where stakeholders learn together and apply that learning to contribute to decision-making and attaining shared goals (Green, 2000). These findings are aligned with Senge’s perspectives, reflected in what is now referred to as a learning organization (Senge, 1990) and more socially with a building level as a PLC (Mullen & Schunk, 2010).

PLCs are defined through three frames: leadership, organization, and culture as “an organizational reform initiative, a staff professional development model, and an educational improvement strategy aimed at building the capacity of schools” (Mullen & Schunk, 2010; pp.
Mullen and Schunk (2010) reviewed the literature related to PLCs, and, in their analysis of the organizational frame, they indicated that PLCs are compelling strategies for school organization and improvement. Furthermore, PLCs need to be founded on a shared vision, common goals, and commitment of all stakeholders (Bullough & Baugh, 2008).

These characteristics of PLCs are opposite to the characteristics of the hierarchical organization that still predominates in Dominican schools (Ministry of Education of the Dominican Republic, 2013); In such organizations, leaders make decisions that must be followed by the rest of the stakeholders without the opportunity to participate in the decision-making process. The structure and culture that support a hierarchical organization is the opposite of what PLCs advocate for. Therefore, if we want to improve student achievement in DR, we need to adhere to a type of organization that allows more participation of the different constituents, which could be the solution to poor or inadequate schooling.

**Learning Organizations**

Today, all types of organizations need to be open, flexible, and agile to respond to the complex situations that result from the interactions of a globalized world. Globalization produces the constant feeding of large amounts of information, making it difficult for one person to be the problem solver or great strategist. Thus, organization leaders need to state a clear vision and work towards instilling that vision to all members of the organization, so that together they may be capable of tackling a variety of problems from different angles and in more effective and creative ways (Senge, 2006).

Senge (2006) emphasized that when members of an organization work together, not only will they be able to face challenges, but they will learn together and help the organization evolve to meet new challenges. In today’s global economy, organizations must become learning
organizations in order to be successful. He calls these learning organizations, “organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (Senge, 2006, p. 4).

Senge (2006) identifies five disciplines of learning organizations: mental models, personal mastery, team learning, shared vision, and system thinking. According to Senge, these five disciplines must be present to have a true learning organization and, to put them into practice, they must be learned like any other discipline. Senge explained that mental models that prevent the development of an organization must be brought to the surface and exposed to others by using dialogue and reflecting on them in a learning organization. So they can be changed. As a result, organizations need people who are willing to continually learn to obtain personal mastery and put this learning in service of the organization’s learning. Organizational learning is achieved when the organization members interact in teams, and these teams work collaboratively towards a shared vision, which will be attained as they understand the complexity of situations by thinking systemically, thus attacking the root of problems and not just the symptoms.

Education researchers have demonstrated interest in applying Senge’s model to school environments; thus, they have adopted this line of investigation. For example, collaborative work is a critical component of the problem-solving process in learning organizations, as Senge et al. (2007) demonstrated after conducting a qualitative study using traditional ethnomethodology. During the study, Senge et al. acted as participant-observers in collaborative projects, took field notes, and interviewed 42 individuals at different levels of the organization’s hierarchy at the Society for Organizational Learning (SoL) Sustainability Consortium. Based on data analysis, they found that solutions obtained by the process of collaborative work were more likely to be
implemented because they were the product of the community. They also found that the organization’s sense of community gets stronger as people found solutions through their collaborative work. Finally, they found that conversations emerged and could be maintained more easily by posing profound questions in a collaborative setting. The solutions that came from those conversations were more meaningful, and the thinking was more systemic because it arose from all stakeholders’ input and was conducive to more innovative solutions.

Collaborative work does not emerge spontaneously. It emerges from the effort that leaders put into the development of a shared vision. Likewise, leaders play a crucial role in supporting and encouraging the process of critical reflection, which, along with the shared vision, is necessary for a fruitful process of collective learning (Senge, 2006). Cheng (2011) conducted a quasi-experimental study to determine if, by applying a theoretical model based on Senge’s five learning organization disciplines that offers the principal a step-by-step methodology plus specific strategies, collective learning can be promoted. Data was collected using a survey. Twenty schools were selected by cluster sampling, and 1,200 teachers were chosen (60 in each school), and 777 responded to the survey. According to Cheng’s research results, when leaders facilitate the implementation of the five disciplines simultaneously, at the individual and collective levels, they promoted collective learning in teachers. Specifically, Cheng found that constant critical reflection of one’s mental models and shared vision are good predictors of systems thinking.

On the same line, Erdem and Uçar (2013) conducted a descriptive survey study to find the level of organizational commitment in schools that work as learning organizations, as perceived by the teachers. The study included 429 primary school teachers out of 2387 from Van Municipality, Turkey. Three of the five disciplines of learning organizations were measured:
shared vision, team learning, and personal mastery. In this case, the researchers included Senge’s model and O’Reilly and Chatman’s (1986) organizational commitment model. The latter is based on three dimensions, which are compliance, identification, and internalization. The results of the study showed that shared vision is essential to generate teamwork, which will produce commitment among teachers and the school. Also, organizational commitment is enhanced through teachers’ personal development, which will increase the dimensions of identification with the institution and internalize the vision (Erdem & Uçar, 2013). Cheng’s (2011) and Erdem and Uçar’s studies corroborate that the learning organization model can be applied to schools as to any other organization.

The term Professional Learning Community was coined by DuFour and Earker (1998) to refer to schools that had adopted the disciplines of learning organizations described by Senge (2006). Williams, Brien, and LeBlanc (2012) conducted a case study to determine the readiness of schools to implement the PLC process by measuring four aspects of a school: (a) culture, (b) leadership, (c) teaching, and (d) professional growth and development. The study included 50 schools from five different districts in New Brunswick, Canada. The results indicated that most of those schools had teachers committed to working collegially, were prepared, and skilled professionals had created trustful environments that facilitated collaborative work, and had incentivized effective teaching and assessment practices. They also found that the principals supported the teachers in their collegial work and were willing to share leadership with them. They did find some barriers in culture, leadership, and teaching. For example, 64% of schools indicated that they did not have a designated meeting schedule to discuss student learning. A leadership barrier was also highlighted in 84% of the schools that indicated teachers were not consulted when a new principal was appointed. Also, teachers were worried about the delay in
receiving external data, which affected their instruction. Finally, the barriers to effective teaching included the little time provided for collaborative planning and targeted assessment, which, according to the teachers, was assumed to be done at the individual level rather than by teams.

Agaoglu (2006) adopted a different perspective from the studies explained above. He thought that for schools to work as PLCs, teachers needed training in the five disciplines. She conducted a study with the faculty of Education of one of the most important universities in the World, Anadolu University. Agaoglu surveyed 105 of 173 instructors of the faculty of Education to find out to what extent faculties of education had the characteristics of learning organizations, based on the instructors' viewpoint. The results of the study showed that shared vision, culture, organizational structure, policies, and resources were all present. However, a high percentage of instructors manifested deficiencies in providing opportunities and conditions actually to work as a learning organization. Besides, they felt the need for other strategies that support the learning process. Agaoglu’s findings cautioned that, as the disciplines of learning organizations are implemented, obstacles can slow down and make the process difficult.

Studies like William et al. (2012) and Agaoglu (2006) are important because they present the schools' reality when new models of the organization or new strategies are implemented. The awareness of the problems, issues, and obstacles that institutions go through when implementing PLC can help who are at the first stages of the implementation process or plan to do so to plan how to avoid these issues, thus facilitating their way to a successful implementation.

**Collegiality**

As stated earlier, learning organizations are characterized by a shared vision, collaboration, team learning, and shared decision-making, among others. These characteristics relate to the collegial model of leadership (Senge, 2006). Collegial leadership models have key
features that separate them from other leadership models, and they include the theories of leadership that emphasize the sharing of power and decision-making (Bush, 2011). According to Bush, collegiality is a process of decision-making in which power is shared “among some or all members in the organization” (p. 72), with decisions made by consensus and over a foundation of shared values. He also asserted that the decision-making process requires that the decision-maker act on a solid foundation of knowledge and skills. For this reason, collegiality in schools is justified under the premise that teachers are professionals capable of making sound decisions about the teaching practice. At the structural level, collegial models are characterized by a system of committees (or other forms of groups and teams) responsible for making decisions (Bush, 2011).

The participatory nature of collegial models facilitates making well-informed, collectively-made decisions that are more likely to become a reality than decisions imposed by higher authorities. However, this participation in shared decision-making requires teachers to be more open to colleagues and other stakeholders. In this regard, Fallon and Barnett (2009) conducted a qualitative research study to understand how collegiality arises from the need to end teachers’ professional isolation from the school setting, and what is involved in this change. The sample school was a French-language school in British Columbia, Canada, and it stood out over other schools due to the high achievement of its students and the strong support of the parents. Despite these positive aspects, the school had a traditional organizational structure, and teacher isolation was an obstacle for the inquiry about the need for change. Data for the study was collected through semi-structured interviews with teachers, group meetings observations, teaching team meetings (by grade level), and document analysis. As a result, even though the idea of the abandonment of classroom isolation came from the staff, many of them did not fully
adopt collegiality; thus, they left some space for privacy and maintained a safe place that kept them out of criticism and inquiry. The authors asserted that these results aligned with previous research (Fallon & Barnett, 2009).

In a similar line of thought, one of the foci of Ning, Lee, and Lee's (2015)’s study was the effects of team collegiality on team collaboration. The results of the study showed that when collegiality was present, the sharing of personal practice and collective learning were most likely to occur. Besides, there was evidence that collegiality had a mediator role between collectivism (or interest in the well-being of the collectivity) and collaboration. Furthermore, when there was a high degree of collegiality, collaboration was present and was not affected by the power distance. However, if collegiality is low, the level of collaboration in the team is going to be low for low power distance teams, while high power distance teams have higher levels of collaboration.

By the same token, Wang (2015) conducted a qualitative study in Northeast China to learn more about teacher collaboration in PLCs; specifically, Wang used a case study approach and collected data using semi-structured interviews, observations, and documents. The case schools consisted of high schools with grades 10 to 12 and were recognized for their high-quality teaching. Purposeful sampling was used to select 20 participants who held different positions at the schools, taught different disciplines, and had different experience levels.

Concerning teacher collaboration and other factors contributing to genuine collegiality, Wang found that teacher collaboration was supported by authentic collegiality and practiced through class observations and reflection to improve practice. He also found that the factors contributing to genuine collegiality were “trust and an inclusive school culture” (p. 922). These results are consistent with Fallon and Barnett (2009) and Ning et al. (2015). Thus, teachers are
willing to adopt collegiality, assuming an environment of trust that makes them feel safe when working collaboratively.

**Distributed Leadership**

Decision-making in collegial models resides on the shoulders of those that have the expertise (Bush, 2011). Spillane (2006) explained that authority of expertise is assumed rather than the authority of the position in the distributive leadership model, although the heads or leaders will retain the responsibility and remain accountable for the results of the decisions made. Spillane emphasized that it is about “leadership practice” (p. 3), which involves “interactions, tools, and routines” (p. 3). When leadership is distributed, it is more probable that the decisions made have a “positive impact in the organization” (Harris, 2009, p. 4) because the organization members feel that they have been part of the process. According to Bush (2011), the distributed leadership model is more suitable for schools than collegial models since teachers are knowledgeable professionals that can make sound decisions about teaching and learning.

To understand how distributed leadership is practiced in schools, Angelle (2010) used a case study approach to investigate the interactions of the school members and their practices while using this leadership model. Angelle wanted to create a conceptual model that could be applied to implement distributed leadership in middle schools. She interviewed 11 principals, two assistant principals, and 49 teachers. Data was collected through interviews, contextual observations, analysis of demographics, and standardized test results.

After analyzing the data, Angelle (2010) found that leadership was shared in an atmosphere of trust in the school culture. Students’ achievement was the main shared goal, and each of the members felt responsible for attaining this goal. Additionally, collegiality was supported by well-established relationships. Under these premises, Angelle developed a model of
distributed leadership. The model started with three pre-existing conditions that pertained to the school and facilitated the implementation of distributed leadership: (a) leadership practice, (b) good relationships, and (c) trust. These pre-conditions enabled the successful distributed leadership practice in the organization at the structural, cultural, and affiliation levels. Finally, the outcomes resulting were efficacy, increased trust, a more significant job satisfaction, and less teacher attrition. Additionally, students’ scores on standardized tests showed a yearly increase, although no evidence was found related to the application of distributed leadership to the increase in students’ achievement.

Spillane, Halverson, and Diamond (2001) also developed a conceptual framework for distributed leadership. For their longitudinal study, Spillane et al. (2001) wanted to create a framework that could help to view and study leadership as a “distributed practice” (p. 24), meaning that formal and emergent leaders can share leadership. They also wanted to analyze distributive leadership in-depth. The sample consisted of 13 elementary schools in the Chicago area. For this purpose, the data collection method included in-depth observations, interviews with leaders, and classroom teachers; it also involved the analysis of social networking in schools in Chicago.

Distributed Theory of Leadership (Spillane et al., 2001) rests on the concept that the practice of leadership involves the “interaction of leaders, followers and the sociocultural context in which this interaction occurs” (p. 27). Therefore, distributed leadership involves the leaders and all stakeholders related to the situation, the situation itself, and the tools. This new perspective of leadership perfectly fits the schools’ environment since teachers are continually interacting with students and are aware of their needs. Consequently, they become the best
source of information when making decisions. Administrators can rely on teachers’ expertise and share with them decision-making; thus, practicing distributed leadership (Spillane, 2001).

A more pragmatic view of distributed leadership's enactment was taken by Wahab, Hamick, Zainal, and Rafik (2013). They measured the level of distributed leadership practice in 12 schools in Port Klang Zone, Selangor. They also measured teacher motivation (dependent variable) and its relationship to distributed leadership practice (independent variable). Wahab et al. conducted a quantitative study in twelve primary schools in the area. A random sample of 243 teachers was selected to answer a survey. The researchers wanted to know to what extent headteachers practiced distributed leadership at these schools because parents had low expectations about the quality of education offered to their children.

The researchers measured the practice of distributed leadership among headteachers in four dimensions: (a) set and shared mission, vision, and school goals; (b) school culture; (c) shared responsibilities; and (d) leadership practices. The results showed a high level of practice in the first three, but just a moderate level in leadership practices. Thus, in general, leadership practice was high, teacher motivation was high, but the relationship between distributed leadership among headteachers and motivation among teachers was significant but weak.

Grenda and Hackmann (2014) were interested in the challenge that schools in the U.S. face to improve students’ achievement every year. They believed that increasing student achievement puts a burden on the shoulders of principals who are compelled to share duties and decision-making with their faculty and staff. This study followed a multiple case study design and included three schools selected according to the principals' distributed leadership qualities whose experience was equal to or exceeded three years. Additionally, student achievement had
to meet or exceed the standards of the Adequate Yearly Progress (AYP) on standardized testing, and grade-level enrollment had to be sufficient to support interdisciplinary teaming.

For their study, Grenda and Hackmann (2014) defined distributed leadership as “a form of collective agency incorporating the activities of many individuals in a school who work at mobilizing and guiding other teachers in the process of instructional change” (p. 55). They also described followers as individuals within the organization who participate in activities ensuring that the activity is accomplished, but they do not operate in a leadership position. The interviews of 20 people in each school provided the data. The interviewees included the principals, assistant principals, deans of students, interdisciplinary team leaders, department heads, committee chairs, teachers’ union leadership, disciplinary coaches, and teacher mentors. Other methods of data collection included observations of meetings of different teams: interdisciplinary teams, building leadership teams, professional learning communities, disciplinary teams, among others.

As a result, Grenda and Hackman found: (a) an organizational structure that allowed faculty members to be part of different groups and to be involved in dialogues about some school issues, professional development, and teaching and learning; (b) faculty and staff were committed to their assigned roles, so the principals used them and a network of administrators to distribute tasks that previously were the sole responsibility of the principal; (c) principals developed a culture of shared leadership in their schools; (d) staff members had many chances to provide feedback to proposals because they formed part of different teams; (e) teacher involvement in the decision-making process depended on how the issue would impact the school and its faculty; (f) principals acted as facilitators regarding curricular issues; (g) teacher leaders were in charged of professional development; (h) this type of structure required recruiting
especial type of people; and (i) a common planning period was set aside for each interdisciplinary team to meet regularly, in order to make plans and share opinions.

In summary, such studies suggest that distributed leadership in schools is characterized by teachers' collaborative work when they share goals, discuss their own practice, and help each other improve instruction. Leaders are responsible for facilitating the collaborative process (Angelle, 2010; Bush, 2011; Grenda & Hackmann, 2014; Spillane, 2006; Spillane et al., 2001; Wahab et al., 2013). Importantly, as Angelle (2010) pointed out, an environment of trust is necessary to facilitate the dialogue that will guide decision-making and change.

Collaboration

Collaboration occurs in a variety of forms in education settings for a variety of purposes. These forms and purposes are: (a) based on the conditions needed to do collaborative work; (b) the benefits obtained for teachers, schools, and students, (c) the role of the leaders in the collaborative work, (d) the importance for teacher candidates to be trained to do collaborative work before starting their practice, and (e) how collaboration occurs among schools.

For example, in Hord’s (2009) literature review describing PLCs, she stated that by employing collaboration in conjunction with student achievement data, teachers could design strategies that promote student learning. They accomplish this by giving more attention to those areas in which students are weak. In such cases, teachers learn by collaborating, and students learn as teachers improve their instruction.

Hord (2009) emphasized that a community is built by working together for a common goal and that PLCs are based on a constructivist approach that positions the student at the center of the learning milieu, leaving behind the outdated teacher-centered approach. Hord identified the conditions for a successful PLC including: (a) community membership, (b) leadership, (c)
time for learning, (d) space for learning, (e) data use support, and (f) distributed leadership. These conditions favor both learning collaboratively and the empowerment of teachers to take control of their learning process.

Tannehill and MacPhail’s (2017) study showed that one of the benefits of the PLC processes is helping teachers to be empowered and grow professionally. They conducted a four-year longitudinal study to investigate the professional growth of a group of physical education (PE) teachers working in disadvantaged schools of Dublin, Ireland. The construct: teacher empowerment, delimited the research, and it was defined as the “process where teachers develop the competency to assume responsibility for their own growth and development while solving ongoing problems as they emerge” (Short, Greer, & Melving, 1994, p. 38). The sample for the study consisted of 18 PE teachers who were dissatisfied with their experiences in traditional professional development workshops and in-service training sessions. Two facilitators worked with the teachers to guide the process. Data collected included in-service seminar/workshops evaluations, small group discussions, focus groups, and individual interviews.

These data sources profiled a process comprised four stages: (a) community building; (b) testing new ideas, strategies, and writing about their experiences; (c) talking about their experiences, constructing knowledge and deciding about what comes next; and (d) discussing about the sustainability of the community and its repercussions on PD. Tannehill and McPhail (2017) found that at the initial stages of the study, the group members started by building trust, they then progressively initiated goal-setting and collaborative work, creating the space for professional growth learning from each other and by improving practice and teaching skills. These results suggest that when teachers work in collaboration to obtain a common goal, they
can learn, grow, and acquire the necessary skills to teach in a way that positively impacts student learning.

If, as research suggests, teachers’ collaborative work is a required endeavor to obtain better student achievement and school improvement, teacher candidates need the training to work collaboratively and improve their own learning. Approaching collaboration as a teacher-candidate training strategy, Rigelman and Ruben (2012) investigated whether or not preparing teacher candidates to work in nested PLCs would significantly sharpen their collaboration skills and commitment to student learning.

Rigelman and Ruben (2012) selected 23 teacher candidates from a public university in an urban area. Of those teacher candidates, 18 were elementary teacher candidates and five middle school teacher candidates. The study participants also included 16 mentor teachers, eight university supervisors and site supervisors, and the principals of two public schools serving K-8 students. Data were obtained through written reflections, semi-structured focus group interviews with teacher candidates, semi-structured focus group interviews with mentor teachers on two different occasions, semi-structured interviews with the principals, and observations of the interactions that occurred in the PLCs. Rigelman and Ruben (2012) reported benefits for the teacher candidates and mentor teachers, but also some challenges surged on the way. Teacher candidates reported that collaboration increased their opportunities to learn, as they could analyze their successes and mistakes during their practice in the classroom; they also realized that collaboration is essential in teaching to achieve students’ learning.

Regarding how collaboration can be implemented between schools, Ainscow, Muijs, and West (2006) conducted a multi-case study to determine if schools' networking is beneficial for schools that are facing difficult times. The difficulties were related to the school location, the
composition of the student body, parent relationships with the school, and staffing problems. Ainscow et al. investigated a total of six networks of schools that worked collaboratively. Based on their findings, Ainscow et al. concluded that: (a) collaboration provides ample opportunities for students to learn, especially for the weakest group, (b) school-to-school collaboration can benefit in those situations that need immediate solutions, and (c) providing the proper context, collaboration helps to increase expectations. The researchers also found that “social learning” (p. 201) was a fundamental component of networking. While Ainscow et al. explored collaboration between schools and Rigelman and Ruben investigated collaboration as a pre-service teacher training strategy, their results are similar—collaboration promotes learning and growth.

However, the change in the school culture from classroom isolation to openness has to be supported by school leaders. In this regard, Cheng’s (2011) theoretical model, based on Senge’s five disciplines of the learning organization, provides a tool for leaders that help them facilitate a collaborative culture. Cheng asserts that constant critical reflection is necessary to attain personal mastery and change the mental models that can prevent group members from learning together. School administrators should promote collegial work and shared leadership and build a trusting environment to ensure sustainability, respect, and admit divergent opinions.

**Professional Learning Communities**

In contrast to collegiality and the distributed leadership models, the industrial model, characterized by a hierarchical organizational structure, top-down line of authority, standardization, and centralization, prevailed as the organization model in schools for a long time. DuFour and Eaker (1998) argued that the industrial model created by Taylor in the early 1900s was the model for any existing and newly created organization until the late 1900s, including schools. However, the industrial model makes it difficult for organizations to adapt to
changes rapidly enough in today’s fast-changing globalized world (Kotter, 2014; Senge, 2006). According to Senge, to flourish, organizations must reach a state of constant learning at all levels, and schools are not an exception because they need to form the type of citizen that will compete successfully in today’s globalized environment that knows how to learn continuously.

Moreover, according to DuFour and Eaker (1998), schools today, as any other institution, require a sense of urgency (Kotter, 1996) to adapt to change and to develop well-prepared citizens who function effectively in a global environment. Still, to achieve this, schools must embrace the type of structure and processes that facilitate them to become learning organizations, or as DuFour and Eaker have called them: Professional Learning Communities (PLC).

Professional learning communities are defined as “a group of educators who meet regularly, share expertise, and work collaboratively to improve teaching skills and the academic performance of students” (Professional Learning Communities, 2014; para. 1). The fundamental characteristics of a PLC are: [a] “shared mission, vision, and values”; [b] “collective inquiry”; [c] “collaborative teams”; [d] “action orientation and experimentation”; [e] “continuous improvement”; and [f] “results orientation” (DuFour & Eaker, 1998, p. 25).

The PLC model has been implemented successfully in different countries. For example, Sleegers, den Brok, Verbiest, Moolenaar, and Daly (2013) conducted a quantitative study in 76 elementary schools in the Netherlands with a total of 992 teachers completing a survey. They wanted to evaluate PLCs in three capacities: the individual, team, and school levels of learning, as well as at various dimensions of such learning: (a) shared values and vision; (b) collective learning; (c) shared practices; (d) currency; (d) active and reflective knowledge; (e) construction of knowledge; (f) resources, structures, and systems; (g) relationships and climate; and (h) stimulating and participative leadership (pp. 122-123).
Sleegers et al. (2013) found that all capacities and dimensions are necessary to describe the PLC concept. The three capacities showed a strong positive correlation among them. The dimensions also showed a high correlation among them; e.g., collective learning is strongly related to interpersonal capacity, and the dimension relationship and climate are related to organizational capacity. In conclusion, the model was validated for the Dutch school setting. This study shows that the PLC model works in other settings outside the U.S. and, when people collectively pursue a shared goal, share and reflect on their practice in an environment of respect and trust, learning occurs at the individual, team, and organizational levels (Sleegers et al. 2013).

The effect of “sustained Professional Learning Communities (PLC) on self-efficacy in science teaching” (p. 1201) was studied by Mintzes, Marcum, Messerschmidt-Yates, and Mark (2013) using a mixed-method approach. The study was conducted in two similar school districts of Sacramento Valley, California. Fifty-five randomly selected teachers from one district formed the experimental group (the one that worked in a PLC), while 61 teachers from the other district form the control group. From those teachers, 89 completed the pre and post-test administered with a difference of three years. For the qualitative part, the researchers conducted clinical interviews one year after the end of the project.

The most remarkable outcome of the study was that elementary science teachers whose self-efficacy was considerably low demonstrated a significant growth after the third year of participating in a PLC, as measured by the Teaching Science as Inquiry (TSI). Also, a positive performance in teaching practices and better student discipline were noticed and reported. The interviews revealed that PLCs processes created opportunities to collaborate with peers, innovate with ideas for the classroom, and improve students’ behavior. Once more, and aligned with the Sleegers et al. (2013) study, it was confirmed that the PLC model provides an organizational
structure that allows improvement in the teaching practice by leaving behind the traditional teacher isolation in the classroom and by taking advantage of a culture of collaboration and continuous learning.

As teachers engage in PLC processes, they face different experiences and challenges. In this regard, Owen (2014) conducted a qualitative case study to delve into teachers and teams' experiences when they are engaged in such processes. Owen gathered qualitative data from three schools involved in the international project: Organization for Economic Cooperation and Development (OECD) selected with a purposive sampling approach. Document analysis, ten semi-structured interviews, two focus groups, and a survey that was part of the schools’ documentation and administered to 58 staff members were used to collect data. Owen found that the three schools had teacher teams, and two of them had created action research groups. The teams supported teachers to build and develop skills to improve their practice. There was evidence of “[s]hared vision, teacher inquiry, and joint involvement in practical tasks” (p. 71) in all three schools. A strong sense of collaboration was also evident among teachers since teachers who attended training sessions outside the school setting were willing to share their acquired knowledge with the other teachers. However, the survey showed that teams had different maturity levels regarding PLC implementation and processes, explicitly concerning classroom isolation vs. openness. This fact shows that even in environments where PLC processes are well established, challenges exist, and issues can arise due to individual differences. Those issues need to be addressed while implementing PLCs. Owen reported a strong sense of collaboration among teachers in the case schools; however, she also found differences in how teachers handle opening their classroom and accepting collaboration from peers.
Wang (2015) conducted a qualitative case study in Northeast China to ascertain how teachers collaborate in PLCs. Two high schools with grades 10 to 12 recognized for their high-quality teaching volunteered to participate in the study. Purposeful sampling was used to select 20 participants who held different positions at the schools, teach different disciplines, and had different experience levels. Wang collected data using semi-structured interviews, observations, and documents.

The findings were organized into three different topics related to the research questions. The three topics addressed the “characteristics of organizational structures, the nature of teacher collaboration, and factors contributing to genuine collegiality” (p. 915). For the first theme, Wang (2015) found that collaborative teams, peer mentoring, and learning networks were the organizational structures that supported PLC processes. The nature of teacher collaboration was supported by authentic collegiality practiced through class observations and reflection to improve practice. Finally, the third topic, factors contributing to genuine collegiality, are “trust and an inclusive school culture” (p. 922). Once more, it is established that learning through the collaboration of team members to enhance professional practice in an environment of trust is one of PLCs' pillars. It is also crucial to point out that PLC processes can work in different settings and cultures or contexts as in this and previously reported studies.

It should be noted that recent studies about the effect of PLCs on student learning have revealed new and not so promising perspectives for PLCs. For instance, in a dissertation study conducted by Burde (2016), early studies of the relationship between PLC implementation and student achievement cited in the literature review suggested a positive relationship; however, Burde also found more recent studies that suggest a little positive relationship or worse, even a negative relationship. Burde conducted a quantitative study in a region of Michigan. The sample
consisted of 12 middle schools that included 275 teachers and 7,000 students. Two types of data were collected, the Michigan Educational Assessment Program (MEAP) provided student achievement data, while the PLCA-R survey was used to collect PLC dimensions data. For the first stage of the analysis, Burde used ANOVA to find mean differences in the scores across the schools and the six PLC dimensions. Further analysis with hierarchical linear modeling was conducted to find “if there was a relationship between PLCA-R dimensions and student achievement. Control variables included special education status, socio-economic status, gender, and ethnicity” (Burde, 2016, p. 38).

Burde (2016) found no significant relationship between PLC dimensions (as measured by the PLCA-R survey) and student achievement, either negative or positive. Indeed he explained that student achievement variance was mostly within buildings in contrast with a low variance between buildings based on the level of PLC implementation as measured by the PLCA-R survey. Thus, he concluded that variation in PLC implementation based on the PLCA-R survey did not account for differences in student achievement between schools. These results must be taken into account, and future research must focus on this type of analysis to have a better picture of what impact on student achievement can be accomplished with PLC implementation.

**Teacher Leadership**

PLCs are characterized by collective continuous learning (DuFour & Eaker, 1998). It comprises teachers' involvement in collaboration and the sharing of practice that naturally triggers a decision-making process about teaching and learning, resulting in an exercise of shared leadership. York-Barr and Duke (2004) studied teacher leadership literature to compile significant findings on the topic and develop a conceptual framework that would direct other
research studies on the topic. York-Barr and Duke reviewed 41 studies about teacher leadership, teacher professionalism, and shared decision-making, from 1980 to 2004.

York-Barr and Duke (2004) found that teacher leaders share specific characteristics that allow them to stand out and to gain the respect of their peers. They define teacher leadership as “the process by which teachers, individually or collectively, influence their colleagues, principals, and other members of school communities to improve teaching and learning practices with the aim of increased student learning and achievement” (p. 287). As teachers, teacher leaders demonstrate experience, expertise, creativity, willingness to take risks, responsibility, and are hard-working people. Moreover, as leaders, teachers build relationships with and support their colleagues, communicate efficiently, and know how to handle conflict.

After reviewing the literature, York-Barr and Duke (2004) found that teacher leadership emerged in the context of a learning community with support from administrators. Also, they found that a teacher leader: (a) has a never-ending desire for improvement in the areas of instruction, curriculum, and assessment; (b) demonstrates comprehension of the school culture; (c) knows how to be agents of change, and how to support this change; and (d) are supportive of the advancement of their colleagues at the individual or group level.

It is worth noting that Grenda and Hackmann (2014) findings, mentioned in the distributed leadership section above, are similar to York et al. (2004) study’s findings. For example, the structure that supports working as a learning community, the commitment of the faculty to comply with the distribution of responsibilities that were once part of the principal’s role, the teachers’ involvement in decision-making regarding teaching and learning, and the empowerment of teachers regarding their own development as professionals. All these emerge as school change features that promote school improvement (York-Barr & Duke, 2004).
When teachers have a part in the decision-making process, they have an effect on the individual, team, and organization level (Sleegers et al., 2014). A quantitative study conducted by Angelle and Teague (2014) had the purpose of investigating the effect of teachers' perceptions regarding the extent of teacher leadership on collective efficacy. Collective efficacy is the belief in the faculty's capacity to achieve goals while teacher leadership is seen as the disposition of teachers to help their colleagues and share innovative practices to grow professionally (Angelle & Teague, 2014). To collect the data, a sample of 363 teachers from three school districts in a southeastern U.S. state answered a survey that consisted of two instruments, the Teacher Leadership Inventory (TLI) and the Teacher Efficacy Belief Scale – Collective Form designed by Angelle and Dehart (2010) and Olivier (2001), respectively. The analysis of the data was conducted using descriptive statistics and ANOVA,

Angelle and Teague (2014) found a strong relationship between collective efficacy and teacher leadership (stronger in District B than in A or C). More teachers in District B reported having a leadership role, and fewer teacher leaders appointed by the principal. In terms of collective efficacy, it was selected as the best sign of teacher leadership. All these findings together suggest that when principals appoint teacher leaders, collective efficacy and the shared leadership factor decrease. In summary, when principals practice distributed leadership and do not appoint teacher leaders formally, collective efficacy and teacher leadership tend to increase. Based on the results of these studies, one can conclude that when a school needs to improve its results in terms of student learning, the most logical path would be to start improving teachers’ capacity by encouraging them to take control of their professional development (Lalor & Abawi, 2014; Thompson & Gregg, 2004). Combining this with creating collaborative teams and letting
teacher leadership emerge through and within these teams is the heart of the PLC model (Dufour & Eaker, 1998).

Teacher Learning

The development of teachers’ capacity must be enhanced to guarantee school improvement, as measured by student outcomes. However, as adult learners, teacher learning must be addressed in the way that adults learn. Brookfield (2010) explains that adult learners need to have some control over what they learn, and they need to be part of the goal-setting and the planning of their learning process about a topic that must be of personal interest or work-related. Sitting for hours in a workshop hearing an expert on a specific topic does not guarantee teacher learning (Thompson & Gregg, 2004). Guskey (2002) discussed teacher professional development (PD) and points out that the factors that facilitate its ineffectiveness are: (a) the lack of knowledge of what motivates teachers to participate in PD and (b) how change occurs in teachers as a result of professional development. Furthermore, he stated that teachers want “practical ideas that directly relate to the day to day operation of their classrooms” (p.382).

Wong (2010) developed a qualitative research study to explore how teachers could increase their knowledge and improve their practice as part of subject-based professional learning communities. The term professional learning community was defined by Wong (2010) as “a community whose key goal is to provide a context for teachers to search for good practice through inquiry” (p. 624). Wong conducted this study in a secondary school in Shanghai with two-subject based departments of the school: Mathematics and English. Data collection methods included semi-structured interviews with participants, observations, and informal conversations. The sample consisted of a convenience sample of six Mathematics teachers and five English teachers. There were three foci: “(1) the effects of subject-based learning activities on individual
professional growth, (2) ways to improve subject-based learning activities, and (3) new demands in their teaching and ways to encounter the challenges” (p. 628). Wong found that the effects were quite different in both departments. While the Mathematics department developed a strong sense of community and used collaboration to enhance their practice, the English department’s sense of community was weak because they remained attached to traditional practices and tried to improved these practices individually rather than collectively. Moreover, Wong found that professional learning communities could enhance teaching by: (a) providing the opportunities to change the teacher-centered approach to learning to a student-centered approach as teachers discuss their practice, share and create new strategies; and (b) creating a sense of community and share knowledge. According to Wong’s findings, the culture of teacher isolation prevents building a community, and teacher learning, while a culture of collaboration enhances them.

Snow-Geronomo’s (2005) study was conducted previously to Wong’s (2010). However, his finding can be used to explain Wong’s results because Snow-Geronomo’s study supports the idea that certain traditional practices must change and be substituted by a culture of collaboration where teachers are always questioning their practice and finding answers with their peers in a trusting and safe environment. Snow-Geronomo conducted a phenomenological case study focused on finding how teachers of a Professional Development School (PDS) described comprehensively and experienced teacher inquiry. A purposeful sampling approach was used to select the participants from a school involved in a university partnership. The data collection method involved three semi-structured interviews, field observations obtained by visiting classrooms and other environments where the inquiry was present, and the researcher’s journal.

Inquiry and dialogue are both fundamental processes to PLCs as learning organizations (Senge, 2006). Snow-Gerono (2005) defined teacher inquiry as research that teachers perform
purposely and methodically. Additionally, dialogue with peers is another crucial aspect that helps teachers overcome the classrooms’ isolation and create a safe space to share ideas. Snow-Geronomo stated that in order to change the schools’ traditional ways to an “inquiry stance towards teaching,” two things must happen: “a shift to uncertainty and a shift to community” (p. 243). These results relate to Wong’s (2010) findings because, in his study, the English department as a team could not leave the security of the classroom isolation and take the risk of building a strong community to replace that isolation.

Building a strong sense of community to collaborate for learning and growing is a big step necessary for school improvement (Lalor & Abawi, 2014). Bruce, Esmonde, Ross, Dookie, and Beatty (2010) conducted a mixed-method study to determine to what extent “classroom embedded professional learning (PL) program for mathematics teaching” (p. 1598) impacted student achievement, as well as how teacher efficacy and student achievement were related. Two school districts in Ontario, Canada were selected for the study. Both had contrasting approaches in terms of the professional learning of mathematic teachers. For example, District A had teachers with insufficient knowledge of effective practices for mathematics teaching, but their efficacy and student achievement were high compared to District B, which had previously implemented professional learning.

The Ontario Ministry of Education implemented a professional learning program. The purpose of this program was the improvement of mathematics teaching and learning from kindergarten to sixth grade. The program included professional learning in the classroom, the creation of professional learning networks, and peer coaching. Two facilitators and support staff worked with classroom teachers. The targets for this professional learning model were: “a) mathematics communication in the classroom; b) teaching and learning mathematics through
problem-solving using a 3-part lesson format (a lesson format that has three parts: an activation/minds-on segment; a development/middle segment that is problem-based; and a consolidation/end segment); c) co-teaching of problem-solving lessons in classrooms; and (d) collaborative analysis of student work samples” (p. 1598). Bruce et al. (2010) defined the difference between professional development and professional learning. According to Bruce et al., professional development assumes that teachers can learn strategies from “experts” and later apply them in the classroom. On the other hand, professional learning takes place in the natural setting, which is the school classroom and is developed through experience, practice, and collaboration.

Data collection occurred concurrently. Quantitative data for the study was collected by administering two surveys to teachers, one before and the other after applying the model. Students were evaluated through a performance task test. Qualitative data consisted of classroom observations, interviews of participants, and field notes. The results showed that the teachers with previous professional learning experience showed more efficacy than those with little or no experience, and their students had more significant achievement than the district that had a more traditional approach before the experiment. Bruce et al. (2010) explained that this might be because District B teachers were not aware that they needed to change, as opposed to teachers in District A who felt that need and had previous experience in professional learning and collaborative practices.

Bruce et al.’s (2010) results corroborate previously mentioned studies that state the need to be open to change and learn from colleagues. In this regard, Tam (2014) conducted a longitudinal qualitative study to determine how professional learning communities are shifting teachers’ beliefs and practices. The sample consisted of 12 teachers in a Chinese Department.
Data was collected through semi-structured interviews, observations, and document analysis. Tam found that teachers’ beliefs and practices can change through PLCs’ collaborative process; additionally, PLCs promote a shared responsibility for coworkers’ growth. Interpersonal relationships develop as teachers interact, creating at the same time, trust and assurance, which create a foundation for collaboration and organizational learning. Tam also found that curriculum innovation results from teachers’ beliefs and that successful PLC implementation depends on different factors, for example, a “transformation of teacher culture, creation of a new structure, engagement in learning activities, and distinguishing leadership” (p. 38). In conclusion, Tam found that collaboration fosters teacher learning and growth.

**Team Learning**

Team learning is one of the disciplines of learning organizations. Senge (2006) defines it as “the capacity of the team to suspend assumptions and enter in a genuine ‘thinking together’” (p. 10). Team learning is achieved through dialogue that must occur in an atmosphere of trust. Senge also states that the joined capacities of the team members must surpass individual achievement. Thus for Senge, teams are the “fundamental learning unit in modern organizations” (p. 10). He also asserts that any organization must learn continually to improve, and this learning will help to face change and challenges effectively.

As with other organizations, school improvement can be reached through team learning (DuFour & Eaker, 1998). In Cheng’s (2011) quasi-experimental study on learning organizations, mentioned earlier, he recommends several management strategies that could serve school administrators in the promotion of teacher collective learning. Some of them are: (a) support and encourage teacher learning, (b) promote collegiality, (c) allow teachers to be part of planning and policy formulation in order to enhance system thinking, (d) create and maintain a culture of trust.
and institutional learning that sponsors communication, (e) enhance the sustainability of collective learning by creating and maintaining trustful relationships with staff, and (f) respect and admit divergent opinions.

Nevertheless, why is it so important to promote teachers’ collective learning? Because the primary purpose of teachers’ collective learning is to improve student learning and achievement. Lee, Zhang, and Yin (2011) developed a quantitative study that used the Professional Learning Communities Assessment (PLCA) (Hipp & Huffman, 2003) as the key research instrument. The 480 randomly selected participants were drawn from 33 schools (elementary grades 4 – 6 and secondary grades 7 – 9). Lee et al. found that teachers’ commitment to students is positively influenced by collective learning and application, supportive conditions-structures, faculty trust in colleagues, and collective teacher efficacy.

Furthermore, collective teacher efficacy is positively influenced by collective learning and application, supportive conditions-structure, and faculty trust in colleagues. Similarly, both collective learning and application and faculty trust in colleagues have a positive effect on teachers’ collective efficacy. Thus, “building a collaborative PLC environment, creating a trusting atmosphere, and enhancing the teachers’ collective efficacy, all could help increase teachers’ commitment to students” (Lee et al., 2011, p. 826). This study suggests that when schools work as learning organizations or mainly, as professional learning communities, teachers’ collaborative effort increases their efficacy and commitment to student learning.

Owen (2014) conducted a multi-case qualitative study to understand the relationship between teacher learning due to teacher collaboration and student learning. A purposive sampling approach was used to select three schools involved in an OECD innovation project that was performing as PLCs. The participants in each school were one school leader and two to five
volunteer teachers in each case study school, with a total of 15 participants. The researchers used semistructured interviews and focus groups with the leader and teachers in each setting to collect data. They also collected evidence of students’ learning in three aspects: academic, social, and emotional, and self-reflective reports of leaders and teachers.

Owen (2014) found that teachers followed PLC processes like collaboration in planning, co-teaching, observations, and reflection of practice, which helped improve their teaching skills, promote a learning culture, and facilitate change. The improvement in teacher efficacy resulted in higher student achievement than previous years, more student engagement in class, and a slight impact on the social, emotional, and creative areas of student performance.

Unlike the studies mentioned above that focused on the whole school, Ning, Lee, and Lee (2015) conducted a study focused on just one essential component of team learning, teacher collaboration. As Ning et al. stated, “the main objective of this study was to ascertain the interrelationships between the following constructs: team value orientations (collectivism and power distance), team collegiality, and team collaboration (collective learning and application and shared personal practice)” (p. 341). They defined the primary constructs related to their study. First, teacher collaboration was defined as all the activities and practices teachers get involved in as they work collaboratively to accomplish their shared goals. Second, teacher collegiality was related to the quality of the relationships that teachers developed among themselves based on respect, trust, care, and critical inquiry and was considered a vital aspect of the practical enactment of PLCs. Third, the researchers related teacher value orientations with the personal values and beliefs held individually by members of the team and how they influence their participation in the collaborative work, specifically how they serve to either facilitate or hinder the team members' involvement in the task. Finally, these researchers determined that, for
the PLC to function more effectively, team members must feel that leadership is distributed among stakeholders; thus, a low power distance orientation must exist.

The data for the study was obtained from a previous study conducted in Singapore schools to report on the standing of the PLCs’ implementation. A total of 952 primary and secondary school teachers, part of 207 learning teams drawn from 95 schools, participated by answering an online survey. The results were similar to past studies that showed a positive to moderate effect of collectivism on team collegiality. Additionally, results showed that collegiality was a good predictor of both shared personal practice and collective learning. Also, it was evident that collegiality had a mediator role between collectivism and collaboration of the teams. The effects of collectivism on team collaboration were positive.

Furthermore, if collegiality is high in the team, collaboration is not affected by a high or low power distance. However, when collegiality is low, team collaboration is low for low power distance teams, while high power distance teams have higher levels of collaboration (Ning et al., 2015); this means that distributed leadership works best in teacher teams, where the willingness to collaborate is high.

Team learning can also be achieved in non-traditional teacher teams. Currently, teams form in different and innovative ways. For example, Professional Learning Communities not only happen inside a building; they can also work online. Battersby and Verdi (2014) conducted a literature review to study how music teachers can leave their rooms' isolation and form part of online professional learning communities to engage in professional development. Music teachers were evaluated with tools that credit them for engaging in professional development, but in most cases, they did not receive the professional development they need as other teachers do due to their subjects' unique nature. According to Battersby and Verdi (2014), online learning provided
a compelling opportunity for teachers to join a community of colleagues through which they can learn. While research studies have addressed online learning and found positive professional development outcomes, scarce research is available regarding online professional learning communities.

Battersby et al. (2014) found that online professional learning communities do benefit teacher learning. The teachers must have the will to participate and the commitment to maintain the effort. Online professional learning communities can be a solution to challenges like long distances among participants; however, it requires providing an “internet-based platform” (p. 28), so this solution might not be available to everyone.

**Teacher Motivation**

Up to this point, much has been said about teachers’ work, which involves a series of activities and processes (i.e., participating in teams, collaborating with peers, making sound decisions about teaching and learning, undertaking leadership roles, taking the necessary steps to grow professionally, and many other work-related activities). To keep up with the amount of work and responsibilities that teaching involves, teachers, need to be motivated. Kanfer (1990) defined work motivation as an internal drive that guides the individual to act in a certain way in the organization and be consistent in his efforts, even when circumstances change. Therefore, if school leaders want their organizations to perform effectively and efficiently, they need to motivate teachers to keep them doing what they are expected to do and even exceed expectations (Herzberg, 1998).

Herzberg (1968) developed a theory of motivation that helps to explain what motivates people to work. According to Herzberg, there are two types of factors: hygiene factors and motivators. Hygiene factors do not motivate employees, but their absence creates job
dissatisfaction, such as reduced work time, better salary, work conditions, status, and security. Motivators, on the other hand, create job satisfaction, for example, accomplishment, recognition, interesting work, responsibility, and professional growth. So, motivators are inherent to the person, while hygiene factors are related to the working environment or the context in which the work takes place.

Researchers have conducted studies on teacher motivation using different perspectives. For example, Lee, Robert, and Smith (1991) conducted an empirical study to find relationships between schools' organization, teacher’s efficacy, and job satisfaction. They based the study on the belief that a motivated teacher will have a high degree of influence on student outcomes. The data was taken from the Administrator and Teacher Survey (ATS) from the 1984 High School and Beyond dataset. The sample included 8,488 teachers in 307 public and 47 Catholic high schools. Thirty teachers from each school were selected randomly to conduct the survey.

Lee et al. (1991) focused their study on the link between school organization and teacher outcomes because they could affect student outcomes. The quantitative study was designed to determine the influence of teacher job satisfaction and self-efficacy on student outcomes from the perspective of the school's organization. Lee et al. found that the factors associated with the organization of schools that produced more job satisfaction were: (a) organizational structure, (b) strong leadership, (c) availability of resources, and (d) supporting environment.

Certo and Fox (2002) also used an organizational viewpoint to conduct a study to investigate teacher attrition and retention. Their qualitative study collected data from a sample of 42 teachers using focus groups, individual interviews, and two instruments: (a) the Teacher Retention Focus Group Guide and (b) the Exiting Teacher Telephone Interview Protocol. Certo and Fox found that the lack of or little support from the administration, job opportunities in other
areas, salary, and no administrative support were the main reasons teachers leave their positions. Also, teachers were motivated to stay in the profession by factors such as the support received in terms of resources, professional development opportunities, collegiality, sharing resources and strategies with colleagues, good relationships, distributed leadership, and student discipline support.

PLCs are characterized, among other things, by distributed leadership practices. With this in mind, Wahab et al. (2013) conducted a quantitative study with a sample of 243 teachers selected randomly from 12 schools of Port Klang Zone, Selangor. The purpose of the study was to measure both the level of distributed leadership practice and the level of teacher motivation. More specifically, they wanted to know the amount of motivation that distributed leadership produced among teachers. The researchers considered four dimensions of distributed leadership: (a) schools’ vision, mission, and goals; (b) culture; (c) responsibility; and (d) leadership practices. Data analyses were performed using descriptive statistics and Pearson correlation. Wahab et al. found that the level of distributed leadership was high in three of the four dimensions, except in leadership practices that result in a moderate level. Motivation among teachers was high, but the relationship between distributed leadership practices and motivation was a weak one. These results indicate that distributed leadership practices must be improved in these schools since they directly impact student outcomes. Additionally, teachers must work to develop their skills to increase the quality of the education delivered.

A motivated individual will work better and more productively than one that is not as motivated (Herzberg (1968). Knowing more about teachers' motivation can help schools make decisions and create the appropriate environment to increase motivation levels. Van den Berghe, Aelterman, Cardon, Tallir, and Haerens (2014) conducted a cross-sectional design study to
identify motivational profiles of Physical Education (PE) teachers and the relationship between these profiles with “experiences of need satisfaction, dimensions of teaching style, and burnout” (p. 407). The four profiles were: (a) poor quality, (b) a low quantity, (c) a high quantity, and (d) and a good quality group. These profiles were associated with two types of motivation; the first one was autonomous motivation, explained as the internal drive that causes a person to do her work; and the second one was controlled motivation, which is felt when one is forced to act in a certain way.

The study’s sample consisted of 201 PE teachers from Flanders, Belgium. Van den Berghe et al. found that autonomous motivation positively correlates with need satisfaction at work and supportive-teaching style, but it negatively correlates with burn-out. In conclusion, this means that when autonomous motivation is high, there is less burn-out. They also found that teachers’ needs are best satisfied with a “well-structured environment” (p. 415). Consequently, this suggests that schools should focus their efforts on increasing teachers’ autonomous motivation by having clear policies, procedures, and expectations, along with structures and processes that support them in their work. Highly motivated teachers will be more willing to support their students; thus, student achievement will increase.

Finding the factors that motivate teachers could help schools create the appropriate environment to increase motivation. Gobena (2018) conducted a mixed-method study at Haramaya University in Ethiopia to find the factors that affect teachers’ motivation and how this motivation is related to the quality of education. The factors included in the study were salary, teachers’ attitude, and social factors. Gobena used a sample of 303 in-service secondary teachers selected from a total of 987 teachers by stratified random sampling. The qualitative part of the study consisted of analyzing the teachers’ portfolios and narrations, while the quantitative part
consisted of a survey that was later analyzed using descriptive and inferential statistics. The findings suggested that teachers with low salaries cannot provide for their families just with that income. Thus, they have to look for other jobs, which means that the time they have to support their students is reduced drastically. Teachers also expressed that they feel they are not necessary for society. Study results also showed that their level of motivation influences teachers’ attitudes towards the profession. Finally, they found that the level of teachers’ motivation influences 63.2% of the quality of education. Thus, motivated teachers will deliver better education to their students than teachers who are not motivated.

**Teacher Professionalism**

The studies mentioned in the previous section stressed that teachers are motivated with recognition, accomplishment, professional growth, and the opportunity to exercise a certain amount of leadership. The culture of isolation that prevailed for many years in the education field has overshadowed the recognition of teaching as a profession (Gobena, 2018; Certo & Fox, 2002; Herberg, 1998; Lee et al., 1991; Van der Beghe et al., 2014; Wahab et al., 2013). Thus, it is time to continue elevating the teaching career, and it is time for teachers to be considered capable professionals, not mere technicians (Sachs, 2016). If this happens, as studies have confirmed, teachers will be motivated to persist in their careers, and students will benefit from a better quality of education.

Coleman, Gallagher, and Job (2012) reviewed the literature to describe the elements inherent to teacher professionalism and called for a shared vision. While the primary purpose of this shared vision of teacher professionalism was to reinforce gifted education, it is worth mentioning how they delineated their framework to clarify what teacher professionalism encompasses. Coleman et al. stated that the term professionalism has changed over time because
education has also changed to adapt to new circumstances. They affirmed that professional teachers must have two types of knowledge: subject knowledge and knowledge about evidence-based teaching practices that enable students to learn. Furthermore, as part of their jobs, teachers must reflect on their practice and collaborate to maintain a dynamic knowledge base that continually adapts to new circumstances and develops over time. Teachers also need to assume leadership roles.

A similar conceptualization of teacher professionalism was offered by the OECD (2016). In its executive summary, the OECD stated that the concept of professionalism conveys three domains: (a) teaching knowledge, (b) work-related teachers’ decision-making, and (c) peer collaboration to share best practices. The OECD developed a quantitative study to “examine the nature and extent of support for teacher professionalism” (p. 21). The data for the study came from the Teaching and Learning International Survey (TALIS) 2013, which collected data from teachers and principals in 38 countries. TALIS measured the average number of best teaching practices applied by the teachers to measure teacher professionalism.

The OECD reported a positive relationship between status, self-efficacy, job satisfaction, and professional satisfaction with teacher professionalism. However, this positive relationship is higher at the upper levels of schooling (secondary teachers as opposed to primary teachers), although primary school teachers have more professionalism than high school teachers. The OECD asserts that teacher professionalism is vital for all students, especially for low socioeconomic status.

Status, self-efficacy, job satisfaction, and professional satisfaction are motivators, according to Herzberg (1968). Enhancing these factors will result in motivated teachers who will do a better and more professional work that will positively impact student learning. Thus, in the
interest of increasing the quality of education, there is a need to create policies that promote teachers' professionalism. These policies can be of two kinds: (a) policies that are specific to the needs of the education system, and (b) policies that create education programs for teachers and that create spaces to practice teaching before going into the profession. In addition to these policies, it is also crucial to create and support induction and mentoring programs, support classroom research (at the individual or team level) and participate in networks or other information sharing ways. As a final remark in this study, the OECD believes that it is important that all teachers have equal access to professional development, mentoring programs, and collaborative practices to ensure better student achievement and fewer achievement gaps. Furthermore, they stressed the need for more research attempts that focus on the outcomes of teacher professionalism.

The call for teacher professionalism is not a new one. In 2003, Sachs published, The Activist Teaching Profession, “a manifesto for revitalizing the teaching profession, a strategy for public recognition and legitimacy” (p. 413). Recently, Sachs (2016) reflected on the changes that have occurred since 2003 and how those changes have delineated the teaching profession. Currently, the factors that influence the profession are different from ten years ago. Change is a constant, and since the external environment highly influences teaching, the purpose of professional development is not limited to building capacity but also to ensuring that capacity continuously evolves and adapts to changing circumstances, thus remaining responsive to political influences, as well as, economic and social influences. This line of thinking comports with Coleman et al. (2012), who agree that teaching is a dynamic endeavor that needs to adapt to new times.
For example, according to Sachs (2016), teacher professionalism in 2003 was understood as the result of a social movement based on trust, respect, and reciprocity among the different stakeholders when working to “improve the working conditions and status of teachers” (p. 419). However, the culture of standardization and accountability that dominated education policy in the following decade across many countries and most education systems reduced the level of trust needed for the professionalization of the teaching career. Sachs concludes that the teaching profession must continue moving towards collaboration and research, and teachers must be devoted to their personal and social transformation through continuous learning. Finally, Sachs encourages teachers to get involved in innovation and improvement through inquiry, the creation of new strategies, and sharing good practice and resources. The accountability movement is just beginning to account for the need to refocus on teacher professionalism as the primary means for achieving better student outcomes for all students regardless of students’ circumstances.

The studies about teacher professionalism presented so far show that teachers still need to demonstrate their teaching knowledge and skills. The students' outcomes determine trust in standardized tests, and teacher professionalism is measured against performance standards that determine their behavior while teaching. However, the way teachers perceive their professional space and how they enact teaching is a different matter. This perspective was undertaken by Oolbekkink-Marchand et al. (2017), who conducted a qualitative multiple case study to understand how teachers’ agency and their perceived professional space interact. They chose three different countries for the study, the Netherlands, Norway, and Israel. This contextual and cultural multiplicity enriched the study and provided multiple perspectives. Oolbekkink-Marchand et al. explained that teachers’ agency is the capacity teachers have to help students learn, with professional space, they referred to the amount of freedom that teachers have to make
decisions regarding their practice. Oolbekkink-Marchand et al. (2017) argued that teachers find themselves tied to rules and regulations that limit their decision-making with the focus on standardization.

Their principals selected the study participants as teachers who were “independent and self-reliant” (p. 39). This convenience sample of 18 teachers comprised six teachers from Norway, six from the Netherlands, and six from Israel. Also, all of them were high school teachers of the public education system in their respective countries. Data collection comprised of classroom observation, semi-structured interviews, and the storyline method. Individual cases were analyzed, and a cross-case analysis was performed afterward.

Oolbekkink-Marchand et al. (2017) found that teachers’ perceived space and agency were influenced by the teacher herself and the context in which the teacher works. It was also found that teachers’ agency increased over time regardless of their teaching experience and their perceived space. However, the teachers’ agency never surpassed their perceived space, which means that the agentic behavior was limited or constrained by the context in which the teacher worked. In conclusion, this study revealed that strong educational beliefs help teachers act more independently, which is acquired over time as teachers get experience, but trust and support from the principal were critical factors for increased teacher agency.

**Student Learning – Results Orientation**

The primary goal of a professional learning community is to improve students’ learning, a goal that must be shared by all members of the community. Therefore, decisions and measures taken must arise from the desire to accomplish this goal. Furthermore, a strong learning community will have a clear perspective on the students' needs through the collection and analysis of data (DuFour & Eacker, 1998). Teachers' collaborative work must be translated into
an improvement in the teaching practice to ultimately improve student achievement and support the expectation for students to perform at their best (Mullen & Schunk, 2010).

Thompson, Gregg, and Niska (2004) conducted a collective case study using qualitative and quantitative data to examine if teachers and principals perceived their schools as learning organizations (or PLCs) and, more importantly, if student learning was taking place. The study used Senge’s (1990) concept of learning organizations as its theoretical foundation. Thus, Thompson et al. wanted to know if the schools were operating according to the learning organization's five disciplines. For the sample, six middle schools, four in a Midwestern city, and two in a New England city, for a total of six (three urban middle schools and three suburban middle schools) were selected. Multiple data sources served to collect data, which allowed for data triangulation. The qualitative data included interviews with principals and teachers’ focus groups. The quantitative data was collected with the “Learning Organization Practice Profile” survey (Thompson et al., 2004, p. 6).

Thompson et al. (2004) found that all the participant schools were learning organizations in both leaders and teachers' eyes. The principals reported that everyone in their schools targeted student learning. Teachers pointed out that school leaders recognized the importance of job-embedded professional development, and they allowed the staff to select topics that address their own learning needs. The staff also mentioned other essential aspects of learning organizations, for example, decisions based on data, relationships, and willingness to take risks. In terms of student learning, principals also reported that students had been improving due to the implementation of Senge’s (1990) five dimensions of the learning organization. Teachers agreed and based this belief on the increase in students’ test scores and their work, including improvement in students’ portfolios.
A more profound study about the impact of teacher professional learning and teacher efficacy on student achievement was conducted by Bruce, Esmonde, Ross, Dookie, and Beatty (2010). They chose a multiple instrumental case study approach and collected both qualitative and quantitative data. For the sample, teachers and students were recruited in 46 schools from 15 school districts. Teachers who participated in this study attended a “classroom-embedded professional learning program” (p. 1598). The results presented here belong to two of the districts that participated and were selected because they had a similar size but showed different professional development characteristics and students’ achievement results.

District A had a large-scale professional development program for six years, but for the four most recent years, the Board’s mathematics team worked on creating smaller collaborative teams that focus on developing teachers’ math teaching skills. District B’s professional development was more traditional and focused more on literacy than mathematics. Interestingly, when the data previous to the study were examined, it was found that teacher efficacy in both Districts was perceived high by teachers, but it was perceived higher in District B, which also had higher student outcomes than the pretest results showed.

In terms of data collection, quantitative data from teachers was collected with pre and post surveys that measured: (a) “commitment to standards-based mathematics teaching,” (b) “three dimensions of teacher efficacy,” and (c) “self-perceived learning” (Bruce et al., 2010, p. 1600). Quantitative data from students was collected through a performance task test that involved six processes specifically related to mathematics. Classroom observations, interviews, and field notes provided the qualitative. Data analysis comprised both individual and cross-case analysis.
The results of teachers’ pre-tests showed that District B outperformed District A on all three quantitative measures. However, the post-test results were surprisingly different, showing that District A teachers were more committed to standards-based teaching and perceived themselves as more skilled in the mathematics classroom management and in “self-perceived learning” (Bruce et al., 2010, p. 1603). Another difference found was in the reduction in the efficacy needed for teachers in both districts to use a wide range of instructional strategies. In terms of student achievement, in the pre-tests, District B outperformed District A in all achievement measures, except for making connections in the mathematical process. That result changed drastically in the post-tests, where District A students achieved higher than District B, and District B students had no significant improvement over their pretest scores.

These surprising results can be explained with the qualitative data. The researchers stated that the previous experience in team learning, collaboration, and reflection about student work was responsible for the faster growth and development of District A teachers. Another factor that might have contributed to this difference was that, even though the two groups of teachers had the same learning experience, they learned different things. Lastly, both groups started the experience from different levels of knowledge in math teaching; thus, District B teachers' knowledge was less profound.

In summary, the results of Bruce et al.’s (2010) research clearly state that teachers’ preparation and ongoing professional learning are a compelling way to improve students’ achievement. However, this process needs to be developed progressively, and results might not be immediate. Instead, they will depend on a persistent effort on the part of school leaders and teachers. Moreover, the results of this study suggest that teachers with weaker practice and weaker student outcomes can accelerate their growth in both areas and surpass other schools with
initially more robust practice and better student outcomes through collaborative processes that focus on teacher learning.

**The Role of Leadership and Culture in PLCs**

**Leadership**

Bush (2011) defines leadership as a “process of influence based on clear values and beliefs, leading to a vision for the school” (p. 198). The word “influence” is an important term in this definition because it separates leadership from authority. According to Bush, authority pertains to the position in the structure of the organization; leadership, on the other hand, does not need a position to be exercised. Leaders will exercise their influence at any level of the organization. Bush and Glover (2014) state that the only factor that impacts student achievement more than leadership is teaching. Thus, leadership is essential for school improvement.

The authority inherent to the school’s principal position may not be enough to produce change. Leadership is essential to influence people to change in order to improve (DuFour & Eacker, 1998). As stated before, both leadership and teaching are the most critical factors that impact student achievement. For this reason, school principals must exert their leadership to build shared values and a vision that includes the development of a collaborative and continuous learning culture among teachers. Additionally, DuFour and Eacker (1998) state that school principals must share their leadership and inform the staff properly to be part of the decision-making process.

Jacobson, Johnson, Ylimaki, and Giles (2005) conducted a case study to measure the principals' success in seven schools in the U.S. through an analysis of their performances. Jacobson et al. first determined if the leaders had the performance for success by using the “Leithwood and Riehl’s [2003] three core leadership practices” (p. 607), which are: (a) direction
setting, (b) developing people, and (c) redesigning the organization (p. 607). Jacobson et al. used a purposeful sampling approach to identify seven schools in challenging circumstances, from five western New York districts. From these seven schools, five were elementary schools, one was a middle school, and one was a high school.

The results of the study showed that the principals were focused on a given direction, and they had a clear purpose for their respective schools. Also, they created safe, encouraging environments for both staff and students; they established high expectations regarding student achievement, and they used accountability to reach their goals. Moreover, these principals held learning as a principle, and they were committed to addressing the issue(s) that could have been hindering student learning. These findings indicate which skills leaders need in order to make drastic changes that promote learning. Simply put, school leaders need to have a specific focus and a strong drive to enhance student learning (Jacobson et al., 2005).

Robinson and Timperley in 2007 confirmed the results obtained by Jacobson et al. (2005). They studied how leaders, by improving teacher learning, produced a positive effect on student outcomes. The conceptual framework of the study was based on several professional development initiatives with a proven effect on teachers and students. Robinson and Timperley used a “backward mapping strategy” (p. 247) to arrive at the effect of leadership in school improvement inductively. In each initiative, leadership practices were drawn from 17 studies conducted in New Zealand and selected from 72 studies on teacher and professional learning. After several analyses, the descriptions were classified into different leadership aspects related to teacher learning that enhance student achievement.

Robinson and Timperley (2007) found five leadership aspects that were fundamental in enhancing teachers' and students' learning. These aspects were: “providing educational direction,
ensuring strategic alignment, creating a community that learns how to improve student success, engaging in constructive problem talk, and selecting and developing smart tools” (p. 247). It was also found that leadership was not concentrated in one person but distributed throughout the school.

Michalak (2009) was interested in finding the strategies that leaders use to make schools succeed in her two-phase qualitative study. The first phase consisted of a literature review to learn how leadership affects urban schools going through difficult times, and the second phase consisted of a case study. Michalak selected 36 schools in Poland that have demonstrated success despite serving deprived communities. The data collection methods used were documentary evidence, individual interviews with principals, teachers, middle managers, and group interviews with students and parents.

Michalak (2009) identified strategies that prove to be the most successful for the schools participating in the study. These strategies were: (a) setting the directions: targeting an important, visible, attainable first goal, (b) developing people, and (c) redesigning the organization and changing the culture of the school (p. 391). Michalak found that the principals studied demonstrated the characteristics of “strong educational leaders” (p. 395). Their vision for the school and their high expectations on all students’ capabilities drove their behavior as they worked to create an atmosphere where everyone felt safe and supported.

Among the strategies that Michalak (2009) found most successful in improving schools was developing people. A quantitative study conducted by Egmir and Yoruk (2013) precisely relates to this strategy, since they wanted to determine the level at which school administrators' coaching skills matter when schools want to become a learning organization. They used a
convenience sample of 175 teachers working in public and private secondary schools of Kutajya Province National Education Directorate in Turkey and collected data using two questionnaires.

The findings indicated that administrators' coaching skills are perceived higher in females than males, in teachers with college and postgraduate degrees as opposed to associate degrees, and in science at Anatolia high schools than in vocational high schools. More importantly, they found that the principal’s coaching skills positively contributed to the schools becoming learning organizations. Educational leaders must guide their staff through the process, helping them implement the five disciplines of the learning organization (Senge, 2006).

School leaders must lead the way through PLCs' implementation process, but how are they going to inspire people to follow them? Tschannen-Moran and Gareis (2015) conducted a quantitative study to find the relationship among trust in the principal, leadership behaviors, school climate, and student outcomes. The sample of 3,215 teachers was recruited from 64 schools that included elementary, middle, and high schools. An anonymous survey was the instrument for collecting the data. Data analysis included descriptive statistics, analysis of the correlation among variables, and multiple regression.

Tschannen-Moran and Gareis (2015) found that the principal's way of leadership is positively correlated with the teacher's trust in the principal and with student achievement. There was evidence that both the way principals treated teachers and how involved she was with improving instruction was equally important for building trust in teachers. Moreover, when teachers trusted the principal, the commitment to students, and their willingness to collaborate with colleagues were higher.

In summary, the studies described above had similar findings regarding what principals need to improve schools. The characteristics of a good principal identified by the research are:
shared vision and goals, teachers’ growth, produce a change in the school’s culture, creating safe environments, high expectations of teachers and students, focus on students’ learning, building a community of learners, and shared leadership.

**Culture**

The culture in any organization is based on their constituents' beliefs, attitudes, and behaviors (Bush, 2011; DuFour & Eaker, 1998). The subjective nature of these components makes it difficult to be conscious of the existence of a particular organizational culture or the changes that it might go through. According to DuFour and Eaker (1998), the culture of the school includes, among other things, the emphasis on teaching versus learning, isolation versus collaboration, shared leadership versus positional authority. DuFour and Eaker recommend two strategies to facilitate the implementation of change initiatives: (a) shared values, and (b) reflective conversations. Shared values can serve as guiding principles to make decisions and to take action. Reflective conversations will support teachers during the change process. In addition to these strategies, Bush (2011) stresses the importance of leadership for the change process's success.

Connolly, James, and Beales (2011) conducted a longitudinal, instrumental case study in South Wales to analyze organizational culture through five perspectives: (a) as an external reality, (b) as interpretation, (c) as organization, (d) as competing subcultures, and (e) as a process (p. 425). The sample consisted of 15 teachers, ten of whom had worked for more than seven years at the school, seven pupils between the ages of 17 and 18 years old with more than six years at the school, two administrative staff members, and three governors. An additional 25 teachers were randomly selected and surveyed. The case study described the leadership exerted
by a headteacher appointed to a school at risk of failure and how this principal was able to change the school's culture.

By the time this new principal was appointed, the expectation level in terms of student achievement was shallow. However, with the principal’s vision, actions, and the new measures he implemented, it was possible to shift the expectations of the stakeholders to a point where everyone shared the belief that all students were capable of being high achievers. The changes began with generating new policies, developing job descriptions and procedures. Later, he implemented a process to monitor student progress. He also made changes in the organization's structure, processes, and plans, among other measures. Finally, it is worth pointing out that, in the beginning, this principal enacted an authoritarian leadership style in order to put everything in place, and then he slowly shifted to a distributed leadership style, giving the staff more participation in decision-making.

The results showed that the change in the organization's culture from one of “low expectations” regarding student achievement to one of high expectations produced a change in practice that positively affected the school's performance. Moreover, the leadership practice changed according to the school's needs from a supportive type of leadership to a distributed one, allowing the staff to make decisions about new policies and rules. In conclusion, he created a new, shared vision and a new culture as well. This case is evidence of the idea that to become learning organizations and to adopt distributed leadership practices, educational institutions must change their structure and culture to develop collegiality, where a vision is shared, and there is room for collective learning and decision-making.
Chapter 2 Closure

Chapter 2 summarizes the ideas and findings of research relevant to understanding how schools, as they learn how to learn as organizations, become a community of learners called a PLC. The characteristics of shared vision, mission, values, collective inquiry, collaborative teams, action orientation and experimentation, continuous improvement, and result orientation (DuFour & Eaker, 1998) shape schools into learning organizations capable of adapting to changes. Change is the most constant variable and recurring challenge that any institution must face in the current global context, and schools are not the exception.

The most important goal of schools is student learning. To achieve this goal, teachers must commit to becoming lifelong learners and must be open to sharing their strengths and weaknesses with their colleagues, in a process that seeks the improvement of the teaching practice. School leaders also have an unavoidable responsibility to facilitate this learning process and share their leadership with other stakeholders. Thus, the school culture in PLCs is different from schools that remain in the traditional structure. The PLC culture is open, supporting, and embraces change.

The next chapter explains the research methodology that is going to be used in the investigation and the results of a preliminary field test that helped inform the design for this study.
CHAPTER 3

METHODS

The purpose of this mixed-methods, instrumental single-case study was to describe the process that a criterion sample of participants from a private Dominican School experienced as they adopted and began to implement the Professional Learning Community (PLC) model for professional staff engagement and school operations. This study focused on describing the issues educators and other stakeholders in the sample school encountered in implementing the PLC process and how they responded to those issues. This study also used a validated PLC implementation status instrument to profile the case study school’s implementation state. It examined how that state profile related to how school stakeholders described the implementation process, the issues encountered in the implementation process, and the responses to those issues. By studying the process that participants from a Dominican school described and the situations they encountered, the insights from this instrumental case selected for this study may guide schools that follow. This study looked for these insights by collecting the perspectives of multiple players (i.e., stakeholders) in the school as they participated in implementing the PLC process.

Study Approach

The study was conducted as a mixed-methods case study. Plano Clark and Ivankova (2016) defined mixed-methods case studies as “a research design in which researchers embed quantitative methods within a case study design to enhance the application of the case study for examining the case(s)” (p. 146). A single case study school was recruited according to a set of instrumental case criteria, since it was necessary that the selected school be an instrumental case and be committed to and well in implementing the PLC process school wide. Criterion sampling
is used when it is required that the sample meets some conditions, and the researcher wants to ensure the quality of the study (Gall, Gall, & Borg, 2007; Miles & Hubberman, 1994). For this case study, I recruited participation by the school where I serve as a teacher and have been involved in the implementation of the PLC process since 2015. Since I am the researcher and a member of the school staff, I described the measures I took to exercise reflexivity and establish credibility and reliability for this study's findings.

This study benefits from using both quantitative and qualitative methods to achieve an in-depth examination of the case. The application of triangulation enriched the understanding of the problem using different data collection methods (Plano Clark & Ivankova, 2016). For this study, I used the Qual + quant mixed-method design, which allowed the integration of both types of data to obtain a more comprehensive conclusion since the phenomenon was studied from different perspectives and diverse ways (Plano Clark & Ivankova, 2016).

The study proposed understanding the issues that arose during PLC implementation and how the principal, teachers, and other stakeholders experienced the PLC implementation process and responded to any issues they encountered during the implementation process. For this reason, I selected to approach the study with both a descriptive and exploratory approach for the qualitative portion of the research methodology. This approach was most appropriate to address the qualitative research questions that sought to understand the nature of implementing PLCs in a typical Dominican private school through the stakeholders' experiences. Through an inductive, flexible, and interpretive type of inquiry process, I was a participant observer and researcher working in the natural setting to find the answers I was looking for (Marshall & Rossman, 2016).

Among the many qualitative approaches available, I chose to use a single instrumental case study design. Case studies bring forth a thorough understanding of the process or issue
under study (Merriam & Tisdell, 2016). Moreover, case studies are centered on the researcher’s and the participants’ worldviews and can use qualitative and quantitative methods (Marshall & Rossman, 2016). In addition to all of the above, mixed-methods case studies can take advantage of quantitative methods’ objectivity, in this case, to complement and enrich the qualitative findings. For the quantitative part of the study, I wanted to determine the level of implementation of the PLC dimensions and its related attributes, measured by the strengths and weaknesses that teachers perceive in each of the dimensions of PLC implementation (Hipp & Huffman, 2010). A cross-examination of both types of data provided a deeper understanding of the implementation process, the experiences teachers and leaders went through, and their challenges to understand the school’s implementation status. A qualitative analysis of the issues encountered in the qualitative strand and the strengths and weaknesses identified with the quantitative instrument revealed connections between the issues encountered by the instrumental case study Dominican school in the PLC implementation process and the status of that school’s implementation strengths and weaknesses.

Previous to this study's primary research work, I conducted a field test of a portion of this study's design. To further refine my protocol for the full study's interview portion, I conducted in-depth semi-structured interviews with a small preliminary school staff sample. Specifically, I conducted, transcribed, and analyzed the data from three interviews from the field study. I used in vivo codes to identify salient points from the transcripts. Then, I organized those in vivo codes into categories to determine if the interviews yielded any useful emerging thematic ideas about the purpose and research questions for the preliminary field test study.

The data from the small field test sample interviews allowed identifying salient points that responded in a lesser or greater degree to four of the research questions that guided the field
test. For the third research question, which focused on issues study participants encounter as they implement the PLC model, participants reported that by implementing the PLC model, the school sought to enhance students learning by improving instructional delivery. The process of implementation in the case study school, as described by the teachers, was complicated. The increase in the workload, the numerous training sessions, and the multiple meetings led to frustration. Also, added responsibilities necessary to implement the process and work as a true learning community occupied teachers' already busy schedule. Teachers already had little available time after planning, delivering classes, giving feedback to students, evaluating their daily work, making tests, quizzes, and designing and grading projects. Many teachers found that this was sufficient reason to resist change; thus, they reacted negatively, creating conflicts, and delaying the process. Additionally, some teachers were still attached to the culture of teacher isolation and considered the collaborative work intrusive.

The field test teachers also expressed that they liked collaborative work, learning from each other, sharing strategies. They indicated that it works well in general, but there is always someone who leans on other people instead of doing their job. Also, this collaboration can be difficult if teachers view other teachers as competitors instead of partners. This fact can prevent good teamwork. Moreover, if the team agrees on something, everybody must accept and comply with the responsibility to achieve the team’s goal. It was also reported that sometimes the team meeting time was inefficient because the conversation turned in a different direction, for example, complaining about students. Another issue regarding team meetings was that team members' differences of opinions could create delays in decision-making or reaching agreements. On another note, one of the teachers expressed that adopting new strategies not necessarily ensures success because what works well in one place, country or school, might not work in a
different setting. Regarding the principals’ role, the issues they have faced had to do with principals being too bossy instead of supportive and not very involved with teachers’ work. Also, a teacher complained that when someone goes with a problem to the principal, she/he might consider that the problem is not important, leaving the teacher frustrated.

For the fourth research question that focused on how participants in the case study school respond to various issues, the field test participants expressed that some of the problems that arose due to the daily routine were resolved during team meetings. They also mentioned seeking the help of the advisors when those issues related directly to students.

For the fifth research question, which focused on changes teachers described in their professional relationships with each other, their principal, other staff, students, and parents as they work to implement the PLC process, the field test participants said that the collaboration among teachers had increased and that they enjoyed sharing strategies and learning from each other. They understand that with the PLC process, leaders wanted teachers to “work on the same page,” meaning that the work and goals were aligned, and everyone needed to comply with the agreements. Also, the fact that teachers help each other and trust each other was seen as a positive outcome of PLCs. Nothing was reported regarding changes in the professional relationship with the principal or parents.

For the sixth research question, which focused on changes in teaching, teachers and principals described as a result of implementing the PLC process, field test participants highlighted the improvement in students' feedback by using rubrics. Also, teachers were differentiating more according to the students' needs, there was more planning across subjects and aligning the same subjects through different grades, and there was an ongoing professional development as teachers were updated with new strategies by sharing best practices.
These salient points from the field test data allowed me to understand what researchers say about the multiple realities that exist regarding the same phenomenon. Although there were some common aspects, interviewees expressed different opinions and views as they answered the questions. As a result of the field test experience, I made some refinements to the research questions and the interview protocols to probe deeper into the key salient points I found in the field test data. This result also made me decide to include as a large a sample as possible of teachers from the instrumental case study school to get as broad as possible picture of how teachers are experiencing the PLC process.

The field test data also raised some issues I explored with the principal during the principal interview and other stakeholders' interviews. Finally, I am adding the quantitative aspect of this study to get a picture of the level of implementation of the PLC process dimensions and its related attributes. The school’s state of PLC implementation was measured by the strengths and weaknesses teachers perceived in each dimension with the instrument created by Hipp and Huffman (2010), the PLCA-R (see Appendix A). Additionally, I was interested in finding out the connections between the issues that emerge from the qualitative data and the implementation profile created by the quantitative instrument that focused on implementing each of the PLCs’ dimensions. In consequence, the study will be conducted using a mixed-method case study approach.

**Research Design, Approach, and Rationale**

The study sought to understand the issues that arose during PLC implementation or its follow up; thus, the qualitative research methodology's exploratory approach was appropriate to address the research questions that sought a description of the stakeholders' experiences. The ontological assumption in qualitative research of the existence of multiple realities, the
researcher’s reality, and the realities of those who take part in the study, compels the researcher to look for those realities in every way possible. Through an inductive, flexible, and interpretive type of inquiry process, the researcher works in the natural setting to find the answers she is looking for (Marshall & Rossman, 2016). However, after having conducted the field test, I decided to take advantage of the case study's flexibility, and I collected quantitative data that provided information about the level of implementation of the PLC dimensions. By establishing a means to profile the school’s current state of PLC implementation, this quantitative descriptive profile helped interpret the qualitative description of the implementation process, issues, and responses to those issues.

Merriam and Tisdell (2016) define a case study as “an intensive, holistic description and analysis of a single, bounded unit” (p. 232). Marshall and Rossman (2016) emphasize case studies' flexibility since diverse forms of data collection can be used, such as in-depth interviews, document analysis, participant observations, other qualitative methods, and surveys. Notably, the mixed-methods case study design that was used suited the study because it explained a case of the PLC model in the DR (Lazar, Hochheiser, Jinjuan, & Hochheiser, 2017; Marshall & Rossman, 2016) with both a current state profile and a process description.

In the current reality of DR, the PLC model is a new organizational strategy and is being implemented in a few schools. The recruited case study school corresponded to a unique case because it was probably one of the very few implementing PLC processes in the DR; i. e., an early adopter case. An in-depth understanding of all the changes that the schools and their constituents were going through, the challenges that those changes brought with them, and how they influenced stakeholders’ behavior was critical to know what the PLC implementation conveyed. This study sought to develop these understandings in light of the school’s state of
PLC implementation through the use of a concurrent quant + Qual design (Plano Clark & Ivankova, 2016). According to Marshall and Rossman (2016), through an inductive, flexible, interpretive type of inquiry process combined with a descriptive state profile, the researcher works in the natural setting to find the answers she is looking for.

**Reflections on My Identity (Reflexivity)**

The study proposed in this document is one of personal interest because when I started my career as an Industrial Engineer, I worked in the Organization and Methods department to develop the Organization Manual of an enterprise. Later, I decided to start my teaching career because I would share more time with my kids as a mother of two. I liked it so much that all my professional development was related to teaching, and even though so many years have passed since I started my teaching career, I am focused on obtaining my Ph.D. in educational leadership. Nowadays, I think that the school's leadership, culture, and organizational structure can influence the students' well-being and, consequently, all school stakeholders. As mentioned before, the Dominican Republic is now engaged in improving the quality of education delivered to its youth. A study like this can enlighten the path to obtain this laudable goal.

I am teaching at a school that started implementing the PLC model a few years ago; thus, it represents a convenient sample for this study. Additionally, I have built relationships with many of my colleagues, so part of the road is already walked through. Nevertheless, all of the aforementioned can be seen as a threat to the study's validity for a qualitative study. In order to avoid bias, the study included bracketing, reflexivity, memoing, and peer debriefing; all of them are processes used in qualitative research to maintain the researcher in a position in which her values, beliefs, interests, and assumptions are clear with respect of what the study encompasses.
Sampling, Subjects, Access, and Setting

Site or Source of Study Participants

The study was conducted in one school recruited with a criterion sampling approach. Both Creswell (2013) and Marshall and Rossman (2016) state that one fundamental characteristic of case studies is that they must be conducted in the natural setting. PLC’s natural setting is the school. For this reason, and the purpose of this study, the sample consisted of one school that was in the process of implementing the PLC process and met the following criteria: (a) located in the city of Santo Domingo, DR, (b) well into the process of implementing the PLC model (3rd year), and (c) all pre-K to 12-grade teachers in the school are involved in the PLC process. The site for this study was my workplace. This condition facilitated the entry and the subsequent conduct of the study.

It is important to note that the case study school is a private school in the Dominican education system. Like many others, this school follows the U.S. curriculum because its main language is English, although to comply with the Dominican Education Law and regulations, they need to teach Spanish and other subjects in the native language. Most of these schools are accredited by AdvancED, now Cognia; thus, they follow the guidance and recommendations for improvement that the organization provides them with. Based on this organization’s recommendations for improvement, the case study school began the implementation of PLC processes.

Population

The population of the study consisted of seven administrators and 54 teachers. Administrators included the school director, the school curriculum director, two principals (the elementary school principal and the high school principal), and the three new assistant principals.
appointed from the teaching staff. For the qualitative part of the study, the number of subjects recruited was five school administration and 16 teachers, six of which formed a focus group; the rest were individually interviewed. The quantitative portion of the study consisted of responding to the PLCA-R survey. In this part, 38 teachers responded to the survey, including the individual interviewees and the focus group participants.

The administrators and teachers recruited for the interviews had no less than two years working in the school to ensure that they had participated in the process for some time. The criterion for recruiting administrative and teacher participation for the qualitative strand of the study was based on the following aspects: (a) a minimum teaching or administrative experience of three years in the case study school or another school, and (b) a minimum of two years working at the case study school. For the quantitative part, however, all teachers who volunteered to respond to the survey were recruited, with no exclusionary criteria, to ensure the highest possible participation. All participants were fully informed about the study and completed the voluntary consent form that advised them of: (a) the purpose of the study; (b) their right to withdraw from participating at any time; (c) the procedures to collect data; (d) protection against disclosure; (e) risks, if any; and, (f) benefits for participants, if any (Creswell, 2013).

Access and Recruitment

As mentioned earlier, the recruited school is my workplace; consequently, access was granted with the approval of the Director of the School. The potential participants were recruited with a maximum variation sampling approach to take advantage of teachers' different perspectives with different backgrounds, experience, grade level, and subjects taught (Creswell, 2013). Teachers were invited through an invitation email informing about the study and what
was required from those who volunteered to participate. The teachers that answer the announcement voluntarily were the ones who participated in the study.

**Purposeful Sampling Strategy and Numbers**

The participant school was selected under the parameters of the criterion sampling approach because it could provide insights to understand the research problem (Creswell, 2013). The case school had characteristics aligned with specific parameters that fit the purpose of the study, as explained previously. I wanted to identify the issues that Dominican schools that had established PLC or were implementing it were experiencing and how they were addressing those issues. Dominican schools have operated with a traditional hierarchical model of organization that is interfering with the procurement of quality education.

The participants of the study consisted of the school leaders and the teachers who participated voluntarily. I recruited all the administrators and teachers who volunteered to be able to reach data saturation (Merriam & Tisdell, 2016). Based on the experience obtained from a preliminary field test, I decided to recruit 8-12 teachers for individual interviews to reach saturation with that data source and ended up interviewing ten teachers. I also recruited six teachers to participate in a focus group interview, for a total of 16 teachers across the two groups, as an additional saturation strategy and to explore further information derived from the one-on-one interviews. For the quantitative strand, all who volunteered participated in the survey with no exceptions or exclusionary criteria in order to recruit the highest number of potential participants to take the survey. These participants included those who participated in individual interviews or the focus group. For the qualitative strand, specifically, I recruited participation from each category of school personnel according to the following:
1. School Administrators. My recruitment strategy for this group of participants was to obtain agreement from all the administrators (principals, assistant principals, and directors) to participate in one-on-one interviews.

2. Classroom Teachers. For this category, I recruited participants in two ways. First, I secured 10 teachers to participate in one-on-one interviews. The range in number from 8-12 was an estimate based on the number I anticipated would be willing to consent to one-on-one interviews and the number needed to achieve saturation. Second, I augmented my one-on-one interview data with a teacher focus group. I recruited six participants for the focus group in the same manner as I recruited for the one-on-one interviews, providing each teacher who responded to participate in either the one-on-one interview or the focus group depending on their comfort level. In this manner, I obtained both maximum participation and maximal variation among teacher participants. In total, I recruited 16 teachers who were interviewed individually or as part of the focus group. In addition to their participation as interviewees, these participants agreed to take the survey PLCA-R for the quantitative strand.

Data Collection Methods and Procedures

Forms of Data

The study’s qualitative data emerged from three different in-depth semi-structured interviews: teacher interviews, leader interviews, and a focus group interview. The interviews followed an interview protocol, different for each type of interview, to explain the study’s purpose, and it contained the list of questions that guided each of the interviews (Creswell, 2013; Marshall & Rossman, 2016). The focus group interview questions encouraged discussions and facilitated opinions and points of view (Marshall & Rossman, 2016). The interviews were recorded and transcribed to a word document. The rich data that emerged from the interviews
supported the exploratory approach of the qualitative portion of the mixed-methods design of this study to address the research questions that sought both description and interpretation of the experiences of the stakeholders involved.

The quantitative side of this mixed methods design focused on developing a profile of PLC implementation with the qualitative data to understand how the school arrived at the state of implementation at the time of the study. Quantitative data was collected through a survey that measured the PLC's dimensions' level of implementation. The survey was administered to all teachers who agreed to participate. A high number of participants helped ensure obtaining their insights regarding the implementation of each of the PLC’s dimensions. The yield from the survey results was analyzed descriptively to produce a current state of PLC implementation profile. The combination of data collection methods allowed a better and more profound understanding of the issues that PLC implementation might convey in Dominican schools and their relationship with the PLC process's strengths and weaknesses. Specific information regarding this instrument is provided in the next section.

**Data Collection Protocols and Procedures**

Mixed methods use both qualitative and quantitative data (Plano Clark & Ivankova, 2016). The study’s quantitative data was collected via an instrument designed to place the school at some point in a continuum in the PLC implementation process. This point was determined by the practices related to the dimensions of PLCs (Hipp & Huffman, 2010), characterized by a series of attributes that define each of the dimensions. The instrument is called the Professional Learning Community Assessment-Revised (PLC-R), designed by Olivier, et al. in 2003, and revised in 2010 (see Appendix A). It has been used extensively in the U.S. and other countries, and it has shown to be consistent to determine the level of implementation of PLCs (Hipp &
The survey results provided descriptive statistics that revealed the strengths and weaknesses of the PLC dimensions and attributes.

Qualitative data was obtained with in-depth semi-structured interviews and focus groups with teachers and school leaders who emerged as key informants as the researcher collects data. Each of the one-on-one and focus group interviews followed a protocol consisting of questions designed to explore the implementation process, issues, and responses to those issues (Creswell, 2013). The interview protocols for the individual administrator and teacher interviews, plus the protocol for the teacher focus group interview, are included in appendices B, C, and D. For each of the interview protocols, I created a crosswalk table to illustrate how the interview questions align with both the study research questions and the PLC implementation dimensions of the PLCA-R survey.

**Instrumentation**

The instruments used in the qualitative data collection were the Teacher Interview Protocol (see Appendix B), the Leader Interview Protocol (see Appendix C), and the Focus Group Interview Protocol (see Appendix D). They consist of semi-structured questions to gather data regarding teachers' and leaders' experiences in the PLC process to identify themes that can shed light on the experiences, issues, and responses to issues that various school actors experienced while implementing the PLC process.

The Professional Learning Community Assessment-Revised (PLC-R) was the instrument used to collect quantitative data. The survey was administered to the staff of the school. I obtained permission to use this instrument, and it was granted and communicated through a permission letter (see Appendix G). The instrument's purpose was “to assess everyday classroom and school-level practices in relation to PLC dimensions” and determine the strength of each of
the PLC dimensions when they are implemented (Olivier et al., 2010, p. 1). It uses a 4-point Likert scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree) and has a comment section at the end of each dimension section, providing the opportunity for obtaining additional qualitative data. The PCL-R has been used widely, and according to Olivier et al. (2010), the internal consistency of the instrument has been confirmed by a Cronbach Alpha reliability coefficients for factored subscales (n=1209): Shared and Supportive Leadership (.94); Shared Values and Vision (.92); Collective Learning and Application (.91); Shared Personal Practice (.87); Supportive Conditions-Relationships (.82); Supportive Conditions-Structures (.88); and a one-factor solution (.97) (American Institutes for Research, 2018). The PLCA_R served to describe the school’s state of PLC implementation from the teacher perspective at the study time.

**Trustworthiness**

The nature of qualitative research, based on an inductive approach and the fact that the researcher was involved in the whole process and established relationships with the participants, makes trust a fundamental characteristic of the qualitative approach (Cohen & Crabtree, 2006). As cited by Cohen et al. (2006), Lincoln and Guba argued that deception has a negative effect on the naturalist inquirer’s study. The participants' perspective is difficult to construct if the researcher lies to them about the purpose of the study. Other aspects, like the participants' protection, anonymity, and confidentiality of the data provided, are difficult to protect due to the qualitative research's characteristics and nature but not impossible when proper measures are taken. These measures included assigning pseudonyms to replace all, actual school and participant names, and other identifying specifics for this study. The data is being maintained on a password-protected and encrypted electronic storage device to ensure access by the researcher only.
To maintain the real value of the study, the researcher considered the four components of trustworthiness, which according to Lincoln and Guba, as cited in Cohen et al. (2006), are: (a) credibility, (b) transferability, (c) dependability, and (d) confirmability.

**Credibility**

According to the Merriam-Webster Dictionary (n.d.), “credibility is the quality of being believed or accepted as true, real, or honest” (Credibility, n.d.). Lincoln and Guba (1985), as cited in Cohen and Crabtree (2006), suggest various techniques to address credibility. In qualitative research, “negotiating access to the site” and establishing good relationships with participants (Marshall & Rossman, 2016, p. 120) are essential elements of the process because, for longer or shorter periods, the researcher will be intrusive in their lives. Since I was part of the staff by the time the study was conducted, I built relationships, trust, and knowledge about the culture. This fact facilitated the entry, the approval of the pre-study, and the cooperation of the participants. It also facilitated access for the full study.

Triangulation is the use of multiple sources of data. It allows the researcher to verify the findings of one type of data with another; also, one method may offset another's limitations (Cohen & Crabtree, 2006). Additionally, triangulation helps to dig deeper into the phenomenon under study. To ensure validity/credibility, the data in this study came from different sources. It was gathered utilizing different methods, because as Creswell (2013) suggests, when a study is conducted in the researcher’s workplace, data triangulation becomes a crucial tool for validation because it will guarantee that the study's outcomes are precise and thoughtful. Besides, by using different sources and applying different methods, triangulation can also be done using more than one person to analyze findings or more than one observer (analyst triangulation). A fourth way to use triangulation is to use different perspectives or lenses to analyze and interpret data; this is
called theory/perspective triangulation. In this study, I interviewed three different stakeholders that provided different perspectives of the implementation: (a) semi-structured interviews with teachers, (b) semi-structured interviews with leaders, and (b) a semi-structured interview with a focus group (Cohen & Crabtree, 2006).

It is worth mentioning that this study’s interpretive lens is informed, although not restricted, by the findings of previous studies and elements of theory from the literature, for example, Senge’s Theory of Learning Organizations (2006); Mezirow’s Theory of Adult Learning (1983); Bush’ Theory of Collegiality (2003); and Nordin’s (2016), Sachs’ and Vanassche and Kelchterman’s (2016) Theories of Teacher Professionalism.

Transferability

Transferability means that the findings of a study also work for other contexts. To establish transferability, the technique used is thick description. Lincoln and Guba (1985), as cited in Cohen and Crabtree (2006), define it as “ways of achieving a type of external validity. By describing a phenomenon in sufficient detail, one can begin to evaluate the extent to which the conclusions drawn are transferable to other times, settings, situations, and people” (Cohen & Crabtree, 2006, “Triangulation”, para. 1). The case study method used in this study seeks a thick description of the case; thus, the technique is part of the purpose of case studies. The collected data and the analysis allowed a thorough description of how PLC implementation looks like in the Dominican Republic case study school.

Dependability

Dependability can be obtained by doing external audits, which is a technique that involves a researcher who is not part of the study, and who analyze the research process and the
findings to provide light on how much the data supports the findings, their interpretations, and the conclusion (para. 1).

**Confirmability**

The fourth of the components of trustworthiness is confirmability. There are four techniques, although one of them has been discussed already because it overlaps with other components, this technique is triangulation. An audit trail consists of explaining the steps taken during the project until the report of the findings. This account must be evident and thoughtful. During the development of an audit trail, the following must be kept to have a complete roadmap (the codebook) of the study: a) raw data, (b) data reduction and analysis products, (c) data reconstruction and synthesis products, (d) process notes, (e) materials relating to intentions and dispositions, and (f) instrument development information.

Confirmability can also be achieved with reflexivity. It is a way for the researcher to write about the personal experience with the phenomenon, to put her apart from the participant’s experiences (Marshall & Rossman, 2016). It includes personal reflections, field notes, and bracketing or epoche (Lincoln & Guba, 1998; Marshall & Rossman, 2016; Mertens, 2015). According to Marshall and Rossman (2016), Epoche is the ”self-examination” of the researcher, to clarify his presumptions about the phenomenon.

Peer debriefing consists of presenting the findings to a peer who analyzes it and confirms that those findings are supported by the data and are not the result of the researcher’s biases (Cohen & Crabtree, 2006).

**Data Analysis**

Qualitative research uses an inductive approach; therefore, meaning is engendered from the data (Thorne, 2000). To accomplish this task, I went through a complex process of finding
meaningful pieces of data for the study. These meaningful pieces are called salient points because they have a relation with the unit of analysis, which is based on the issues that schools in the process of implementing the PLC model encounter, the changes that teachers observe in the teaching, as well as the changes that leaders have to make in their leadership styles, and other adaptive/responsive elements. Analyzing data in qualitative research is an ongoing process that starts during data collection as the researcher writes margin notes, memos and reflects on how her values, beliefs, and assumptions can influence the study (Merriam & Tisdell, 2016).

Organizing the tremendous amount of data that emerge in a qualitative study is crucial for its success. Interview transcripts, field notes, documents, and any other data type can be recorded in specific computer files. Marshall and Rossman (2016) suggest using a log that includes the date the data was collected, the place, what type of activity, and the people involved. For this study, I created computer files to save the original interview transcripts, the interviews with margin notes, and the highlighted salient points. Furthermore, I created tables with the interviews' dates, the participants’ names, and pseudonyms. Also, Merriam and Tisdell (2016) advise making codes that help to locate data quickly. Second, reading and memoing were ongoing processes throughout the study. I wrote memos about events and my thoughts during the data collection period. During data analysis, I wrote ideas and thoughts that came to my mind as I was coding and looking for themes; they helped me later synthesizing information and writing the findings.

Following the process, I started coding. According to Marshall and Rossman (2016), in vivo codes come directly from the data. For this study, I used in vivo coding in the field test, and I used them for the complete study. For the field test, meaningful pieces and patterns that arose were annotated or written in “post-it” notes. Once the themes and sub-themes were found, I
recorded them in a computer file and kept them by themes and sub-themes in a folder labeled “Codes” in a file cabinet. The process of coding involved first identifying pieces of data that were meaningful to the study. These data pieces were then grouped according to their similarities (when they refer to the same topic or information), thus forming categories. Themes emerged from these categories as well as sub-themes. Assigning a code to each datum was necessary to identify where it was originated.

For the full study, I used in vivo coding but with a different approach due to the amount of data generated. I conducted the data analysis in the computer using Microsoft Word and Excel. First, I highlighted the salient points on the interview transcripts using the “Comments” tool of Microsoft Word. Second, in the comment’s bubble, I wrote a brief description of the salient point or abstraction about the main idea or concept and used that as a preliminary code. Third, once the interview transcript was entirely coded, I transferred the information to another Word document using the Doc-tools add-in. This feature created a table that contained the salient points, date, and author (Fredborg, 2016; Walter, 2009). To complete the code's information, I added columns and change some column titles; thus, the final table of preliminary codes included interview page number, line number, interviewee id, the salient point, the code (preliminary code), author, and date of the interview. Each row of the table represented a coded salient point as the post-it notes of the field test. Fourth, once I had the tables for all the interviews, I put them one after the other in a Microsoft Excel document and started organizing the data by the preliminary codes using the sort feature. Since I had three types of interviews, I did this separately for the teacher interviews, the leader interviews, and the focus group interview to create separate themes or categories. Fifth, I revised each group created with the preliminary
codes to verify if they belonged together or be moved to another group, or if these preliminary codes needed to change for a more accurate description of the group of salient points.

Since data analysis is recurring in qualitative research, revisiting, revising data, and creating categories and themes must happen during the entire process of data collection and analysis (Marshall & Rossman, 2016). As data is collected and analyzed, it is essential to go back and revise the themes and sub-themes that had already been found and make changes if they are considered necessary (Richards, 2010). During the preliminary coding revision, I made changes that affected the group's preliminary code and these preliminary codes' names. I repeated this process and made the adjustments until I felt that the codes formed themes and subthemes in each interview type, ending with separate themes and subthemes from teacher interviews, the focus group interviews, and school leader interviews. After the third revision, I revised the codes again to see if they could be put together to reduce the number of codes in each interview. At this point, I used color for each code and then put the three groups of codes in parallel to start finding themes and subthemes for each interview type. Then, I continued grouping and regrouping the codes and changing their names to have more accurate descriptions. After the third iteration, I considered that I had the themes and subthemes for each interview type.

However, after I started writing the findings, I understood it was necessary to change the names of the themes and subthemes to more comprehensive titles instead of having words or phrases and changing them to sentences and ideas. This process aligns with what Creswell (2012) and Marshall and Rossman (2016) affirm when they say that the steps in qualitative research are iterative and not necessarily have a specific order, and most of the time, they overlap. Once the themes and subthemes for each interview type were defined, and the findings
were written, I compared teachers’ themes and subthemes with the focus group themes and subthemes, and then I did the same with teachers and administrators themes and subthemes, looking for similarities and contradictions. The research questions were answered using the themes and subthemes of the three interview types. Lastly, concluding thoughts and recommendations emerged from the lessons learned throughout this research study. Marshall and Rossman stated that data analysis includes interpretation of findings and exploring alternative understandings; moreover, interpreting the data includes giving meaning to the findings, drawing conclusions, explaining, and inferencing.

As explained in Gall et al. (2007), the quantitative strand uses numerical data to describe reality. In this study, the PLCA-R provided descriptive statistics on the status of the PLC. I reported the mean, the standard deviation for each item, and mean and standard deviation for the six collapsed constructs. The individual attributes of a PLC with 3.0 or higher showed strong agreement, and the ones with lower scores can be considered weaknesses in the process. As it is advised, I looked for patterns at the dimension level by identifying the ones with more high scores or more low scores.

On the other hand, a low standard deviation indicated high agreement with the dimension or attribute, while a high standard deviation showed a higher variance, which means less agreement (Hipp & Huffman, 2010). Quantitative data was gathered concurrently with qualitative data. Once the survey was administered, and the statistical analysis started using SPSS. Both qualitative and quantitative results were analyzed to find relationships and contradictions that shed light on the PLC’s status, strengths, and weaknesses.
Limitations and Delimitations

A mixed-method case study provides the advantage of combining quantitative and qualitative data, allowing the researcher to get enough information to explain the phenomenon (Plano Clark & Ivankova, 2016). The study of multiple cases opens the possibility of a broader range of perspectives (Creswell, 2013). However, the professional learning community was and still is a relatively new school operation model in DR; consequently, it is not clear yet how many schools, public or private, are implementing it. The study is delimited to similar private schools that have implemented or are implementing the model. This fact limited the number of potential participants in the study, which was conducted using a single instrumental case; the use of a single case limits the possibility of generalizability because the number of participants is limited to those of the school involved, and this number is not representative of the total number of schools of the Dominican Republic. Another limiting factor was that I belonged to the selected school’s staff; thus, bias could have threatened the study’s reliability if measures had not been taken.

Chapter 3 Closure

In summary, this case study was conducted with a mixed-method approach that is described in this chapter. The qualitative strand had the purpose of describing the issues that resulted from the PLCs’ implementation and how the recruited educational institution responded to those issues and understanding and describing the challenges the stakeholders faced during the process. Additionally, the multiple perspectives that these key stakeholders provided might serve other institutions as they embarked on the PLC implementation process to understand better and prevent situations that might hinder their goal. For the quantitative strand, the administration of the PLCA-R provided descriptive statistics, showing the level of implementation of the PLC
dimensions and their attributes. Additionally, the research questions were specified as well as the population sample. Chapter 4 explains the findings of the study.
CHAPTER 4

RESULTS

This chapter presents the findings of a mixed-methods instrumental case study designed to describe both the current status and implementation process of a Dominican school that undertook a multi-year commitment to implement the PLC process as a school-wide change initiative. The case study school met a set of criteria that ensured it represented an instrumental case. The population of the study included 54 teachers and six school leaders. Semi-structured interviews and a focus group were conducted with individual teachers and leaders to accomplish the qualitative part of the study. Interviewed participants included 10 teachers, a middle-high school principal, an elementary principal, the curriculum director, and two assistant principals; the focus group discussion involved six teachers. The quantitative portion of the study used the results of the PLCA-R to measure the level of implementation of the PLC dimensions and to identify the strengths and weaknesses of the case study school at the practice level. The PLCA-R was administered to 38 teachers, including the interviewees. To maintain confidentiality, teachers are identified with pseudonyms, and school leaders are referred to by their job titles.

The findings of the qualitative data analysis are presented first. They comprise: (a) the results of the interviews with teachers, (b) the results of the focus group discussion, (c) a comparison of the results of the individual interviews with teachers, and the focus group discussion, (d) the results of the interviews with each leader and, (e) a comparison of the results obtained from teachers (including individual interviews and the focus group discussion) with the results of the leaders' interviews. Additionally, the last section of the chapter presents the insights that the qualitative findings offer to understand the quantitative results, which provide a descriptive picture of the status of PLC implementation at the time of the study.
Participants Profiles

Teachers and administrators participated in the study voluntarily. These participants had different backgrounds and working experience that provided the study with diverse points of view regarding the PLC processes, in which they had been involved for at least two years. Five high school teachers and five elementary teachers participated in individual interviews. Among the high school teachers, three were math teachers, one was a science teacher, and one was a French teacher. Participants from the elementary school also taught different subjects; this group consisted of two math teachers, two Spanish teachers, and a special education teacher. One of the elementary math teachers and one of the Spanish teachers were also teacher-coaches for their respective subjects. Six teachers were withing the focus group, with two of them being Spanish elementary teachers, two middle-school Spanish teachers, one high-school "Sociales" teacher, and a science teacher who taught in middle and high school. Table 1 shows the demographic data of the participants.

Five administrators participated in the study with individual interviews. The elementary principal is a leader who wants to leave a legacy wherever she goes. She believes in setting up structures that persist in time and help the institution to stand firm even after she has left it. She acquired ample experience in the US school system, where she occupied different leadership positions. The middle-high school principal also worked for several years in the US school system in several leadership positions. She believes in teamwork, and, for her, it is crucial to work with teachers who love to teach and place their students at the center of the teaching and learning process. The Curriculum Director, an experienced educator and leader in the Dominican School System, believes in building trust by getting involved in the process and with the staff. The elementary assistant principal started as a teacher and was designated teacher-coach first and
assistant principal. She values supporting teachers to achieve a quality level of teaching. The middle-high school assistant was a teacher who later was appointed in this position due to her qualities as a potential leader. She believes in modeling good practice as well as learning from others.

Table 1

*Participant Data*

<table>
<thead>
<tr>
<th>Name or Position</th>
<th>Academic Preparation</th>
<th>Experience</th>
<th>Time working in the school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sofia</td>
<td>Bachelors' degree</td>
<td>5 years</td>
<td>2 years</td>
</tr>
<tr>
<td>Lisa</td>
<td>Bachelors' degree</td>
<td>5 years</td>
<td>2 years</td>
</tr>
<tr>
<td>Pablo</td>
<td>Bachelors' degree</td>
<td>2 years</td>
<td>2 years</td>
</tr>
<tr>
<td>Ana</td>
<td>Bachelors' degree</td>
<td>8 years</td>
<td>4 years</td>
</tr>
<tr>
<td>Carolina</td>
<td>Masters' degree</td>
<td>11 years</td>
<td>8 years</td>
</tr>
<tr>
<td>Yasin</td>
<td>Masters' degree</td>
<td>15 years</td>
<td>7 years</td>
</tr>
<tr>
<td>Kasia</td>
<td>Bachelors' degree</td>
<td>12 years</td>
<td>2 years</td>
</tr>
<tr>
<td>Hugo</td>
<td>Masters' degree</td>
<td>30 years</td>
<td>5 years</td>
</tr>
<tr>
<td>Rebeca</td>
<td>Masters' degree</td>
<td>15 years</td>
<td>5 years</td>
</tr>
<tr>
<td>Ayesha</td>
<td>Bachelors' degree</td>
<td>19 years</td>
<td>3 years</td>
</tr>
<tr>
<td>Camila</td>
<td>Master's degree</td>
<td>23 years</td>
<td>6 years</td>
</tr>
<tr>
<td>Emma</td>
<td>Bachelor's degree</td>
<td>18 years</td>
<td>1 year</td>
</tr>
<tr>
<td>Isabel</td>
<td>Bachelor's degree</td>
<td>15 years</td>
<td>7 years</td>
</tr>
<tr>
<td>Alonso</td>
<td>Bachelor's degree</td>
<td>15 years</td>
<td>5 years</td>
</tr>
</tbody>
</table>
Table 1 - Continued

<table>
<thead>
<tr>
<th>Name or Position</th>
<th>Academic Preparation</th>
<th>Experience</th>
<th>Time working in the school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edward</td>
<td>Bachelor's degree</td>
<td>24 years</td>
<td>4 years</td>
</tr>
<tr>
<td>Saul</td>
<td>Master's degree</td>
<td>17 years</td>
<td>5 years</td>
</tr>
<tr>
<td><strong>Administrators</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary Principal</td>
<td>Master's degree</td>
<td>38 years</td>
<td>2 years</td>
</tr>
<tr>
<td>Middle-high school principal</td>
<td>Master's degree</td>
<td>29 years</td>
<td>4 years</td>
</tr>
<tr>
<td>Curriculum Director</td>
<td>Master's degree</td>
<td>19 years</td>
<td>6 years</td>
</tr>
<tr>
<td>High school assistant principal</td>
<td>Master's degree</td>
<td>8 years</td>
<td>4 years</td>
</tr>
<tr>
<td>Elementary Assistant Principal</td>
<td>Master's degree</td>
<td>15 years</td>
<td>11 years</td>
</tr>
</tbody>
</table>

**Data Analysis**

The data collection process started in June 2019, at the end of the school year. All participants were interviewed individually during that time, and the interviews were transcribed into Word documents. The analysis started by highlighting the salient points of each interview. These salient points were labeled using a preliminary code inserted as a comment in the word document. These preliminary codes mostly denoted the topic(s) that the interviewee referred to in the passage. The next step involved using a Microsoft Word add-in named DocTools that creates a table in a new document. This table contains the page number, preliminary code, salient point, and author. The insertion of additional columns facilitated the recording of the interviewee id and the date of the interview.

All the interviews went through the same process, and once I had all the tables, I put them in an Excel document. The Excel's "sort" feature brought together the preliminary codes
that were equal or similar, and then the analysis started again. All excerpts were reread and compared with others in each group. A first regrouping started and also assigned other labels that were found more appropriate for the excerpts group after careful analysis. This analysis process did not end fast; in fact, this happened several times until obtaining a set of themes and subthemes that held up across all the teacher interviews. However, as I was trying to organize my writing during the writing process, I found that some excerpts fit better on a different theme or subtheme, so changes were made accordingly to further refine the clarity of each theme and sub-theme.

**Findings from Teacher Interviews**

Elementary, middle, and high school teachers at the case study school were invited to participate in the study. In the end, ten teachers agreed to be interviewed individually and to complete the PLCA-R. These teachers had different backgrounds, ages, and experiences, thus representing a diverse sample (see Table 1). This diversity might have helped gather a broad range of experiences and points of view that could have enriched the collected data.

Teachers who participated in the study described their work in the PLC and how PLC processes and dynamics have changed how they teach and how they relate with fellow teachers and other community members. Teachers also described how they had developed as professionals as they share ideas, strategies, and knowledge in their teacher teams. They explained how they had received support from the team members and the school leaders as well.

Five significant themes surfaced from the teachers' interviews. The themes describe the process teachers go through as they work in their PLCs, the characteristics of this process, and the relationships that develop as they get deeper into sharing knowledge and the collaboration
among colleagues. These central themes are presented in Table 2, along with the related subthemes.

**Theme 1: Teachers are Involved in a Complex Process of Teaching and Learning**

The teaching and learning process in the school was not straightforward as in "the teacher teaches, and students learn." Many interviewees revealed that during team meetings, they analyze student data to determine the students' learning needs or weaknesses. Nevertheless, as a result of this process, they can identify their own learning needs. Lisa stated:

> Very much because ... for example, I, as a teacher and as a coach, I see a need in a grade that is not mine, and I try ... "what do we do?"... we look for reading articles, we analyze ... "5th-grade students had a very bad grade" and then we look, for example, for articles that say what influence society has on children today, what influence teachers' training has on children's results, which is serious right now. That is, what is seen as children's achievement must do a lot with families and teachers and with us as a school. So, I feel that it allows working on ourselves as teachers. Before thinking about what I can do to make that child better, I reflect on what I can work on myself. So, it makes us think.

The identification of students' needs and the fact that students in the same class have different needs compelled teachers to look for different strategies and to prepare differentiated lesson plans that require time and much effort; however, teachers recognize that this is a strategy that helps to meet the needs of the students. To differentiate in the classroom, teachers analyze data, which leads to changes in instruction. These changes come after careful reflection and collaborative work with colleagues that allow them to adapt their lesson plans and deliver more rigorous instruction. Ayesha commented:

> Well, here at school, I am a Spanish and Sociales teacher. Last year I was working with the second grade. It is a very collaborative work because we have a coach, a person who helps us follow the guidelines. We work with the method ... eh ... a method that the school asks us to... I can say it in English, the "workshop" model. This model allows us to work independently with children according to the needs they present to us. I really like working with it because we can
Table 2

*Major Themes and Subthemes from the Teacher Interviews*

<table>
<thead>
<tr>
<th>Themes and Subthemes</th>
<th>Sofia</th>
<th>Lisa</th>
<th>Pablo</th>
<th>Ana</th>
<th>Carolina</th>
<th>Yasin</th>
<th>Kasia</th>
<th>Hugo</th>
<th>Rebeca</th>
<th>Ayesha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teachers are involved in a complex process of teaching and learning.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>1.A. A new initiative, as it is PLC implementation, requires changes and brings up more responsibilities that fall on the shoulder of teachers.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>1.B. Students are the center of the teaching and learning process</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>2. Teacher decision making is still emerging and most evident at the instructional level</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>3. The implementation of a professional learning community requires a new culture in the school.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>3.A. PLC structures are created to facilitate the collegial work of teachers</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>3.B. Teacher teams create a space that facilitates collaboration.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>3.C. Collegiality emerges as teachers support each other, cooperate, and share responsibility.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>
Table 2 – Continued

<table>
<thead>
<tr>
<th>Themes and Subthemes</th>
<th>Sofia</th>
<th>Lisa</th>
<th>Pablo</th>
<th>Ana</th>
<th>Carolina</th>
<th>Yasin</th>
<th>Kasia</th>
<th>Hugo</th>
<th>Rebec</th>
<th>Ayesha</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.D. Adapting to change is harder for some teachers, and they end up resisting the new culture.</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>4. Relationships need a foundation of trust and values</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>4.A. Relationship with other stakeholders is essential to the good performance of the PLC</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>4.B. Trust is essential to building relationships that work positively</td>
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<td>4.C. A foundation of values facilitates relationships and the identification with the school</td>
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<td>5. Teachers engage in a learning process as they share knowledge and skills, support each other, or receive support from their principals.</td>
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<td>5.A. Professional Development occurs on the premises by sharing good practice</td>
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<td>5.B. Team members support each other and also receive support from leaders</td>
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get closer to the students. First, I work with them altogether, and then I divide them into differentiated groups. These groups are low level, leveled, and high level. And that is very important because I work according to the needs of the students.

However, changes as those required when implementing a new initiative like PLCs are difficult to embrace because there are structures and guidelines that teachers need to follow, which adds to their already busy schedule. Ayesha also shared that there is much work to do when one wants to make things right:

Well, unfortunately, sometimes we take work to do at home, and that is not good. That is the negative part that when we want to do many things and do things well, we have to finish the work at home, and the part of the time we have to dedicate to our families, we have to spend it working for the school because we want to do it right.

**Subtheme A: As a new initiative, PLC implementation requires changes and brings up more responsibilities that fall on the shoulders of teachers.** Not a few teachers reported the increase in work and responsibilities due to the changes that the PLC implementation brings with it. They described the routine work that comes with the job, like planning, evaluating students' work, and many more things. However, as a learning community, there are other factors involved; for example, classes must have similar procedures, and there must be a horizontal and vertical alignment of the curriculum content. Additionally, rigorous teaching, instructional focus, differentiated instruction, and student engagement are factors that must be present in every class.

For example, Hugo reported:

A typical day, what I do in my class, we use a lot of hands-on activities; we work from the concrete to the abstract, meaning that when we do Math, especially Geometry, students can have a lot of manipulatives like rulers, different shapes. We go out, and the students take measuring on the basketball's court, and then with the information they have, they transfer it to their notebooks; also those students that have some difficulty in math, I help them with the math center, which is a program that I run twice, Tuesdays and Thursdays from 2:30 to 3:25 and the main reason are those students who have some
problems doing the task or understanding the subject. They get extra support by doing Math and also scaffold… scaffolding, because they have some issues in English and some of them are like ELLs, English Language Learners, they do not have the …all the requirements to master the new language and they get the support that way, and by staying all from 7:35 to 2:25 in the afternoon.

Teachers also pointed out that time was a scarce resource that became an obstacle to comply with all their responsibilities. For example, Ayesha reported:

I think it is time. Many things we want to do in a short time. Sometimes they ask us to do things that take some time, and they want it right away. So, I think if we work that part, that everything needs its time ...

Carolina also reported that the amount of work was overwhelming sometimes and could be an obstacle for the PLC's success since very often, it was necessary to use the time of the team meeting to catch up with some other work that becomes urgent. She said:

That the time that they are looking for us to meet, for the teacher-teams, for example, that is not twice a week, that is several times a week, and I do not remember how much. But many times, it is not realistic with the amount... with the load of work that we have. So, most of the time, we are on top of everything because they inform us to do something and is for "yesterday," or it was for right away, and you need to hand in that report, and we do not have time. We need to teach, we need to grade, we need to do this, we need to do that, and then in the schedule, it says "teacher team" and we are like: "No, I am not going to any teacher team, I am going to stay in the classroom grading this or to finishing this report, which is hard. I believe that the time that they are giving us well... I do not think the time is the problem. It is the amount of work that they expect us to do. It does not match for a PLC implementation for a successful implementation.

These comments and expressions of teachers about the workload pointed out a problem that teachers were facing. Too much work to do and a short time can prevent teachers from following through with the PLC structures, as stated above.

**Subtheme B: Students are the center of the teaching and learning process.** Most participants expressed that students were at the center of the learning process. When teachers plan assignments, strategies, and activities, their goal was to enhance students’ achievement.
Kasia stated clearly that the needs of the students were a priority for the teachers, not only in
everyday endeavors but also thinking about what will be more useful for them in the future:

.. at the end of the day, if anything that we have disagreements was mainly the topics we
need to cover that you know because there is no way we can finish the entire grade or
cover the entire textbook; and so some of us felt that "well, we want to see this because
so and so," but at the end of the day we all apply our logic saying that when they
graduate, when they go to the university what are the things, the skills, or the tools they
need and so, it is not about what I like and what I want and what I enjoy teaching. It is
about what are we preparing them for.

Rebeca also said how important it was for her the students' improvement: “It is about the
process of the students, exactly. It is to get the students to have an improvement every time ... to
show more improvement in the area of need, no matter what that need is.”

Furthermore, teachers recognized that by identifying students' learning needs, they could
also identify their own learning needs. Therefore, this helped them determine the kind of
professional development they needed, whether it was formal or if it could be addressed during
the team meetings by finding a colleague who can collaborate with them and guide their
learning. Yasin spoke about this when he said:

First is the pace, this is one, number two getting used to, number three have evaluations,
for example, MAP test, SAT, PSAT's, quarter tests, semester exams they are also good
indicators to see what we need to focus on or what we need to improve.

Participants also pointed out that the idea of the student at the center of learning changed
how teachers plan their classes and select the activities. Teachers began to move beyond the
traditional teaching method through lectures and began expanding their teaching strategy
repertoire. Teachers recognize the importance of students’ engagement during class since they
must be the focus of attention, the center of the class. Students are encouraged to participate
more in the class; the questions that teachers pose to guide learning are more stimulating and
more designed to trigger critical thinking as Yasin said:

I feel really good when I am around my students, and if you are having an engaged class
and talking about views, explaining, having questions. It motivates me to look for more
information, answer back, and plan for different projects. The most important thing right
now for me is how to connect the future with their present, all the changes that are
coming up. And we cannot get like security, but at least we can connect the dots.

Theme 2: Teacher Decision Making is still Emerging and Most Evident at the Instructional
Level

Participants' responses indicated that teachers' involvement in decision-making was
limited, especially in those decisions about initiatives that could affect the whole school. When
asked about implementing the PLC process, the interviewees expressed that it was something
that the leadership team communicated to the school community, teachers themselves did not
take part in that. Teachers' involvement in the initial implementation of the PLC was limited to
receive training. In terms of other initiatives that specifically involve teaching and learning or the
students' learning process directly, teachers agreed that the school leadership has increasingly
sought their opinions and suggestions since implementing PLCs. However, they retained the
power of making the final decision. Yasin commented, “In the school, we have a leadership team
so that we may suggest things, but normally decisions come from the top to the bottom.”

Therefore, this means that there are constraints and limitations for teachers in making
decisions; however, as the school moved further into implementing the PLC process, the
leadership team increased listening to teacher voices and increased support for teachers'
initiatives related to teaching. Pablo expressed:

The role has been that of ..., has been of ..., in part, it has been, I will not say that of an
advisor or counselor, but giving our opinion based on the information that we have, to
propose things, propose solutions, propose programs, propose training, based on what one knows and due to our experience.

When teacher input is solicited, decisions are made according to what the majority thinks is best or agrees to. Therefore, it seemed that there was an intent of implementing a more collegial decision-making process. Moreover, Ana stated that, now, when principals hear teacher voices when they suggest implementing new strategies or activities that they think would benefit their classes or the students directly, they support them and even give them ideas to make it better. She said:

Of course, I feel much more supported and much more ... And with more freedom. When you feel freer, you can create and implement many more ideas than in a traditional closed environment, you can't do it, because they don't let you. So, in the end, you say that I am doing something that I know is not convenient, but I have to do it because they force you. He is your boss, and you have to do it. However, it does not happen here. If you can think of something new that you want to implement, you feel confident and free to go first to your leaders, right? Look, this has occurred to me, and I want to implement it this way; what do you think? And then they normally: "ahh yes", and they always give you something else, an extra vision, that you may not have noticed ... "look at this or remove such a thing." And in the end, you improve it. That's how good it is, that freedom you have to create new things.

Despite some expansion of teacher decision-making through the PLC process, participants feel that there is still a long way until reaching collegiality in its fullest. Participants revealed that many times when parents have approached the school administration with a complain or request, the administration has most likely taken care of that concern so that parents felt satisfied but without significant input from teachers. Hugo gave an example that occurs recursively at the end of the year when the groups of students need to be reorganized by the teachers according to discipline problems or academic needs:

There is one concern that I have when we meet as a teacher team, especially at the end of the school year. Sometimes we make recommendations for the students to move forward, sometimes it has to do with behavior problems or academics, but what we have found is that we meet almost every year, and at the end of the year, everything remains the same. I
don't see any changes. It is something that discourages doing that because why should I be wasting my time when they don't follow through it? And whatever decision we've made, we have thought about it when we meet as a team, we conclude, we suggest as I said before, but usually, it doesn't work, especially when parents come back and say, hey! Why did you move my kid from his group? And then they have to place them back where they were, regardless it would be good or bad.

Apart from that issue, Ana, who was also a coach of one of the core subjects in elementary, brought another issue. She offered that some teachers prefer to be told what to do and, thus, don't take the initiative for creating changes. She expressed:

It may be ... there are teachers who… but what I feel, what I have had experienced this year working as a coach, working directly is that there are teachers who prefer to be told what to do, they do not want to always be part of a process of decision-making, to suggest ... they prefer or demonstrate that ... "ah you tell me what to do or the principal, then we implement it."

Theme 3: The Implementation of a Professional Learning Community Requires a New Culture in the School

Participants mentioned that the work in the school has been changing since the starting of the PLC process. At the moment of the interviews, teachers said they did not work in isolation but in teams. Sharing strategies, supporting each other, and working with data to meet the students' needs have characterized teamwork. Participants also stated that the principals, the assistant principals, and the coaches had supported teacher teams and individual teachers in diverse ways.

Subtheme A: PLC structures are created to facilitate the collegial work of teachers.

Teachers explained that the school had created specific times in the teachers' schedules to promote collaborative work. For example, Ayesha expressed that there were two types of teams: a) by grade levels, and b) by content area:

Well, collaborative work here is done by grade levels, teachers who are from one-grade work with each other. For example, Spanish teachers work together, those of the grade,
sorry ... all those who are second-grade teachers, for example, work together but then in
general, we need to work more as a whole. We can do a little more.

Additionally, Kasia indicated that working in collaboration in teams helps to lighten the
burden on the teachers' shoulders because you can use strategies that have already been proven
by other teachers. Additionally, working this way provides the opportunity to have a broader
picture of the situations because you can analyze other teachers' viewpoints. She stated:

Again, it gives you different perspectives that you did not think about or didn't try it to see if it can be implemented in your classes. And it becomes a helpful tool. A kind of peace of mind that you know, it worked in another class, let me try with my classes to see if it works. I think that's... It is supposed to be a tool to help the teachers in their classrooms.

This collaboration must happen during the working hours, so team meetings were
included in the teachers' schedules as part of the PLC structures. Pablo explained this when he
said:

How has the school supported the teacher teams? By establishing a schedule to meet.
Have an established schedule of one day and one hour. To establish an agenda to discuss at meetings. To demand that a minute be sent to you, that a report be sent to you, about what was addressed and what was not addressed, and what is pending, what things do teachers need to achieve, what they are being asked for, to see how they could help or to what extent.

Then, according to Pablo, the administration requires writing an agenda previous to the
meeting. The agenda would help organize the topics to be discussed; then, after the meeting, a
minute would help record the discussions. This procedure is a way to monitor the team meetings,
and it seems to be necessary because, as another teacher shared, the time could be used to plan
activities or catch up with work that was not necessarily related to the primary purpose of the
meetings. Carolina expressed, “well, we have professional development days twice a week. But,
most of the time, we do like... meetings just to catch up, features, events and things like that.”
Subtheme B: Teacher teams create a space that facilitates collaboration. The creation of teams and establishing structures that promote teamwork and collaboration have changed how teachers work in the case study school. Teachers reported that they feel the team's support as they share strategies and information that enrich their knowledge and experience. The capacity for solving problems that arise in the classroom, being those problems either related to teaching and learning, to discipline, or problems with particular students, is multiplied with the help of the team as Lisa indicated, “working as a team has helped… actually, has been an impact on the students because we all work together to help that specific student.”

High school teachers also pointed out that the work in the two existing team structures was different for them. Since teachers of the same grade level teach different content, sharing strategies, and reflecting on those results is more complicated. However, even though they do not have the same students in content area teams, they can work on alignment, share strategies, and work with the data to adjust teaching. For example, Kasia stated:

I know we have meetings based on grade levels and based on departments. Based on grade level, it's more like catching up what is going on, but really, we don't sit down to plan things together, so, to me, if all the sixth-grade teachers or eighth-grade teachers are sitting together really, it's not about, oh! this works in my class and now let's try this, or this does not work in my class, it's not much going on there. It's more like catching up grade-level or checking report cards and things like that. Only one time we came up with a cross-curricular project, that's when I felt, ok we are working, but not all the teachers were there.

About this, also Hugo referred to the grade-level teams and pointed out that in this type of team, the focus changed more on students' behavior or general performance than in teaching per se.

Based on grade level, I mean, I do Math, somebody else does ELA, somebody does Social Studies and what we have found is that usually, students that struggle… usually
struggle in everything, science, math, or reading, it is like a pattern, and we have to develop different ways in how to make things easier, that they can work on it.

Participants also uncovered data about the PLC environment. Ana, for example, described the environment of a PLC as an open one. A PLC offers a space where there is more trust than in traditional schools. People are willing to help and be helped. She said:

With the learning community? I see ... I see a more open environment for collaboration. And I see people with less shame to approach you and to look for you and say, "hey look! this is not working for me or what you do for ...?". I see more confidence; perhaps in another more traditional environment people do not dare to approach and express ... what for many people is a weakness, they don't want to seem weak.

This open environment where teachers work collegially has an advantage for the student. As Lisa and Rebeca revealed it, teachers have the opportunity to know students better through the experience of other teachers with them, and at the end, this leads to an improvement in student achievement because a teacher can make changes in the way he or she approaches the student(s). Rebeca stated:

What I feel is that as I was saying before, you no longer see the student as an individual. For example, as a Spanish teacher, I enter and leave the classroom every day, but for a minimum of time, not as much as the "homeroom teachers." Then, you no longer see the student as he develops only in my Spanish class, but I already know how the student performs in each discipline as a result of that learning community that we have.

Lisa said:

I think it actually has connected us more with the students because you can have more feedback from a whole team and not just from your perspective. Because sometimes you feel that maybe a student is misbehaving or because he is lazy and then another teacher who has a different connection with the student and says no, it is because their parents are getting divorced and he is going through this and through that and then as a team, create strategies that can help the student ahh... ahh... evolve and actually, learn and I think it helps us see everything as a whole and with different points of views and it helps... you to have a more ..a point of view that is more.. global ahh... how can I say this?... more reliable, more real.
However, this openness and collaboration require the responsibility of all team members. Each team member has a part that, if missing, will harm the work of the others; thus, to be productive and have positive results, each team member must do his part. Pablo said, “well, personally, I do the part that I am responsible for, which is assigned to me. What I am expected to do as part of the team.”

Ana pointed out that reflection is an important part of teaching, and various spaces of the PLC provide the opportunity to reflect. So, besides observations from the principals or assistant principals, team meetings also offer the possibility to reflect on the teaching practices and share strategies. She indicated:

Well, on how to teach, we reflect with the informal observations, with the formal observations made by the administration, the directors in this case, and also we reflect on the “teacher teams” when you sit with your team, for example, in my case that I teach 4th grade, and if the teacher of the other 4th grade has something that is not working for her or I have something that is not working for me, we share experiences ... "Look, this strategy works for me, maybe it can work for you too, and then see"… We also analyze the data of the children, that is, the MAP test results, their daily exit tickets, to see how the child is evolving, because the evaluation is formative, not summative, and it must be done daily. It is to see how the student is developing daily and not waiting for the exam.

Rebeca also commented on how, during teacher teams, data was analyzed to enhance teaching and to benefit students' learning. She said:

We meet in teacher teams several times a week. Each group evaluates the activities that we are going to do, and later we see the results. It's basically like comparing and proposing improvements for the teacher in the classroom. See what you find, what you don't find, and collectively align those activities to lead children to better language acquisition.

Subtheme C: Collegiality emerges as teachers support each other, cooperate, and share responsibility. One of the things that participants were more open to communicating
about was how, in this school, teachers are not afraid to collaborate and share their knowledge and expertise with colleagues. They expressed that this type of relationship is beneficial for students because it helps them to improve. By sharing strategies, teachers learn from each other, and every teacher expands their repertoire of effective teaching strategies. In the end, the students can also learn more and get the required help to improve. Lisa said:

We need to work as a team, and working as a team, we can develop more strategies to help our students, and maybe you have an idea that I didn't think of, and now we can share that, or you can tell me oh… I use this strategy, and it actually helps me with "Jhonny" who is struggling with this, so, it actually, opens… ehhh.. it ties up the teams and the community but also helps the students because now you have new ideas that you can put together to help the group.

So, as teachers work in these teacher teams, collegiality develops. Teachers' responses revealed that working in collaboration was better than working alone. Also, communication is easier and better as the relationships strengthen by working in teams. All these seem to lead to have a better connection with colleagues. Pablo shared that, “in the relationship with colleagues, there is more contact, more exchange, from my point of view. There is more connection.”

Moreover, relationships develop and get stronger among teachers. However, communication is also enhanced with school leaders because the team supports the ideas, strategies, and activities that arise from the meetings, making it easier for teachers to influence decisions and faster for leaders to make decisions. Rebeca commented:

It's like trial and error, but also these learning communities allow us to have better communication, for example, with the coordinator. That we are not individualized, but that we are a team that we all go on the same path; then, it allows us to save time, communicate situations better, get faster answers of any situation or decision that needs to be made.

However, as positive as this seems to be, some negatives factors were unveiled. For example, the enormous amount of work, the number of meetings, and everything are urgent. Frequently, teachers are caught up in a million things, so calling for meetings becomes a difficult
task because what they want to do is catch up with pending work and not sit down in a meeting.

Rebeca remarked:

Ahh ... you have to be ... I, as a coach, for example, this year, we have to be very much on top of people, on top of the teachers reminding them ... "look we are going to meet, look ...", there is not yet in people the culture that this is an important moment, as important as teaching. Meeting, evaluating, and taking measures to improve those things. But there is like a mechanical culture of teaching and planning. But planning goes hand in hand with what, as a learning community we can see, it changes everything ... my planning; but there is not yet that culture of initiative ... I want to be part of it. It's a lot of walking behind people, as we say.

Another negative point was revealed by Sofia, who said that even though one cultivates relationships during team meetings, not everyone makes the necessary connections with others. This lack of connection with teammates can lead to resistance to working collegially. She said:

I think… with some of them, it has become stronger; with some of them, it has changed in a way that if you are willing to accept the change and share, then we can have a closer relationship because that is something that will create a bond between all the team members, but if you are from the side that is refusing and you are always complaining and saying: Ohh..., this doesn't work, this.. whatever. I think that you are closing from getting to know your teammates and you are, without knowing, building a wall between you and your team members.

**Subtheme D: Adapting to change is harder for some teachers, and they end up resisting the new culture.** PLC implementation brings plenty of changes, and many people develop negative feelings when they face change. This community was not free of this problem. Teachers revealed that some resisted working collaboratively, maybe because they considered it as a threat. Pablo shared the following concern about that, “problems that I see… it is, for example, teachers who do not adhere to what is established, to what was agreed upon.

Essentially, they do not follow the program.” Since this is a new approach, new teachers are not used to working this way and can find it threatening or just a complicated way of working; thus, they might resist working collegially as Ana stated:
the resistance of some. The resistance of some teachers to change. Many people do not understand, perhaps because they are accustomed to a more traditional leadership type, that the boss is more traditional. So, when the administration gives you that opportunity that I was saying before, the one in which you get involved in making decisions, because people feel like lost, and close more to change, and do not understand it, they perceive it as ... "but, well how is this woman telling me this if she has it ...". But, little by little, I have observed that I have been here in these four years, that every time is less, the resistance is less. That is, more and more people are opening and are willing to change.

Another concern that teachers expressed was that many times there are disagreements among the team members. Some teachers might be more open to changes than others. Also, each teacher has his/her teaching style, and maybe sometimes, a teacher does not share problems occurring in the classroom because he/she feels capable of handling it. So, instead of sharing and trying to look for a common solution, that teacher does not disclose information that might be useful to others in the team. Kasia said:

I think mainly differences of opinion and differences in teaching style. So, very easily, there is a difference in the teacher's open-mindedness too, right? Ahem, very easily, you could hear teachers say: "I don't have a problem with that grade because they work well with me", but other teachers are still struggling with a specific grade level, right? And so, to me, it is like there is something off, how is that you are doing so, I'm not saying that the teacher is not doing wonderfully with that group, but, so, do the students' behavior change because of the teacher? Do their personalities change because of the teacher? Or there is something on that we are not being open about, right?

Given these points, it is logical to realize that something had to be done to solve these disagreements and resistance to change. Therefore, teachers also explained that the solution to the problem begins with the team trying to reach out, communicate, and connect to that teacher through different channels if it is necessary. In the end, if the problem persists, a team or team member might involve the principal. Ana expressed:

Well, with such tough people, you have to have a lot of "left hand." First, one-to-one meetings are held. Then you explain or try to communicate through different channels because each person sees reality differently. Then, you try to reach the person through the channel that best acts for that person. Be visual, be auditory, you have a meeting, you send an email, uh ... you have a meeting, you go to his class, you invite him to come to yours for you to model, that is, different ways of trying are sought to reach the person, to
connect with the person. From the moment you already connect with the person, it is easier for the person to open up to change and change themselves. It's something personal.

In those cases that the principal's involvement could not be prevented because the person persisted in not changing or not abiding by the team's agreements, teachers expressed that it had to become a directive from the principal. Ana said:

The same… the intention of the principal is as democratic as possible, but there are times that, obviously, in certain situations, people who are perhaps more resistant, perhaps not, but they keep resisting change of certain improvements, then, in those situations, the decision must be firmer. But the rest of the things are all done as a team.

Pablo also commented on the involvement of the principal when difficulties arise with a resisting teacher: "Supervisors meet with that person, an interview, a conversation for that person to explain her reasons why, if you do not agree, if you do not have the necessary tools to achieve it."

**Theme 4: Relationships Need a Foundation of Trust and Values**

A PLC's nature enables the development of relationships at different levels and among different community members, and these relationships must be based on trust and values like ethics, honesty, openness, and support. When asking participants, it was found that they referred to the relationships they had with school leaders, parents, students, and other teachers. The dynamics of those relationships were different depending on who was involved, but they expressed that certain factors were essential for those relationships to work positively, healthy, and progressively.

**Subtheme A: Relationships with other stakeholders are essential to the good performance of the PLC.** The school community comprises different members whose
participation in the students' education is essential for their success. Teachers emphasize the importance of teachers' relationship with the students and how it is fundamental to create an environment that enhances learning.

**Students.** Sofia expressed that she tries to build trust from day one with the students, to create an environment where the kids feel safe. Moreover, even though this is something that she does in any circumstance and not necessarily because the school works as a PLC, she recognized that being in a learning community has given her more confidence as a teacher. The consequence of feeling that participation in the PLC builds a teacher's confidence might be positive for this relationship to be better. She stated:

I just think it's more effective. I've always had a close relationship with my students. I build trust with them from the beginning until the end, and I think that is what helps me a lot in the process. With the PLC, I just feel that since I'm more confident about what I am doing, I can deliver the class or the instruction for them clearly, and that has made our relationship stronger if that is the word that I can use, but in the sense of human relations, it has not changed at all.

Pablo referred to the fact that teaching in the community gets is personalized. It enhances the individuality of the student, thus helping teachers get to know them more. As a result, teachers work with students' needs and are more inclined to differentiate. He said:

In my case, it has changed in more connection with students. It is less like, "I am the teacher, I know, you have to learn now." It is more personalized. It is more to understand that the student is a human being, that I am dealing with another person. I have to understand that sometimes he will have difficulties, sometimes he will have problems, and then I need to be a little flexible, as I will not apply the same mold to everyone because everyone is not equal, and that kind of thing.

Carolina also addressed the fact that differentiation has helped her know the students better and create a closer relationship with students who need more attention. She said:

My relationship with the students after PLC... well, it has changed with students that are not meeting the expectations and how to deal with that, what are the different strategies to work with the ESL students, to work with the ... with the students that are not meeting the expectations, how to set them in different groups and use different strategies that I were
not using and that's why maybe I couldn't reach to them. I can of felt, like, for example, they said in one of the PDs of the... the learning opportunities that we had it was something about how to work with ESL students, and they taught us something about cognates, that for example, when students hear "history," he can translate that into Spanish "historia". So, I tried to help my ESL students with different cognates, and I tried to teach him that strategy, and it was life-changing for him, and he was like, "Ahhhh that's true," and he could learn better and in half time.

**Parents.** The story with parents was different. Teachers reported that, even though parents know that teachers work in teams, this does not seem to influence when they want to know about their children's academic standing in a particular class. They do not call the team or care about the collegial decisions of the teacher teams; they go directly to the teacher with whom the student is having difficulty. Sofia commented:

I understand that they do not perceive; they do not ... they understand that we meet but not that it is something so specialized and focused. I feel that right now ... they don't perceive what this is or how it happens.

Carolina also commented about this point, emphasizing that parents know the school is embarked on improving, but they probably get confused and do not understand what these changes are and how they affect their kids. She said:

I think there are a lot of things going on, and I am not really sure that the parents understand them. Like, it's a lot of things. This year we are going to do running records for non-fiction. The parents say: "ok, what does that mean?" and when you tell them, it's like they are not getting it. It's like there are so many learning initiatives that the parents are like: "ahh, yes, ok. How is my son doing?". And that's it; it's like a lot!

Another aspect that teachers brought to the conversation was that parents are more involved in the school. They might not be very aware of the details of these changes, but they want to be involved in their children's education. Also, it was pointed out that communication with parents was made more accessible. Ana stated:

I believe that parents have a much more direct and much more ... easy communication; that is, communication with the school has been made easier for parents. And that is
positive, because having more contact with parents, let it be it by email or any other means, they have a better ability to know how their son or daughter is doing, how they are doing during class ... communication is more effective, I believe. Pablo also commented on the ease of communication between parents and teachers. He said: "I understand that there is more information exchange; there is more connection between parents and teachers."

**Subtheme B: Trust is essential to building relationships that work positively.** An aspect that was well agreed among teachers as crucial to be present in a professional learning community was trust. The dynamics of the relationships created as teachers collaborate, work in teams, analyze students' data together, share strategies, and support each other must rely on trust. As teachers work in collaborative teams, they expect to be safe and treated with respect when they willingly expose their individuality and commit to working with others. They expect their PLC teammates will not use what they know against them or attempt to derive a personal benefit that might harm them in return. Teachers addressed that aspect and said that principals build trust in their teams by setting the example. For example, Ana commented on her principal:

> The first one that shows her level of sincerity and honesty and leads by example is her. So, I am a person that I am completely ... if you want to get something, you have to set the example for it, and you always have the door open. She has always had the door open for you to go and express any concerns and resolve them. In other jobs, you go to the boss, they say "yes, yes, yes," but in the end, it stays as in the air, nothing happens. But you here, whether you go to the director, or the assistant director, any of them, you feel that they follow through. So, that makes that the confidence that exists in the team, in her, in the leader is very high. And then that improves team performance.

Additionally, Ana emphasized the importance of knowing that your leaders trust you and your work, the fact that you feel you are supported, makes one willing to participate and share more. She said:
And that leadership ... and as there is trust, there is positive and good leadership and that is not only the head, but by areas, we feel that we have to contribute, that I can contribute, and that what I can do is positive and that they trust your work.

Although teachers recognized the importance of trust and its existence in the school community, some pointed out that it still needs to be developed more. Carolina addressed this issue in this way:

Trust-building among us... I think we lack that. Trust- building among us, the staff, because we are having lots of situations where we don't feel appreciated and when we feel that the principal or the administrative staff are just... how can I say this.... like recognizing other teachers for what they do, but it's basically that most of them, for example, in one case in specific, she was all week showing off her work… and then we felt that the principal was praising her and sending congratulations for the same work that everybody is doing, to her, and we were like.. but my God I am also doing my job. So, that doesn't help in trusting other staff. I don't know, I don't know, it's like a climate that is not helping...

This shows how recognizing other teachers might be seen as unfair to teachers who are doing their work, just because someone wants to stand out. PLCs create an opportunity to recognize the work of the team rather than lifting up an individual for special recognition. When leaders ignore the opportunity to celebrate the team's work, they miss an opportunity to build trust and interdependence in the team.

**Subtheme C: A foundation of values facilitates relationships and the identification with the school.** The school, like any other institution, has its own set of values and beliefs. For the case study school, it is essential to instill those values in students. However, most teachers in the participant sample expressed concern that their current program at the time of this study was insufficient to instill those values in the students' profiles. They manifested that the school dedicated one month to each of the values, but it was unclear how these values had to be integrated into the curriculum. One of the elements that surfaced as an obstacle to develop those
sets of values and to create a strong identification with the school was teacher attrition. Lisa shared:

I think we still need to work a lot on that. Because we have many new teachers every year and I think what the school needs to work on now is in making us part of those values and making us actually feel proud of those values. Like... I always compare when you go to an ivy league, every parent has a bumper sticker, "Harvard Student Parent"... whatever, but also the Harvard teachers are ... "a proud Harvard teacher." I want to feel proud of the place I work in, and I want to say it out loud. I work at Saint Joseph School, I am proud of working there, and that's my family, and I would defend it, and I would do my best because that's my place. But I feel that we are not there yet.

Ayesha said that she believed that what had been done so far in terms of values was not enough for students to be conscious and get ownership of those values:

Yes, here we work the values, but I would like to work more with them. I mean, I think you have to give it a little more than ... well, we work with them, and we mention them a lot. But I think that in the classrooms, we must include them as a transversal axis in our classes so that kids could grasp them more.

Pablo also commented that when a teacher wants to reinforce a value with a group of students or a particular student, he does not get the administration's support. Alternatively, sometimes other teachers do not give importance to specific situations and let students getting their way. He said:

I could say yes, although that may be affected by other things. Because sometimes maybe one says ... well I understand that the school has established this value, but in the face of such a situation, I am not being given the necessary support, or not everyone is working with the same effort in that approach that this is a principle, that we all want to achieve that value in the students we are educating.

Similarly, Ayesha pointed out that she thinks that the school must emphasize working with values. To include them as part of the curriculum and not just as a topic for one month. She expressed:
Yes, here we work the values, but I would like to work more with them. I mean, I think you have to give it a little more than ... well, we work with them, and we mention them a lot. But I think that in the classrooms, we must include them as a transversal axis in our classes so that kids could grasp them more.

Academic achievement seems to be rated higher than the values a child can have. Even parents seem to worry more about the grades than if their kids stand out for their values or principles. Rebeca revealed:

... to the teachers yes because we are in the day to day and I know that X child did not manage to excel at the expected level, but he has this and this strength and a person who lets himself go, who has such positive influence on his peers, but that is not so valued, neither in the leaders nor in the parents. But, for that relationship, because parents come and demand academic recognition, it doesn't matter the level that the child concerns values.

This issue appears to be one that has received little time and attention within PLC team activities, due to the emphasis on devoting PLC time to academic issues. The teachers brought this issue into their discussion about the PLC process but did not appear to feel they have the prerogative to spend their PLC time working on this issue.

**Theme 5: Teachers Engage in a Learning Process as they Share Knowledge and Skills, Support each Other, or Receive Support from their Principals.**

Teachers' collegial work in a professional learning community facilitates learning and professional growth as they support each other, share ideas and strategies, analyze student data to identify students' needs and their own professional needs. Leaders play an important role because they need to support the teams, and they must always oversee that those spaces created for the teams to meet are used purposefully. In this school, it appears that school leaders define what is the purposeful use of PLC engagements, to the point where teachers do feel limitations about their ability to determine the focus of PLC work. The leadership support teachers describe
appears to relate to PLC agendas set by school leaders. That notwithstanding does not diminish the value the teachers in this study attributed to the PLC process for their own learning and growth.

**Subtheme A: Professional development occurs on the premises by sharing good practice.** Teachers shared that collaboration with peers results in more knowledge, and at the same time, one contributes to other people's knowledge and learns from them. Pablo said:

> Well, in my professional development it is as if it were a practice, it is as if I were doing a course, because at the same time that I collaborate, at the same time I am learning from the collaboration of others, from interaction with others, it is like giving and receiving at the same time.

Carolina also referred to that and communicated that for her, it had been life-changing from the time she started working at the school and the moment of the interview:

> A very important role because if I think about me... I've been working here for... seven years. If I thought about me seven years ago, it's like an empty bucket; now I feel that my bucket is kind of filling up a little bit every time with all the initiatives that the school wants to implement and that had taught me the training that I've been attending and so on. I think it has played a very important role in my professional development.

Similarly, Sofia remarked that working in collaboration exposes teachers to other people's perspectives, giving them a broader vision of tackling situations in the classroom.

Collaboration also helps to get a vaster repertoire of techniques and different perspectives. She said:

> The thing with teaching is that most of the things you learn are by experience, not from someone talking how to do it. It is not a science that you learn how to engage someone. You come across people that do some stuff, for them, it works, maybe you don't have the same personality, and for you is not going to work, but at least you see the bigger picture, different perspectives on how to do the same thing in different ways.
It was also revealed that in addition to sharing good practice among teachers, leaders identify specific skills in teachers and give them opportunities for professional growth. She said:

First, the leadership team, the directors, in this case, allow you some freedom and they identify in you certain skills, certain strengths that you have and encourage you to share them with others, then, in the end, you ... train, help others by training them simply by sharing what you do, and working as a team.

And she also added:

I have made great progress in the learning community because they see, I mean, the leaders, right? They identify teachers who have certain skills or certain qualities, who are already in the school, and who have been here for more time, and are preparing them to be part of that structure, of that community. That has helped me to grow a lot because I started as a teacher, then I have been doing coaching in Spanish, and then in mathematics in English, that is, I have been improving a lot, professionally.

**Subtheme B: Team members support each other and also receive support from leaders.** The PLC is all about teamwork. Support can come from other fellow teachers or principals. Participants revealed that there were different ways in which they could receive feedback about their work. Many things were happening in the school that targeted the teaching and learning process, always looking for improvement. For example, one of these elements was the designation of coaches to support teachers in the classroom. Ana said:

And then as a coach, my role is to identify areas that teachers need to improve and give them my support ... it may be that I go to their classes and model a strategy that they ... or they can go to mine and see me modeling, there are different strategies.

Principals were also involved in supporting their teachers. It was reported that principals had different ways in which they could observe teachers and give them feedback. For example, formal observations, informal observations, and walkthroughs. Ayesha commented:
It gives us tools, support; sometimes they cannot spend more time with us because of the time here ... we have too many things and little time. But as far as possible, they give us tools; they give us examples of how to do things. I also like the observations that they do to us and that they give you feedback: "look, we notice you are missing such a thing, let's see if you work this." And that is good because one grows.

She also mentioned:

That they get involved here, they get involved with you, it's not that they run from an office. I can even tell you ... before, in other spaces, one was afraid of that boss who stood at the door to supervise you. However, here is the most normal thing that someone comes in to revise a book while you are teaching, and here you do not get scared, even the children are not scared, like ... "Oh, here comes this one to supervise, what is the teacher doing wrong?" And if you're doing wrong, they say "look"… but because they want to help you. I feel that way, I really do.

It was reported too that principals always research to look for strategies that can help teachers improve the weaknesses they identified. Carolina stated:

They are researching for different strategies, for different workshops to be.... they have been ... every time that they walk around and do informal observations, they have something specific to watch. For example, they go "ok, let's watch student to student interaction", that's the only thing we are going to watch in the whole elementary school. And they see that only 3 out of 9 classrooms are good in student-to-student interaction, then they sit down together and find... research different things to improve that on how to do that and then we have a workshop on student-to-student interaction. I've seen that they are more... like trying to see and find different ways or solutions for the problems that they see in the classrooms.

Sometimes support had come from other teachers, like when the administration initiated a program of interventions for individual students in specific classes where they have shown weaknesses. For example, Ayesha asserted:

Well, aside from teaching a group of students, there are interventions. For example, I have in my group, and in second grade, some children need to work one to one with the teacher. I don't work like that with them is a fellow teacher who comes, and in a space in the classroom, while I am giving independent activities, she works with the children in that manner. And so, I go to another person who needs it. And that works. I've seen that is very effective because we can see the need of the child who sometimes does not learn with the tools that you have. Another person with a more individualized approach could do a better job for the child, and we do that, the interventions.

Ayesha remarked:
Well, if there is someone who needs something that I know, I can help. I can teach you how to do it. I like to practice that part more, teach me how to do something so that you learn to do it too. and not to tell you ... "take mine so that you ..."

Kasia also emphasized the fact that teachers help and support each other. She said:

In my previous work, I was the only teacher in that subject. So, it was only me calling the shots, right? And here is more, ok, yes we collaborate. I guess it is helpful in terms of giving ideas like in things that I didn't think about. For example, we have this online book, Big ideas, as resources for Math. I think I would have been lost if Ms. Thomas. Hasn't here to tell me my first year, "oh, we have these resources that we can use to our benefit or even assign things online," which I had no idea because, at the beginning of the year, they just say oh! This is your username and your password. Oh, I thought it was just an online book. But I don't need an online book. But to have that person to come and show and demonstrates these are the options that you have to assist your class, your students, then, it just you know, made it easier.

However, in contradiction to what other teachers shared, some teachers revealed that often resources were not available for teachers, and there was also insufficient support. Lisa shared her own experience this way:

As a team, we try to do it as much as we can, but sometimes we don't have all the… resources we need to implement it the right way. Not only the physical resources but also the… the… support and the time when you ask for that, and you don't have it.

**Findings from the Focus Group Interview**

During the focus group interview, teachers revealed that the new structures that were put into place to implement PLCs facilitated teamwork. They also shared their experiences regarding their growth as professionals due to these interactions in which they share strategies and work towards better student achievement. They also discussed the availability of resources and the school leaders’ support, not only with these resources but also with helping the teams to work in harmony and supporting team decisions. Three major themes surged from this interview, with theme one having three subthemes. See table 3 for more details.
Table 3

*Major Themes and Subthemes from the Focus Group Interview*

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<th>Themes and Subthemes</th>
<th>Camila</th>
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<th>Isabel</th>
<th>Alonso</th>
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<td>1.B. New initiatives like implementing PLC processes present benefits and also drawbacks</td>
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<td>1.C. Teacher leadership emerges during teamwork</td>
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<td>2. Teachers need resources and support</td>
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<td>3. Relationships must be based on trust, ethics, and values</td>
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**Theme 1: PLC Implementation Requires Establishing a New Culture**

During the interview, participants shared that teachers do not work in isolation in the PLC, contrary to traditional teaching. Classrooms are open spaces where teachers can model strategies to help other teachers or to receive feedback from colleagues or the leadership team. Teachers also revealed that collaborative work provides the opportunity to share experiences that allow them to grow professionally.

**Subtheme A: A new culture of collaboration, teamwork, and mutual support facilitates collegiality among teachers.** Working in teams creates a dynamic of relationships
that teachers can use to their benefit and at the same time, to benefit others. Alonso talked about that when he stated:

I saw it as a way to grow, and there were strategies that when we shared, in this case, in the Spanish department, when Ms. Maria visited my class or more specifically this year that we were sharing the classroom, as I was teaching there and she was working, she was also observing. And I think it was good, and that is something helpful because if there was something that I was doing that could be done better, she would tell me. Also, if there was something I was doing wrong and it wasn't working, she would suggest how to do it the correct way. So, the sharing of the classroom I do not see as a way to attack, but as a way to grow, because I really learned many strategies that I did not know or did not apply, and yet, they give positive results. I saw it as a way to grow. I never saw it as a way of criticizing me, because it was never done in the way of criticizing but in a way to tell you how to improve. And so, the same way they did to me, I did with other colleagues, because the goal is not just to teach a class and that's it, but that the class meets the objectives that students learn. I did not see it that way, I always saw it as a way to grow, and all the suggestions ... I never took them personally, because when you take it personally always goes by... that the people who visited you always do it intending to help, it never intended to attack or make you feel bad.

Isabel pointed out that sharing strategies helped her to grow as a teacher. She asserted:

“That is to say, the fact of sharing with other teachers helps a lot because each one has his way of teaching and one takes the part that interests you, right?”

Isabel shared her experience relative to her professional growth as a result of working in teams. She added:

Teamwork is excellent because you can relate to your colleagues and increase your productivity. In reality, what you get ... the achievement. I have had great achievements this year, and it is because of the teamwork. The Spanish team has gotten together very well, and we have obtained very good results with students we have had ... even with problems, with low achievers ... and we have had very good results. And what needs to be done is to continue ... working with them.

For what was shared by these teachers, collaboration not only helped teachers to improve their teaching but, in the end, it also helped the students to learn more. Camila added to this point:
My experience has been a good one in working that way because we can exchange experiences and when several teachers work in the same group, we teach first grade, some teachers work in both first grades, so it is possible to see how much students improve and if what we are planning works the same way in all groups.

However, as good as it is, teamwork also brings problems, from disagreements to not complying with the group or team's responsibilities. Edward noted:

The inconvenience like in all groups, ... it is that sometimes have their frictions, but in the team, those frictions have been corrected. And from a very specific decision in which the principal was involved, the team ended up with that part. So...

With this assertion, Edward brought out the fact that there were disagreements as teachers learned to work in collaborative teams. He further shared that the administration was there to help and provide support when the team could not solve the issue by itself. Saul brought another issue that his team was facing. He explained that not everyone in the team worked the same way and with the same amount of commitment, thus affecting the team performance. In addition to that, the team performance was also affected by problems in the schedule to meet. The team was divided because there was not a time that they could all meet. He shared:

But sometimes I feel that, for example, in the group in which I work, the problem was that some teachers did not comply with the activities on time, because for example, if we wanted to work on planning today, planning was supposed to be complete within the scheme of what we had to give in Google classroom. However, it occurred that some members were ready to deliver while others did not. So, in the end, we worked with those who were ready while the others were left out. Thus, the feedback was difficult to obtain for those who stayed behind. Schedule problems also, for example, in my case, I could not meet with my colleagues, and we had to split the group, the meeting was just half the team at one time and the other half at another time. So, the decision was made in one of the groups, and the other group did not take it or only abided by it, and that was a complication.
Camila remembered that the school was early in implementing the PLC process when she first started working. She explained that she found that a community was in the making to share strategies and work in collaboration to build up a collegial form of work. She also noticed that the collaboration did not have to be only with members of the same team—collaboration could happen with other teachers, too, especially when you were looking to help a student. It was possible to appeal to previous teachers of that student and talk about how he could be helped to improve. Camila pointed out:

When I started working here, I have five years already, this would be my sixth year, and it was like this to make a community of teachers, and that is what has been done. In the teacher teams, you are going to work with the curriculum and seeing the improvements. The strategies and the methodology you use are going to help you see how you can, with the experience of the other teachers, teaching the same grade, to see how you can help the students. But there is something that catches my attention and that I liked in that process, it is that, not only with the teacher teams of the same class, the same curriculum and the same age. You can also use the teachers who taught them. Sometimes, when I have a student with a learning disability or who has a behavioral difficulty, being able to have a relationship with the team ... and ask them, What did you? What strategies did you use? One in that way has a guide and an aid.

Finally, Saul recognized how working collegially helped him professionally and personally. Professionally, because it was possible to learn from others and helped others to learn from you and personally because one could create relationships in the working environment that could even end up in close friendship, he asserted:

And I have learned here … I have had the opportunity to share with many teachers who have respected me and have given me the right place. I have learned to give them the place and respect they deserve, and that has made that in one way or another, we enrich ourselves, not only academically, but as a group, because in the end, these group of colleagues, who were under a common goal, we are becoming more friends, we are becoming more and more participative of each other. It has made me grow, without disrespecting each other, and that each person has his own space, but I understand that this openness has made us know the others and at different levels.

**Subtheme B: New initiatives like implementing PLC processes present benefits and also drawbacks.** Participants in the focus group stated clearly that the school leadership decided
to implement the PLC process. It was communicated to them, but teachers had no participation in the decision. Teachers received training during the in-service at the beginning of the year when the implementation began. Camila commented: “First, we were not part of the decision making…. Regularly, we did talk about growth and how it had helped the educational practice to have these conversations and that teamwork”.

Alonso noted how this implementation was a top-down measure, and teachers just had to put it into practice:

We simply had to adapt to the system because they said ... “look at this. This is what it is.” and we had to implement it. Of course, we have done a little more, that is, we have tried to deepen a little more, and ook for other ways because it is not only the system but by supporting us with the curriculum.

The implementation of a PLC is more than just deciding to do it. Structures must be created to facilitate and encourage teacher collaboration and to prevent going back to traditional isolation. Then, here comes the struggle, the resistance. Participants talked about both the setting up of the structures and how, at times, some resistance appeared. In this regard, Edward said:

Confirming what my colleague said, I believe that the school has been clear in creating the structure, and that is why they have thought about the schedule. There is a specific schedule for the department and by subject area that we have to comply with, so it is confirmed that the school has an interest, and even I want to emphasize that sometimes there is so much work like for example, STEMA fair, or other assignments, and then one thinks ... "oh! today we are going to be freed of the meeting". But then, it happens that we receive an agenda, and that shows clearly the interest of the school that the structure is maintained.

Camila emphasized the point of the scheduled meetings when she said:

In our department, we don’t really have an agenda of what we need to work on in the teacher teams. The teacher team is programmed weekly, and we talk about the needs we’ve had in the day to day during the classes of that week.
According to participants, some teachers viewed the openness and the sharing of knowledge as a threat; thus, they did not accept these changes easily. Alonso noted: “Well when that started ... a couple of years ago ... ahh... some saw it as being attacked because each teacher has his little book and has his form and must be respected”.

Another issue that Edward referred was the amount of work that the new structures created. However, he also revealed that these changes had a positive side, which was the improvement of the work done. He said:

Sometimes it may seem overwhelming, especially when you leave the traditional system and enter a more open, more flexible system. Ahh .. the number of meetings, “come here, go there”, commitments; but in the long run, it is positive, and I think it has been a point of advancement in our school.

Subtheme C: Teacher leadership emerges during teamwork, but it is limited.

Participants revealed that teachers' decision-making was and remains limited. Ideas and suggestions from teachers or teacher teams were always welcome, but in the end, final decisions were made at higher levels in the hierarchy. Edward asserted:

No, but going back to the bottom of the question, it says that as if the learning initiatives that you have are well taken or are considered to make decisions. I believe that in that sense, we are not there yet, at least in high school, there are no initiatives that are not heard and perhaps shared, but from there to decide that way, there is a distance. Although a horizontal organizational system is promoted, more horizontal, more teamwork, still the fundamental decisions are centralized either in the principal or the board of directors. Ahh ... many times the initiatives ... I have often made some suggestions specifically and have been taken into account, or I have seen others that say "but it can be done this way," and it is done that way, but the truth is that fundamental decision making is not made through consultation or sharing with the team of teachers.

Camila also commented in the same direction as Edward:

In that aspect, I consider that we are not well involved in decision-making; we are
told what we have to do. For example, we are making a correlation between the English curriculum and the Spanish curriculum in terms of the topics. Really, we have been told, "you have to do it." They have not necessarily asked us how.

However, Alonso stated that his department made suggestions that were supported by the principal. He said:

Yes, when the Spanish department has decided on something ..., we have been supported, because we had focused on the students, and we had supported our decision since it had been evident that it was a real problem that the students had.

**Theme 2: Teachers Need Resources and Support**

During the focus group discussion, participants considered the availability of resources in the school to comply with the curriculum as an essential topic. It was brought into the conversation that resources were available but not necessarily in the same proportion for the Spanish and the English curricula. It seemed that there were many more resources for the English curriculum than for the Spanish curriculum. Edward stated:

However, the school through the curriculum department, the school intends and seeks many things. The school has bought several licenses; the school invested good money on the internet because ... I believe that there is a willingness and awareness that there should be enough resources. We also must be aware that when you evaluate the relationship between use and cost, if I were on the other side, the management... and I have to invest, I would limit myself and work a little with what we have. But, definitely, the internet problem, which does not go according to what is said ... that is, what we would like it to be ... then the speed, the type of computer that is not very competitive concerning the market that exists from the competition. Those are the types of shortcomings. There is the provision, but maybe it is not enough ...

In the same token, Camila revealed that the English program resources abounded while Spanish resources were scarce. For example, they even had to use a specific reading resource that was translated from English to Spanish, and it was not as appropriate as having actual Spanish reading material. She stated:
In English, there are countless resources. The library also has resources ... a million in English, but there are not as many resources in Spanish. So that part of having resources in Spanish ... although, for example, the "Raz'kits" are used, the "Raz'kits" are in English and Spanish, but they are English books that have been translated into Spanish, they are not necessarily books that are what we really need, so there should be more teaching resources in Spanish.

As important as resources are to implement the curricula, participants also referred to the alignment of the curricula throughout the school as an important outcome of the implementation of the PLC. They described the Curriculum department's efforts to achieve this alignment and how this was facilitated with the coordination of the different teams. Alonso pointed out:

No, and one of the things that we now return to and that where I came from it was not done, was the alignment of the curricula of all subjects both vertically and horizontally because for the student's ease ahh ... the English one was over here and the Spanish over there, and yet, we have tried to the extent that we could to be coherent in our teaching. I did that in Sociales when I taught Sociales. Many times, in Social Studies, they were studying something, and we could link both subjects. And it was easier; the students were learning one thing in English, but they were also learning it in Spanish, and it was easier. And so also in Spanish, to the extent possible, for example, in the part of writing texts, we did link it to reading comprehension. The same was true in English as in Spanish. And that in a way, it did benefit the student because they were learning the same topic and reinforcing in both Spanish and English.

**Theme 3: Relationships Must be Based on Trust, Ethics, and Values**

Participants agreed on the importance of trust and values in the work they do as teachers and at all levels of the institution as well. When speaking about values, mainly, participants shared that even though the school has a set of values as part of its institutional profile, a more robust program was needed to develop such values. Participants also discussed trust and ethics as fundamental aspects of working in teams. In this regard, Edward revealed:

I believe that the administration has been clear, specifically the high school principal, that you have to work as a team, and trust is the number one link for things to go well. Transparency would be the word ... that everyone works with transparency. There is not much to hide, I say, but if there is transparency, which will generate confidence in the team. and I understand that it is still missing, right? But the level of trust will be built on the same level as the team will strengthen its bases. But it has been taken into account by the school administration.
According to Saul, building trust must be based on harmonious work, responsibility, and compliance with the team’s agreements. Everybody must go through the same path, knowing what they need to do and what is expected from them. He stated:

I’m going to steal the words of the coordinator who says ... “clear expectations”; if we all know what we have to do, and when we have to do it, respecting the time, the work, and the harmony of other people, in the end, we can work as a team. Working as a team, we can do a lot more, construct more, more things come out with better structure, and when things come out with better structure, better results are seen, and when we see better results, confidence in the work of the teachers, in the administrative work then trust is built in the parents because they are receiving what they finally ... well ... they want from the moment they put their children here. So, that trust is built only on that. It is important to stress that the important thing is that we all have those clear expectations and follow the same path. As my partner said before, the idea is to be transparent, not to lie, because when one lies, it does not generate trust, and we all know that we will always have problems. We all know that things are not in a straight line, so the fact of saying things that do not go according to the process does not take us where we all want to go, so that is what is important.

From what Saul said, we can also deduce that there is no possibility of improvement without trust. This assertion was confirmed by Alonso, who noted:

… if there is no confidence, you cannot work, because where there is mistrust or where we do not know how to limit the roughness between teachers, in this case, you have an opinion, I have mine, but I have to respect without imposing. Nothing can be achieved because, as both Saul and Edward have said, trust is what unites, trust is what truly makes a team of excellence, and what makes us all work on a clear objective, not one on one side and the other on the other.

Therefore, trust was necessary to build a cohesive and efficient team, but that was not the only condition to build a good team. Participants also referred to ethics as a fundamental aspect to build the trust that the team needs. Edward asserted:

Going back to the original question, I believe that my experience in the school of the first inter-classroom visits that took place in the school is a process that has been growing and maturing. I remember that the first public evaluation that was done, one or two teachers felt like ahh ... “they came to criticize my class” or just “how could it be that in 10 minutes or 5 minutes of observation you will have a global concept of what is happening in my class?” In other words, there has been a process of understanding of both the person who visits and the person who is visited, in terms of having the breadth of
understanding that this is a process of joint growth and I believe that this is happening; there is no problem of one group of teachers visiting another.

Edward was making an account of the first classroom inter-visitations that happened in the school. After these first visits, the results were handled in a way that people felt judged and disappointed. Emma also referred to this situation and how this process must have been done ethically. She added:

I see the visit as something very positive, and that can be very useful. But there is a very fine line that if we lose professional ethics, we will feel bad. If I visit my partner, then I must tell her in the teacher team what I saw not going out saying "what was that you were doing? You cannot do it like this," or try not to give negative feedback to the teacher in the presence of the students. So, there is a fine line that I think we must keep in mind to be completely positive.

Participants expressed their belief that values are an essential part of the education of the students. However, there was no formal program to work with those values that the institution adopted as part of its institutional profile. To fill this gap, teachers integrated values instruction into their lessons, but they shared that it was not enough. Camila shared that teachers must model the values first:

Working in values has a lot to do with ... showing you that value, to model the value. Then, since students are watching us and look up to us, we must respect each other. Because sometimes, if we demand respect, but we are not respecting each other or talking to each other in the right way. So, we don't refer to them in the right way either. Then it is to unify that the value is preached with the example.

Emma, on the other hand, suggested that to develop the values in the students, not only modeling or preaching was necessary but also coherence throughout the school, especially when disciplinary measures are necessary:

And a bit of coherence because if the value respect is being worked on and a student lacks respect for the teacher if the leaders do not apply a consequence to the action, then coherence is lacking. So, we are not applying it in practice.
Emma also noted: “The institution works with values, but families do not get aligned with those values.” Finally, Edward suggested that improvement was needed. It appeared that he was suggesting that one improvement would be to clarify and make more consistent the role of values in the school and the means by which the school supports that role. He argued that, when an educational institution adopts a set of values, it is expected that the students that graduate from that institution most likely be good representatives of most of those values if not of all of them. He asserted:

But going back to the focus of the question, I insist that even though what my colleague says is true that the school has worked or encourages and reinforces values, I believe it is still a challenge for the school. I think it is a weakness that we have, I work with the high schoolers, and I cannot tell that the student who has twelve years in the school has this, this, and this values as principles that govern their life. That makes me realize that if the graduate does not have them, there has been something missing throughout the process. It is still a challenge. I think there have been individual efforts, but even though there are declared values per month, it depends if the teacher wants to work with it, can work with it, or insists on working or not in it. It seems that we need to be more consistent and unify our efforts to obtain results.

As with the individual teacher interviews, this issue appears to be firmly on the minds of teachers but does not seem to be a focus of their PLC work—perhaps because school leaders are setting the agenda for PLC work and teachers are noting this issue as an example of the limits of their decision making.

Comparison of Themes and Subthemes of Individual Interviews and the Focus Group Interview

Findings from both individual interviews and the focus group interview were similar. Although, as it could be observed during the interviews, the emphasis on the various topics was different due to the dynamics created as different teachers interacted in the discussion of the focus group. Table 3 presents, in parallel, the themes, and subthemes for both types of
interviews. As shown in the Table, just two subthemes of the individual interviews were not discussed in the focus group. Both groups coincided in the following:

- The decision of the implementation of the PLC was an administrative decision that was communicated to the teachers.
- Teachers received training on PLCs.
- Teachers’ ideas were heard and pondered, but the administration made the final decision.
- Teachers do not feel that an issue of concern to them (i.e., teaching the school’s values to students) is an administratively supported focus for their PLC work.
- On some occasions, principals sought for teachers’ input in certain aspects that required their knowledge of students and about teaching.
- There was a change in the school culture, from traditional teacher isolation to collaboration through teamwork and collegiality development.
- PLC structures were established to support team meetings and facilitate collaboration.
- Trust was fundamental for a team to work towards its goals.
- Actions were taken to align the curriculum, both vertically and horizontally.
- There was a lack of consistency in support of the school values.
- The opportunity to share strategies and to collaborate facilitated professional growth.

Despite these similarities, some topics were reflected deeper in the focus group interview. For example, resources that teachers need were provided; however, participants revealed that the resources for the Spanish classes (Spanish language and Social Studies in Spanish) were scarce, while resources for the classes taught in English abounded. Another topic discussed more profoundly in the focus group was the school values and how it needs the school community’s attention because what had been done was not enough to instill those values in the students.
Moreover, focus group participants expressed that the way the school addresses values with students must be consistent in modeling, teaching, and practicing those values. Finally, participants in the focus group also mentioned ethics as a crucial value in the relationship among teachers and during the interactions in the teacher teams. Teachers expressed that trust is necessary for the development of ethical behavior.

During the individual interviews, there were certain aspects that participants noted. For example, there was much emphasis on the students as the center of the learning process and how teachers analyze data in the teacher teams to determine students’ needs and plan lessons according to those needs. The importance of differentiating in the classroom and how team members support each other to increase student achievement was emphasized in individual teacher interviews. In addition to teachers’ support, participants mentioned how school leaders support both teams and individual teachers in certain aspects that are important and require attention. One final aspect that individual interviewees addressed was that the relationship with students had become closer because teachers are working with students' individual needs.

Table 4

Comparison of Major Themes from Teacher Individual Interviews and Focus Group Interview

<table>
<thead>
<tr>
<th>Interviews Themes and Subthemes</th>
<th>Individual</th>
<th>Focus Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teachers are involved in a complex process of teaching and learning.</td>
<td>1.A. A new initiative, as it is PLC implementation, requires changes and brings up more responsibilities that fall on the shoulder of teachers. 1.B. Students are the center of the teaching and learning process.</td>
<td>1.B. New initiatives like implementing PLC processes present benefits and also drawbacks.</td>
</tr>
</tbody>
</table>
Table 4 - Continued

<table>
<thead>
<tr>
<th>Individual</th>
<th>Focus Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Teacher decision making is still emerging and most evident at the instructional level.</td>
<td>1.C. Teacher leadership emerges during teamwork</td>
</tr>
<tr>
<td>3. The implementation of a professional learning community requires a new culture in the school.</td>
<td>1. PLC implementation requires establishing a new culture.</td>
</tr>
<tr>
<td>3.A. PLC structures are created to facilitate the collegial work of teachers</td>
<td>1.A. A new culture of Collaboration, Teamwork and mutual support facilitates collegiality among teachers</td>
</tr>
<tr>
<td>3.B. Teacher teams create a space that facilitates collaboration.</td>
<td>1.B. New initiatives like implementing PLC processes present benefits and also drawbacks.</td>
</tr>
<tr>
<td>3.C. Collegiality emerges as teachers support each other, cooperate, and share responsibility</td>
<td>3. Relationships must be based on Trust, Ethics, and Values</td>
</tr>
<tr>
<td>3.D. Adapting to change is harder for some teachers and they end up resisting the new culture.</td>
<td>3. Relationships must be based on Trust, Ethics, and Values</td>
</tr>
<tr>
<td>4. Relationships need a foundation of trust and values</td>
<td>4. Relationships with other stakeholders are essential to the good performance of the PLC</td>
</tr>
<tr>
<td>4.A. Relationships with other stakeholders are essential to the good performance of the PLC</td>
<td>4.B. Trust is essential to building relationships that work positively</td>
</tr>
<tr>
<td>4.B. Trust is essential to building relationships that work positively</td>
<td>4.C. A foundation of values facilitates relationships and the identification with the school</td>
</tr>
<tr>
<td>4.C. A foundation of values facilitates relationships and the identification with the school</td>
<td>3. Relationships must be based on Trust, Ethics, and Values</td>
</tr>
<tr>
<td>5. Teachers engage in a learning process as they share knowledge and skills, support each other, or receive support from their principals</td>
<td>2. Teachers need resources and Support</td>
</tr>
<tr>
<td>5.A. Professional Development occurs on the premises by sharing good practice</td>
<td>1.A. A new culture of Collaboration, Teamwork, and mutual support facilitates collegiality among teachers</td>
</tr>
<tr>
<td>5.B. Team members support each other and also receive support from leaders</td>
<td>2. Teachers need resources and Support</td>
</tr>
</tbody>
</table>
Findings from School Leaders Interviews

At the time of this study, the case study school in elementary, middle, and high school had seven school leaders, including the School Director, the Curriculum Director, two Principals, and three assistant principals. They were all invited to participate and manifested their agreement. However, due to work duties and involuntary causes, two of them could not be interviewed, so in the end, only five participated: (a) the middle-high school principal, (b) the elementary principal, (c) the Curriculum director, (d) the middle-high school assistant principal, and (e) one of the elementary assistant principals.

During the interviews, these school leaders expressed the school's interest in establishing and maintaining PLC structures to allow teachers to learn from each other and support each other, thus having embedded professional development. Participants also revealed that what they expected from these teacher teams was to see how teachers take the lead and guide the team's decisions and endeavors. Few teachers were aware of when and how the decision to implement the PLC was made because they were not part of the school when that happened. Table 5 presents the major themes and subthemes that were obtained from the analysis of these interviews.

Table 5

<table>
<thead>
<tr>
<th>Themes and Subthemes</th>
<th>Principal Element</th>
<th>Principal Middle-HS</th>
<th>Curriculum Director</th>
<th>Assistant Principal HS</th>
<th>Assistant Principal E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Leading the implementation of a PLC requires changes in already established paradigms</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>1.A. The school vision was the starting point for implementing the PLC.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Themes and Subthemes</td>
<td>Principal Element</td>
<td>Principal Middle-HS</td>
<td>Curriculum Director</td>
<td>Assistant Principal HS</td>
<td>Assistant Principal E</td>
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<td>-------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>1.B. The Implementation of a new initiative like a PLC requires setting up new structures that facilitate its development and a system to following up</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>1.C. Communicating the idea and opening channels of communication that ensure achieving the goal</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>1.D. Trust is an essential component of PLCs</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>2. Seeking teachers' professional growth through collaboration, teamwork and leaders' support</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>2.A. Teachers develop collegiality through collaboration and teamwork</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>2.B. Learning new ways of teaching produces fundamental changes.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>2.C. PLCs change in the way teachers relate to each other</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>2.D. Teacher attrition creates a constant need to train new teachers.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.E. Support is available with the team and with the school leaders</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Teachers know best about teaching, and leaders seek for teachers' input</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>
Theme 1: Leading the Implementation of a PLC Requires Changes in already Established Paradigms.

Any new initiative adopted by an institution will require a justification to be implemented, a plan, a starting point, and responsible people to put that plan into action. The school leaders stressed that this applies to the implementation of a PLC in the case study school. However, not all of the current leaders were part of those first steps. Thus, to know how things happened, it was necessary to organize pieces of information like matching the pieces of a puzzle. This school's strong vision and mission combination call for a non-traditional way of schooling that is tailored to educate twenty-first-century citizens.

Subtheme A: The school vision was the starting point for implementing the PLC.

The implementation process started more or less five years ago. The Curriculum Director, who was part of the school at that time, explained that the process began as a result of an accreditation process, advice from a consultant, and research. She revealed:

In the beginning, it was the consultant, and stand out also from ... one of our accreditation hmm... processes as a recommendation to engage in collaboration, and of course, we are all constantly researching and learning that this is what is effective, and so the leadership team, which is made up of us the academic director, myself curriculum director, the principals, coaches that we had at that time, decided that we needed to set up the structures to create PLC teams.

Thus, school leaders made the decision as a necessity and a requirement because the school’s vision describes a student as a lifelong learner prepared to adapt to globalization. As a consequence, to accomplish this vision, the school was compelled to change. The elementary principal explained this when she noted:

... I think the vision has always been there from day one of the .. of creating this institution. I think, again, for the school, it has also been a one-step-at-a-time process in terms of "this is my vision, it's a very aggressive vision," but how do I get there? So, if the school was traditional at some point in time, which I am thinking maybe it was, and how we are evolving into being a more twenty-first-century education institution, I think it has evolved, but it has evolved because that was the vision of the school, like from day one.
Also, the elementary assistant principal commented on this:

I don't think it has changed from the time that we decided to do PLCs because I think that the PLC came as part of this new vision that we had and committed too for that year. So, I would say that it has made real our mission, and it has expanded our possibilities as a growing school that wants to teach life-long learners for a globalized world.

It was also revealed that the implementation of PLC processes facilitated the adoption of new procedures, teaching strategies, and instructional foci since teachers working in collaboration can analyze student data to make instructional decisions, share their knowledge with other teachers, and support each other. The curriculum director explained:

I think that the focus is clear now, what is expected both in terms of the mission, the vision of the school, and the plan for improvement in specific areas. So, that we are more aware that students are all ESL students, that you have to start with the vocabulary, regardless if they have been in the school for twelve years, second to that is the focus, you know the instruction and to focus on the vision and the mission of the school. Hmm... also in terms of understanding that for all teachers, regardless of what grade, differentiated instruction must happen to have inclusive classrooms—being very aware of the different learning needs of students, before PLCs that was not happening.

**Subtheme B: The implementation of a new initiative like a PLC requires setting up new structures that facilitate its development and a system to follow up.** As explained previously, both the accreditation team and a consultant recommended a change to support school improvement. The need to provide teachers with adequate professional development guided the school towards facilitating the implementation of embedded PD in the teachers’ everyday endeavors. The curriculum director commented on this:

It's a long story, but hmm... it was actually a necessity in a school like this, an international school that provides … intents to provide challenging and quality education, and as we know, research says that effective leaders, effective teaching comes from collaboration, and PLCs are a way of getting teachers to collaborate, and make decisions based on data, and learn together. To learn together so that they can make the best decisions to meet students' needs. It started when we decided that the school needed to
take the route of instead of bringing PD from the outside, which we still do sometimes because that's also appropriate for some... professional development, but the biggest strength is in-house. The biggest strength is the teachers that we have in school, and we need to use our strengths. That's one of the things that we realized in the leadership team, that it was appropriate to set up the structures for teachers to engage in PLCs.

In the beginning, it was necessary to train teachers to understand what a PLC looked like, why it was crucial for the school improvement, and how to put this into practice. So, experts were brought to the country from the US to train teachers. Also, the principals that were hired at that time had ample experience in the US school system, and they were prepared to implement, develop, and follow up PLCs. The Elementary principal commented how, in the early stages of implementation, she was brought to train teachers. Later on, she came back to be part of the school in that position:

I actually came to this school to do professional development on beginning to establish professional learning communities because my understanding was that the school didn't have any. So, when the school director was doing professional development in this building, and she reached out to me, and I came, hmmm, for two consecutive summers to work on PLCs, so to provide professional learning during August's professional development.

The middle-high school principal also indicated that experts were brought to train teachers. She stated:

…then we brought in experts from New York City with the latest research to engage and sell the product to the teachers. Usually, teachers get scared, or they fear when they don't know a new implementation. So, by bringing the experts in with us an entire week of professional development, looking at the structure that best fits SJS. I think teachers welcome the idea of collaborating and working together.

In addition to training, the school leaders also identified the need to establish structures to facilitate teachers' interaction. The middle-high school principal commented on that matter:

The school decided to implement PLC because when I came to the DR. after 25 years of experience in the city of New York, we noticed that teachers were very scattered and they did not have a dedicated time for collaboration, and this is very important unless as I previously said, teachers have a structured, dedicated time to collaborate, to look at data, to hmmm... review and revise curriculum based on the data that lead to student growth.
In the same token, the curriculum director indicated the need to set up teacher meetings to analyze data and make decisions supported on that data:

In addition to those PLCs, we were setting up data meetings with the teachers. At least this is the way we did it in the elementary. I wasn't part of the high school at that time when we set this up in the beginning, and so we would meet with the teacher teams and ask for what data was analyzed, and ask for the triangulation and what actions they were taking as a result of those teacher teams.

Similarly, the elementary principal referred to the need for setting up the structures:

One of the first things with PLCs that you have to have is the structure, so the teachers have to have the time where teachers are afforded to have those opportunities to meet. To me, that is step one, and that was already here when I came.

Also, she was clear that this implementation was a complex one, so it had to be done in steps:

Because I like to work in steps, we really have to go deeper into that structure, because to me it is still in the infancy stage. We are still trying to... we are still developing in the understanding of what needs to be a successful professional learning community to truly impact our students.

Moreover, the elementary assistant principal remarked about the need for working in steps:

Well everybody was involved, because we met with all teachers in each of the school levels, and the process was like ... by stages, like... this month you are going to be trying setting up an agenda, this month you are going to be trying this meeting, this month you are going to be trying going back.

The curriculum director described those first steps in elementary school:
We started out setting a protocol; I remember that very clear that I’ve met with teachers, at least in the elementary school; I met with teachers and model the PLC, we had some PDs with videos that showed more or less what should be happening, and of course, that is so kind of what the teachers should focus on.

Likewise, the elementary assistant principal described how those meetings were set up to create a routine:

Teacher collaboration, again, is structured within the teacher schedule for the day. So, they had those schedules, and they are given time for planning, and then time for PLC, and then we also have Tuesdays and Thursdays; teachers stay here for 45 minutes twice a week so that we then have opportunities to do collaboration and professional learning.

Furthermore, the elementary assistant principal also commented on the use of the PLC time, the team meetings:

And also, they do forget all of the possible things that they can do during a PLC. For example, they have three teacher teams a week, they have 3, and we advise them to take at least one for analyzing students' work, another one for planning and preparation because we know that since they ... in elementary school, we have one teacher that teaches everything so, they need to get an alignment, to know what they are going to do, and the other one to use it as they need, but they tend just to start planning, grading work and do not use the time properly.

In middle-high school, things work slightly differently because teachers are subject specialists and do not teach by grade, but by subject. That fact makes things more demanding in terms of working with data. About that, the assistant principal stated:

I think it kind of goes along with the fact that we allow the platform twice a week, and more specifically, once a week in the teacher teams. Where they take it together and share common information, whether is curriculum, or students' needs, strategies, so we give them that time and that space to do so, at least once a week, and then on top of that, many teams choose to go beyond and meet even more often to collaborate on student concerns. or lesson planning.
Moreover, the curriculum director highlighted the complexity of the composition of the teams in high school and how it was more complicated to set up the PLCs:

Then, other ideas surged, and we're imagining the high school... because of the nature of the high school, that we understood that they were not meeting as grade-level teams, but they were meeting as subject level teams and that kind of .. took away from looking at that data .. at grade level to have the students. So, for the following year, I understand that changed, so the teacher teams were set up differently.

Besides those mentioned, other structures that promoted teacher learning were set up. The curriculum director spoke about it when she stated:

The school creates the structures for the teacher team meetings, the time, the schedule that should be used for these purposes, but also creating space and time for teachers to visit classrooms... hmm... certainly we started doing walk-throughs with teachers. They would be invited school-wide to visit each other's classrooms and then discuss the walk-through and give feedback. In some cases, this feedback was for administrative purposes only but in other cases, was for feedback in general for the teacher, and also for other teachers to see the practices. This is something that we set up in the elementary, even what we call a lab site; at one point in elementary, we created lab sites where the teachers would go to that one classroom because the teacher had practices that we all wanted the other teachers to look at it. It went pretty well that year, and I am sure this year they will continue with the lab because they have more resources; they were able to get another coach and so that ... that coach will be doing the modeling and doing the teaching for all the teachers to observe. But I think it is a valuable idea you know, setting up one class where good practices are happening and have teachers come in and look at the practices and decide which practices they want to take .. you know... take back.

The curriculum director also added that teachers should use formative assessments to analyze student achievement and plan accordingly, so this is a focus of PLC work. However, she recognized that there was an issue related to the available time for teachers to fully develop the learning and tools necessary to embed formative assessments firmly in teacher practice:

The idea was that teachers would see and look at formative assessments, and again when you have 25 students that you have to correct work and look at all the work that you want, looking at those formative assessments, the time is not enough. So, I think that in
the future, maybe when we revisit that and see what the appropriate times for teachers are.

She added another issue that had prevented the smooth insertion of teachers into data analysis and decision making about students’ learning:

The other difficult part is hmm… that is a challenge is the turnover of the staff at times. That every year we have some new teachers who leave because it is the nature of our school, it's an international school, teachers leave. We do not have a pool of teachers in the country so, that is always going to present a challenge.

Another issue arose while interviewing the elementary principal related to the size of the school and the fact that the number of teachers by level was not enough to have numerous members to create interesting discussions that lead to more creative decisions about teaching and learning:

For me and because of the time frame that I have been here, the biggest issues that I have is that ... professional learning communities, because the school is so small, I have two teachers per grade, give or take, and we try to do the vertical and horizontal PLC but for the most part, during the day, is two teachers doing the PLC plus the coach or an assistant principal, but to me the number of teachers involved for the work that's done there to be purposeful and truly impactful hmm.. it has to be more people, I don't know if I am making myself clear, but basically you know, you and I can have.. can be sitting here with a PLC, so I say something... you agree... it's done, right? So, if you have more people, more ideas surface, and then you kind of really, truly can have a great PLC, because PLC has to have communication, it has to have to talk, it has to have disagreements, you have to look at the data, you have to see what things are working and what things are not working.

Also, the high-school assistant principal described another issue when she stated:

I think that they maybe haven't been used to the full potential of what a PLC can be in a school setting, so I think that is one of the issues that has come up. They are established, they exist, to a certain extent they function, but I do think they could be used for more specific... they could be used … even more than what they're being used, they can be exploited even more than they have been used in our school by grade level. To strengthened leadership …
The elementary assistant principal said that it had been difficult for teachers to understand what was expected concerning those meetings and how they use that time. She stated: “I think that that is one of the biggest issues is finding the means to help teachers keep focused on what is expected for them to do during PLC.” At another moment, she said:

Sometimes teachers don't use the time for having an actual PLC meeting because... you know, as a teacher, you get tired, and you get stuck in something, they start talking about other things that it is not necessarily what is expected for a PLC.

The elementary principal stated: “The actions... yeah, as I say you have to make sure that people understand the purpose of the PLC and then hmm... you know, this is more of a challenge”. In terms of following up, some comments were made. For example, the elementary assistant principal explained how they need to supervise those teacher teams:

We try to follow up into the meetings we are assigned... each of the leaders is assigned to actively participate in those meetings, whenever possible, and in my case specifically I... my teachers have three opportunities during the week to meet. My third, fourth, and fifth-grade teachers have three opportunities to meet, and in those opportunities, I made sure that I visit one. So, as ... the first thing I did was that I was the facilitator for the first month of those teacher teams... I was the facilitator, so they can see how it is supposed to be, what I expected for them to do and after that, I have let them on their own and I go once a week whenever possible so... I don't go every week, I’ve tried but ... ja ja ja.

The curriculum director also referred to the follow-up and the challenges that this task brings with it, she stated:

I think that challenges are going to come up with time. We have new teachers that don't have the experience, that's always have been a challenge, something to resolve. I think ... the follow-up needs to be more consistent, and I think that one way that we can do is probably setting-up coaches and assigning coordinators... team leaders. Sometimes you expect this to happen to teachers in itself, to nominate leaders, but sometimes that doesn't happen, and so there is no guidance... I am not going to say guidance, but the focus on the meetings ... doesn't happen, so someone who guides the team, the meetings, the following up on those agendas. If we have an agenda, if we have meetings ... do we come back to the next meeting and take a look at what we did the last time? And do we take it from there? That follow-up and monitoring, I think, continue to be a challenge.
Subtheme C: Communicating the idea and opening channels of communication that ensure achieving the goal. Any new implementation in an organization must be sold to those who are going to be part of it. This clearly was a need in this school’s experience. It was already described that everything started with formal professional development at the in-service training during the first two or three years of implementation. The elementary principal remarked this fact when she commented: “.. the channels of communication I think began two years before I got here during professional learning activities in school.” Additionally, the middle-high school assistant principal stated:

They provided training, the first years, for the teachers. It happened before I came because when I came, the PLCs were established. But I believed that they provided training for the teachers and the admin on how they would function, what they would look like, what the roles are... have the communication...

The elementary school principal confirmed that teachers were trained in PLC processes and added a very important piece to this process. She created a manual for teachers to help them keep in mind how important the PLC is and what is expected from teachers in terms of working on these processes. She indicated:

teachers were made aware of what PLCs were; they were given the literature; they were given the understanding that this is something that we needed to have, and then also the data as to how this type of professional learning community truly impacts the progress of students. So that’s ... then with me, I had... I created a teachers’ manual, like a handbook for teachers for elementary, and in that manual, I explain professional learning communities, the intent, and then what needs to happen. So, we communicated it written and then also orally.

Besides this initial training, other communication channels were used to facilitate the implementation and follow-ups, for example, meetings and an open-door policy for teachers. The curriculum director referred to this when she stated:
Oh! and what channels of communication! …channels of communications are always your meetings, that the most important thing is to set up the structures those times created within the schedule, for teachers teams to meet, and of course, that has to be accompanied all the time by a follow-up and monitoring and teachers feeling free to talk about, and to come to the leaders as well to consult.

Effective communication channels facilitate the flow of information. This communication effectiveness is essential to avoid inconveniences and have people working consistently towards the same goals. The middle-high school assistant principal touched base with this when she said:

Well, I believe in strong communication amongst the administration and organization, and having everyone on the same board on the same team, so as much as it is within my power, I try to maintain certain aspects of the organization and logistics of the PLC.

Communication with other community stakeholders was also essential, and some of the interviewees mentioned this aspect. They affirmed that communication with parents was constant, not only with the school leaders but also with teachers. The middle-high school principal reported:

Well, again. Clear expectations. For the students, for the parents... hmmm we share everything with parents; teachers share at the beginning of the school year with parents the classes, how they are going to teach the class, and the curriculum. They have open and constant communication with parents, and that has also made it easier for parents to be happier and have fewer complaints.

**Subtheme D: Trust is an essential component of PLCs.** Building trust among people, in general, is not a small task but for a PLC to work efficiently and effectively is a must. School leaders in the case study school knew that, so they created the spaces for teachers' interactions, and they served as models of trust by giving support and opening their doors to teachers’ concerns. When asked how they had built trust, these school leaders were clear that trust is built essentially through modeling transparent and honest behavior. The middle-high school principal said:
Well, again… by being very transparent, and by having very clear expectations and as I said before "walking the talk" and rolling your sleeve to work with the teachers and by validating what they do and by also having some empathy when teachers... you know... as human beings, get very tired and when they really need a little break. So, by letting teachers know too that even though this is a very important job to do, their health and their family come first. So, is having that empathy with teachers, but also most importantly, holding a hand and letting them know that is ok if they make a mistake, that we are not perfect, we are in a learning curve, and we should always be teaching and learning.

The elementary principal pointed out that trust begins with her, so she said: “By being very transparent. As I said, that is an area that we have to work on. hmm… because in order for a PLC to truly function effectively, trust has to be there.” A way of building trust among teachers was said to be letting them interact with each other, creating opportunities for teachers to interact and work towards a common goal. The curriculum director said:

Engaging in activities and discussions, always engaging in open discussion, creating an environment that is not threatening. I think that when you visit classrooms, they should see this as something normal. But when you have open classrooms, you know, when you clearly state it at the beginning of the year that this is your model of leadership that we are all in a team and we’re all expected to learn from each other, we are all here to learn from each other, that brings down the barriers but also having that contact with the teacher at a different level creates up trust.

By the same token, the middle-high school principal asserted:

I think... let me focus on the answer, hold on. Allowing them to share their ideas and have their voices be heard, I think, builds trust. Having cross-curricular planning also forces them to build trust because they have to work together even maybe out of their comfort zone as they work with teachers they don’t usually like to work with. So, I think, creating the environment for them to... you know... Steam Fair is a good example where teachers have to work together for a common goal, so activities like that allow them to share, learn about each other, step outside of their content areas, sometimes learning about other content areas that might build trust.

However, it came to light that trust-building was still a work in progress. The culture of trust needed to be taken care of and developed among the staff. The elementary school principal said: “yeah, the professional effect I think has to be worked out in building that culture of trust
here. I find that the level of trust is not fully embedded.” The elementary assistant principal, on the other part, stated:

... also depends on the teacher because sometimes you have this teacher team... you're forcing two people to see each other three times a week, but maybe these two people don't get along that well and sometimes it depends, but definitely, it makes teacher closer for better or worse.

**Theme 2: Seeking Teachers' Professional Growth through Collaboration, Teamwork, and Leaders' Support.**

PLCs are characterized by embedded professional development, which means that teachers learn from each other by sharing strategies, analyzing student data, and observing each other’s classes, thus developing best practices. Interviewees spoke about how the case study school changed from the traditional teacher isolation to collaboration and continuous learning.

**Subtheme A: Teachers develop collegiality through collaboration and teamwork.**

Traditional schooling where teachers worked in isolation was the antithesis of PLCs. Nevertheless, for many of us, this is what we knew; this was the kind of school we participated in as learners and teachers. So, changing to new ways becomes difficult, but not impossible, task.

The middle-high school principal explained:

Well before, teachers used to work in isolation, and teachers did not like to share, so right now, we... even with the lesson planning, everything they do is uploaded to One-drive so that everybody can see what they do, what they are doing. Before teachers used to be very.... private, and they didn't want to share. Now, they have seen that hmm... by sharing and by looking at how other teachers, you know.... do this, or... you know it's so much easier for everybody. And also, with the teacher inter-visitation, teachers feel very, very comfortable being visited by other colleagues and see how certain strategies work better in those classrooms, and that has been a big part of this collaboration in PLCs.

She also shared that often teachers did not recognize the importance of the team meetings where they come together and share their knowledge:
Yes, there has been a lot of issues. hmm... first because teachers, even though they understand the process, but is not only understanding the process... It’s following the structure, and teachers getting into their minds that this is a valuable time for them. For teachers to see the value of coming together at a common time with a specific agenda, and then taking the lead of this work.

The elementary principal shared that, during this year, the focus was on class planning and what learning objectives needed to be achieved. She stated:

This year we continue to be focused on planning and preparation, so within PLC work, teachers have done a lot of work in terms of planning because that's an area that we still need to grow and we still need to put a lot of emphasis in this understanding, exactly the what it is that we are teaching, and then kind of understanding of how we are going to... I hate to say the word "differentiate," but how we are going to make sure that everybody has access to the content that is being taught.

Collaboration increased over time as teachers met and worked together. Even though there is still a lot to learn, progress has been made because teachers share strategies and seek help from colleagues. The elementary assistant principal remarked:

In terms of the data that they are receiving, that they are discussing in those teacher's teams, you can see that teachers are starting to exchange strategies because they can see how a group is performing better with one teacher than with another. So, they start to ask, "what are you doing? How can I make this work?"; and some cases of collaborative teaching have arisen because, for example, they agreed like... if we are teaching reading at the same time but I have a very low group, and I see that in your results, you have raised the level of 3 students very fast, “could you please take this guided reading group for me at the same time that I take yours?” and they do that.

Additionally, the leadership team had set up the teams' structures and guidelines to analyze data and identify students’ needs. Teachers then could use the data to prepare action plans that helped address students’ weaknesses. The curriculum director explained:

Because the teacher team will look at the grade and what are the strengths and what are the areas of weaknesses that they need to focus on and then with individual teachers looking at individual students to see what resources can help the student. The teacher creates an action plan and getting intervention, differentiating that instruction whether it was bringing another teacher from another class to support as an intervention or getting a different resource like special ed, downstairs in the elementary school, or getting socio-emotional support for the child, or just those... the teacher for the next section coming in and supporting during a specific time those students who need more support.
Having the students in mind was key for these teacher teams to be successful. The middle-high school principal explained how teachers could adjust their lessons after the analysis of the data to obtain better results in student achievement:

Validating, validating the work and actually, letting the teachers know that after looking at the data together how it pays off, how their collaboration and their adjustment and their involvement in the curriculum pays off with the students' motivation, with the students trying to do better, with the students' academic success. And we have seen a lot of that, we've seen a huge growth in students passing all their classes, students taking rigorous courses, etc.

So, little by little, teachers are changing to a culture of collaboration. Collegiality is developing in the school through the work of the teacher teams. Teachers are experiencing the advantages of learning from others, not only personally, but also with their students. The curriculum director spoke about this change in teachers’ behavior:

Definitely, they are asking more for a more collegial atmosphere. Teachers support each other. I have seen situations where teachers are going to a classroom to provide support. I've seen teachers who stay in a classroom. Before, teachers were not open to someone being in their classroom, but now teachers can stay there even just to use a resource, maybe a computer. Because, you know, we realize that there aren't enough rooms available for teachers, so they're staying there and seems to be fine. I think that teachers are a lot more open to having someone coming to their classrooms, whether it's an administrator or another colleague.

**Subtheme B: Learning new ways of teaching produce fundamental changes.** As teachers develop collegiality and learn from each other, consistency in the way classes are taught increases. Communication among teachers who teach the same class produces an alignment of the classes vertically and horizontally and more coherent and structured classes. The middle-high school assistant principal declared:

… that we are one school because specifically, we are a private school from K-12, that we are one school and that information has to be shared, and that also, the methodology and the content that is being taught all the way down to pre-k and kindergarten has to correlate with first grade, second grade all the way up and has to be a continuous line of what's been taught and how it's been taught in order for us to be effective when the kids get up to middle school and high school, so there are no gaps. So, I think the vision has
changed in realizing that we are not separate schools, we can't be separate schools, that we have to be cohesive and share data amongst the whole school.

The elementary school principal highlighted how classes are aligned, and coherence is built through collaboration:

I have noticed a huge, huge positive impact on teaching practices in this building from the time I came, with the Spanish teachers as well as with English, reading, and writing. I would say about 80 percent of the staff has really, truly embraced the balanced literacy approach, the guided instruction, and also the workshop model. It has really gone out of the way to build coherence in terms of instruction. I've seen a huge impact in that in a year and a half.

The elementary assistant principal was specific about how collegiality facilitates class alignment throughout the school:

Our expectation as a school is for them to be aligned within the grades, and for example, third A and third B must be teaching if not the same thing, pretty much the same thing. A time ago, it didn't happen because teachers didn't have the time to sit down and do that together, now you can see that is something that is happening.

Also, consistency is developing and increasing, she said:

So, I would say that changes in teaching are that there is an alignment in the teaching. They are sharing strategies, and also it is easier for them to follow the school structure. We use the workshop model in elementary school, and we try to explain to teachers how it should be and when they get together, what they do is that they exchange these ideas, and then you start to see that in each grade, the workshop model looks pretty much the same.

The curriculum director mentioned that there was much stronger consistency in teaching at the time of this study. A class structure was put in place to be adopted by all teachers to help students understand the class content. She asserted:

I think that we still have a lot of work to do, but definitely in having a structured classroom, where you have a beginning, looking for that prior knowledge, having an agenda on the board... clear objectives. I think that probably the biggest one is the clear objective that should be taught to the students and soon engage in that understanding of the objective and the teacher as well and having clear expectations for the class.
The middle-high school principal also referred to this consistency in the class structure and how teachers are creating more student-centered classes. She declared:

Teachers now know that they don't have to speak for the 45 minutes of instruction. Teachers know that ... giving the students a focus, student-to-student discussions, debates... debating ideas, having critical thinking, having an agenda of how they are going... how they are planning to spend those 45 minutes in class and being clear... having those clear expectation for students. I think that’s a major plus.

However, the implementation of a process is not a bed of roses all the time. In fact, roses have thorns. So, this process has also had its hassles. The middle-high school principal commented on the fact that, when new teachers come in, it is like going back and starting all over:

Well, we have no control over, you know... when we need a teacher and the teachers have not been trained, that teacher has to be able and willing to be part of the PLC. That's usually where the difficulty is, with the new teachers coming on board. So, eventually, if all the schools in the Dominican Republic are part of the PLC, you know, have PLCs in their buildings, it will be easier for them to transfer from one school to the next.

The elementary assistant principal also mentioned that having new teachers coming in every year make the process more difficult:

Yes, you know that you always have that teacher that takes the time of the PLC to talk about something else and especially when there are new teachers, they are like... hmmm they have many questions, and sometimes they see the opportunity of the teacher team to receive answers to all those questions, like the part of analyzing students' work, the part of going back to data. That part they miss it, and they just take the time to “ok let's do a lesson plan”.

Subtheme C: PLCs change the way teachers relate to each other. As teachers interacted in their PLCs, relationships were built and developed for better or worse. The middle-high school assistant principal referred to this fact:

I think this year specifically, I saw teams that really came together with communication and specifically planning, and sharing strategies, more than I have seen before. So, I think that was a positive change that I did explicitly see more this year amongst the teams
where they took it more seriously within their teacher teams. The planning and sharing of ideas, strategies, and plans for specific students. I saw it more.

Also, she expressed how the interchange of strategies and ideas is visible in the classrooms as teachers implement new teaching practices learned from their colleagues:

I think this goes back to what I just said. I think being able to share strategies amongst teachers and knowing what works, and also visitations between teachers and the fact that they had to plan you know in a coherent type of manner and those kinds of things.

However, there is always the part where disagreements and negative feelings surface due to the increase in teachers' interactions where they must be more interdependent rather than independent. The elementary principal touched base on that part when she stated:

…but, there are some levels of ..like jealousy at times. And then also when a teacher is recognized for whatever reason, this group has resentment. Like they did not have... like yesterday, they are not happy about their colleague being recognized; they ask, what about me? Like they have that "what about me" mentality ..which I didn't really have much in the States. That's something that I also struggle with here. If you get recognized, I want to celebrate with you; I am happy for you…

**Subtheme D: Teacher attrition creates a constant need to train new teachers.** The problem of always having new teachers coming in every new school year creates a problem of constantly having to train them in the PLC processes. The high school principal indicated:

Well, teachers come and go. We've been lucky here that most of the teachers have remained, but with new teachers, every time there is a new teacher on board, that we have literally start all over because they have not seen or they have not been used to working with PLCs, and I think that's the challenge, the revolving door with teachers.

The elementary principal confirmed the problem of teacher attrition when she reported:

… also, the turnaround of teachers. So, we start the work with teachers and then a group leaves, and a new group comes, so .. because it's an international school, the teacher retention I find that is very challenging. Because we did a lot of work, we have been
doing a lot of work this year, but so many of them are leaving that I feel I am going to have to begin from new, right because it's going to begin, basically, half of the staff new. So, that's a big problem.

She added a solution that she has thought about to mitigate the problem if not solve it.

She stated that hiring teachers that are permanent residents in DR might increase the time that teachers remain at the school:

… teacher retention, the teacher retention rate here is ... not good. It's a real big challenge. What I am trying to do is to hire more people from the Dominican Republic. So that people would stay. Because I find that in doing the data, analyzing the rotation of new teachers in the last five years, I find that a lot of teachers that are from the States usually leave within two or three years. They go to other countries, or they go back to wherever they came from. So, I am trying to staff more with people from the DR.

This is a difficult issue to resolve because once the school has trained the teachers, they leave, and it becomes a cycle where it is continuously necessary to start all over again.

**Subtheme E: Support is available with the team and with the school leaders.** School leaders support teachers in different ways. The elementary school principal considered teachers more open with the principals and assistant principals when seeking support. She declared:

… what I find in terms of the relationship… what I find is that teachers are more open to come here and tell me what they are struggling with, which they did not do before, and then also the fact that teachers are really more resourceful. Like they go out there, they go to the internet, they look in at resources, and they have a self-pride. I find that is a big plus. At least here in the elementary school that teachers really want to seek those resources and learn and kind of become better at their teaching.

Also, the curriculum director confirmed the openness of teachers in seeking advice:

I think more so than from my role as administrator, and as curriculum director, teachers do come up and express problems that they see in their classes or their colleagues' class that they don't have an answer for. So, it's always nice to be able to see that people can approach, at least me, and ask for guidance, for feedback. I think that feedback is a word that teachers are now asking for. They are asking for that feedback a lot more. And we see in the collected surveys that they are asking for more constant and consistent regular feedback from administrators. They are more open to that feedback.
It seems that even new teachers feel more comfortable asking for that feedback as they get used to the openness and the sharing of practice. The elementary assistant principal had something to say about that:

Well, since I've been part of those teacher teams now and then, I think they are more open especially new teachers... because ... since I was part of the teachers for a long time, the old teachers ... we have now a very open relationship because they know me, I've seen them working for a long time, but then the new teachers they need to get to meet me, they are ... they see me like a superior, but once they get engaged into these practices then they are more open to asking questions. They send me emails for whatever they need. They feel free to write to me, to visit me, and I think we developed a closer relationship... a supportive relationship that's what we want that they feel supported.

**Theme 3: Teachers Know Best about Teaching and Leaders Seek Teachers’ Input**

Making decisions must be an informed process when someone wants to take the correct path. In general, the school leaders indicated their assumption that decision making is the responsibility of the administration. However, they also indicated their belief that the most knowledgeable people are teachers in the teaching and learning process. Thus, decisions regarding these processes must fall on their shoulders. In this case, school leaders are aware of this, so they guided teachers through the PLC processes. The elementary assistant principal stated:

The decision making... the leaders, because they came with the idea, this is what we are going to do this year, we are moving forward to become this type of school, and we want teachers to work together, and these are the teacher teams, this is how it works.

In reality, teachers were invited to be part of the decisions. Teachers did not participate in decision-making, per se, but the administration sought their input in some decisions, mostly related to instruction. The elementary assistant principal said:

What I see, my experience is... that leaders have an agenda, so this is what we want to do, and this is our goal, so we work through the PLC to move teachers into that direction. It is not that we tell them what we want them to do, but we help them to understand... we
guide them to the process to understand why this or that would be the best decision to make. So, they participate in decision making, but not because we make them, but because they understand that those are the decisions that better fit our reality at the moment.

However, teachers were expected to demonstrate their leadership during team meetings and make decisions regarding teaching and learning. The middle-high school principal indicated:

It's for teachers to take on the lead, this is them, they guide this work and of course, you are always there to support them, but it is mainly that they need to see the importance of it, they need to see the relevance of this collaboration. Unless they see the relevance, and this is their job, hmm... and it is for the benefit of them as a team, and getting them to take ownership, that's what I want to say, take ownership and develop a model that best work for them in the collaboration hmm... deal.

The middle-high school principal pointed out the importance of teacher leadership and that all teachers' collaboration was fundamental for the process. She also asserted:

Some teachers are leaders. Some of them just take the lead, but that's is not what it is; all of them need to be part of it. For this to work is really through collaboration. All voices need to be heard, no one is wrong, no question is a bad question, they need to feel comfortable around each other. And there is where we have the most difficulty.

The middle-high school assistant principal also indicated about this leadership in teachers:

I also think within PLCs some teachers stand out as leaders and even if they are not specified to be a leader, some teachers stand out really ... are true leaders amongst groups, that happens in every group, so I think that it allows those to have those qualities to stand out amongst their peers, and then the communication...

The elementary principal was very descriptive when referring to this particular topic because she used an example of what teachers do in terms of curriculum decisions:
“… participation in decision making whenever we want to make a change due to the data analysis and a particular… like the curriculum or instructional. For example, this year, we changed the science curriculum because the other science curriculum that we had was not doing a part of what we wanted to do in terms of science. We wanted to do a more inquiry-based curriculum. The teachers were afforded the time. I believe it was two weeks that it was a set-up of the new curriculum for them to choose. Either stay with the old one that we had or if we change and why. They were giving sheets to kind of rate the new curriculum. They were giving professional learning of the new one. They already had professional learning on the old one, and then they were the ones that told us if they wanted to go with the new one or the other one.”

She also remarked that teachers were allowed to make decisions about instruction when she stated: “The decision to collaborate and to modify or make changes to our instructional agenda is not top-down, but it is rather collaborative work, that brings great results for all.”

Comparison of Themes and Subthemes of Teachers Interviews and School Leaders

School leaders and teachers agreed in certain fundamental aspects of the PLC processes. The only aspect in which teachers expressed a different opinion was in terms of the decision-making process. There was a subtle difference in the way teachers and leaders responded to the question about decision making. Teachers perceived that they had some freedom in deciding about instruction, but their understanding was that leaders had the power of decision. On the other hand, leaders were expecting teachers to demonstrate their leadership and be part of the decision-making process regarding teaching and learning. Table 5 displays the themes and subthemes that are similar in both groups. These are the similarities found:

- Effective professional development occurs on the premises. According to school leaders, taking advantage of teachers’ expertise in teaching and learning is a way to promote best practices.
- Leaders, understanding the need to develop the PLC, created structures to facilitate teachers embedded professional development.
▪ Data analysis fosters changes in the way the curriculum is taught. Teachers use teacher teams to improve instruction, fulfill students’ needs, and differentiate.

▪ A protocol, an agenda, scheduled time for meetings are part of the structures created to set up PLCs.

▪ Both groups agreed that sometimes team meetings are used for other purposes and not for the intended one.

▪ Setting up meetings in high school was more complex than in elementary school.

▪ Both teachers and school leaders agreed that collegiality started developing as structures were set up that facilitated collaboration. Teachers left the isolation of the classroom and started to share their knowledge and teaching skills.

▪ There is now improved vertical and horizontal alignment of the classes.

▪ Some disagreement and negative feelings have arisen due to the increase in interactions, but school leaders are there to support teachers and find a solution.

▪ Trust is fundamental for this process to work and give results.

Teachers acknowledged the support they receive from the school leaders and their colleagues.

School leaders, for their part, knew they have to support teachers, and they do.
Table 6

*Comparison of Individual Interviews and Focus Group Interview Major Themes and Subthemes*

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<th>School Leaders</th>
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<td>1. Teachers are involved in a complex process of teaching and learning.</td>
<td>1. Leading the implementation of a PLC requires changes in already established paradigms</td>
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<tr>
<td>1.A. A new initiative, as it is PLC implementation, requires changes and brings up more responsibilities that fall on the shoulder of teachers.</td>
<td>1.B. New initiatives like implementing PLC processes present benefits and also drawbacks.</td>
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<td>1.B. Students are the center of the teaching and learning process</td>
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<td>2. Teacher decision making is still emerging and most evident at the instructional level.</td>
<td>1.C. Teacher leadership emerges during teamwork</td>
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<td>3. The implementation of a professional learning community requires a new culture in the school.</td>
<td>1. PLC implementation requires establishing a new culture.</td>
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<td>3.A. PLC structures are created to facilitate the collegial work of teachers</td>
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<td>3.B. Teacher teams create a space that facilitates collaboration.</td>
<td>1.A. A new culture of Collaboration, Teamwork, and mutual support facilitates collegiality among teachers</td>
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<td></td>
</tr>
<tr>
<td>3.C. Collegiality emerges as teachers support each other, cooperate with one another, and share responsibility.</td>
<td>2.C. PLCs change in the way teachers relate to each other</td>
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</tbody>
</table>
Table 6 – Continued

<table>
<thead>
<tr>
<th>Interviews Themes and Subthemes</th>
<th>Individual</th>
<th>Focus Group</th>
<th>School Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.D. Adapting to change is harder for some teachers, and they end up resisting the new culture.</td>
<td>1.B. New initiatives like implementing PLC processes present benefits and also drawbacks.</td>
<td>3. Relationships must be based on Trust, Ethics, and Values</td>
<td></td>
</tr>
<tr>
<td>4. Relationships need a foundation of trust and values</td>
<td>3. Relationships must be based on Trust, Ethics, and Values</td>
<td>1. D. Trust is an essential component of PLCs</td>
<td></td>
</tr>
<tr>
<td>4.A. Relationship with other stakeholders is essential to the good performance of the PLC</td>
<td>2. Teachers need resources and Support</td>
<td>2. B. Learning new ways of teaching produces fundamental changes.</td>
<td></td>
</tr>
<tr>
<td>4.B. Trust is essential to building relationships that work positively</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.C. A foundation of values facilitates relationships and the identification with the school</td>
<td>3. Relationships must be based on Trust, Ethics, and Values</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Teachers engage in a learning process as they share knowledge and skills, support each other, or receive support from their principals</td>
<td>2. Teachers need resources and Support</td>
<td>2.E. Support is available with the team and with the school leaders</td>
<td></td>
</tr>
<tr>
<td>5.A. Professional Development occurs on the premises by sharing good practice</td>
<td>1.A. A new culture of Collaboration, Teamwork, and mutual support facilitates collegiality among teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.B. Team members support each other and also receive support from leaders</td>
<td>2. Teachers need resources and Support</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>178</td>
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</tbody>
</table>
Discussion on How the Teacher Interviews Offer Insights on the Survey Results

This case study was conducted using a mixed-method approach. Quantitative data was collected using the PLCA-R to measure the level of implementation and the PLC's strengths and weaknesses. The results of the PLCA-R are presented in Chapter VI. This section presents the connections between the qualitative findings obtained through the interviews with the PLC assessment results. The instrument was responded by the interviewees and other teachers in the school, resulting in 38 participants in this part of the study. The PLCA-R assessed six dimensions: (a) shared and supportive leadership, (b) shared values and vision, (c) collective learning and application, (d) shared personal practice, (e) supportive conditions-relationships, and (f) supportive conditions-structure. The quantitative analysis showed little variation among the dimensions’ mean scores. The six mean scores ranged between 2.90 to 3.03; they were all very close to a mean of 3.0, indicating little difference in the level of agreement with the PLC’s dimensions (Olivier et al., 2010). Two dimensions resulted in mean scores 3.0 or higher, meaning a high level of agreement with these two dimensions of the PLC determined by a mean score higher than 3.0 and combined with a low standard deviation. These two dimensions were collective learning and application and shared personal practice. The other four dimensions had a mean score between 2.90 and 2.94, resulting in the dimension shared and supportive leadership with the lowest mean score and standard deviation. Thus, participants manifested a high level of agreement that this dimension was a weakness for the learning community. Table 7 shows the means and standard deviations of each of the dimensions and their attributes.
### Means and Standard Deviations of the PLCA-R Dimensions

<table>
<thead>
<tr>
<th>Dimensions and Attributes</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shared and Supportive Leadership</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stakeholders assume shared responsibility and accountability for student learning without evidence of imposed power and authority.</td>
<td>2.90</td>
<td>0.43</td>
</tr>
<tr>
<td>Opportunities are provided for staff members to initiate change.</td>
<td>2.61</td>
<td>0.79</td>
</tr>
<tr>
<td>Staff members are consistently involved in discussing and making decisions about most school issues.</td>
<td>2.76</td>
<td>0.79</td>
</tr>
<tr>
<td>Decision-making takes place through committees and communication across grade and subject areas.</td>
<td>2.76</td>
<td>0.75</td>
</tr>
<tr>
<td>Staff members have accessibility to key information.</td>
<td>2.79</td>
<td>0.74</td>
</tr>
<tr>
<td>The principal participates democratically with staff sharing power and authority.</td>
<td>2.84</td>
<td>0.68</td>
</tr>
<tr>
<td>Leadership is promoted and nurtured among staff members.</td>
<td>2.87</td>
<td>0.62</td>
</tr>
<tr>
<td>The principal shares responsibility and rewards for innovative actions.</td>
<td>2.89</td>
<td>0.69</td>
</tr>
<tr>
<td>The principal incorporates advice from staff members to make decisions.</td>
<td>2.92</td>
<td>0.71</td>
</tr>
<tr>
<td>Staff members use multiple sources of data to make decisions about teaching and learning.</td>
<td>3.03</td>
<td>0.64</td>
</tr>
<tr>
<td>The principal is proactive and addresses areas where support is needed.</td>
<td>3.13</td>
<td>0.62</td>
</tr>
<tr>
<td><strong>Shared Values and Vision</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stakeholders are actively involved in creating high expectations that serve to increase student achievement.</td>
<td>3.03</td>
<td>0.49</td>
</tr>
<tr>
<td>School goals focus on student learning beyond test scores and grades.</td>
<td>3.05</td>
<td>0.62</td>
</tr>
<tr>
<td>Shared values support norms of behavior that guide decisions about teaching and learning.</td>
<td>2.92</td>
<td>0.66</td>
</tr>
<tr>
<td>A collaborative process exists for developing a shared sense of values among staff.</td>
<td>2.95</td>
<td>0.7</td>
</tr>
<tr>
<td>Decisions are made in alignment with the school’s values and vision.</td>
<td>3.03</td>
<td>0.66</td>
</tr>
<tr>
<td>Policies and programs are aligned to the school’s vision.</td>
<td>3.05</td>
<td>0.66</td>
</tr>
<tr>
<td>A collaborative process exists for developing a shared vision among staff.</td>
<td>3.05</td>
<td>0.66</td>
</tr>
<tr>
<td>Staff members share visions for school improvement that have an undeviating focus on student learning.</td>
<td>3.05</td>
<td>0.66</td>
</tr>
<tr>
<td>Data are used to prioritize actions to reach a shared vision.</td>
<td>3.05</td>
<td>0.66</td>
</tr>
<tr>
<td>Collective Learning and Application</td>
<td>3.02</td>
<td>0.47</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------</td>
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</tr>
<tr>
<td>School staff members and stakeholders learn together and apply new</td>
<td>2.68</td>
<td>0.7</td>
</tr>
<tr>
<td>knowledge to solve problems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collegial relationships exist among staff members that reflect</td>
<td>2.84</td>
<td>0.68</td>
</tr>
<tr>
<td>commitment to school improvement efforts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A variety of opportunities and structures exist for collective</td>
<td>2.92</td>
<td>0.82</td>
</tr>
<tr>
<td>learning through open dialogue.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data are organized and made available to provide easy access to</td>
<td>2.87</td>
<td>0.62</td>
</tr>
<tr>
<td>staff members.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication systems promote a flow of information among staff</td>
<td>2.89</td>
<td>0.73</td>
</tr>
<tr>
<td>members.</td>
<td></td>
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<tr>
<td>Communication systems promote a flow of information across the entire</td>
<td>2.89</td>
<td>0.69</td>
</tr>
<tr>
<td>school community including: central office personnel, parents, and</td>
<td></td>
<td></td>
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<tr>
<td>community members.</td>
<td></td>
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</tr>
<tr>
<td>Resource people provide expertise and support for continuous learning.</td>
<td>2.95</td>
<td>0.66</td>
</tr>
<tr>
<td>Time is provided to facilitate collaborative work.</td>
<td>2.97</td>
<td>0.64</td>
</tr>
<tr>
<td>The school schedule promotes collective learning and shared practice.</td>
<td>3.05</td>
<td>0.61</td>
</tr>
<tr>
<td>The proximity of grade level and department personnel allows for</td>
<td>3.08</td>
<td>0.67</td>
</tr>
<tr>
<td>ease in collaborating with colleagues.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The school facility is clean, attractive and inviting.</td>
<td>3.24</td>
<td>0.75</td>
</tr>
<tr>
<td><strong>Shared personal practice</strong></td>
<td>3.03</td>
<td>0.49</td>
</tr>
<tr>
<td>Opportunities exist for staff members to observe peers and offer</td>
<td>3.16</td>
<td>0.86</td>
</tr>
<tr>
<td>encouragement.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff members provide feedback to peers related to instructional</td>
<td>2.87</td>
<td>0.78</td>
</tr>
<tr>
<td>practices.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff members informally share ideas and suggestions for improving</td>
<td>3.32</td>
<td>0.47</td>
</tr>
<tr>
<td>student learning.</td>
<td></td>
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</tr>
<tr>
<td>Staff members collaboratively review student work to share and</td>
<td>3.03</td>
<td>0.64</td>
</tr>
<tr>
<td>improve instructional practices.</td>
<td></td>
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</tr>
<tr>
<td>Opportunities exist for coaching and mentoring.</td>
<td>3.00</td>
<td>0.84</td>
</tr>
<tr>
<td>Individuals and teams have the opportunity to apply learning and</td>
<td>3.13</td>
<td>0.58</td>
</tr>
<tr>
<td>share the results of their practices.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff members regularly share student work to guide overall school</td>
<td>2.68</td>
<td>0.70</td>
</tr>
<tr>
<td>improvement.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Supportive Conditions - Relationships</strong></td>
<td>2.94</td>
<td>0.52</td>
</tr>
<tr>
<td>Caring relationships exist among staff and students that are built</td>
<td>3.05</td>
<td>0.77</td>
</tr>
<tr>
<td>on trust and respect.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A culture of trust and respect exists for taking risks.</td>
<td>2.63</td>
<td>0.88</td>
</tr>
<tr>
<td>Outstanding achievement is recognized and celebrated regularly in our</td>
<td>3.16</td>
<td>0.79</td>
</tr>
<tr>
<td>school.</td>
<td></td>
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<tr>
<td>School staff and stakeholders exhibit a sustained and unified effort</td>
<td>2.79</td>
<td>0.58</td>
</tr>
<tr>
<td>to embed change into the culture of the school.</td>
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</tbody>
</table>
Table 7 – Continued

| Relationships among staff members support honest and respectful examination of data to enhance teaching and learning. | 3.05 | 0.57 |
| **Supportive Conditions - Structures** | **2.93** | **0.45** |
| Time is provided to facilitate collaborative work. | 2.97 | 0.64 |
| The school schedule promotes collective learning and shared practice. | 3.05 | 0.61 |
| Fiscal resources are available for professional development. | 2.76 | 0.79 |
| Appropriate technology and instructional materials are available to staff. | 2.63 | 0.85 |
| Resource people provide expertise and support for continuous learning. | 2.95 | 0.66 |
| The school facility is clean, attractive and inviting. | 3.24 | 0.75 |
| The proximity of grade level and department personnel allows for ease in collaborating with colleagues. | 3.08 | 0.67 |
| Communication systems promote a flow of information among staff members. | 2.89 | 0.73 |
| Communication systems promote a flow of information across the entire school community including: central office personnel, parents, and community members. | 2.89 | 0.69 |
| Data are organized and made available to provide easy access to staff members. | 2.87 | 0.62 |

**Shared and Supportive Leadership**

This dimension of the PLCA-R was rated as a weakness of the case study school. Eight out of eleven attributes of this dimension related to teachers' decision-making power had mean scores lower than 3.0. However, three attributes had means higher than 3.0: (a) the principal incorporates advice from staff members to make decisions, (b) staff members use multiple sources of data to make decisions about teaching and learning, and (c) the principal is proactive and addresses areas where support is needed. These results relate to what participants shared with me during the interviews. Participants expressed how their decision-making power was limited to instruction. However, they conveyed that, on many occasions, principals sought their insights regarding certain situations, but the principals or the administration made the final decision. For example, Hugo revealed: “well, to be quite honest, I do not see that teachers have
had a lot of input in decision making in this school. They probably give you some information, it
is like you do it or you do not do it”. Also, Sofía commented:

Well, I think in this school it doesn’t happen quite often. Most decisions are made for us, and we have no participation whatsoever but, depending on what we are discussing. For example, if we are talking about something that involves the students directly, we might be able to share our opinion or our idea on the process that we are dealing with at the moment.

Furthermore, Ayesha expressed:

Well, the idea sometimes comes from the directors when they want to implement something. We meet with our immediate supervisor and think about the issue if it seems good to us, what else can we add to what they ask of us, and so on.

Edward also stated:

No, but going back to the bottom of the question, it says that as if the learning initiatives that you have are well taken or are considered to make decisions. I believe that we are not there yet, at least in high school, there are no initiatives that are not heard and perhaps shared, but from there to be decided that way, there is a distance. Still, although a horizontal organizational system is promoted, more horizontal, more teamwork, the fundamental decisions are centralized either in the principal or the board of directors. Ahh... many times the initiatives ... I have often made some suggestions specifically and have been taken into account, or I have seen others that say "but it can be done this way," and it is done that way, but the truth is that fundamental decision making is not made through consultation or sharing with the team of teachers.

Even though their decision-making power was limited, teachers perceived that principals have supported them as a team and individually. Regarding this aspect, Ayesha said:

It gives us tools, support; sometimes they cannot spend more time with us because of the time here ... we have too many things and little time. But as far as possible, they give us tools. They give us an example of how to do it. I also like the supervision that they do to us and that they give you feedback: “look, we notice you are missing such a thing, let's see if you work this.” And that is good because one grows.

Another aspect of this dimension that arose from the interviews was that of using data to change instruction. The elementary school principal revealed:
This year we continue to have the structures, we have an understanding, we also have the data that during professional learning communities, we look a lot at the data: the running records, the MAP, the notebooks to make sure that we inform the day to day teaching.

Additionally, the elementary assistant principal stated:

In terms of the data that they are receiving, that they are discussing in those teacher's teams. You can see that teachers are starting to exchange strategies because they can see how a group is performing better with one teacher than with the other. So, they start to ask "what you are doing? how can I make this work?" and some cases of collaborative teaching have arisen because for example, they agreed like... if we are teaching reading at the same time but I have a very low group and I see that in your results you have raised the level of 3 students very fast could you please take this guided reading group for me at the same time that I take yours and they do that.

**Shared Values and Vision**

This dimension in the case study school was also rated with a mean score lower than 3; thus, it is considered a weakness of the PLC. The attributes of this dimension that were rated lower were related to the involvement of different stakeholders in increasing student achievement, a focus on learning and not just obtaining good grades, and how actions, decisions, and norms are guided by the values of the institution and aligned with the vision of the school. The strong attributes in this dimension were: (a) a collaborative process exists for developing a shared vision among staff, (b) staff members share visions for school improvement that have an undeviating focus on student learning, and (c) data are used to prioritize actions to reach a shared vision.

More than once, participants addressed how the collaborative spirit among teachers is strengthening and supporting and encouraging the process. Regarding this aspect, Rebeca said:

At 100%, our current director is a pro-learning community and pro-professional development. She supports everything that has to do with the community... like to all be
focused on the same path, then get ideas of what you can do better, or 100% support right now.

Ayesha pointed out how she was always willing to help other teachers, to collaborate; thus, the development of the collaborative spirit would facilitate the adoption of the school values among the staff:

Well, if there is someone who needs something that I know I can help with, I can teach that person how to do it. I like to practice that part more, to teach others how to do something so that they learn it too, and not only to tell you ... “take mine so that you ...”.

Edward also mentioned how this process of collaboration is permeating the everyday work of teachers. He stated:

... there has been a process of understanding of both the person who visits a classroom and the person who is visited, in terms of having the breadth of understanding that it is a process of joint growth, and I believe that this is happening. There is no problem with one group of teachers visiting another.

Additionally, Saul stated how teachers support each other and develop close relationships which facilitate the identification with common goals, for example, improving student achievement:

And I have learned here ... I have had the opportunity to share with many teachers who have respected me and have given me the right place, and I have learned to give them the place and respect they deserve. That has made that in one way or another, we enrich ourselves, not only academically, but as a group, because in the end, these group of colleagues, who were under a common goal, we are becoming more friends, we are becoming more and more participative of each other. It has made me grow, without disrespecting each other, and that each person has his own space, but I understand that this openness has made us know the others and at different levels.

Furthermore, teachers use the PLC time to analyze data to determine students’ needs and to plan their classes according to those needs. The curriculum director expressed:
… teachers know their students best, so we can look at those areas of difficulties for the child; the teacher knows best what happened there, may know better the real level of the student, and the issue of triangulating the data. It certainly tells you, but ultimately is the teacher who has to engage in a …in creating or looking for what might help the student to get the skills or to work on.

The elementary school principal also declared: “… and then also the data as to how this type of professional learning community truly impacts the progress of students”.

The elementary assistant principal commented:

In terms of the data that they are receiving, that they are discussing in those teacher's teams. You can see that teachers are starting to exchange strategies because they can see how a group is performing better with one teacher than with the other. So, they start to ask, "what you are doing? how can I make this work?" and some cases of collaborative teaching have arisen because, for example, they agreed like... if we are teaching reading at the same time but I have a very low group, and I see that in your results, you have raised the level of 3 students very fast, could you please take this guided reading group for me at the same time that I take yours, and they do that.

Regarding the weaknesses of this particular dimension, teachers commented on how the school's values had not been stressed enough to instill them into the beliefs of different stakeholders. Teachers are aware of the importance of values; however, they do not feel supported when they need to reinforce the school’s stated values with the students. Pablo affirmed:

Because sometimes maybe one says ... well, I understand that the school has established this value, but in the face of such a situation, I am not being given the necessary support, or not everyone is working with the same effort regarding this principle that we all want to be achieved by the students we are educating.

**Collective Learning and Application**

This dimension was rated with a mean score higher than 3.0; thus, it is considered a strength of the learning community. During the interviews, teachers and school leaders explained how the structures created to promote collaboration were established since the beginning of the
implementation and how principals encourage teachers to work collegially. However, disagreements and resistance prevent this process from working at its full potential. The attributes of this dimension that obtained a lower mean were: (a) school staff members and stakeholders learn together and apply new knowledge to solve problems, (b) collegial relationships exist among staff members that reflect the commitment to school improvement efforts, (c) a variety of opportunities and structures exist for collective learning through open dialogue, and (d) school staff members are committed to programs that enhance learning.

However, even though the overall mean score for the dimension was lower than 3.0, the standard deviation for the lowest attributes was high, between .68 and .82, thus confirming the existence of a high level of disagreement in the answers given by the participants. On the other hand, the attributes that were rated higher by the participants related to working in collaboration, data analysis to meet students' needs, and collective learning and reflection. Isabel indicated: “That is to say, the fact of sharing with other teachers helps a lot because each one has his way of teaching and one takes the part that interests you, right?” Similarly, Alonso said:

... the school never limits you, on the contrary, in this case, it is something of personal interest for our professional growth that among all of us we share what is being done; sometimes sharing strategies, as Saul said in the previous question, what I take from it is what I think is going to be positive for me. The school encourages teachers to share …

One of the attributes that were rated low was the existing structures for discussion; however, participants addressed how these structures were created since day one of the implementation. For example, Edward stated:

Confirming what my colleague said, I believe that the school has been clear in creating the structure, and that’s why they have thought about the schedule. There is a specific
schedule for the department and by subject area that we have to comply with, so it is confirmed that the school has an interest…

**Shared Personal Practice**

Multiple times, participants mentioned how they have worked in collaboration, during teacher teams, they have analyzed data, and how they have shared strategies to improve their teaching to meet the students' needs. Five out of seven attributes in this dimension obtained a mean higher than 3.0. So, its overall mean score is higher than 3.0, resulting in a strong PLC dimension. The attributes with a low mean score (less than 3) were: (a) staff members regularly share student work to guide overall school improvement, and (b) staff members provide feedback to peers related to instructional practices.

Sharing best practices is something that teachers have adopted since the implementation of the PLC. It has been a process that has required some adaptation. The middle-high school assistant principal declared:

I think, this year specifically I saw teams that came together with communication and specifically planning and sharing strategies, more than I've seen before. So, I think that was a positive change that I did specifically see more this year amongst the teams where they took it more seriously within their teacher teams. The planning and sharing of ideas, strategies, and plans for specific students. I saw it more.

This was stated differently by the elementary school principal who affirmed:

The decision to collaborate and to modify or make changes to our instructional agenda is not top-down, but it is rather collaborative work that brings great results for all. But I think, you know, we are still in the process of getting that PLC really, truly functional…

The Curriculum Director confirmed those views of the elementary principal and the high school assistant principal. She said:

They are asking more for a more collegial atmosphere. Teachers support each other. I have seen situations where teachers are going to a classroom to provide support. I've seen teachers who stay in a classroom. Before, teachers were not open to someone being in their classroom, but now teachers can stay there even just to use a resource, maybe a computer. Because, you know, we realize that there aren't enough rooms available for teachers, so they're staying there and seems to be fine. I think that teachers are a lot more
open to having someone coming to their classrooms, whether it’s an administrator or another colleague.

On the other hand, teachers’ comments agree with what the administrators said about adopting shared personal practice. This is one of the PLC processes that are developing faster, maybe because teachers can see the advantages of working collegially. Lisa asserted: “For me, it is very important to have feedback from the other teachers, especially because I have to do the interventions, so I need to know what the teacher is receiving in the classroom.” She also said:

Working as a team has been very helpful for me to develop strategies and to have different information from different teachers that can help me do my work because they know them better. They spent more time with them than I do.

Also, Ana claimed:

With the learning community? I see ... I see a more open environment for collaboration. And I see people with less shame to approach you and to look for you and say, “hey look! this is not working for me or what you do for ...” I see more confidence, and perhaps in another more traditional environment, people do not dare to approach and express ... what for many people is a weakness, they don't want to seem weak.

Supportive Conditions – Relationships

This dimension of the PLC measures how the relationships created with the many interactions that are part of PLC processes must be built based on trust and respect. Although the overall mean score was lower than 3.0, just two of the five attributes scored lower than 3.0. According to these results, teachers believed that trust and respect were developing, but not yet enough to take risks. Additionally, they did not believe that they had the power or authority to change the school's culture. However, and somewhat contradictory, it is the fact that they agreed that the relationship between staff and students was built on trust and respect, that when analyzing data, the team worked honestly and respectfully, and that good work is recognized.
In this regard, the elementary school principal indicated: “By being very transparent. As I said, that is an area that we have to work on. Hmm.. because for a PLC to truly function effectively, trust has to be there.” Also, the middle-high school principal commented:

Definitely, trust. Without trust, you can't move a team. Having honest discussions, teachers not taking this personally is important. It is always about the process and the results. Hmm, not about the teacher, per se. So, I think... trust and having an environment of joy and love for what they're doing, that to me is again the most important thing that has happened. Have teachers that are satisfied, teachers that have learned, and teachers that are trusted and trust each other.

However, trust is vital among teachers, but it is also fundamental in the relationship with the students. This aspect was addressed by Ana when she commented:

I believe that the connection, the bond that you create with the children, that is, the fact that they feel they belong ... that feeling of belonging to a community is what makes them feel safe. And they feel safe because they trust you, you have to gain the confidence of the students. If you have done this, the class, the instruction itself, flows much better, is much more fun; they have fun, you have fun, you laugh, and you can get to another level of activities, perhaps that is more complex, in the sense that it is for topics, working on projects.

Also, Hugo referred to the importance of building trust in the students. He declared:

I do activities with my students with my classwork. Let’s say that we have two units to be done, maybe in three weeks if we do it in two weeks, the students get compensated; I mean I come prepared, I play basketball, volleyball I mean, I play with them and also that makes a difference because they feel that we are at the same level even though we know students are not our peers. After all, it’s easy to get confused, so you have to give limits, but yes, it helps a lot.

**Supportive Conditions – Structures**

This dimension had a score lower than 3.0, and just three out of 10 attributes obtained a mean higher than 3.0. These attributes were: (a) the school schedule promotes collective learning and shared practice, (b) the proximity of grade level and department personnel allows for ease in collaborating with colleagues, and (c) the school facility is clean, attractive, and inviting.

Participants showed less agreement with attributes related to the availability of technological and
instructional resources, easy accessibility to data, information flow across the school, resource people availability for continuous learning, and finally, that time is enough for collaboration.

School leaders knew that the implementation of a PLC requires the establishment of specific structures to accomplish professional learning. In this regard, the elementary school principal stated:

One of the first things with PLCs that you have to have is the structure, so the teachers have the time where teachers are afforded to have those opportunities to meet; to me, that is step one, and that was already here when I came.

She also made the following statement: “Teacher collaboration again, is structured within the teacher schedule for the day.” The elementary school principal asserted about this topic:

… but the good thing is that now is part of a teacher schedule. There is a time assigned for teachers to meet and to have a professional learning community. There is an expected agenda for them to follow. They receive guidance at the beginning of the school year on how teacher teams should look like. Now we have the structures that can support what ... the PLC would be.

In terms of time, teachers complained about how time was a scarce resource because the workload was too much. In this regard, Edward said:

Yes, and the schedule to meet that sometimes does not match with the schedules and work that you have to do or the assignments that they have, and it occurs that not everyone can attend the meetings. That has been an inconvenience, for example, Mr. L. leaves earlier, and or maybe one teacher has a class or an extra class ... things like that.

To confirm this statement, Carolina said: “So, I think that is a problem, the workload, the due dates are not realistic, they are not realistic. We are so busy! … So, I think that's a problem, the workload, the unrealistic expectations, and due dates.”
Chapter 4 Closure

Chapter 4 presented the findings of this study based on the analysis of the data obtained through individual and focus group interviews of teachers and individual interviews with school leaders. Data was coded and categorized to find themes and subthemes that could explain the stakeholders' experiences during the implementation and follow up of the PLC processes. A comparison of the themes and subthemes between groups showed the differences and similarities of the experiences lived by teachers and school leaders. Additionally, since this study was conducted as a mixed-method case study, the last section of the chapter discussed the insights from the interviews offered to the survey results. Chapter 5 presents a composite description of the case study.
CHAPTER 5

COMPOSITE CASE STUDY

This chapter presents a composite description of this mixed-methods case study. The purpose of this description is to summarize the experience of the school. The themes and subthemes that emerged from the qualitative data paint a picture of the events leading to the PLC’s implementation process, the implementation itself, and its follow-up during the first years until the date of this study. In like manner, the summary case description includes the results of the PLCA-R survey, which provided a snapshot of PLC implementation status in the case study school at the time of this investigation.

Implementation of the PLC

The case study school is a private institution that provides instruction in both English and Spanish languages. To stand out and become a leading educational institution in the DR, it must be continually looking for ways to improve the quality of the education it provides. Thus, the implementation of PLC processes was the appropriate pathway to move from a traditional type of schooling to more student-centered instruction. PLC implementation resulted from an accreditation process, research on the part of the school leaders, and a consultant's advice. The school's vision called for an institution that continually learns and adapts to change; therefore, by implementing the PLC, school leaders set up the grounds for continuous improvement (School Leaders theme 1, subtheme A).

To communicate the new implementation, school leaders used the teachers' in-service training that precedes every school year. During the three first years of implementation, they used these sessions to present the plan and prepare teachers. To continue the training and follow-up on the new processes, they established other communication channels, e.g., regular meetings.
and an open-door policy, to maintain constant communication and information between teachers and principals and other stakeholders (School Leaders theme 1, subtheme C).

With these measures, the leadership team searched for the teachers' professional growth by promoting collegiality and ending teacher isolation. Working together, they believed that collaborating and sharing strategies would ensure teacher learning. This embedded professional development was more effective and could produce more immediate student learning results than other types of professional learning the school had tried before. To facilitate the implementation process, school leaders created a plan in which, each year, they would have a specific aspect of the teaching and learning process for teachers to target. For example, in the first year, the focus was on vocabulary and student-to-student discussions; the next year, planning and preparation (School Leaders theme 2). However, these efforts to prepare teachers were affected by the problem of teacher attrition. Losing a teacher marked a new beginning because the training starts all over again. Few incoming teachers knew the PLC processes, so it became necessary to instill this new collaboration culture and give them time to adapt to this new form of doing things (School Leaders theme 2, subtheme D).

As the school embarked upon this implementation process, a new culture developed. As said before, teachers would no longer work in isolation but collegially. Thus, they had to learn to collaborate with other teachers, work in teams to analyze data that leads to the identification of students' needs and teachers' learning needs, seeking help or feedback from colleagues when they needed it, opening their classrooms, sharing best practices and supporting each other (Teachers theme 3, subtheme A; Focus Group theme 1). All these confirm the result obtained with the PLCA-R that the dimension "shared personal practice" was one of the case study schools' strengths. The most vital attributes of this dimension were: (a) staff members collaboratively
review student work to share and improve instructional practice, (b) individuals and teams have the opportunity to apply to learn and share the results of their practices, (c) opportunities exist for staff members to observe peers and offer encouragement, (d) staff members informally share ideas and suggestions for improving student learning. The weaknesses of this dimension were: (a) staff members regularly share student work to guide overall school improvement, and (b) staff members provide feedback to peers related to instructional practice.

Even though the latter showed up as relative weaknesses of the learning community on the PLCA-R at the time of this study, they were still present in everyday work, and the qualitative data showed an increasing positive trajectory in establishing them firmly in the school culture and processes. However, to ensure all these features in the PLC, school leaders created the conditions to facilitate teachers' interactions. In this regard, school leaders introduced the meetings into teachers' schedules, they requested a meeting agenda and required meeting minutes to follow up and to have a record of what the team achieved during the meetings, and they trained teachers in data analysis and instructed them to do this regularly in their teacher teams to adjust lesson plans according to students' needs. The alignment of the curricula both vertically and horizontally was another important task of the teacher teams. Classroom inter-visitations represented another way teachers could give and receive feedback to and from colleagues and their principals and share best practices (School Leaders theme 1, subtheme B).

School leaders structured teacher teams in different ways to diversify the interactions for the benefit of the students: (a) by grade level and (b) by subject area. Elementary teachers in grade-level teams could plan together because they teach the same subjects to the different groups of a specific level, but since the school was relatively small, these teams were composed
of two, at most, three teachers. The inconvenience with this was that discussions were not as rich as when the team incorporates a more significant number of people.

In middle-high school, the issue was different; grade-level teams included teachers of different subjects; thus, planning was difficult unless it was a collaborative project plan. An aspect that they could talk about was students' behavior, in any case. On the other part, in subject area teams, teachers could discuss alignment and share some strategies, but what they could do in terms of students' achievement was very limited (Teachers theme 3, subtheme B). As a result, data inquiry processes to inform instruction were not fully developed or incorporated into the PLC teams' routines at the time of this study. This is not surprising since data inquiry to inform instruction is a multi-faceted and complex process—one that takes time to learn and requires sound collaborative inquiry processes and relevant, actionable data sources.

Despite the obstacles described above, teachers recognized that those team meetings offered the opportunity to know different perspectives, not only for teaching but also for students they could know better by sharing opinions and experiences with other teachers. According to teachers, the teacher teams also served as spaces for reflection and professional growth (Focus Group, theme 1, subtheme A). The dimension "collective learning and application" of the PLCA-R resulted in one of this PLC's strengths. Again, the qualitative data obtained from the interviews coincided with the results of the survey. Even though some attributes were rated low, teachers confirmed that: (a) staff members plan and work together to search for solutions to address diverse student needs, (b) staff members engage in dialogue that reflects a respect for diverse ideas that lead to the ongoing inquiry, (c) staff members work together to seek knowledge, skills, and strategies and apply this new learning to their work, (d) staff members collaboratively
analyzed student work to improve teaching and learning, and (e) professional development focuses on teaching and learning.

The implementation of PLC processes brought some challenges. One was some teachers' resistance to open up and share their knowledge or accept being helped by their colleagues. This resistance affected the work of the teams due to disagreements that complicate decision making. In some cases, the team solved the disagreement by communicating with the problematic person, but for more problematic cases, teachers sought the principal's support afterward (Teachers theme 3, subtheme D, School Leaders theme 2, subtheme C). These individual teachers' behaviors justified the disagreement observed in specific attributes of the dimension "collective learning and application," as reflected in the survey results. Mean scores lower than three associated with a high standard deviation indicated that there were contradictory opinions regarding collective learning among staff and other stakeholders, collegial relationships among staff as a reflection of the commitment to school improvement efforts, the diversity of structures to promote open dialogue, and finally the commitment of staff members to programs that improve learning. Moreover, another issue for teachers was the amount of work that accompanies the PLC process, creating a workload that sometimes, teachers qualified as unrealistic (Focus Group, theme 1, subtheme B).

**PLC at Work**

The PLC established in the case study school changed the way teachers taught. Working in teams facilitated the development of relationships that promoted collegiality; thus, teachers, little by little, opened to the idea of sharing their strengths and weaknesses; to help others and be helped when needed. Additionally, placing the students at the center of the teaching-and-learning process changed the way teachers prepared their lessons. Data analysis was vital to determine
students' needs and the teachers' own needs (Teachers theme 1). The PLCA-R results confirmed the fact that teachers used data to improve teaching. The attribute "staff members collaboratively analyze multiple sources of data to assess the effectiveness of instructional practices," which is associated with the dimension Collective Learning and Application, resulted in being a strength of this learning community.

Furthermore, the way teachers structured their classes and planned their lessons changed because lecturing was left in the past, and activities were designed to be student-centered, therefore changing the teacher's role to a facilitator of learning. Additionally, school leaders promoted the students' total engagement in the class, frequent student-to-student discussions, and critical thinking development by posing stimulating questions rather than one-correct-answer questions. Another critical aspect of planning was the differentiation according to the needs of the students. One more facet that resulted from teamwork was the classes' coherent structure and their horizontal and vertical alignment. However, all these signs of progress slowed down recursively due to teacher turnover. Every year new teachers were hired to occupy the positions left by the old ones that, for one reason or the other, decided to leave (Teachers theme 1, subtheme B; School Leaders theme 2, subtheme B).

These new ways of doing things in the school were a process that needed practice and much effort, not only from teachers but also for school leaders as well, because the change from teacher isolation to collaboration and teamwork involved the will of teachers and a change in their mindsets. Nevertheless, to get there, a common goal was the glue that could put all these together. This common goal was student learning and their motivation to be successful; thus, when teachers observed the positive results of their collaborative work in their students, they were convinced that it was worth it (School Leaders theme 2, subtheme A). The dimension
Shared personal practice already mentioned above and its associated attribute "staff members informally share ideas and suggestions for improving student learning" was one of the strengths of this learning community; thus, one more time, both the qualitative and the quantitative results of this study coincided.

**Decision Making**

The case study school advanced towards becoming a PLC in many aspects, but it stayed behind in decision-making. Fundamental decisions were centralized in the school board or the leadership team. There were contradictory perceptions of teachers regarding this aspect, but most agreed that they had no power to engage in decision-making at a school-wide level. While they could talk, at length, about using the PLC process to share ideas for improving teaching and learning and how to align best or interpret the curriculum, they were clear that their decisions, even at the classroom level, were subject to scrutiny by school leaders. Occasionally, principals considered the suggestions made by teachers regarding instruction, and they have sought teachers' opinions about aspects related to instruction, but most of the time, final decisions were in the hands of the principals or other school leaders (Teachers theme 2). According to the PLCA_R results, the dimension Shared and Supportive Leadership was a weakness of the learning community. Mixed perceptions resulted in the level of power and authority that teachers had to decide on change initiatives or decide on school issues. They did not believe that leaders share power nor authority with them. Additionally, their accessibility to crucial information was minimal, constraining, even more, the possibility to assume any level of leadership.

**Collegiality**

Even though teachers often felt that the workload and the number of meetings were overwhelming, they recognized that collaboration was beneficial to them and the students.
Learning from colleagues provided the opportunity to have constant professional development. Sharing best practices contributed to learning from others' experience, and it helped to know different perspectives of the same circumstances. As teachers grew professionally, school leaders identified those who demonstrated certain qualities, thus allowing them to advance in their careers (Teachers theme 5, subtheme A). As mentioned before, Shared and Supportive Leadership was weak according to the survey; however, participants mentioned how school leaders promoted some teachers to coaches or coordinators due to the qualities observed in them by the school leaders.

The communication and relationships that developed in the teams made a difference when the team's support was necessary. This aspect also facilitated communication with school leaders. However, there was always that teacher that did not connect with the team and who made the task more difficult because she did not do her part as a team member (Teachers theme 3, subtheme C). The collegial work enhanced essential aspects of the teaching and learning process, for example, vertical and horizontal alignment of the classes, the application of the same structure to the classes, the development of student-centered activities, and differentiated instruction according to students' needs (School Leaders theme 2, subtheme B).

These relationships that arise from the teams' collaborative work developed considerably; however, according to the results of the PLCA-R, they needed to continue improving. Two of the five attributes of this dimension needed attention: (a) a culture of trust and respect exists for taking risks, and (b) school staff and stakeholders exhibit a sustained and unified effort to embed change into the culture of the school. So, it looks like that when things depend on people different from teachers; they do not develop. The other three attributes of this dimension can result in being strengths of the PLC: (a) caring relationships exist among staff and students that
are built on trust and respect, (b) relationships among staff members support honest and respectful examination of data to enhance teaching and learning, and (c) outstanding achievement is recognized and celebrated regularly in our school.

**Relationships and Values**

The work in the PLC depended on the interactions among the members of the community, especially teachers. Most of these interactions occurred during meetings, classroom observations, and intra-classroom visitations. To develop progressively, teachers' interactions must be based on values, especially trust, respect, and ethics. Conscious of that, school leaders modeled these values and supported teachers; however, they knew that this aspect needed attention because it was not fully developed. Values, like those already mentioned as well as others, must form an essential part of the students' education; however, a formal program to teach those values did not exist at the time of the study neither in elementary, middle, nor high school (Teachers theme 4; Focus group theme 3; School Leaders theme 1, subtheme D). The teacher participants argued that parents and students, as community members, must also represent those institutional values; however, they did not suggest that parents, students, or even teachers have any say in forming the school's official values.

Moreover, teachers believe that parents are not entirely aware of the school's values, the PLC initiative's existence, or how that initiative relates to the school values. Teachers believe that parents know that teachers work in teams, but for them, the critical person is still the individual teacher. When parents want to ask for help or deal with a problem with their students, they go directly to the teacher and not to the team (Teachers theme 4, subtheme A). Teacher participants also contended that students are the natural representatives of the school’s values but lamented that there is no plan or program for teaching those values to students or holding them
accountable for them. Teachers believe this to be an essential issue but do not feel empowered to bring it forward for serious attention (Teacher theme 4: subtheme C).

The dimension Shared Values and Vision resulted in being a weakness of the learning community, as shown by the survey results and according to the participants' expressions on the qualitative portion of this study. Teachers did not consider that other stakeholders had high expectations regarding student achievement. Besides, grades and test scores were important not just for parents but also for school leaders. Furthermore, there was a perception that school values and the school's vision were put aside or not even considered when making specific decisions, especially in circumstances where parents apply pressure or influence. Again, this dimension's strong attributes were related to the existence of a focus on improving student learning, a shared vision among staff members, and instructional planning driven by data.

Support

The implementation of PLC processes was not an easy endeavor. Along the way, support was necessary to follow through and reach the goals of the community. For this instrumental case study school, this support must come from teachers and school leaders. Teachers helped each other, as said before, by sharing best practices, but also by observing classes and giving feedback. Similarly, planning together helped in anticipation of problems to find solutions before they happened. Principals supported teachers through informal and formal observation as well as walkthroughs. They also designated teaching coaches and were open to advise teachers at any moment. Another way that principals used to support teachers, and, in this case, students directly was through interventions. Some teachers could go to a class and work directly with specific students who needed close attention (Teachers theme 5, subtheme B; School Leaders theme 2, subtheme E). The dimension Shared and supportive leadership presented three strong attributes
that related to the qualitative data. These attributes referred to how principals support the areas that need it, how decisions about teaching and learning are based on data, and how principals seek teachers' input regarding some decisions—primarily at the curriculum and instruction level.

The support of colleagues and leaders was fundamental to achieving the learning community's goals, but resources must complement these supporting actions as necessary as this support was. Teachers were conscious of the efforts to provide resources. However, teachers expressed that there was an unbalanced distribution of resources (Focus group theme 2). Knowing this, one can conclude that the dimension Supportive Conditions – Structures was a weakness of the case study school. One of the strong aspects of this dimension was already discussed before: the school schedule promotes collective learning and shared practice. However, participants did not mention the following aspects during the qualitative interviews: (a) the proximity of grade level and department personnel allows for ease in collaborating with colleagues, and (b) the school facility is clean, attractive, and inviting.

The weaknesses of this dimension were: (a) the availability of technological and instructional material for the staff, (b) ease of access to the data, (c) effectiveness of the communication systems and the flow of information, (d) availability of resources as well as the support for continuous professional development, and (e) time was available to collaborate. The latter attribute was regarded by teachers many times as one of the principal obstacles for the development of the PLC because the workload was heavy for them.

In moving from the findings of thematic elements and the exploration of how the qualitative thematic elements relate to the quantitative results of the PLCA-R, as discussed in chapter 4, contributed to the creation of this case summary. However, writing the case summary allowed me to further crystallize the findings around seven overarching thematic statements that
capture the most significant ways examining this case contribute to understanding the process of implementing PLCs in the case study school. To complete this crystallization process, first wrote the case summary, then want back to the cross-case analysis in chapter 4, looking for how the thematic elements from each data set and across data sets come together, connect with the PLCA-R results, and contribute to the case summary. This distillation process brought me to the emergence of the following seven overarching thematic statements:

Table 8

*Summary of Overarching Study Themes Distilled a Summary Description Based on Thematic Elements and Results of the PLCA-R*

<table>
<thead>
<tr>
<th>Overarching Theme</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overarching Theme 1</td>
<td>Implementing the PLC process is complex because the teaching and learning process is complex. It requires ongoing adjustments and adaptations as the school moves through the implementation process.</td>
</tr>
<tr>
<td>Overarching Theme 2</td>
<td>PLCs are intended to increase teacher decision-making, but that is easier to accomplish at the level of instructional planning and slower to develop at the level of school operations, especially when the decision to implement PLCs happens at the leadership level.</td>
</tr>
<tr>
<td>Overarching Theme 3</td>
<td>Implementing PLCs requires a change in the traditional teaching culture because it requires teachers to open themselves to new ideas and strategies, making decisions in collaborative teams, and support each other’s learning and growth.</td>
</tr>
<tr>
<td>Overarching Theme 4</td>
<td>The way teachers must work together in PLC teams requires teachers to interact with each other honestly, ethically, and with authenticity. In turn, this requires them to build up the level of trust that makes them feel safe in doing that.</td>
</tr>
<tr>
<td>Overarching Theme 5</td>
<td>The collaboration and relationships created in PLC teams promote teacher learning and professional growth, but sometimes teachers resist being open to acknowledge their own weaknesses and accept ideas from others to address those weaknesses.</td>
</tr>
<tr>
<td>Overarching Theme 6</td>
<td>To implement PLCs, teachers need ongoing support and feedback from their leaders and team members</td>
</tr>
</tbody>
</table>
Overarching Theme 7

Communication is a fundamental aspect of implementing PLCs between and among all stakeholders of the school (e.g., teachers, school leaders, students, and parents), leading to greater and greater transparency

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**Chapter 5 Closure**

Chapter 5 provided a summary description of an instrumental case of PLC implementation in a private K-12 school in the Dominican Republic. Through the process of writing the summary description, I was able to conduct further data reduction using the thematic elements and PLCA-R results described in chapter 4. The use of both types of data provided a clearer picture of the stakeholders' experiences and the PLC implementation process's status in the case study school. This more in-depth and more precise picture resulted in crystallizing seven overarching findings expressed as thematic statements. These seven statements will help compare the findings of this instrumental case study with the literature that informed this dissertation. It was essential to continue the crystallization process and get to nuanced thematic statements since PLCs' implementation is a much-studied and discussed topic in the literature. The crystallization of these seven statements will allow me to home in on what this study could contribute to that rich body of literature and create recommendations for future research, practice, and policy within the DR context.

Chapter 6 will relate the findings discussed in chapters 4 and 5 to the research questions that guided this case study inquiry. I will also discuss how my findings are expressed as overarching thematic statements, align with, and inform the literature base on PLC implementation. To conclude Chapter 6 and this dissertation, I will provide a discussion of recommendations and end with a reflection on my own learning journey.
CHAPTER 6
DISCUSSION AND RECOMMENDATION

This chapter responds to the research questions using the themes, sub-themes, survey results, summary case description, and overarching thematic statements that emerged from the data collected for this study. Next, I will make connections between my overarching thematic statements of findings and the literature related to PLCs reviewed for this dissertation. Finally, I will offer recommendations for future research, for DR schools planning or embarking in the process of implementing PLCs, and for policy-level support of PLC implementation in the Dominican Republic. In closing, I will offer my reflections on the experience of conducting this study.

The theories that support the conceptual framework for this study were: (a) Senge’s (2006) Theory of Learning Organizations; (b) Mezirow’s Theory of Adult Learning (1983); (c) Bush’s Theory of Collegiality (2003); (d) Nordin’s (2016), Sachs’ (2016), and Vanassche and Kelchtermans (2016) Theories of Teacher Professionalism. These theories serve as the basis to understand the PLC’s implementation process in the case study school and to interpret where and how the school encounters and responds to issues related to implementing the PLC process in the Dominican educational context.

This mixed-method study sought to describe the implementation and follow-up of the PLC professional engagement model in an instrumental early adopter school in Santo Domingo, DR. This study also examined the issues stakeholders encountered during the implementation process. The qualitative part of the study involved individual interviews and a focus group interview: (a) 10 individual interviews with teachers, (b) five individual interviews with leaders, and (c) a focus group interview that involved six teachers. A survey administered to 38 teachers
served to collect the quantitative data. This number of teachers included those who participated in the individual interviews and the focus group.

The participants’ interviews uncovered three sets of thematic elements: (a) five themes and 11 subthemes from teachers, (b) three themes and three subthemes from the focus group, and (c) three themes and nine subthemes from leaders. These themes and subthemes pointed out essential understandings related to the PLC’s implementation process, the changes stakeholders went through, and the challenges and issues that they had to face in the process. In order to develop a composite case description. Chapter 5 further reduced elements across all three qualitative data sets. This additional data reduction process resulted in the crystallization of seven overarching themes.

**Analysis/Discussion of Major Results**

**Research Question 1**

With the first research question, the purpose was to determine how the decision to implement the PLC model was made, the reasons that guided that decision, and how it was communicated and enacted. Most of the participants revealed that they were unsure about how this started and who made the decision (Teachers Theme 2). Teacher participants revealed that teachers’ decision-making was limited to the teaching and learning process; suggestions were welcomed, but the final decision was in the school leaders' hands (Focus Group Theme 1C). On the other hand, the Curriculum Director shared with us that the decision was based on the accreditation team's recommendations, and a consultant and school leaders’ research (Leaders Theme 1A). Teachers did not participate in the implementation's decision-making process; the decision was communicated to them in the in-service training at the beginning of the school year when the implementation started (Focus Group Theme 1B). Teachers started receiving training
from that point. The training included definitions and descriptions regarding the PLC process, the importance of PLCs as a strategy to improve teaching, the understanding of the PLC process as a constant and consistent learning process, the benefits for student learning as the central focus for improving the quality of education, and (most notably at that moment), how to incorporate PLC processes in the teaching practice (Teachers Theme 2; Leaders Theme 1B).

As part of this decision, the school hired school leaders with previous experience in PLCs, as the middle-high school principal and the elementary principal expressed. They shared that they worked in the US school system for several years, so they had the necessary experience to implement PLCs (Leaders Theme 1B). Also, New York City experts came during the in-service to train teachers (Leaders Theme 1B).

**Research Question 2**

The second research question looked for a description of the process from the initial school’s commitment to implementation and this study's time. The first research question addressed the fact that the implementation started at the beginning of the school year with training on PLCs. School leaders opened diverse channels of communication with teachers to facilitate the process, e.g., meetings, an open-door policy (Leaders Theme 1, subtheme B), and the structures that would facilitate and encourage teachers’ interactions (Leaders Theme 1, subtheme C). Additionally, the team meeting time was inserted into teachers’ schedules to promote collaboration (Teachers theme 3, subtheme A). The elementary principal also created a manual about PLCs to be handed out to her teachers to have readily available information (Leaders Theme 1C). During the focus group interview, teachers highlighted that PLC structures promote collaboration and prevent the return to the traditional teacher isolation (Focus Group Theme 1, subtheme B). The adoption of “rounds,” where teachers could visit other teachers’
classrooms and observe their strategies or specific aspect(s) of instruction, was another structure that served teachers to learn from each other (Leaders Theme 1, subtheme B).

The curriculum director pointed out the importance of formative assessment in the classroom to evaluate student learning and the use of these assessments as data to adjust instruction (Leaders theme 1, subtheme B). In addition to scheduling PLC team meetings, leaders required an agenda to guide the team's work and written minutes to record such work. These measures provided a way for principals to monitor the work during the meetings and how teams accomplished their objectives (Teachers theme 3, subtheme A).

Teachers commented about the changes that have occurred in terms of teacher collaboration, sharing strategies, and supporting each other. They reported that teachers from other teams often helped each other primarily with students. For example, a former teacher of a particular student can share the strategies that went well or did not work (Focus group theme 1, subtheme A). Teachers also perceived that their capacity to solve problems is enhanced when working in teams due to various ideas that can come up from the team’s discussion (Teachers theme 3, subtheme B).

In terms of decision making, an interesting discrepancy arose. School leaders who participated in the study expressed that they expected to see teachers demonstrating their leadership during team meetings and making instructional decisions; however, they also expressed that teachers were called to be part of the administration's decisions (Leaders theme 3). Teachers, on their part, expressed a strong perception that their decision-making quota was very limited, just related to instruction. They illustrated this point by emphasizing that teachers must follow their principals’ guidelines for conducting and participating in PLC work (Focus group theme 1 subtheme C; Leaders theme 3).
From the initial implementation to the time of the study, collegiality developed as teachers could interact and work in teams. Teachers expressed the importance of collaboration, and they valued counting with colleagues for help and support. They also expressed that learning from each other happened as they shared strategies in PLC meetings and visited other teachers’ classrooms (Teachers theme 3, subtheme B). They even added that collaboration helps teachers and students (Focus group Theme 1, subtheme A). Moreover, teachers noted that leaders’ constant communication fostered better communication and even strong relationships between teachers (Teachers theme 3, subtheme C). Participants also pointed out that data analysis was one of the primary purposes of teacher team (PLC) meetings. Teachers made sense of this priority for their PLC work because they accepted the assumption that data is crucial to adjust instruction and enhance students’ learning (Teachers theme 3, subtheme B, and C). Another benefit that resulted from a combination of the curriculum director’s efforts and the PLC teams’ work was the alignment of the curricula across the school (Focus group theme 2).

Feedback and support from school leaders were two other aspects that emerged from the conversations. The teachers relayed that feedback could come from other teacher colleagues, principals, assistant principals, and coaches (Focus group theme 1). At this point, it is necessary to speak about open communication and trust. Teachers’ response to expectations that they collaborate and use data to inform their instruction, observe and be observed, receive and provide feedback, and share both their challenges and successes in achieving student learning success illustrates how important it was for school leaders to communicate regularly to keep teachers focused on and engaged in the PLC process. Simultaneously, teachers’ admission of some reluctance and resistance to these expectations also illustrates that it took time and patience to reach sufficient levels of trust to support full engagement and acceptance by teachers. This case
suggests that communication and trust are fundamental to develop an environment of collaboration. This case also revealed how the trust needed to support open and fully collaborative teacher interactions can develop over time as a result of principals, assistant principals, and coaches modeling appropriate collaborative behaviors, communicating regularly about the purpose and importance of PLCs, dedicating the time and space for PLC activities, (Leaders theme 1, subtheme D; Focus group theme 3).

**Research Question 3**

The purpose of the third question was to identify the issues that the participants encountered during the PLC model implementation and its follow-up. The first thing that came up was how difficult it was for the stakeholders to accept the change, especially the teachers, because it involved, among other things, changes in paradigms, routines, procedures, structures, and relationships (Teachers theme 1). Accepting change was more challenging for some teachers. Participants noted that some of the changes they had challenges accepting included adopting the new ways of teaching and working as a community, the openness required to share knowledge and strategies, and the classes’ observations during the classroom visitation rounds. All that seemed like a threat or a complication to them; thus, they resisted (Focus group theme 1, subtheme B; Teachers theme 3, subtheme D).

Also, many teachers reported that the amount of work and responsibilities increased. For instance, besides planning, teaching, and evaluating students’ work, teachers had to attend the team meetings, analyze data, adjust planning, plan reteaching, and align the content vertically and horizontally. The whole idea was to have rigorous teaching, instructional foci for the whole school, differentiated instruction, and engaging classes. However, even though the amount of work increased, the available time remained the same, making the task more difficult and
sometimes overwhelming (Teachers theme 1, subtheme A; Teachers theme 3, subtheme C; Focus group theme 1, subtheme B).

PLC processes are based on collaboration, so the interactions and relationships that the team meetings generate are not always positive; they also create problems. Participants shared that disagreements and not complying with the responsibilities as a team member created problems among team members that have affected the team’s performance (Focus group theme 1, subtheme A). Additionally, some people have difficulties establishing relationships with others, and to make this worse, sometimes people who do not connect well end up in the same team, thus creating friction (Teachers theme 3, subtheme C).

Furthermore, there were issues with the size and composition of the teams. The elementary principal pointed out that since the school is relatively small, the grade level teams are composed of two or three people, which affects the variety and richness of the ideas (Leaders theme 1, subtheme B). In middle and high school, the problems were different. Teachers in middle and high school are subject-specialists, so the teams' composition was complicated when teachers teach in more than one subject area. In the end, there were two types of teams: subject and grade level teams. The issue was that teachers grouped by subject have several different groups of students, so data analysis was limited. In this case, teachers used more of their time to align classes vertically and horizontally and share strategies. By grade level, the teams were composed of teachers of different subjects. These teachers have one group of students for whom they teach multiple subjects. However, like the secondary teachers, they also have not worked out how to make sense of doing data analysis together; thus, they have worked more on students’ behavior or general performance (Teachers theme 3, subtheme B; Leaders theme 1, subtheme B). As school leaders became concerned that teachers did not clearly understand what was expected
or how to do what was expected of them during PLC meetings, they recognized the need to supervise those meetings more frequently (Leaders theme 1, subtheme B). This points up the importance of helping teachers learn the new practices and behaviors needed to carry out the PLC work. For this school, a significant need for teacher learning centers on how to make a collaborative inquiry with student data to inform instruction.

Other issues that surfaced were related to the extent that teachers could make decisions. Teachers perceived that they did not have much freedom to make decisions and that some teachers seemed to prefer to be told what to do (Teachers theme 2). This issue is related to the level of trust among teachers and with the principals, assistant principals, and coaches. According to both teachers and school leaders, there is an adequate level of trust, but it still needed to be developed even more (Teachers theme 4, subtheme B; Leaders theme 1, subtheme D).

Another issue that has affected the teams' strength and the development of trust across the school was the fact that there was a high level of teacher attrition every year. New teachers need training and need to start developing relationships with the staff. When there is significant teacher turnover, as in the case of this school, the time and attention needed to get new teachers fully oriented and adjusted to the school and to get their learning to the point where they can fully participate in PLC work created delays in the school’s ongoing processes of PLC implementation (Leaders theme 1, subtheme B; Leaders theme 2, subtheme D). Additionally, study participants stressed that new teachers need time to know, get familiarized, adopt the school's values, and incorporate them into their teaching practice (Teachers theme 4, subtheme C).
Acclimating new teachers to the school’s values was not the only concern expressed by teacher participants about the school’s values. Participants revealed that a formal program that incorporated the school values into the classes did not exist for the upper grades. Also, teachers complained that, often, decisions regarding students are not aligned with the school espoused values because the school as a private institution needs to comply with parents’ wishes or expectations that sometimes are not aligned with the school values (Teachers theme 4, subtheme C; Focus Group theme 3). Teachers expressed a belief that parents tend to value their child’s academic achievement more than the values that their kids have demonstrated (Teachers theme 4, subtheme C). The aforementioned is an ongoing issue for this school because teachers interpret some aspects of student behavior to be in contradiction to the school values and do not feel that school leaders adequately address the problem. Thus, the issue of student behavior has become a distraction from the PLC process rather than a focus for collaborative problem solving within the PLC process, reflecting a lack or low level of shared leadership and communication on this issue.

The last of the issues that participants revealed was related to resources. There was a complaint about how resources abound for English-speaking classes like English language arts, mathematics, science, but are scarce for Spanish speaking classes like social studies in Spanish and Spanish language (Teachers theme 5, subtheme B; Focus group theme 2). Again, this issue appears to be a long-standing one for the school, but not an issue that teachers are empowered to address within the PLC process.

**Research Question 4**

The fourth question focused on how participants and the school responded to the issues encountered during the implementation and to identify the issues they have resolved and those
they have not resolved. Sometimes, during the PLC conversations, solutions arose as soon as the problem was addressed; others arose while answering other questions. Participants shared that the solution to the resistance to collaboration was one of the challenges the teams faced. They shared that it was necessary to develop good communication and connect to resistant teachers using different channels. In addition to that, for those who persisted in resisting collaboration, the principal's involvement was necessary. Sometimes the principal or a coach needed to apply a different approach to reach an understanding with a resistant teacher. In more complicated cases, school leaders determined the need to give a directive to the resisting teacher (Teachers theme 3, subtheme D).

The increase in the amount of work was another issue that teachers addressed as relevant for their work productivity. Teachers and school leaders indicated that teachers’ schedules included the time for teams to meet, and a structure was established for the meetings with an agenda that, along with a meeting minute, could be used to monitor the work done during the meetings (Teachers theme 3, subtheme A; Leaders theme 1, subtheme B). In the same manner, classroom visits were also scheduled (Leaders theme 1: subtheme B). Despite the organization of teachers’ time, teachers claimed that time was still scarce for the amount of work. Thus, this issue was just partly resolved.

Another problem related to the teams was the disagreements created due to the increase in teachers’ interactions. Participants noted that to be productive, each team member must assume his/her responsibilities and that the administration must provide support if the team by itself could not solve the disagreements (Teachers theme 3, subtheme B; Focus Group theme 1, subtheme A). This was another example of the limits of teacher efficacy and autonomy at the time of this study. Teachers seem to operate within the PLC protocols provided by school leaders
as long as each teacher willingly participates. When teachers resist and fail to participate fully, the teachers in this school still rely on the administration to deal with the resisting teacher; this appears to be another area where teachers need further support through professional learning, i.e., conflict resolution and shared accountability for upholding team processes.

The size and composition of the teams were also issues in the case study school. Little could be done with the number of teachers in grade-level teams, especially in the elementary where one teacher teaches almost all grade subjects, so the teams end up with just two to four teachers, at most. In middle-high school, grade-level teams had more teachers, but each teaches a different subject. In this case, they solved it partially by creating two types of teams: by grade level and by subjects (Teachers theme 3, subtheme B; Leaders theme 1, subtheme B).

Teachers’ decision making was said to be limited. Leaders try to make teachers part of the school administration's decisions. As the PLC implementation process progressed, school leaders started bringing more issues and problems to the teachers for input and some level of shared problem solving, but this happens in staff interactions that are highly prescribed and controlled by principals or other school leaders. Leaders expect teachers to demonstrate their leadership during PLC team meetings by making decisions about instruction (Leaders theme 3). However, they have not gone beyond occasional teacher input in making decisions about overall school processes. School leaders also rely on creating an efficient and ongoing system for information flow to facilitate working consistently and in an aligned fashion. However, that information flow is not yet equally two-way—that is equal from school leaders to teachers and from teachers back to school leaders. At the close of the study, school leaders were still relying heavily on PLC meeting notes rather than routinely eliciting issues of concern from teachers and engaging them in shared decision making at a school level (Leaders theme 1, subtheme C).
Teacher attrition and the level of trust in the school works in the opposite direction for this school. The more teacher attrition, the level of trust lowers because new members come in, and the process needs to start from zero. They have not found a solution, but the elementary principal shared that she was trying to solve this problem by hiring teachers who have a permanent residency. The hope is that hiring teachers with permanent residency will decrease teacher turnover because teachers who come from another country usually stay for a limited amount of time, then return to their home country (Leaders theme 1, subtheme D). However, this is not a general policy adopted by the school because of the emphasis on providing an English-language immersion and a program of studies aligned with U.S. curriculum expectations as well as Dominican curriculum expectations. As a private school that caters to families who want their children to receive an education equivalent to that of U.S. schools, English speaking teacher applicants are preferred as a matter of school policy.

The last two issues referred to values and resources. In terms of values, participants suggested emphasizing the school’s values more. To achieve that goal, teachers would like the school to adopt a values program across the school. They would like a more formalized program that would teach students to act in ways that represent the school’s values and to be models of those values inside and outside the school (Teachers theme 4, subtheme C). On the issue of resources, there was no given solution to increase the provision of resources for the Spanish and social studies classes. Both the values education and teaching resources issues are long-standing and illustrate that teacher influence on decision-making in the school is still quite limited despite the emphasis on decision-making for instructional planning within PLC activities.
Research Question 5

A PLC requires working collegially; therefore, question five asks for a description of the professional relationships among teachers, their relationship with their principal, other staff, students, and parents. Work-related relationships are always present in any organization, and they multiply in those organizations that choose collaboration as a practice to deal with their everyday endeavors. In the case study school, teacher teams were created to promote collaborative work and continuous learning. Participants shared that opening their classrooms to other teachers allowed them to share strategies, analyze data to meet students' needs, and reflect on their own learning needs (Teachers theme 3). All these interactions resulted in new professional learnings. Additionally, teachers believe that feeling the team's support makes them more confident in what they were doing since it was possible to use already proven strategies.

Additionally, teachers noted that solving problems was easier because different ideas could be discussed, obtaining a broader viewpoint. Through this problem-solving process, relationships among teachers got stronger. As teacher relationships strengthened, decisions came forth from the PLC teams, facilitating communication with principals. Participants also noted that the relationships they build through the PLC process also build trust among teachers. In some cases, these relationships strengthen up to creating close friendships (Teachers theme 3, subthemes A, B, and C; Focus group theme 1, subtheme A; Leaders thems 1, subtheme D). Finally, this study participants stressed ethical behavior as fundamental to build trust (Focus group theme 3). They expressed frustration with those who do not contribute to the PLC work and students who do not act in concert with the school's values; yet, they do not express a sense of efficacy or empowerment for resolving these issues. Instead, they still expect the principal or other school leaders to do so.
School leaders, in this case school, expressed a strong sense of responsibility for supporting teachers in the implementation of the PLC process. To accomplish this, they have tried to build trust by example and by being honest. Teachers pointed out that knowing that leaders trust them increases participation and sharing (Teachers them 4, subtheme B). Also, leaders have gone beyond supporting teamwork. When leaders have identified individual leadership skills in teachers, they have given them opportunities for professional growth (Teachers theme 5, subtheme A). However, in terms of decision-making, teachers are still limited to exercising their leadership around teaching and learning issues. Most school-level issues and school-wide initiatives came from and are initiated and highly controlled by the leadership team, although, on many occasions, leaders have sought teachers' input before making the final decisions and putting those decisions into practice. Leaders have also heard teachers’ suggestions to improve the teaching and learning process and have given them support to accomplish those suggestions (Teachers theme 2).

Another relationship that was strengthen was the relationship with the students and parents. In the students' case, teachers placed them at the center of the learning process since the collaboration aimed to enhance students’ learning (Teachers theme 1, subtheme B). Teachers also shared that building a good relationship with the students was essential to creating a suitable learning environment. They expressed that being part of a learning community facilitates quality relationships because, as a teacher, one feels more confident about what one does. After all, it comes from a shared practice (Teachers theme 4, subtheme A). Dialogues in PLC sessions have raised awareness of the importance of investing in relationships through strong communications. This has led to parents, teachers, and principals increasing efforts to maintain communication to
achieve the goals that they have set for the students. Parents' involvement became a priority for the school as a community (Leaders theme 1, subtheme C).

**Research Question 6**

Question six asked for the changes in teaching that teachers and principals described as a result of implementing the PLC process. Before discussing the changes in teaching, we need to mention three aspects that were essential to producing those changes:

1. Opening of the classrooms to leaders and other teachers
2. Working in collaboration to analyze data

By opening their classrooms, teachers could receive feedback from colleagues about their classes and observe effective strategies their colleagues have implemented. The feedback and the strategy sharing represented a professional learning opportunity for teachers that reflected on their teaching and, in the end, on the students (Teachers theme 5, subtheme A; Teachers theme 3, subthemes A, B, and C; Focus Group theme 1, subtheme a; Leaders theme 2, subtheme C).

Additionally, collaborative work allowed analyzing situations from different perspectives, leading to more creative and effective solutions (Teachers theme 5, subtheme A). Furthermore, teachers’ collaboration led to class alignment. The increase in communication among teachers facilitated a horizontal and vertical alignment of the classes (Leaders theme 2, subtheme B; Focus group theme 2).

Moreover, the analysis of student data during teacher teams helped teachers identify students' needs, not only as a class but also individually. Knowing students’ needs led to the implementation of differentiation in the classroom. Through the evidence, teachers were compelled to adapt their lessons to fulfill the students' individual needs and implement more
rigorous lessons (Teachers theme 1; Teachers theme 3, subtheme B; Leaders theme 2, subtheme A; Teachers theme 4, subtheme A). Data analysis and differentiation helped teachers know their students better and focused on students who need more attention (Teachers theme 4, subtheme A). Similarly, lesson planning was focused more on engaging and student-centered activities that also develop critical thinking (Teachers theme 1, subtheme B; Leaders theme 2, subtheme B).

**Research Question 7**

The purpose of the seventh research question was to identify the changes that the principals described in their role as the school leader and their professional relationship with teachers, other staff, students, and parents as they implement the PLC process. School leaders were not specific about these changes, but they expressed their viewpoints about such relationships during the interviews. As school leaders, they expected teachers to demonstrate leadership in their teacher teams and make well-informed instructional decisions. Therefore, to achieve these goals, the first step in implementing the PLC was to train teachers in these processes, create the appropriate structures to facilitate collaboration, and, most importantly, support teachers during implementation and follow-up. In addition to that, school leaders described how they facilitated different communication channels and set up clear expectations for teachers, students, and parents. They encourage teachers to continually communicate with parents regarding the school year’s expectations for them and students’ performance in their classes.

The way that school leaders described their roles in the implementation of the PLC process is very much aligned with a more directive or top-down approach; yet, at the point of this study, that approach seems to be augmented by a heightened sense of responsibility for supporting teachers as they learn and adapt to the PLC process. In the case study school, there is
still much distance to go; however, for the PLC process to result in broader levels of shared leadership between school administrators and teachers. The reliance on school leaders to shape procedures and processes and intervene when the PLC process is not going well due to teacher resistance illustrates that the school is very early in transitioning to the ideal of high levels of shared efficacy and authority over school-level decisions. Additionally, the teacher descriptions of their PLC interactions show that they are still working on efficacy and autonomy in managing the PLC process for classroom-level decisions.

Quantitative Research Question

Research Question 8

The quantitative research question was: What do the responses of case study school stakeholders on the Professional Learning Community Assessment (PLCA-R) instrument identify as the strengths and weaknesses in the school’s implementation of each of the PLC dimensions and attributes at the time of the study?

The instrument used to answer this question was the Professional Learning Community Assessment-Revised (PLCA-R). It was administered to a population of 54 teachers in the case study school. Thirty-eight teachers (n=38) who represent 70% of the population answered the questionnaire. The statements in the PLCA-R are grouped according to the PLC dimensions as stated by Olivier et al. (2010): (a) shared and supportive leadership, (b) shared values and vision, (c) collective learning and application, (d) shared personal practice, (e) supportive conditions-relationships, and (f) supportive conditions-structure. The internal consistency for these factored subscales was good (Cronbach’s Alpha >.8) as measured in Olivier et al. study with 1,209 responses (see Table 9). “The closer Cronbach’s Alpha coefficient is to 1.0, the greater the internal consistency of the items in the scale” (Gliem & Gliem, 2003, p. 87).
Table 9

PLCA-R Dimensions Reliability Coefficients

<table>
<thead>
<tr>
<th>Dimension Number</th>
<th>Name</th>
<th>Statements in each dimension</th>
<th>Reliability Coefficient (Cronbach’s Alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shared and supportive leadership</td>
<td>1 - 11</td>
<td>.94</td>
</tr>
<tr>
<td>2</td>
<td>Shared vision and values</td>
<td>12 - 20</td>
<td>.92</td>
</tr>
<tr>
<td>3</td>
<td>Collective learning and application</td>
<td>21 - 30</td>
<td>.91</td>
</tr>
<tr>
<td>4</td>
<td>Shared personal practice</td>
<td>31 - 37</td>
<td>.87</td>
</tr>
<tr>
<td>5</td>
<td>Supportive conditions - relationships</td>
<td>38 – 42</td>
<td>.82</td>
</tr>
<tr>
<td>6</td>
<td>Supportive conditions - structure</td>
<td>43 - 52</td>
<td>.88</td>
</tr>
</tbody>
</table>

Respondents were asked to select their level of agreement with each of the 52 items using a four-point Likert scale starting with 1 = Strongly Disagree, following with 2 = Disagree, then 3 = Agree, and finally 4 = Strongly Agree. Descriptive statistics were used to determine the level of agreement to each of the 52 statements that serve as indicators of the PLC's strengths and weaknesses. Mean scores were calculated for each of the six dimensions of the PLCA-R questionnaire and the PLC (see Table 10). Olivier et al. (2010) indicate that a mean of 3.0 or higher and a lower standard deviation reveals a higher level of agreement with the attribute. Also, a high standard deviation indicates more variance in the teachers’ perceptions.

Table 10

PLC Overall and Dimensions Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>Shared and Supportive Leadership</th>
<th>Shared Values and Vision</th>
<th>Collective Learning and Application</th>
<th>Shared Personal Practice</th>
<th>Supportive Conditions - Relationship</th>
<th>Supportive Conditions - Structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.96</td>
<td>2.90</td>
<td>2.92</td>
<td>3.02</td>
<td>3.03</td>
<td>2.94</td>
<td>2.93</td>
</tr>
<tr>
<td>SD</td>
<td>0.42</td>
<td>0.43</td>
<td>0.47</td>
<td>0.47</td>
<td>0.49</td>
<td>0.52</td>
<td>0.45</td>
</tr>
</tbody>
</table>

Results revealed that the stronger dimensions within the sample were Shared Personal Practice \((M=3.03)\) and Collective Learning and Application \((M=3.02)\). The lowest agreement
was obtained for the dimension Shared and Supportive Leadership \((M=2.90)\) (with the lowest mean and standard deviation across the PLC implementation dimensions, although this mean score is not far from 3.0). This lower mean score of 2.90 suggests that teachers in the case study school see shared leadership in this school is not as fully realized as other dimensions of PLC implementation. The interview and focus group data adds to understanding this lower mean rating, suggesting that shared leadership is happening more consistently at the level of classroom and instruction related decisions and only beginning to emerge at the school level through the PLC process; thus, this dimension can be considered a model’s weakness. However, all dimensions resulted in means very close to 3, between the range of 2.90 and 3.03. The standard deviations were similar except for the dimension of supportive conditions – relationships, which resulted in a higher standard deviation \((SD=.52)\). This revealed that teachers had a high agreement in two dimensions, shared and supportive leadership and supportive conditions-structure and medium agreement, as revealed by the mean scores in the other four dimensions.

At the attributes level, the lowest attributes were (1) Stakeholders assume shared responsibility and accountability for student learning without evidence of imposed power and authority” \((M=2.61, SD=.79)\), (2) A culture of trust and respect exists for taking risks \((M=2.63, SD=.88)\), (3) Staff members regularly share student work to guide overall school improvement \((M=2.68, SD=.70)\), (4) School staff members and stakeholders learn together and apply new knowledge to solve problems \((M=2.68, SD=.70)\), and (5) Appropriate technology and instructional materials are available to staff. \((M=2.68, SD=.85)\). This means that teachers perceive a low level in sharing decision-making, trustworthiness, and cooperative learning and the amount or quality of resources available to perform the job. It is important to note that even
though these means are low, the standard deviation is high, which means teachers' perceptions of these attributes differ.

The dimensions with the highest number of attributes with a mean of 3.0 or higher were Collective learning and application and Shared personal practice. Teachers perceive that collaboration allows them to analyze different types of student data to determine students’ needs and then seek strategies that address those needs. Thus, instruction is improved because professional development was focused on and was embedded in the teaching practice. Additionally, teachers believe that their relationship with each other was based on trust and respect, and a work well done was recognized by the school administration.

The dimension, “shared and supportive leadership,” obtained the lowest mean, and most of its attributes are below 3.0. The specific attributes that showed a low mean score are related to power, authority, and decision-making. This weakness reveals that the school is still developing shared decision-making with teachers or letting them create or lead change initiatives. The situation may be due to the institution's private nature since it is a business. The administration is not ready to rely on teachers to make decisions other than those near related to instruction and learning. Finally, the dimension Shared Values and Vision also has many attributes with a low score, although their standard deviation is high, meaning teachers’ perceptions differ highly on these attributes.

**Relationship of Results to Existing Studies**

This study was founded on four fundamental theories that support the PLC model as described by DuFour and Eaker (1998), The Theory of Learning Organizations (Senge, 2006), The Theory of Adult Learning (Mezirow, 1983), The Theory of Collegiality (Bush, 2003), and Theories of Teacher Professionalism (Nordin, 2016; Sach, 2016; Vanassche & Kelchtermen,
2016). Furthermore, a profound review of the literature on PLCs resulted in many research studies that have served as the base theory of this study. The findings were synthesized in seven overarching themes presented in Chapter V, and in this section, the relation between the findings under those themes and previous studies are discussed. Table 10 summarizes the relationship between my study findings and the literature that informed this study.

**Overarching Theme 1: Implementing the PLC Process is Complex Because the Teaching and Learning Process is Complex: It Requires Ongoing Adjustments and Adaptations as the School Moves Through the Implementation Process.**

School leaders decided to adopt PLC processes in the case study school to align their actions and decision to the school's challenging vision and mission, which requires continuous learning and growth. The means to accomplish that learning and growth were adopting a collegial form of work for teachers to ensure that data analysis led to instruction changes and differentiation according to students’ needs (School leader Sub-theme 1.A). Senge (2006) affirmed that organizations must become learning organizations to adapt to a changing environment's challenges. However, a real change requires moving from single-loop learning to double-loop learning that could only be reached through continuous learning (Argyris, 1977).

Among the changes that PLCs require is the promotion of teacher collaboration. The administration, conscious of the need to promote it, set up structures to facilitate teacher interactions. Time for meetings was included in teachers’ schedules, and to avoid losing the focus during the meetings, they required the elaboration of an agenda to organize the topics and a set of minutes or notes to record the discussed topics (Teacher sub-theme 3.A). During these meetings, the major focus is to analyze student data, share strategies, and make decisions regarding instruction. (School leader sub-theme 1.B; Teacher sub-theme 3.A; School leader sub-theme 2.C). The analysis of student data helped teachers identify students’ learning needs and
adjust instruction accordingly; they could identify their own learning needs as professionals, thus delivering more rigorous instruction (Teacher theme 1)

Students, as the center of the learning process, influenced the way teachers planned instruction. Targeting students’ needs, differentiation, student engagement, and rigorous teaching were some of the outcomes of PLC implementation (Teacher sub-themes 1.A and 1.B). Furthermore, teachers were planning more student-centered classes, and their communication and collaboration made it possible to have more coherent and structured classes, to align class content, to align curricula both vertically and horizontally across the school, and to implement similar procedures and instructional foci (Focus group sub-theme 2; School leader sub-theme 2.B; Teacher sub-themes 1.A and 1.B)

Tam’s (2014) research results showed that PLC implementation's success is founded on a change in the teacher culture, establishing a new structure, a commitment to continuous learning, and teacher leadership. Thus, collaboration promotes teacher learning. In the same line of thought, Hord (2009) found that when teachers analyze student data collaboratively, they can create new strategies that target students’ weaknesses, consequently enhancing student learning. Additionally, Hord (2009) pointed out the importance of setting common goals to build a community; planning student-centered classes, promoting teacher leadership, using data, and creating time for learning contribute to professional growth. According to Owen (2014), DuFour and Eaker (1998), and Mullen and Schunk (2010), teacher efficacy due to collaborative work directly impacts student achievement, class engagement, and performance in the socio-emotional and creative areas.
Overarching Theme 2: PLCs are Intended to Increase Teacher Decision-Making, but that is Easier to Accomplish at the Level of Instructional Planning and Slower to Develop at the Level of School Operations, especially when the Decision to Implement PLCs Happens at the Leadership Level.

Administrators of the case study school decided to implement PLC processes, but the primary actors in the PLC process (i.e., the teachers) were not involved in the decision-making process. This action contradicts previous research that affirms that the decision to implement change must include the main stakeholders to ensure the success of such implementation. Other factors crucial to sustaining change are effective communication, collaboration, and culture (Bolman & Deal, 2013; DuFour & Eaker, 1998).

Teachers perceived that they did not have enough decision-making power beyond the decisions related to instruction. Thus, their leadership was initially limited. This may be inhibiting some teachers from embracing the PLC process as an avenue for a more significant influence on decision-making. Others are enjoying the decisions they are making by consensus as they open up to the opportunity to learn from each other. However, since the responsibility for shaping the PLC processes and structures were on principals’ shoulders, teachers must first consult them before adapting or using the PLC process to address issues beyond instructional planning and delivery (Teacher theme 2; Focus group sub-theme 1.C). Nevertheless, teachers were conscious that school leaders had sought their input regarding instruction and are willing to support them (School leader theme 3). On the other side of the coin, though, were the school leaders, who expressed that they expected to see teachers taking the lead and making decisions about instruction during team meetings.

Bush’s (2011) statements about collegial work support partially the teacher leadership status in the school. He stated that collegial work is based on shared power, shared decision-making, and founded in shared values. Also, decision-makers must be knowledgeable and skilled
in the areas in which they are going to decide. Since teachers fulfill these characteristics that justify their capability to make well-informed decisions as a team, Bush also indicated that distributed leadership is an even better model for schools. Furthermore, Harris (2009) asserted that distributed leadership ensures the positive impact of decisions in the organization because it creates a sense of ownership on those that have been part of the decision-making process.

In the case study school, leaders raised teachers to higher positions when they perceived specific skills they considered valuable. However, as good as this measure sounds, it contradicts research results. Angelle and Teague (2014), in their research about the effect of teachers’ perceptions of the influence of teacher leadership on collective efficacy, found that collective efficacy and teacher leadership are strongly correlated, so when principals are the ones who appoint teacher leaders, collective efficacy and the shared leadership factor decrease. According to York-Barr and Duke (2004), teacher leaders have specific characteristics that allow them to stand out and get the respect of their peers because they build relationships with and support their colleagues and know how to communicate efficiently and handle conflict.

The challenges of shared leadership in the case study school illustrate the complexity of developing teacher leadership through the PLC process when the decision to initiate PLCs and the structures and purposes for PLCs are controlled by school leaders. This is an important nuance that this case study brings to the forefront.

**Overarching Theme 3: Implementing PLCs Requires a Change in the Traditional Teaching Culture because it Requires Teachers to Open Themselves to New Ideas and Strategies, Making Decisions in Collaborative Teams, and Support each other’s Learning and Growth.**

The implementation of PLC processes changed the traditional teacher-centered approach to a student-centered approach. School leaders communicated that their expectations were for
Table 11

**Comparison of Coronado (2020) Research with Existing Research Findings**

<table>
<thead>
<tr>
<th>Overarching Theme 1</th>
<th>Coronado Research (2020)</th>
<th>Existing Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementing the PLC process is complex because the teaching and learning process is complex. It requires ongoing adjustments and adaptations as the school moves through the implementation process.</td>
<td></td>
<td>DuFour and Eaker (1998); Mullen and Schunk (2010); Hord (2009); Owen (2014); Senge (2006); Argyris, 1977; Tam (2014). Theme 1 reinforces previous findings but reinforces that adapting to the PLC process does not follow a linear progression.</td>
</tr>
</tbody>
</table>

Overarching Theme 2

PLCs are intended to increase teacher decision-making, but that is easier to accomplish at the level of instructional planning and slower to develop at the level of school operations, especially when the decision to implement PLCs happens at the leadership level.

| Bolman and Deal (2013); DuFour and Eaker (1998); Bush (2011); Harris (2009); Angelle and Teague (2014); York-Barr and Duke (2004). Theme 2 adds to findings by exploring the complexity of moving from classroom level to school level shared decision-making when implementing the PLC process was a top-down decision. |

Overarching Theme 3

Implementing PLCs requires a change in the traditional teaching culture because it requires teachers to open themselves to new ideas and strategies, making decisions in collaborative teams, and support each other’s learning and growth.

| DuFour and Eaker (1998); Mintzes, Marcum, Messerschmidt-Yates, and Mark (2013); Wong (2010); Fallon, and Barnett (2009); Williamset al. (2012). Theme 3 reinforces previous findings but points up the need to account for teacher priorities and time to learn new practices. |

Overarching Theme 4

The way teachers must work together in PLC teams requires them to interact with each other honestly, ethically, and with authenticity. In turn, this requires them to build up the level of trust that makes them feel safe in doing that.

| Wang (2015); Angelle (2010); Senge (2006); Lee et al. (2011); Green (2000); Tam (2014); Tschannen-Moran and Gareis (2015); Holmes et al. (2013). Theme 4 reinforces previous findings but reinforces that teachers must work through feelings of vulnerability. |
Table 11 – Continued

<table>
<thead>
<tr>
<th>Overarching Theme 5</th>
<th>Coronado Research (2020)</th>
<th>Existing Research</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The collaboration and relationships created in PLC teams promote teacher learning and professional growth, but sometimes teachers resist being open to acknowledge their own weaknesses and accept ideas from others to address those weaknesses.</td>
<td>Brookfield (2010); Mezirow (1997); Argyris (1977); Senge (2006); Agaoglu (2006); Ainscow et al. (2006); Sleegers et al. (2013). Theme 5 expands on findings by acknowledging the vulnerability of teachers.</td>
</tr>
<tr>
<td>Overarching Theme 6</td>
<td>To implement PLCs, teachers need ongoing support and feedback from their leaders and team members.</td>
<td>Angelle (2010); Bush (2011); Grenda and Hackmann, 2014; Spillane (2006); Spillane et al. (2001); Wahab et al. (2013); Michalak (2009); Senge, 2006; Certo and Fox (2002); Gobena (2018); Rigelman and Ruben (2012). Theme 6 supports previous findings but points up the need for strategies that account for teacher turnover.</td>
</tr>
<tr>
<td>Overarching Theme 7</td>
<td>Communication is a fundamental aspect of implementing PLCs between and among all stakeholders of the school (e.g., teachers, school leaders, students, and parents), leading to greater and greater transparency.</td>
<td>Bolman and Deal (2013); DuFour and Eaker (1998). Theme 7 supports previous findings but points up the need for feedback loops to fully achieve the aims of the PLC process.</td>
</tr>
</tbody>
</table>

teachers to use data to plan lessons, prepare individual action plans that tackle students’ weaknesses, and implement effective strategies learned from colleagues (School leader subtheme 2.A). As a result, teachers were not working in isolation anymore but in a collaborative process that included sharing strategies, supporting teammates, and working with data to meet the students' needs—all with the support of principals and assistant principals (Teacher theme 3). Collegial work facilitated having professional development on-site and at any time. Teachers counted with a two-way strategy for professional growth: learn from colleagues and teach
colleagues those strategies already proven in their classrooms. Altogether, this provided a broader vision of how to confront situations in the classroom and help students be successful (Teacher sub-theme 5.A)

Grade-level teams and content area teams offered different possibilities for data analysis. Grade-level teams seemed suitable for the content's horizontal alignment and discussed discipline issues since teachers teach different subjects. On the other hand, content area teams were useful for the content’s vertical alignment, to share strategies, and to work with data to adjust teaching (Teacher sub-theme 3.B). Teachers’ inclination to focus on these issues and avoid or delay the data analysis work prioritized by school leaders illustrates how teachers will tend to use PLCs to address those issues of primary concern to them if allowed and may be slower to focus on issues that feel less urgent or require more learning to address.

Another way of teacher learning was classroom intervisitations, which helped by providing the opportunity to observe strategies in action, thus developing teaching skills (School leader sub-theme 1.B). Working in teams presented other advantages, for example, the enriching factor of sharing different opinions during meetings, which helped to see a broader picture of the situations (Teacher sub-theme 3.A). Additionally, team meetings provided the appropriate spaces for teacher reflection, an essential part of teaching improvement (Teacher sub-theme 3.B).

Previous research findings confirmed that switching from traditional schooling to PLC can improve teaching through collaboration and continuous learning (Mintzes et al., 2013). In the same line of thought, DuFour and Eaker (1998) affirmed that school culture must emphasize learning, collaboration, and shared leadership instead of teaching in isolation and positional authority. Moreover, Wong (2010) found that a student-centered approach and a sense of community enhance teaching. In like manner, Kotter (2014) said that collaboration improves and
speeds up organizational learning. Conversely, Fallon and Barnett (2009) found that some teachers reserved some privacy to avoid criticism despite recognizing the advantages of collegiality.

Williams et al. (2012) conducted a case study to determine schools’ readiness to implement the PLC process. They measured four aspects of a school: (a) culture, (b) leadership, (c) teaching, and (d) professional growth and development. The study results highlighted the barriers that can detract the implementation process, such as not having scheduled meetings, limitations to teacher leadership, the readiness of the data for analysis that affects instruction, and finally, not enough time for planning as a team. In the case study, school principals scheduled the meetings, but teachers complained about how the amount of work prevented them from using this time efficiently. The results of this study point up the need to account for teacher priorities and time to learn new practices.

**Overarching Theme 4: The Way Teachers Must Work Together in PLC Teams Requires them to Interact with Each Other Honestly, Ethically, and with Authenticity. In Turn, this Requires them to Build Up the Level of Trust that Makes them Feel Safe in Doing that.**

Leaving the security of the classroom isolation exposes teachers to the scrutiny of their colleagues. The case study school developed collegiality gradually so that teachers were willing to help and seek help without fear and trusting each other (Teacher sub-theme 3C). As pointed out by the teachers, this process was possible because leaders made persistent efforts to build that trust by setting an example. Also, having leaders’ trust was vital for teachers because it makes them more confident in participating actively and sharing ideas (Teacher sub-theme 4.B). The way school leaders built trust was by modeling transparent and honest behavior to create confidence. Another way to build trust among teachers was by setting up a time for interactions and specific goals for them to achieve (School leader sub-theme 1.D). Despite all these efforts,
trust is still in the developmental stage. Teacher turnover is a recurrent problem in the case school, and this turn-over leads to a constant need to re-establish shared processes, purposes, and trust (Teacher sub-theme 4.B). The incoming new and inexperienced teachers and their confusion about what leaders expected from them during the meetings were barriers to the teams’ performance and building trust (School leader sub-theme 1.B).

Not all interactions result in positive outcomes. Not everyone gets along in the same way, so good relationships with teammates sometimes do not end well, and disagreements arise (Teacher sub-theme 3D). Additionally, some teachers resist change. They consider collaborative work a threat, fear something new, unknown, or do not disclose information of occurrences in their classrooms because they are afraid of showing their weaknesses (Teacher sub-theme 3D; Focus group sub-theme 1.B). So, teams must deal with the issues that jeopardize their performance, and in the case that they cannot solve the situation, teachers in the case study school are still relying on school leaders to intervene (Teacher sub-theme 3D), which can undermine the kind of trust teachers need to develop to feel safe in their PLC collaborations. In conclusion, to build productive relationships in team members, it is necessary to count on trust, honesty, ethics, and authenticity.

The primary purpose of collective learning is to improve student learning, and the way to achieve it was to establish dialogue in an atmosphere of trust (Senge, 2006; Wang, 2015). Lee et al. (2011) agreed with this statement when they indicated that improving collaboration, teachers’ collective efficacy, and a trusting environment improves teachers’ dedication to students. Similarly, Green (2000) found that when people perceived that relationships are valued, respect, and a low-risk environment, they most probably would open up and communicate honestly.

Also, Tam (2014) affirmed that trust and assurance are developed with increased interactions as
teachers collaborate. School leaders, on the other hand, must facilitate trust-building. According to Tschannen-Moran and Gareis (2015), the way leaders treat teachers and how involved they are in improving instruction will impact teachers’ trust. They found that to lead change, leaders must build a shared vision and establish common goals. Holmes et al. (2013) findings were in agreement with Tschannen-Moran and Gareis (2015). As this case study illustrates, collaboration thrives in an environment of strong relationships and trust. However, this study also raises the question of how top-down decisions and directives for participation in PLCs influence teachers’ sense of vulnerability and undermine their sense of safety and trust.

**Overarching Theme 5: The Collaboration and Relationships Created in PLC Teams Promote Teacher Learning and Professional Growth, but Sometimes Teachers Resist Being Open to Acknowledge their Own Weaknesses and Accept Ideas from Others to Address those Weaknesses.**

Implementing the PLC process permitted teachers in the case study school to share their experiences, open their classrooms to learn from each other, and receive job-embedded professional development (Focus group theme 1). Teachers have also seen the benefits of collaboration in students’ achievement and their professional learning (Teacher sub-theme 3C). Moreover, teachers’ interactions during team meetings stimulated friendly relationships (Focus group sub-theme 1.A). Parallel to positive outcomes, though, disagreements surged due to differences of opinions or lack of compliance with the team’s responsibility (Focus group sub-theme 1.A).

The advantages mentioned above promoted that most teachers adopted the PLC processes and got to the point that they were willing to help and accept others' help. However, some inconvenience arose from these interactions; for example, not all team members acted responsibly and fulfilled the team’s expectations, and some teachers resisted collaborating or opening up to the team, affecting the team’s performance (Teacher sub-theme 3.B). Despite these
obstacles, most teachers recognized that they could learn and apply new strategies and receive feedback about their instruction (Teacher theme 1).

As adult learners, teachers need to control their learning process and what they learn; besides that, learning must relate to their work or personal interest; they must set their learning goals and plan the learning process (Brookfield, 2010). This statement is essential for two reasons: the first reason is that it supports the fact that teacher learning can be achieved embedded in the work through collaboration, and the other is that it explains why some teachers resist this kind of learning. The latter have may not yet realize how beneficial collective learning is for them; thus, they take a denial stand. Another reason for resistance might be fear. According to Senge (2006), fear hinders change. It could be fear of the unknown or fear of failing. Identifying the reason through dialogue and reflection is crucial to overcome the situation and take the change path. Agaoglu (2006) warned about the obstacles that can slow down learning in learning organizations.

Collaboration and the other PLC dimensions promote teacher learning (Ainscowet al., 2006; Sleegers et al., 2013), but this study reinforces that teachers must overcome vulnerability feelings to benefit from professional learning and growth opportunities the PLC process offers. Mezirow (1997) and Argyris (1977) agreed that change results from adopting new mental models or paradigms, but being open to these new mental models and paradigms requires moving past vulnerability to discovery, which is challenging for some teachers. This study also raises the question of how past moving vulnerability may be more problematic in cases (like the school in this study) where school leaders have made the decision to implement PLCs with no input from teachers and where teachers still rely on school leaders to structure the PLC process for them and get some teachers to participate through a directive.
Overarching Theme 6: To Implement PLCs, Teachers Need Ongoing Support and Feedback from their Leaders and Team Members.

In the case study school leadership was committed to implementing PLCs. To accomplish the task, they trained teachers on the purposes and processes of PLCs (School leader sub-theme 1.B). However, the training was not enough. During the implementation process and its follow-up, stakeholders needed support and feedback. This support could come directly from other teachers, principals or assistant principals, or coaches as they hear teachers’ concerns or give feedback (Focus group sub-theme 1.A). This feedback came from formal observations, informal observations, or walkthroughs (Teacher sub-theme 5.B).

Regarding the teams, principals, assistant principals, and coaches supported the teams’ actions, mainly by providing the focus and structures for PLC work and resolving teacher participation issues when they could not be resolved between the teachers (School leader sub-theme 1.D). One of these issues that affected the PLC was teacher turnover, which created a loop that slowed down the PLC’s success due to a constant need to orient and train new staff (School leader sub-theme 2.D). Support in the form of tangible resources was also available, although teachers complained about resource scarcity in some areas (Teacher sub-theme 5.B; School leader sub-theme 2.E). In particular, teachers asserted that the distribution of resources was not fair between the Spanish and the English curricula (Focus group theme 2).

The collaborative work in which teachers dialogue, share goals, discuss strategies, make instructional decisions, and support each other, is said to improve teaching, and leaders are responsible for facilitating it and for providing a trusting environment (Angelle, 2010; Bush, 2011; Grenda & Hackmann, 2014; Spillane, 2006; Spillane et al., 2001; Wahab et al., 2013).
Holmes et al.’s (2013) findings showed that principals must encourage their staff to participate in these processes, get involved in elaborating on the goals, build relationships with their staff, and communicate effectively with the staff encouraging them to participate in the process.

Principals play a crucial role in producing and sustaining change, such as implementing the PLC process. Michalak (2009) found that principals who demonstrated authentic leadership had a clear vision of the school, promoted high expectations of students’ capacity, and created a safe and supporting environment. Additionally, according to Senge (2006), principals must also help their staff implement the five learning organization’s disciplines to achieve and sustain transformative change.

Certo and Fox (2002) found the importance of support to keep teachers in the profession. Their findings showed that teachers’ main reasons to leave their jobs were lack of or little support from the administration, job opportunities in other areas, and salary. On the other hand, the factors responsible for keeping teachers in the profession were support in terms of resources, professional development opportunities, collegiality, sharing resources and strategies with colleagues, good relationships, distributed leadership, and student discipline support. Equally important is Gobena’s (2018) finding that confirmed that motivated teachers would deliver better instruction to their students than teachers who are not motivated.

The case study school has an issue with teacher attrition. New teachers come to the school with little or no preparation to work in PLCs; thus, they have to receive training, slowing down the learning community's development. Rigelman and Ruben (2012) conducted a study to find if preparing or not preparing teacher candidates to work in nested PLCs would significantly sharpen their collaboration skills and commitment to student learning. They found that, through collaboration, teacher candidates could analyze their accomplishments and missteps during their
practice in the classroom, which was essential to achieve students’ learning. The case study school has encountered two conflicting priorities: first, to recruit teachers experienced and trained in the U.S. school model, U.S. curriculum standards, and fluent English speakers; second, to retain teachers committed to the Dominican context and, therefore, more likely to stay. Either way, this case illustrates the need for schools to adopt a robust form of new staff induction, development, and support, along with incentives to stay.

**Overarching Theme 7: Communication is a Fundamental Aspect of Implementing PLCs Between and Among all Stakeholders of the School (e.g., Teachers, School Leaders, Students, and Parents), Leading to Greater and Greater Transparency.**

In PLCs, communication is a crucial piece. School leaders know the importance of maintaining effective communication channels that ensure that information reaches the right people at the right time and that everyone knows what to do and how to do it. Communication is the means of maintaining everyone working consistently. In a PLC, teams work towards the same goals, either the team’s goals or the school's goals. The discussions, student data analysis, sharing of strategies, and feedback keep the teams in constant communication (School leader sub-theme 1.C). Additionally, team support eased communication with administration. However, the workload increased for teachers (Teacher sub-theme 3C)

Teachers understand the importance of building and keeping good relationships with the students and recognize that PLC processes help them better understand students. More importantly, differentiation helped improve their relationship because they receive the kind of attention and support they need (Teacher sub-theme 4.A). Additionally, parents are involved in their children’s studies, and communication with them is more open than before. Besides, principals encourage teachers to keep parents informed about their kids' progress (Teacher sub-theme 4.A).
Bolman and Deal (2013), as well as DuFour and Eaker (1998), stated that effective communication, along with collaboration, and culture, are the core components to sustain change (Bolman & Deal, 2013; DuFour & Eaker, 1998). This instrumental case reinforces the importance of a robust system of ongoing communication among and between all school stakeholders and points up the need for that communication system to be equally strong both ways. That is, communication from school leaders to teachers, students, and parents and teacher communication with each other, students, and parents are essential. However, without feedback loops, teachers and school leaders can miss essential understandings of issues that can undermine the transformative change they are trying to accomplish with the PLC process.

**Revised Conceptual Framework**

The findings of the study led to the revision of the conceptual framework I derived from my review of the literature. Thus Figure 2 presents the new conceptual framework that includes the learnings that arose from the results. The adjustments were based on the importance of the change in culture required by a PLC, mainly because the Dominican education system has been slow in adopting teacher collaboration and reducing dependence on hierarchical structures. Leadership and communication are two major features and have an overall influence on the PLC process; thus, they needed a place in the revised conceptual framework where that influence is visually evident. Additionally, leadership pertains to both school leaders and teachers. Teachers must take ownership of the process and exert their leadership due to their teaching expert knowledge. In this study, teacher leadership was emerging at the level of classroom decision-making but beginning at the level of shared decision-making at the school level. Additionally, my revised conceptual framework reflects the findings from my study that PLCs develop a
culture of continuous learning; thus, teachers achieve professional learning by following the PLC processes.

Figure 2. Conceptual Framework (Coronado, 2020).

Implications for Future Research

This study was conducted as a single mixed-methods instrumental case study limiting the findings to the experience of just one school in the private sector of the Dominican Republic’s K-12 educational system. As enriching as the findings are, future research is recommended to include more schools in the private and public sectors. The knowledge obtained with this study will help other educational institutions committed to providing quality education and are considering or already implementing the PLC process to achieve that outcome and achieve their goals for student success. While this study was conducted in a private school setting, public schools in the Dominican Republic share many of the same characteristics (e.g., historically,
hierarchical leadership processes, increasing expectations for academic rigor and success, teacher turnover, lack of training for collaborative processes, lack of preparation for shared leadership, etc.). Therefore, much can be learned from the experiences of teachers and school leaders in this case study school to understand (a) the opportunities for implementing the PLC process, (b) the conditions that support and hinder that implementation, and (c) the benefits that can come from implementing the collaborative processes associated with PLCs in service of better teaching and learning.

**Recommendations for Future Research**

Implementations that involve such complexity as PLC processes require knowledgeable leaders who put student learning as a priority and are committed to serving quality education by creating a shared vision and a culture of collaboration. Similarly, the success of those complex implementations requires a staff that adopts that vision and culture and is willing to accept and engage in a change process. Future research might include other schools’ experiences in PLC implementation and the obstacles that they find on the way. More importantly, future research must focus on the implications that PLC implementation has for students and if and how it improves student achievement. As the next step in research that further explores the process of implementing PLCs, this study suggests some specific focus areas that could be explored with additional case study research as follows:

1. The process of moving from a school leader initiated the change process to school-wide ownership of and commitment to that process

2. Developing teachers’ capacity to resolve issues that interfere with their collaborative processes without having to rely on administrator intervention
3. Teachers’ journey of moving from resistance born out of vulnerability to embracing discovery through collaborative processes

4. Ways in which schools establish two-way communications and feedback loops to support the successful implementation of a change initiative like the PLC process.

Recommendations for the School

The case study school was embarked on a process of change to improve student learning. Leaders of this school committed to the process of change and invited their teachers to join. Research findings in other countries state that it is crucial to involve all stakeholders in the decision to succeed in implementing change. Thus, a recommendation for the next steps on this implementation or future implementations is to share the idea with the primary actors and get a consensus to create ownership of the vision and the goals. Shared goals will make the process move forward more smoothly and ensure the success of the implementation.

Another recommendation addresses the fact that, in PLCs, leadership must be distributed. The findings revealed that the school’s distributed leadership had developed more at the instructional level than at the level of school operations. My recommendation is for the school’s leadership to find ways to distribute leadership more efficiently and identify teacher leaders among the staff. This identification of teachers who are respected and considered leaders among their peers works better than appointing teachers to occupy leadership positions. Even though teacher attrition has slowed down after the PLC implementation in the case study school, it is still a recurring problem; thus, a robust and multifaceted approach might be necessary to overcome this obstacle, and teacher leaders could play a crucial role in it. This approach might include orientation and induction programs for new teachers to facilitate their integration and adoption of the collaborative culture.
Communication is a factor that has developed well at the departmental level; however, school-wide communication is essential for curriculum alignment, teaching skill development, and, most importantly, developing a sense of community. As an organization, the school needs to create a sense of unity among its stakeholders. This unity is best accomplished through two-way communications with strong feedback loops that provide real-time understandings to guide the implementation process.

**Recommendations for Leaders**

The findings of this study showed that one of the weaknesses of the PLC in the case study school was shared leadership. Previous research has found that schools that have succeeded in implementing PLC processes have adopted distributed leadership. Teachers, as professionals in the education field, have the knowledge and the skills to make sound decisions that can enhance the quality of education served to the students. However, leaders in the case study school have not yet reached the point of giving teachers power beyond the power to affect their instructional planning and delivery practices. My recommendation is for them, if not at once, but at a good pace to start sharing power in areas where teachers can offer insights and expertise beyond the classroom.

Teachers manifested that the workload increased after PLC implementation. While the school designated PLC team time and structures, teacher meetings often diverted for other things than student data analysis and collaborative planning. I would advise leaders to consider this because the PLC's purpose is lost when there is no teacher collaboration to foster teacher learning. My recommendation is to create effective and efficient procedures that could alleviate teachers' workload from bureaucratic work that just takes from their valuable time. Moreover,
providing the necessary resources at the right time can help to make their work more efficient and effective.

A third recommendation surged from the need to develop a more profound identification with the school’s values and vision at all levels of the school community. While teachers in this study appreciated and benefited from the laser focus on curriculum and instruction, they also expressed interest in engaging around broader school-wide issues. They noted that one major issue of concern was their perceived lack of intentionality regarding how adults and students actually align their actions and behaviors with the school’s stated values. They also suggested that the schools’ values are often not the basis for decision-making. Therefore, my recommendation is to create a plan that promotes the adoption of those values by all community members and their development in the students, making them part of their alumni profile.

Additionally, one vital element for the development of collegiality is trust. School leaders need to keep working on building trust—working with all school stakeholders to act and make decisions under the school’s stated values would be a powerful way to build that trust. Moreover, engaging stakeholders in confirming their shared values would take that trust to another level altogether.

**Recommendations for Teachers**

The findings of this study as expressed before, showed an issue on shared leadership. In a PLC, school leaders are responsible for guiding the teaching and learning process and handing over some of their leadership to teachers due to knowledge authority. The other side of the coin on this shared leadership issue relates to teachers' actions who need to empower themselves to exert their leadership. In this regard, the recommendation that arises from the participants' experience is for teachers to take ownership of this collaboration and decision-making process.
and assume the responsibilities for the changes they could make. Teachers must increase the teams’ efficacy and individual efficacy by making decisions to solve issues without the school leaders’ direct intervention.

Team’s efficacy will also depend on how teachers interact during teamwork; thus, the recommendation for teachers in this capacity is to open the door to the learning opportunities provided during collaboration, always be willing to help their colleagues, and help them. Moreover, collaboration requires a foundation of trust, thus working honestly and ethically will also contribute to the teams’ efficacy.

A third recommendation relates to communication. Strengthening the teams’ communication capacity can prevent misalignments like those that arose with the school’s shared values. A strong, cohesive team with sharp communication abilities could share its collegial decisions with the administration convincingly, thus increasing shared leadership and the PLC’s development.

**Implications for Public Education Policies**

Teachers and school leaders of other schools of the private and public sectors will benefit from this school's experience and its constituents. The profound change in teaching and learning achieved by shifting to a PLC model is worthy of replication by those educational institutions that advocate for quality education. Teacher learning ensures student learning and in the DR, improving the quality of education is a commitment that the Dominican people must engage in to obtain our desired development as a country. The EFCC program created by INAFOCAM and the Regulations for Quality Teacher Training is already in place, promoting continuous teacher learning and professional development for the public sector. These initiatives must be reinforced and extended to the entire public education system until better student achievement is evident.
The EFCC and the Regulations for Quality Teacher Training work for teachers already teaching in the public system, but, thinking systemically, this kind of training must start when prospective teachers and school leaders enter preparation programs for the career. In fact, as part of this Ph.D. program's requisites, I conducted a field study around the Dominican Universities’ Education programs. In that field study, I analyzed four of the most important universities' programs and found no evidence that higher education institutions offer subjects related to collaboration, student data analysis, and instructional decision-making. Mostly, these programs focus on subject knowledge; however, introducing that content in the Education programs is fundamental to promote the professionalization of the career of Education.

Concluding Thoughts

Conducting this study while I was witnessing the development of the PLC implementation process was an extraordinary learning experience that allowed me to grow as an individual, as a professional teacher, and as a researcher. I have learned that embedded professional development is free and is rewarding. Through collaboration, teachers generate knowledge for themselves and their students. The interviewees' different perspectives provided rich data about a change process that had its obstacles but, in the end, served the purpose of enhancing teaching.

I learned that teachers are hardworking, committed professionals who sacrifice their time and resources to benefit their students. They are conscious that collaborative work is fruitful; thus, they support their teams and seek the team’s support as they need it. Teachers are open to change, and although there are exceptions, most of them love to learn from their colleagues and love to share their knowledge with them in return. These teachers added to their subject’s
expertise, the knowledge about researched-based strategies, practiced reflection and adjusted their lesson plans based on student data.

School leaders started a compelling effort when deciding to implement PLCs. As transformational leaders, they triggered change and were there to engage and support their staff. They turned the culture of isolation into collegiality. As instructional leaders, they guided teachers to develop their teaching skills, plan more student-centered classes, and differentiate according to students’ needs.

I learned that schools working as professional learning communities could offer quality education because they are continually learning and quickly adapting to change. However, the contextual nature of PLCs made them susceptible to cultural differences. In the case at hand, shared leadership, a fundamental aspect of the PLC's success, has developed slower than other dimensions. Thus, in the Dominican context, this might be an issue that schools engaging in PLC processes must consider solving. In conclusion, this study has contributed to the literature with rich data about how a school in the Dominican culture became a PLC. Moreover, this study demonstrated how PLCs aided in developing professional teachers and the issues that the school and its stakeholders encountered throughout the implementation and follow up.
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Appendix A

Professional Learning Communities Assessment – Revised

(English and Spanish Versions)
## Professional Learning Communities Assessment – Revised

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

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

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

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<tr>
<td><strong>Shared and Supportive Leadership</strong></td>
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</tr>
<tr>
<td>1. Staff members are consistently involved in discussing and making decisions about most school issues.</td>
<td>0 0 0 0</td>
</tr>
<tr>
<td>2. The principal incorporates advice from staff members to make decisions.</td>
<td>0 0 0 0</td>
</tr>
<tr>
<td>3. Staff members have accessibility to key information.</td>
<td>0 0 0 0</td>
</tr>
<tr>
<td>4. The principal is proactive and addresses areas where support is needed.</td>
<td>0 0 0 0</td>
</tr>
<tr>
<td>5. Opportunities are provided for staff members to initiate change.</td>
<td>0 0 0 0</td>
</tr>
<tr>
<td>6. The principal shares responsibility and rewards for innovative actions.</td>
<td>0 0 0 0</td>
</tr>
<tr>
<td>7. The principal participates democratically with staff sharing power and authority.</td>
<td>0 0 0 0</td>
</tr>
<tr>
<td>8. Leadership is promoted and nurtured among staff members.</td>
<td>0 0 0 0</td>
</tr>
<tr>
<td>9. Decision-making takes place through committees and communication across grade and subject areas.</td>
<td>0 0 0 0</td>
</tr>
<tr>
<td>10. Stakeholders assume shared responsibility and accountability for student learning without evidence of imposed power and authority.</td>
<td>0 0 0 0</td>
</tr>
<tr>
<td>11. Staff members use multiple sources of data to make decisions about teaching and</td>
<td>0 0 0 0</td>
</tr>
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learning.

COMMENTS:

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<tbody>
<tr>
<td><strong>Shared Values and Vision</strong></td>
<td></td>
</tr>
<tr>
<td>12. A collaborative process exists for developing a shared sense of values among staff.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>13. Shared values support norms of behavior that guide decisions about teaching and learning.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>14. Staff members share visions for school improvement that have an undeviating focus on student learning.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>15. Decisions are made in alignment with the school’s values and vision.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>16. A collaborative process exists for developing a shared vision among staff.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>17. School goals focus on student learning beyond test scores and grades.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>18. Policies and programs are aligned to the school’s vision.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>19. Stakeholders are actively involved in creating high expectations that serve to increase student achievement.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>20. Data are used to prioritize actions to reach a shared vision.</td>
<td>0 0 0 0 0</td>
</tr>
</tbody>
</table>

COMMENTS:

<table>
<thead>
<tr>
<th>STATEMENTS</th>
<th>SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Collective Learning and Application</strong></td>
<td></td>
</tr>
<tr>
<td>21. Staff members work together to seek knowledge, skills and strategies and apply this new learning to their work.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>22. Collegial relationships exist among staff members that reflect commitment to school improvement efforts.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>23. Staff members plan and work together to search for solutions to address diverse student needs.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>24. A variety of opportunities and structures exist for collective learning through open dialogue.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>25. Staff members engage in dialogue that reflects a respect for diverse ideas that lead to continued inquiry.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>26. Professional development focuses on teaching and learning.</td>
<td>0 0 0 0 0</td>
</tr>
</tbody>
</table>
27. School staff members and stakeholders learn together and apply new knowledge to solve problems.  

<table>
<thead>
<tr>
<th>STATEMENTS</th>
<th>SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared Personal Practice</td>
<td>SD</td>
</tr>
<tr>
<td>31. Opportunities exist for staff members to observe peers and offer encouragement.</td>
<td>0</td>
</tr>
<tr>
<td>32. Staff members provide feedback to peers related to instructional practices.</td>
<td>0</td>
</tr>
<tr>
<td>33. Staff members informally share ideas and suggestions for improving student learning.</td>
<td>0</td>
</tr>
<tr>
<td>34. Staff members collaboratively review student work to share and improve instructional practices.</td>
<td>0</td>
</tr>
<tr>
<td>35. Opportunities exist for coaching and mentoring.</td>
<td>0</td>
</tr>
<tr>
<td>36. Individuals and teams have the opportunity to apply learning and share the results of their practices.</td>
<td>0</td>
</tr>
<tr>
<td>37. Staff members regularly share student work to guide overall school improvement.</td>
<td>0</td>
</tr>
</tbody>
</table>

COMMENTS:

<table>
<thead>
<tr>
<th>STATEMENTS</th>
<th>SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive Conditions – Relationships</td>
<td>SD</td>
</tr>
<tr>
<td>38. Caring relationships exist among staff and students that are built on trust and respect.</td>
<td>0</td>
</tr>
<tr>
<td>39. A culture of trust and respect exists for taking risks.</td>
<td>0</td>
</tr>
<tr>
<td>40. Outstanding achievement is recognized and celebrated regularly in our school.</td>
<td>0</td>
</tr>
<tr>
<td>41. School staff and stakeholders exhibit a sustained and unified effort to embed change into the culture of the school.</td>
<td>0</td>
</tr>
<tr>
<td>42. Relationships among staff members support honest and respectful examination of data to enhance teaching and learning.</td>
<td>0</td>
</tr>
<tr>
<td>STATEMENTS</td>
<td>SCALE</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td><strong>Supportive Conditions – Structures</strong></td>
<td>SD</td>
</tr>
<tr>
<td>43. Time is provided to facilitate collaborative work.</td>
<td>0</td>
</tr>
<tr>
<td>44. The school schedule promotes collective learning and shared practice.</td>
<td>0</td>
</tr>
<tr>
<td>45. Fiscal resources are available for professional development.</td>
<td>0</td>
</tr>
<tr>
<td>46. Appropriate technology and instructional materials are available to staff.</td>
<td>0</td>
</tr>
<tr>
<td>47. Resource people provide expertise and support for continuous learning.</td>
<td>0</td>
</tr>
<tr>
<td>48. The school facility is clean, attractive and inviting.</td>
<td>0</td>
</tr>
<tr>
<td>49. The proximity of grade level and department personnel allows for ease in collaborating with colleagues.</td>
<td>0</td>
</tr>
<tr>
<td>50. Communication systems promote a flow of information among staff members.</td>
<td>0</td>
</tr>
<tr>
<td>51. Communication systems promote a flow of information across the entire school community including: central office personnel, parents, and community members.</td>
<td>0</td>
</tr>
<tr>
<td>52. Data are organized and made available to provide easy access to staff members.</td>
<td>0</td>
</tr>
</tbody>
</table>

© Copyright 2010
Instrucciones:
Este cuestionario evalúa sus percepciones sobre el director de su escuela (pre-escolar, primaria o media), compañeros de trabajo y otros miembros de la Comunidad de Aprendizaje y Desarrollo Profesional (PLC), basado en las dimensiones y atributos relacionados, que definen dicha comunidad. Este cuestionario contiene un número de afirmaciones sobre las prácticas que ocurren en algunas escuelas. Lea cada afirmación y luego use la escala que se detalla abajo para seleccionar el puntaje que mejor refleja el grado de acuerdo o desacuerdo con cada afirmación. Sombree el óvalo apropiado, éstos se encuentran a la derecha de cada afirmación. La sección de comentarios que se provee al final de cada dimensión es opcional.

Términos importantes:
- Director de escuela = Su director o jefe inmediato (no el asistente del director)
- Staff/Miembros del Staff = Todos los adultos que están directamente relacionados al currículo, la instrucción y evaluación de los estudiantes.
- Miembros de la comunidad escolar = Padres y otros comunitarios.

ESCALA:
1 = Total Desacuerdo (TD)
2 = Desacuerdo (D)
3 = Acuerdo (A)
4 = Total Acuerdo (TA)

<table>
<thead>
<tr>
<th>AFIRMACIONES</th>
<th>ESCALA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liderazgo Compartido y que provee apoyo</strong></td>
<td>TD</td>
</tr>
<tr>
<td>1. Los miembros del staff consistentemente están envueltos en discusiones y toma de decisiones en relación a la mayoría de los problemas de la escuela.</td>
<td>0</td>
</tr>
<tr>
<td>2. El director de la escuela incorpora los consejos y sugerencias de los miembros del staff en la toma de decisiones.</td>
<td>0</td>
</tr>
<tr>
<td>3. Los miembros del staff tienen acceso a información fundamental.</td>
<td>0</td>
</tr>
<tr>
<td>4. El director de la escuela es proactivo y toma en cuenta las áreas en las que se necesita apoyo.</td>
<td>0</td>
</tr>
<tr>
<td>5. Se proveen oportunidades a los miembros del staff para iniciar cambios.</td>
<td>0</td>
</tr>
<tr>
<td>6. El director de la escuela comparte la responsabilidad y recompensa las acciones innovadoras.</td>
<td>0</td>
</tr>
<tr>
<td>7. El director de escuela participa democráticamente con el staff compartiendo su poder y autoridad.</td>
<td>0</td>
</tr>
<tr>
<td>8. Se promueve el liderazgo entre los miembros del staff.</td>
<td>0</td>
</tr>
<tr>
<td>9.</td>
<td>Las decisiones se toman a través de comités y de la comunicación a nivel de grados y áreas de contenido.</td>
</tr>
<tr>
<td>10.</td>
<td>Los miembros de la comunidad comparten la responsabilidad del aprendizaje de los estudiantes sin que se evidencie la imposición del poder y de la autoridad.</td>
</tr>
<tr>
<td>11.</td>
<td>Los miembros del staff utilizan diferentes fuentes de datos para tomar decisiones sobre enseñanza y aprendizaje.</td>
</tr>
</tbody>
</table>

**COMENTARIOS:**

<table>
<thead>
<tr>
<th>AFIRMACIONES</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Valores y visión compartidas</strong></td>
<td>SD</td>
</tr>
<tr>
<td>12.</td>
<td>Existe un proceso colaborativo que promueve el desarrollo de los valores que son compartidos por el staff.</td>
</tr>
<tr>
<td>13.</td>
<td>Los valores compartidos apoyan las normas de conducta que guían las decisiones sobre enseñanza-aprendizaje.</td>
</tr>
<tr>
<td>14.</td>
<td>Los miembros del staff comparten la visión del progreso de la escuela que se enfoca indefectiblemente en el aprendizaje de los estudiantes.</td>
</tr>
<tr>
<td>15.</td>
<td>Las decisiones que se toman están en concordancia con los valores y la visión de la escuela.</td>
</tr>
<tr>
<td>16.</td>
<td>Existe un proceso colaborativo para desarrollar una visión compartida en el staff.</td>
</tr>
<tr>
<td>17.</td>
<td>Los objetivos de la escuela se enfocan en el aprendizaje significativo de los estudiantes, viendo más allá de lo que son los resultados obtenidos en exámenes y las notas obtenidas por desempeño.</td>
</tr>
<tr>
<td>18.</td>
<td>Las políticas y los programas están alineados a la visión de la escuela.</td>
</tr>
<tr>
<td>19.</td>
<td>Los miembros de la comunidad escolar están activamente envueltos en la creación de altas expectativas que incentiven un mayor logro de los estudiantes</td>
</tr>
<tr>
<td>20.</td>
<td>La priorización de las acciones que sirven para lograr la visión de la escuela está basada en los datos.</td>
</tr>
</tbody>
</table>

**COMENTARIOS:**

<table>
<thead>
<tr>
<th>Aprendizaje colectivo y su Aplicación</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.</td>
<td>Los miembros del staff trabajan unidos para obtener conocimientos, habilidades, y</td>
<td>0</td>
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</tr>
</tbody>
</table>
estrategias, y éste nuevo conocimiento se aplica al trabajo docente.

<p>| | | | | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>22.</td>
<td>Existen relaciones colegiales entre los miembros del staff, lo cual refleja su compromiso con los esfuerzos de la escuela para mejorar.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>23.</td>
<td>Los miembros del staff planifican y trabajan juntos buscando soluciones que satisfagan las necesidades de los estudiantes.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>24.</td>
<td>Existe una variedad de oportunidades y estructuras que facilitan el aprendizaje colectivo a través de un diálogo abierto.</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>25.</td>
<td>Los miembros del staff se envuelven en conversaciones que reflejan el respeto por la diversidad de las ideas, lo cual los encamina a un cuestionamiento continuo.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>26.</td>
<td>El desarrollo profesional se enfoca en el proceso de enseñanza-aprendizaje.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>27.</td>
<td>El staff y otros miembros de la comunidad escolar aprenden juntos y aplican los nuevos conocimientos a la solución de los problemas.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>28.</td>
<td>El staff está comprometido con programas que mejoren el aprendizaje.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>29.</td>
<td>El staff analiza colaborativamente diferentes fuentes de datos para evaluar efectivamente la instrucción.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>30.</td>
<td>El staff analiza colaborativamente los trabajos de los estudiantes para mejorar la práctica docente de los maestros y el aprendizaje de los estudiantes.</td>
<td>0</td>
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COMENTARIOS:

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<tbody>
<tr>
<td>Práctica Personal Compartida</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31.</td>
<td>Existen oportunidades para que los maestros observen a sus colegas y les incentiven.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>32.</td>
<td>Los maestros proveen retroalimentación a sus colegas en relación a la instrucción.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>33.</td>
<td>Los maestros comparten informalmente ideas y sugerencias para mejorar el aprendizaje de los estudiantes.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>34.</td>
<td>Los maestros colaboran para revisar el trabajo de los estudiantes con el objetivo de compartir y mejorar la práctica docente.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>35.</td>
<td>Existen oportunidades para el entrenamiento (coaching) y la tutoría (mentoring) entre los maestros.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>36.</td>
<td>Existen oportunidades para aplicar el conocimiento y compartir los resultados de las prácticas, tanto de manera individual como en equipo.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>37.</td>
<td>Los miembros del staff comparten regularmente los trabajos de los estudiantes</td>
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</tbody>
</table>
para que sirvan de guía en la mejora de la escuela en general.

COMENTARIOS:

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<thead>
<tr>
<th>Condiciones de apoyo – Relaciones</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>38. Las relaciones entre los maestros y estudiantes están basadas en el respeto y en el cuidarse unos a otros.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>39. La confianza y el respeto son parte de la cultura escolar, por lo que los miembros de la comunidad pueden permitirse tomar riesgos.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>40. En nuestra escuela reconocemos y celebramos los logros excepcionales de manera regular.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>41. Los maestros y otros miembros de la comunidad educativa realizan un esfuerzo unificado para introducir cambio en la cultura escolar.</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>42. Las relaciones entre los maestros apoyan el análisis honesto y respetuoso de datos para mejorar la enseñanza y el aprendizaje.</td>
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COMENTARIOS:

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<th>A</th>
<th>SA</th>
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<tbody>
<tr>
<td>43. Se provee el tiempo necesario para el trabajo colaborativo.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>44. El horario escolar promueve el aprendizaje colectivo y la práctica docente compartida.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>45. Recursos fiscales están disponibles para el desarrollo profesional.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>46. Los maestros disponen de recursos tecnológicos y de instrucción.</td>
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</tr>
</tbody>
</table>

AFIRMACIONES

<table>
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<th>ESCALA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SD</td>
</tr>
<tr>
<td>47. Personas competentes comparten sus conocimientos y dan apoyo para mantener el aprendizaje continuo.</td>
<td>0</td>
</tr>
<tr>
<td>48. El plantel escolar se conserva limpio, es atractivo y agradable.</td>
<td>0</td>
</tr>
<tr>
<td>49. La proximidad entre el personal de las diversas áreas de la escuela facilita la colaboración entre colegas.</td>
<td>0</td>
</tr>
<tr>
<td>50. Los sistemas de comunicación promueven el flujo de información entre los miembros del staff.</td>
<td>0</td>
</tr>
<tr>
<td>51. Los sistemas de comunicación promueven el flujo de información a través de toda</td>
<td>0</td>
</tr>
</tbody>
</table>
la comunidad escolar, incluyendo el personal administrativo, padres, estudiantes y otros miembros de la comunidad.

| 52. | Los datos se organizan, y se ponen a disposición de los miembros del staff, quienes lo pueden accesar fácilmente. | 0 | 0 | 0 | 0 |

COMENTARIOS:

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Appendix B

HSIRB Approval Letter

Approval Not Needed for IRB Project Number 19-05-19
Date: May 14, 2019

To: Patricia Reeves, Principal Investigator
    Migelina Coronado, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: Approval not needed for IRB Project Number 19-05-19

This letter will serve as confirmation that your project titled “Flipping the School Organization: Dominican Schools Working as Professional Learning Communities” has been reviewed by the Western Michigan University Institutional Review Board (IRB). Based on that review, the IRB has determined that approval is not required for you to conduct this project because this project is not generalizable; therefore this study does not meet the federal definition of research.

45 CFR § 46.102 (l) Research

Research means a systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge. Activities that meet this definition constitute research for purposes of this policy, whether or not they are conducted or supported under a program that is considered research for other purposes. For example, some demonstration and service programs may include research activities. For purposes of this part, the following activities are deemed not to be research:

(1) Scholarly and journalistic activities (e.g., oral history, journalism, biography, literary criticism, legal research, and historical scholarship), including the collection and use of information, that focus directly on the specific individuals about whom the information is collected.

(2) Public health surveillance activities, including the collection and testing of information or biospecimens, conducted, supported, requested, ordered, required, or authorized by a public health authority. Such activities are limited to those necessary to allow a public health authority to identify, monitor, assess, or investigate potential public health signals, onsets of disease outbreaks, or conditions of public health importance (including trends, signals, risk factors, patterns in diseases, or increases in injuries from using consumer products). Such activities include those associated with providing timely situational awareness and priority setting during the course of an event or crisis that threatens public health (including natural or man-made disasters).

(3) Collection and analysis of information, biospecimens, or records by or for a criminal justice agency for activities authorized by law or court order solely for criminal justice or criminal investigative purposes.

(4) Authorized operational activities (as determined by each agency) in support of intelligence, homeland security, defense, or other national security missions.

“Designed to contribute to generalizable knowledge” is essential in this definition. A study must be systematic and designed to contribute to generalizable or transferable knowledge in order to be considered research under 45 CFR 46.

Thank you for your concerns about protecting the rights and welfare of human subjects.

A copy of your protocol and a copy of this letter will be maintained in the IRB files.
Appendix C

Teacher Interview Protocol

(English and Spanish Versions)
Teacher Interview Protocol

Research Proposal: Dominican Schools working as Professional Learning Communities

Time of Interview:

Date:

Interviewer:

Interviewee:

Good morning (afternoon), the reason we are here today is for me to interview you in relation of your work as part of a Professional Learning Community (PLC). The study that now you are part of looks for thorough description of the process of implementation of a PLC and an understanding of the issues that schools go through as they implement the PLC model. This understanding could later help other schools that engage in the same process. Thanks for agreeing to participate and help us to find a way to improve the quality of education in the DR.

1. Would you please describe your work as a teacher in this school?

2. Please describe the various activities that you experience as you work in your PLC team. In what ways do you examine and reflect on your teaching and student learning?

3. What role did you and your colleagues play in the decision to implement PLCs?

4. Where and how do you and other teachers get involved in decisions about change initiatives? About teaching and learning? About other aspects of school operations?

5. Comparing your work before and after the implementation of the PLC, what differences do you perceive in your teaching?

6. How would you describe your relationship with the students? Has that changed in any way since becoming involved in a PLC?
7. How does the principal support teacher teams and trust-building among staff?

8. What changes have you seen in the principal and other school leaders since the school began PLC implementation?

9. What issues/problems have you and/or your PLC team encounter in the implementation process? Explain

10. What actions have you and/or your team taken to resolve those issues?

11. What involvement has the principal had in the solution of those issues?

12. How has your relationship with your colleagues changed?

13. How do you think parents perceive these changes? Have you experienced or noticed any changes in the relationship between the school and parents since implementing PLCs?

14. How much and in what ways are teachers engaging with the school leadership and each other about school values and vision?

15. How is the school facilitating collaborative work? What would you need to do to make collaboration among teachers more productive?

16. What role does participating in a PLC play in your professional development?

Thanks again for helping us to understand the issues that schools that are implementing PLC go through.
Protocolo de Entrevistas a Maestros

Spanish Version

Propuesta de Investigación: Escuelas Dominicanas trabajando como Comunidades de Aprendizaje y Desarrollo Profesional

Hora de la Entrevista:

Fecha:

Entrevistador:

Entrevistado:

Buenos días (ó Buenas Tardes), la razón de que estemos aquí el día de hoy es para entrevistarle en relación a su trabajo como parte de una Comunidades de Aprendizaje y Desarrollo Profesional (PLC, siglas en inglés). El estudio de que ahora es usted parte busca una descripción exhaustiva del proceso de implementación de una Comunidad de Aprendizaje y Desarrollo Profesional. También busca entender los problemas que las escuelas deben enfrentar y resolver al implementar el modelo de Comunidades de Aprendizaje y Desarrollo Profesional (CADP). El conocimiento que se obtenga del presente estudio puede ayudar a otras escuelas que se comprometan a implementar este modelo de desarrollo profesional y colaboración. Gracias por su consentimiento en participar en este estudio y ayudarnos a encontrar una manera de impulsar la calidad educativa en República Dominicana.

1. ¿Podría usted describir su trabajo como maestro(a)?

2. Por favor describa las diferentes actividades que usted ha experimentado en su trabajo como parte de su equipo de trabajo. ¿De qué maneras ha analizado y reflexionado sobre su manera de enseñar y el aprendizaje de sus estudiantes?
3. ¿Cuál ha sido su papel y el de sus colegas en lo que se refiere a la decisión de implementar la CADP (ó PLC)?

4. ¿De qué manera los maestros se envuelven en las decisiones concernientes a iniciativas de cambio? ¿en las decisiones sobre enseñanza-aprendizaje? ¿ó sobre otros aspectos de la operación de la escuela?

5. Si compara su trabajo antes y después de la implementación de la CADP, ¿cuáles son las diferencias que ha podido percibir en su manera de enseñar?

6. ¿Cómo describiría usted su relación con los estudiantes? ¿Qué ha cambiado en esa relación como consecuencia de la implementación de la CAD?

7. ¿De qué manera su supervisor apoya los equipos de trabajo y la construcción de confianza dentro del staff?

8. ¿Cuáles cambios ha visto usted en su supervisor y en otros líderes escolares desde que se inició la implementación de la CADP?

9. ¿Qué problemas ha encontrado usted y los demás maestros durante el proceso de implementación?

10. ¿Cuáles acciones han tomado usted y su equipo para resolver esos problemas?

11. ¿Cómo ha participado el supervisor en la solución de esos problemas?

12. ¿Cómo ha cambiado la relación con sus colegas?

13. ¿Cómo cree usted que los padres perciben esos cambios? ¿Ha experimentado o notado cambios en las relaciones entre la escuela y los padres después de la implementación de la CADP?

14. ¿Qué tanto y de qué manera los maestros y los líderes escolares están envueltos en el desarrollo de los valores y la consecución de la visión de la escuela?
15. ¿Cómo ha facilitado la escuela el trabajo colaborativo? ¿Qué debería hacer usted para que la colaboración sea mas productiva?

16. ¿Cómo influye su participación en la CADP en su desarrollo profesional?

Gracias de nuevo por su contribución en ayudarnos a entender los problemas por los que pasan las escuelas que se embarcan en la implementación de los procesos de los CADP.
Appendix D

Leader Interview Protocol

(English and Spanish Versions)
Leader Interview Protocol

Research Proposal: Dominican Schools working as Professional Learning Communities

Good morning (afternoon), the reason we are here today is for me to interview you in relation of your work as part of a Professional Learning Community (PLC). The study that now you are part of looks for a thorough description of the process of implementation of a PLC and an understanding of the issues that schools go through as they implement the PLC model. This understanding could later help other schools that engage in the same process. Thanks for agreeing to participate and help us to find a way to improve the quality of education in the DR.

1. Would you please describe yourself as a leader?

2. How did the school decide to implement PLCs?

3. Who was involved in the decision-making process to implement PLC? What channels of communications were used to create awareness and to sell the idea?

4. What issues/problems have you encounter in the implementation process? Explain

5. What actions have you taken to resolve those issues?

6. Are there any issues that have not been resolved?

7. What are the reasons that they have not been resolved?

8. What changes in your relationship with your teachers can you identify?

9. What changes can you describe in the way teachers relate to each other?

10. What changes can you describe in the way teachers are teaching?
11. What changes can you describe in your relationship with parents? Students?

12. How has the school vision changed? How have you shared it with different stakeholders?

13. Where and how do teachers share in the leadership of the school and participate in decision-making? How has the PLC process influenced this? What communication channels do you use to encourage and support teacher decision-making?

14. How does the school facilitate teacher collaboration? What resources are allocated for this purpose?

15. Trust is a key component to build PLCs, how do you build trust or facilitate trust-building among teachers?

Thanks again for helping us to understand the issues that schools that are implementing PLC go through.
Protocolo de Entrevistas a los Líderes Escolares

Spanish Version

Propuesta de Investigación: Escuelas Dominicanas trabajando como Comunidades de Aprendizaje y Desarrollo Profesional

Hora de la Entrevista:
Fecha:
Entrevistador:
Entrevistado:

Buenos días (ó Buenas Tardes), la razón de que estemos aquí el día de hoy es para entrevistarle en relación a su trabajo como parte de una Comunidad de Aprendizaje y Desarrollo Profesional (PLC, siglas en inglés). El estudio de que ahora es usted parte busca una descripción exhaustiva del proceso de implementación de una Comunidad de Aprendizaje y Desarrollo Profesional. También busca entender los problemas que las escuelas deben enfrentar y resolver al implementar el modelo de Comunidades de Aprendizaje y Desarrollo Profesional (CADP). El conocimiento que se obtenga del presente estudio puede ayudar a otras escuelas que se comprometan a implementar este modelo de desarrollo profesional y colaboración. Gracias por su consentimiento en participar en este estudio y ayudarnos a encontrar una manera de impulsar la calidad educativa en República Dominicana.

1. ¿Podría usted describir su trabajo como líder escolar?
2. ¿Cómo decide la escuela implementar la CADP?
3. ¿Quiénes estuvieron envueltos en la decisión de implementar la CADP? ¿Qué canales de comunicación fueron usados para crear la conciencia y vender la idea de crear la CADP?
4. ¿Qué problemas o inconvenientes ha encontrado usted en el proceso de implementación? Explique.

5. ¿Qué acciones ha tomado usted para solucionar esos problemas o inconvenientes?

6. ¿Hay algunas problemas o inconvenientes que no hayan podido solucionarse?

7. ¿Cuáles son las razones para que no se hayan resuelto?

8. ¿Cuáles cambios puede usted identificar en su relación con los maestros?

9. ¿Cuáles son los cambios que puede describir en la forma en que los maestros se relacionan entre sí?

10. ¿Cuáles cambios puede describir en la forma de enseñar de los maestros?

11. ¿Cuáles cambios puede describir en su relación con los padres? ¿y con los estudiantes?

12. ¿Cómo ha cambiado la visión de la escuela? ¿Cómo ha compartido esta visión y sus cambios (si los ha habido) con los diferentes miembros de la comunidad escolar?

13. ¿De qué manera los maestros comparten el liderazgo en la escuela y participan en la toma de decisiones? ¿Cómo ha influído los procesos de la CADP en ésta distribución de liderazgo? ¿Cuáles canales de comunicación se utilizan para incentivar y apoyar la toma de decisiones por parte de los maestros?

14. ¿Cómo facilita la escuela el trabajo colaborativo entre los maestros? ¿Qué recursos se asignan para este propósito?

15. La confianza es un tema esencial para construir una CADP, ¿cómo construye o facilita usted la construcción de confianza entre los maestros?

Gracias de nuevo por su contribución en ayudarnos a entender los problemas por los que pasan las escuelas que se embarcan en la implementación de los procesos de los CADP.
Appendix E

Focus Group Interview Protocol

(English and Spanish Versions)
Focus group Interview Protocol

Research Proposal: Dominican Schools working as Professional Learning Communities

Time of Interview:

Date:

Interviewer:

Interviewee:

Good morning (afternoon), the reason we are gathered here today is for us to share ideas in relation of your work as part of a Professional Learning Community (PLC). The study that now you are part of looks for a thorough description of the process of implementation of a PLC and an understanding of the issues that schools go through as they implement the PLC model. This understanding could later help other schools that engage in the same process. Thanks for agreeing to participate and help us to find a way to improve the quality of education in the DR. I will ask you a series of questions and invite you to talk with me and each other in response.

1. To get us started, please share with each other your experiences when the PLC process was first implemented in the school? What kind of involvement did you have in the decision-making?

2. Please talk about what it was like for you as you began to open your classrooms to your peers.

3. How would you describe your work in your team meetings? How does the organizational structure of the school either help or impede your teams collaborate and support each other?

4. How much involvement are teachers allowed to have in decision-making related to change initiatives? Or teaching and learning?
5. What procedures or structures have the school leaders created to facilitate the sharing of key information that allow teachers to participate in the decision-making process?

6. What type of support does the team receive from school leaders when the team makes a decision?

7. Please discuss: how does your team include the values and vision of the school in the decisions you make?

8. How has your relationship with your colleagues changed as a result of the PLC implementation?

9. How does the allocation of resources facilitate or hinder the team’s efforts to improve teaching and learning?

10. What changes have you seen in teaching around the school and in your own teaching?

11. What are some issues/problems that you have encountered in the implementation process of the PLC and what actions have you and/or your team taken to resolve those issues? How much is the principal involved in the solution of those issues?

12. Finally, please talk about how you and school leaders work on building the trust that is necessary to sustain the PLC process.

Thank you for participating in this conversation today. It will be very helpful in understanding how the PLC process is developing and working in this school.
Protocolo de Entrevistas a Grupos de Enfoque

Spanish Version

Propuesta de Investigación: Escuelas Dominicanas trabajando como Comunidades de Aprendizaje y Desarrollo Profesional

Hora de la Entrevista:

Fecha:

Entrevistador:

Entrevistado:

Buenos días (o Buenas Tardes), la razón de que estemos aquí el día de hoy es para compartir ideas en relación a su trabajo como parte de una Comunidad de Aprendizaje y Desarrollo Profesional (PLC, siglas en inglés). El estudio de que ahora es usted parte busca una descripción exhaustiva del proceso de implementación de una Comunidad de Aprendizaje y Desarrollo Profesional. También busca entender los problemas que las escuelas deben enfrentar y resolver al implementar el modelo de Comunidades de Aprendizaje y Desarrollo Profesional (CADP). El conocimiento que se obtenga del presente estudio puede ayudar a otras escuelas que se comprometan a implementar este modelo de desarrollo profesional y colaboración. Gracias por su consentimiento en participar en este estudio y ayudarnos a encontrar una manera de impulsar la calidad educativa en República Dominicana.

1. Para iniciar esta conversación, por favor compartan entre ustedes sus experiencias sobre los primeros tiempos de implementación de la CADP. ¿Qué tipo de participación tuvieron ustedes en la toma de la decisión sobre la implementación?

2. Por favor conversen sobre ¿cómo fue cuando se inició la apertura de los salones de clases a sus colegas?
3. ¿Cómo describirían su trabajo en las reuniones de equipo? ¿Cómo la estructura organizacional de la escuela les ayuda o impide para colaborar y apoyarse entre ustedes?

4. ¿Qué tanto están envueltos los maestros en los procesos de toma de decisiones en relación a iniciativas de cambio? ¿en relación a la enseñanza-aprendizaje?

5. ¿Qué procedimientos o estructuras han creado los líderes de la escuela para compartir información clave que permita que los maestros participen en la toma de decisiones?

6. ¿Qué tipo de apoyo reciben los equipos de trabajo de parte de los líderes de la escuela cuando los equipos deben tomar decisiones?

7. Favor discutan sobre cómo su equipo incluye los valores y la visión de la escuela en las decisiones que toma.

8. ¿Cómo han cambiado las relaciones con sus colegas como resultado de la implementación de la CADP?

9. ¿Cómo la asignación de recursos facilita o impide los mejores esfuerzos del equipo para mejorar la enseñanza-aprendizaje?

10. ¿Qué cambios han visto ustedes en la forma de enseñar de manera general, y de manera individual?

11. ¿Cuáles problemas o inconvenientes han encontrado en el proceso de implementación de la CADP y cuales acciones han tomado individualmente y como equipo para resolver esos inconvenientes? ¿Qué tan envuelta está la supervisora en la solución de esos problemas?

12. Por favor, finalmente, hablen sobre como ustedes y los líderes de la escuela construyen la confianza que se necesita para el sostenimiento de los procesos de la
CADP.

Gracias de nuevo por su contribución en ayudarnos a entender los problemas por los que pasan las escuelas que se embarcan en la implementación de los procesos de los CADP.
Appendix F

Invitation email

(English and Spanish Versions)
Invitation email

To: [Potential Participant]
From: [Miguelina Coronado]
Subject: Research Project

Dear [Type name here],

The purpose of this email is to inform you about an opportunity to be part of a research study about Professional Learning Communities. The investigator responsible for conducting this study is Miguelina Coronado Cornelio, as part of her Ph.D. program with Western Michigan University. This mixed methods case study seeks a thorough description of the PLC implementation process, and more specifically to identify the issues that teachers and school leaders of a school that decided to adopt and begin the implementation of the Professional Learning Community model for professional staff engagement and school operations encounter in the process of implementing the PLC process, as well as how they respond to those issues. The study aims to understand the perspectives of multiple players, their insights, and the situations they encounter in the PLC. This understanding may guide other schools in Dominican Republic and facilitate their way to PLC implementation.

You have been contacted because you are part of the Saint Joseph School which is the recruited school for this case study. For the qualitative strand of the study, I am seeking 8-12 teachers from this school who have been involved in the PLC process to participate in the research for my dissertation study. These teachers will be interviewed in a one-to-one basis. Another way to participate is as part of one of two focus groups, if you feel more comfortable for participating as part of a group than individually. Each of the focus groups will have from 5-7 participants for a total of 10-14. To participate either individually or as a focus group, you need to have a minimum of three years total teaching experience and have been teaching at this school for, at least, two years during which you have participated in the PLC process. For the quantitative strand which consists in the administration of a survey that will measure the level of implementation of the PLC model, I am looking for as many teachers of the school as I can recruit, and there are no inclusionary or exclusionary criteria to limit the number of participants for this part of the study. If you accept to be interviewed either individually or in a focus group, you will also take the survey. However, accepting to take the survey does not mean that you will be interviewed.

If you might be interested in participating in this study, please reply to this email stating your interest in being interviewed individually, as part of a focus group, or if you are just willing to take the survey. Also, tell me if you are interested in learning more about the study and suggest a time that I can meet with you to explain the study further and answer your questions. I will try to work out a time that is convenient for you. After we talk, if you want to participate in
this study, I will review the official consent form that participants need to sign to be part of the study.

Thank you in advanced for considering your participation.

Best regards,

Miguelina Coronado
Correo de Invitación

A: [Participante Potencial]
De: [Miguelina Coronado]
Tema: Proyecto de Investigación

Estimada(o) [Escriba el nombre aquí],

El propósito de este email es informarle sobre la oportunidad de ser parte de un estudio de investigación sobre las Comunidades de Aprendizaje y Desarrollo Profesional. La investigadora responsable de conducir este estudio es Miguelina Coronado Cornesio, quien forma parte de un programa de Ph.D. con Western Michigan University. El estudio se propone describir exhaustivamente el proceso de implementación de una Comunidad de Aprendizaje y Desarrollo Profesional, así también, identificar los problemas que los maestros enfrentan cuando las escuelas adoptan e implementan los procesos asociados a las Comunidades de Aprendizaje y Desarrollo Profesional, que en inglés se conocen como Professional Learning Communities (PLC). Adicionalmente, el estudio se propone entender cómo se responde y acciona frente a dichos problemas. El estudio se enfoca en entender las perspectivas de los diferentes participantes en el proceso docente que involucra el trabajo colaborativo, así como las ideas y las situaciones que emergen dentro de dichas comunidades. Este entendimiento puede ayudar a otras escuelas que decidan adoptar este modelo, facilitándoles así el proceso de implementación.

Usted ha sido contactado por ser miembro de Saint Joseph School, que es la comunidad educativa reclutada para este estudio. De esta manera, usted tiene la oportunidad de ser ayudar en esta investigación que informará mi disertación. Para la parte cualitativa del estudio reclutando entre 8-12 maestros que hayan estado envueltos por cierto tiempo en los procesos relacionados con una comunidad de aprendizaje y desarrollo profesional en Saint Joseph School ó Professional Learning Community (en inglés). Estos maestros participarán en entrevistas individuales. Otra forma de participación es a través de grupos de enfoque, cada uno de los cuales tendrá de 5-7 participantes para un total de entre 10-14 maestros. Para participar en las entrevistas individuales y grupales se necesita tener un mínimo de tres años de experiencia docente, y de formar parte de esta institución por un mínimo de dos años, durante los cuales usted ha sido parte del proceso de Comunidad de aprendizaje (PLC). La parte cuantitativa del estudio consiste en la administración de una encuesta que medirá el nivel de implementación del PLC. Para tomar esta encuesta estoy reclutando tantos maestros voluntarios como sea posible, para conseguir el mayor número de participantes. No hay criterios de inclusión ó exclusión que puedan limitar el número de participantes para esta parte del estudio. Si usted acepta ser entrevistado individualmente o en grupo, usted deberá contestar la encuesta, pero si solo acepta tomar la encuesta no lo compromete a ser entrevistado.

Si está usted interesado en formar parte de este estudio, por favor conteste este email indicando su interés en saber más sobre el mismo y sugiriendo un tiempo en que podamos
reunirnos para contestar cualquier pregunta y clarificar dudas. Yo estaré en la mejor disposición de hacer una cita en el momento más conveniente para usted. Luego de esta reunión, si persiste su interés de participar en el estudio, revisaremos el documento oficial de consentimiento que los participantes deberán firmar para ser parte del estudio.

Gracias anticipadas por considerar esta invitación.

Muy atentamente,

Miguelina Coronado
Appendix G

Informed Consent Form

(English and Spanish Versions)
Informed Consent Form

Western Michigan University

**Student Investigator:** [Miguelina Adelaida Coronado Cornelio]

**Title of Study:** [FLIPPING THE SCHOOL ORGANIZATION: DOMINICAN SCHOOLS WORKING AS PROFESSIONAL LEARNING COMMUNITIES]

You have been invited to participate in a study titled *Flipping the school organization: Dominican schools working as professional learning communities.* This study will serve as Miguelina Adelaida Coronado Cornelio’s dissertation research to fulfill the requirements of the Educational Leadership Ph.D. program with Western Michigan University. This consent document will explain the purpose of this research project and will go over all of the time commitments, the procedures used in the study, and the risks and benefits of participating in this research project. Please read this consent form carefully and completely and please ask any questions if you need more clarification.

**What are we trying to find out in this study?**

The purpose of this research study is to describe how teachers and school leaders in a school that adopts and begins to implement the Professional Learning Community model for professional staff engagement and school operations experience the PLC implementation process. Of a particular interest to this study is the examination of issues and challenges that both staff and school leaders encounter and how they respond to those issues and challenges. The study aims to understand the perspectives of multiple players, their insights, and the situations they encounter in the PLC. This understanding may guide other schools in Dominican Republic and facilitate their way to PLC implementation.

**Who can participate in this study?**
You can participate in this study if you are a teacher or school administrator who works at the case study school. The criteria for teacher and administrator participants in the interviews and focus group include: (a) minimum of two years working at the school; (c) three or more years of teaching experience at or outside the school; and (d) voluntary agreement to be part of the study. All teachers currently working in the case study school may participate in the survey, with the goal that all teachers in the school will voluntarily participate.

**Where will this study take place?**

The data will be collected on Saint Joseph School premises in Santo Domingo, Dominican Republic.

**What is the time commitment for participating in this study?**

To participate in the individual interviews or focus group interviews will require approximately 45 minutes for each interview. Additionally, you may spend approximately 30 minutes reviewing the transcript of your individual interview to determine if you want to add any further information after reading the transcript. Completing the survey will require approximately 15-20 minutes.

**What will you be asked to do if you choose to participate in this study?**

There are three ways to participate in the study. If you decide to participate in the study, you will be asked to make a choice of which of the three ways you are agreeing to participate. The forms of participation are the following:

The first option to participate in the study as an individual interviewee, you will be interviewed, the interview will be audio recorded and transcribed into written text with a code I will assign to you to replace your name so as to maintain confidentiality. You will have the opportunity to read the transcript and make any additions that you consider necessary to ensure
the accuracy of the information. You will also be asked to complete a survey called Professional Learning Community Assessment-Revised (PLCA-R), which is a complementary part of the study and provides quantitative data about PLC implementation levels.

If you are a teacher, the second option is to participate in the study as part of a focus group. If you select this option, you will be interviewed in a group of 5-7 of your teaching colleagues, the discussions will be audio-recorded and transcribed into written text with a code I will assign to you to replace your name so as to maintain confidentiality. You will be asked to complete a survey called Professional Learning Community Assessment-Revised (PLCA-R), which is a complementary part of the study and provides quantitative data about PLC implementation levels.

If you are a teacher, the third option to participate in the study, you will only be asked to complete a survey called the Professional Learning Community Assessment-Revised (PLCA-R).

**What information is being measured during the study?**

The study will be conducted as a mixed method instrumental case study. For the qualitative strand the researcher is looking for meanings and themes that can answer the research questions that seek for a description of the experiences of the stakeholders involved in the PLC processes. The quantitative strand of the study involves the administration of a survey in order to create a profile of the school as a professional learning community. Specifically, the purpose of this case study will be to bring forth a thorough understanding of the experiences of the stakeholders as the PLC model is implemented.

**What are the risks of participating in this study and how will these risks be minimized?**
There are no evident risks for the participants other than to participate in the study and any breach of confidentiality. However, I will take precautions to protect participants’ confidentiality through the use of codes assigned to your name which will be known to only me.

**What are the benefits of participating in this study?**

There are no benefits for participating in the study other than helping with the investigation to help identify the issues that schools that adopt PLC processes go through during the implementation.

**Are there any costs associated with participating in this study?**

There are no costs associated for participating in the study.

**Is there any compensation for participating in this study?**

There are no compensations for participating in the study.

**Who will have access to the information collected during this study?**

The information collected during this study, and the results obtained in consequence will be included as part of a dissertation to fulfill the requirements of the Educational Leadership PhD program and I may also develop one or more journal article based on this study.

**What if you want to stop participating in this study?**

You can choose to stop participating in the study at any time for any reason. You will not suffer any prejudice or penalty by your decision to stop your participation. You will experience NO consequences either academically or personally if you choose to withdraw from this study. The investigator can also decide to stop your participation in the study without your consent.

Should you have any questions prior to or during the study, you can contact the primary investigator, Dr. Patricia Reeves at patricia.reeves@wmich.edu. You may also contact Research
Compliance at 269-387-8293 or the Vice President for Research at 269-387-8298 if questions arise during the course of the study.

I have read this informed consent document. The risks and benefits have been explained to me. I agree to take part in this study (please check the box that indicates which part of the study you are selecting for your participation):

☐ I will participate in the individual teacher or administrator interview and complete the PLCA-R survey
☐ I will participate in a teacher focus group interview and complete the PLCA-R survey
☐ I will complete the PLCA-R survey

Please Print Your Name

___________________________________ ________________________________
Participant’s signature Date
Western Michigan University

Documento de Consentimiento

**Estudiante Investigador:** [Miguelina Adelaida Coronado Cornelio]
**Título del Estudio:** [EVOLUCIÓN EN LA ORGANIZACIÓN DE LAS ESCUELAS: ESCUELAS DOMINICANAS TRABAJANDO COMO COMUNIDADES DE APRENDIZAJE Y DESARROLLO PROFESIONAL]

Usted ha sido invitado a participar en una investigación denominada: Evolución en la organización de las escuelas: escuelas dominicanas trabajando como comunidades de aprendizaje y desarrollo profesional. Esta investigación, que será conducida por Miguelina Adelaida Coronado Cornelio le servirá para realizar su tesis doctoral requerida para completar el programa de Doctorado en Liderazgo Organizacional con Western Michigan University. Este documento de consentimiento le explicará el propósito de la investigación, así como todos los compromisos, procedimientos, beneficios y riesgos que puedan derivarse de su participación en este estudio. Por favor lea completo y cuidadosamente este documento y asegúrese de hacer cualquier pregunta que necesite para clarificar las dudas que puedan presentarse.

**¿Qué estamos tratando de encontrar con este estudio?**

El propósito de esta investigación es describir las experiencias que tanto los maestros como los líderes escolares de las escuelas que deciden adoptar las Comunidades de Aprendizaje y Desarrollo Profesional encuentran en el proceso de implementación de las mismas. De manera particular, el presente estudio se interesa en la identificación de los problemas y los retos que los docentes y líderes escolares encuentran, así como la manera en que responden a dichos problemas y retos. El objetivo del estudio se centra en entender las perspectivas de los diferentes participantes del proceso, sus ideas, así como las situaciones que ellos encuentran en el camino.
Este entendimiento puede guiar otras escuelas de la República Dominicana en este proceso y facilitar el establecimiento de Comunidades de Aprendizaje y Desarrollo Profesional en éstas últimas.

¿Quién puede participar de este estudio?

En este estudio pueden participar los maestros y administradores escolares que trabajen en la escuela designada como caso de estudio. Los criterios para los maestros y administradores participantes en las entrevistas y el grupo de enfoque incluyen: (a) un mínimo de dos años trabajando en la escuela; (c) tres o más años de experiencia docente o administrativa en o fuera de la escuela; y (d) voluntariamente estar de acuerdo en ser parte del estudio. Todos los maestros que trabajan actualmente en la escuela pueden participar en la encuesta, con el objetivo de que todos los maestros de la escuela participen de manera voluntaria.

¿Dónde se realizará el estudio?

Los datos serán recolectados en las instalaciones de Saint Joseph School en la ciudad de Santo Domingo, República Dominicana.

¿Cuál es el compromiso para participar del estudio?

Para participar en las entrevistas individuales o entrevistas de grupos focales se requerirán aproximadamente 45 minutos para cada entrevista. Además, puede pasar aproximadamente 30 minutos revisando la transcripción de su entrevista individual para determinar si desea agregar más información después de leer la transcripción. Completar la encuesta requerirá aproximadamente 15-20 minutos.

¿Qué le será requerido si usted accede a participar de este estudio?
Hay tres formas de participar en el estudio. Si decide participar en el mismo, se le pedirá que elija una de las tres formas disponibles para participar. Las formas de participación son las siguientes:

La primera opción para participar en el estudio es como entrevistado individual. Usted será entrevistado, la entrevista se grabará y se transcribirá a un texto escrito con un código que le asignaré para reemplazar su nombre y mantener la confidencialidad. Luego, tendrá la oportunidad de leer la transcripción y hacer las adiciones que considere necesarias para garantizar la exactitud de la información. Además, se le pedirá que complete una encuesta llamada Evaluación Revisada de la Comunidad de Aprendizaje Profesional (PLCA-R, siglas en inglés), que es una parte complementaria del estudio y proporciona datos cuantitativos sobre los niveles de implementación de la Comunidad de Aprendizaje Profesional (PLC).

Si usted es un maestro, la segunda opción es participar en el estudio como parte de un grupo focal. Si selecciona esta opción, se lo entrevistará en un grupo de 5 a 7 de sus colegas docentes, las discusiones se grabarán y se transcribirán a un texto escrito con un código que le asignaré para reemplazar su nombre a fin de mantener la confidencialidad. En adición a esto, se le pedirá que complete una encuesta llamada Evaluación Revisada de la Comunidad de Aprendizaje Profesional (PLCA-R, siglas en inglés), que es una parte complementaria del estudio y proporciona datos cuantitativos sobre los niveles de implementación del PLC.

Si usted es un maestro, la tercera opción para participar en el estudio, se le pedirá que complete una encuesta llamada Evaluación Revisada de la Comunidad de Aprendizaje Profesional (PLCA-R, siglas en inglés).

¿Qué información será medida durante el estudio?
La presente investigación se conducirá como un estudio de caso con método mixto. La parte cualitativa buscará significados y temas que puedan responder a las preguntas de investigación. Dichas preguntas buscan una descripción de las experiencias de los participantes en el proceso educativo, y en particular, de los procesos que se derivan de la implementación de las comunidades de aprendizaje y desarrollo profesional. En la parte cuantitativa los datos serán obtenidos a través de la administración de una encuesta que permitirá crear un perfil de la escuela como comunidad de aprendizaje. Específicamente, el propósito de este estudio de caso es contribuir a un entendimiento profundo de las experiencias de los miembros de la comunidad educativa durante la implementación y seguimiento del modelo de comunidades de aprendizaje y desarrollo profesional.

¿Cuáles son los riesgos de participar en este estudio y cómo éstos pueden ser minimizados?

No hay riesgos evidentes para los participantes más allá de su participación y alguna violación de la confidencialidad. Sin embargo, yo tomaré todas las precauciones posibles para proteger la confidencialidad de los participantes. Para este propósito se asignará un código a cada participante, el cual sólo será conocido por mí.

¿Cuáles son los beneficios de participar en el estudio?

No hay beneficios por su participación en este estudio a no ser por la satisfacción de ayudar en una investigación que puede arrojar luz para identificar los problemas por los que pasan las escuelas que adoptan los procesos de las Comunidades de Aprendizaje y Desarrollo Profesional durante su implementación.

¿Hay algún costo asociado a su participación en este estudio?
No hay costos asociados por su participación en el estudio a no ser por el tiempo que se dedique para la entrevista y la revisión de las transcripciones.

¿Hay alguna compensación por participar en este estudio?

Ninguna compensación será obtenida por participar en el estudio.

¿Quién tiene acceso a la información que sea recolectada durante el estudio?

La información recolectada durante el estudio y los resultados obtenidos como consecuencia serán incluidos como parte de una disertación para completar los requerimientos del Doctorado (PhD) en Liderazgo Educacional. Esta información también puede ser usada para escribir uno o más artículos para una revista educativa.

¿Qué pasa si no desea continuar participando en este estudio?

Usted puede optar por no seguir participando en el estudio en cualquier momento y por cualquier razón. Usted no sufrirá ningún perjuicio ni será penalizado si decide no seguir participando. No tendrá consecuencia alguna sea académica o personal si opta por dejar de participar en el estudio. El investigador, por otra parte, puede también decidir parar su participación en el estudio sin que usted tenga que dar su consentimiento para ello.

Si tiene alguna pregunta previa o durante el estudio, puede contactar al investigador primario, la Dra. Patricia Reeves al email patricia.reeves@wmich.edu. También puede comunicarse con el departamento de Investigación y Conformidad al teléfono 269-387-8293 ó con el VicePresidente de Investigación al 269-387-8298, en caso de que surja alguna pregunta durante el curso del estudio.

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He leído este informe de consentimiento. Los riesgos y beneficios me han sido explicados. Estoy de acuerdo en participar en este estudio (favor de seleccionar su forma de participación):

☐ Yo estoy de acuerdo en participar como entrevistado individual y completar la encuesta PLCA-R.
☐ Yo estoy de acuerdo en participar como parte de un grupo focal (y, a la vez, completando la encuesta PLCA-R).
☐ Yo estoy de acuerdo en participar sólo completando la encuesta (PLCA-R).

____________________________
Firma del Participante

____________________________
Fecha

Favor escriba su nombre
Appendix H

Professional Learning Communities Assessment - Revised Permission Letter
May 29, 2018

Miguelina Coronado Cornelio
Paseo de la Garzas #3, Isabel Villas, Cuesta Hermosa III
San Domingo, Dominican Republic 10504

Dear Miguelina Coronado Cornelio:

This correspondence is to grant permission for the utilization of the Professional Learning Community Assessment-Revised (PLCA-R) for your doctoral research at Western Michigan University. I am pleased you are interested in using the PLCA-R measure to examine issues encountered by teachers and school leaders in the implementation of the professional learning community process, as well as identify levels of implementation through strengths and weaknesses as per PLC dimensions. This study’s findings will contribute to the PLC literature and can offer a viable process for assessing the PLC process.

This permission letter allows use of the PLCA-R through paper/pencil administration, as well as permission for online administration.

While this letter provides permission to use the measure in your study, authorship of the measure will remain as Olivier, Hipp, and Huffman (exact citation on the following page). This permission does not allow renaming the measure or claiming authorship.

Thank you for your interest in our research and measure for assessing professional learning community attributes within schools. Should you require any additional information, please feel free to contact me.

Sincerely,

Dianne F. Olivier

Dianne F. Olivier, Ph. D.
Professor and Coordinator of the Doctoral Program
Joan D. and Alexander S. Haig/BORSF Professor
Department of Educational Foundations and Leadership