

Teachers' Perceptions Concerning Practicing Professional Learning Communities at Elementary Schools in Saudi Arabi"

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Abstract:

The primary purpose of this study was to explore Tatweer elementary teachers' perceptions about professional learning communities (PLCs) in their Saudi Arabia schools. Specifically, this study explored the impact of teachers' gender, years of teaching, and the school district on how teachers gauged the success of PLCs. The study aimed to identify the factors that contribute to the success or hinder of PLCs in these schools and determine teachers' input about the role of leadership in establishing the conditions necessary for successfully implementing dimensions of PLCs. A quantitative methodology was applied, utilizing the Professional Learning Communities Assessment – Revised (PLCA-R) questionnaire. Initially developed by Olivier et al. (2010) and adapted to the Saudi Arabian language and context, responses from a minimum of 100 teachers (50 women and 50 men teachers) in Tatweer elementary schools were collected and analyzed.

An independent sample *t*-test determined whether there are statistically significant differences for teachers' perceptions regarding the practice of PLCs based on gender. A one-way ANOVA was used to ascertain whether there are any statistically significant differences between teachers' perceptions regarding the practice of PLCs based on years of teaching and school district. The study concluded that there was no significant difference in the perspectives of teachers regarding the practice of the dimensions of PLCs, the role of leadership to implement PLCs, and the factors that may contribute to or hinder the success of PLCs.

Keywords: Professional learning communities, Leadership, Saudi Arabia, Tatweer schools

الملخص:

كان الغرض الأساسي من هذه الدراسة هو استكشاف تصورات معلمي تطوير الابتدائية حول مجتمعات التعلم المهنية (PLCs) في مدارسهم في المملكة العربية السعودية. على وجه التحديد، استكشفت هذه الدراسة تأثير جنس المعلمين، وسنوات التدريس، والمنطقة التعليمية على كيفية قياس المعلمين لنجاح PLCs. هدفت الدراسة إلى التعرف على العوامل التي تساهم في نجاح أو إعاقة مجموعات التعلم الذاتي في هذه المدارس وتحديد مدخلات المعلمين حول دور القيادة في تهيئة الظروف اللازمة للتنفيذ الناجح لأبعاد PLCs. تم تطبيق منهجية كمية، باستخدام استبيان تقييم مجتمعات التعلم المهنية - المنقح (PLCA-R). تم تطويره في البداية بواسطة Olivier et al. (2010). وتم تكيفها مع لغة وسياق المملكة العربية السعودية، تم جمع وتحليل ردود ما لا يقل عن 100 معلم (50 امرأة و 50 معلمًا) في مدارس تطوير الابتدائية.

حدد اختبار t للعينات المستقلة ما إذا كانت هناك فروق ذات دلالة إحصائية في تصورات المعلمين فيما يتعلق بممارسة PLCs على أساس الجنس. تم استخدام ANOVA أحادي الاتجاه للتأكد مما إذا كانت هناك أي فروق ذات دلالة إحصائية بين تصورات المعلمين فيما يتعلق بممارسة PLCs استنادًا إلى سنوات التدريس والمنطقة التعليمية. وخلصت الدراسة إلى أنه لا يوجد فرق كبير في وجهات نظر المعلمين فيما يتعلق بممارسة أبعاد PLCs ، ودور القيادة في تنفيذ PLCs ، والعوامل التي قد تساهم في نجاح أو تعيق نجاح PLCs.

الكلمات المفتاحية: مجتمعات التعلم المهني، القيادة، السعودية، مدارس تطوير.

1. Introduction:

Since the beginning of the 21st century, education systems in most Arabic countries have encountered significant challenges in providing services that equip learners with the skills and competencies needed to overcome current and expected difficulties in a global society (Esther et al., 2018). At the same time, Arabic countries have faced continuing calls for comprehensive educational reforms with the intention to improve students' learning (Al-Mahdy & Sywelem, 2016). Changes applied to curriculum, educational goals, teaching, and evaluation methods must strive to meet the needs of all students (Hord & Little, 2010). Great attention should be paid in teacher training to improve students' learning, as it is the primary goal of education (Al-Mahdy & Sywelem, 2016). It is the responsibility of teachers to educate students and equip them with collaboration, critical thinking, and problem-solving skills (Esther et al., 2018). One of the key pillars to help educators enhance students' achievement is the selection of a useful professional development model (Esther et al., 2018). Teachers are critical in education and therefore should be the center of any educational improvement effort.

If policymakers want to have better schools that produce high-quality students, they should focus their attention on how to create more effective teachers (Rebore, 2014). Professional development can utilize different designs under many different conditions.

One of the most supportive types of professional development is known as a professional learning community (PLC) (Vescio et al., 2008). The concept of PLCs emerged in the late 20th century when Rosenholtz (1989) emphasized the benefits of PLCs to improve students' achievement and change teachers' in-classroom practices (Hargreaves, 2019). PLCs are defined as “a professional community of learners, during which the teachers and its administrators continuously seek and share learning, and act on their learning” (Hord, 1997, p. 1). According to Hord, the goal of PLCs is to enhance and develop teachers' abilities and skillsets to best support and improve students' achievement. PLCs mean that schools become educational environments for the faculty by providing learning for the teachers and principals. PLCs include efforts to change the culture and the structure of schools to host professional development programs for the entire staff. Teacher collaboration approaches can address teachers' isolation (Hargreaves, 2019), which is endemic in Saudi Arabia (Alyami, 2014).

Today, PLCs are considered a best practice for unifying teachers within school organizations toward common goals and collaborative efforts to improve students' learning, which increases the possibility of positive academic outcomes for students (Hargreaves, 2019). PLCs are the most powerful professional development and change strategy available because they lead to reliable growth in students' learning and a boost in teachers' professional performance (Hoffman & Hipp, 2003). There is a significant correlation between student growth and school environments where positive teacher collaborations flourished (Pil & Leana, 2009). In these schools, the teachers had high trust and frequent interaction with fellow teachers and students' achievement improved. Educational reform officials in Saudi Arabia have recognized the reported benefits of PLCs; for that reason, the Saudi Ministry of Education has worked to implement the PLC model in some selected schools throughout all the regions of the Kingdom of Saudi Arabia. These schools are called Tatweer schools, which will be discussed in some details in the next section.

1.1. Problem Statement and Significance:

Many researchers have affirmed that PLCs represent the true hope for reforming schools and improving educational productivity and it is a low-cost reform compared to other reformative methods (Cranston, 2009; Hargreaves, 2019; Harris & Jones, 2010; Reichstetter, 2006; Sergiovanni, 1994a). Building strong PLCs focused on improving teaching, curriculum, and assessment will lead to an increase in teachers' collaboration, more use of effective educational practices in the classroom, and therefore,

Improved students' achievement (Hargreaves, 2019; Harris & Jones, 2010; Mullen & Hutinger, 2008; Vescio et al., 2008).

By presenting the above in the background and examining data from Tatweer schools in Saudi Arabia, it is apparent that they have made strides in the application of PLC for a period of nearly six years. The final report of the Tabuk Educational District 2019 showed that an improvement in students' academic achievement of elementary students in the schools that have implemented PLCs (Saudi Ministry of Education, 2019). During that time, Tatweer schools have implemented many PLC initiatives, courses, and programs that have had an impact on professionally developing teacher skills and increasing achievement in students' outcomes (Alyami, 2014).

Despite the Saudi Ministry of Education's adoption and application of PLCs in the Tatweer schools, most other schools in the country still do not support the practice of PLCs (Saudi Ministry of Education, 2019). Teachers in schools without PLCs still use traditional practices of teaching, which depends on disseminating information through memorization and instruction without students participating in activities such as analysis and critical thinking (Meemar, 2014). Also, in schools that do not implement PLCs, the cooperative culture is absent and teachers are still planning separately, finding it difficult to meet the different needs of their diverse learners (Meemar, 2014). This might be due to the lack of time for joint planning or weak school leadership support, which therefore impacts students' achievement. Alyami's (2014) study on the educational reform in Saudi Arabia confirmed that Tatweer Schools are considered innovative in terms of embedded theories concerned with professional learning community, self-planning and evaluation, and professional development. Alyami clarified that Tatweer Schools use the latest modern teaching methods to achieve a partnership between the teachers and the learners. Tatweer schools are supported by modern educational technologies under a tight system of continuous evaluation to prepare a generation capable of developing itself and qualified to participate in the global civilization.

This quantitative study examined Tatweer teachers' perceptions about practicing the six dimensions of PLCs in their schools, including shared and supportive leadership, collective learning and application, shared personal practice, supportive conditions relationships, and supportive conditions (Olivier et al., 2010). By conducting this study, I will be able to provide a summary of the PLC experience of Saudi teachers in Tatweer schools and share teachers' perceptions of the strengths and weaknesses in the implementation of PLCs in the Tatweer schools,

which could benefit teachers throughout Saudi Schools.

What distinguishes this study from other studies in Saudi Arabia is that it will be the first in the Kingdom of Saudi Arabia to explore and understand the perceptions of teachers in schools that have applied a PLC, especially in the Arabic context. This study will obtain results and data on the extent of the implementation of PLCs, the role of PLC leadership, and the most prominent factors that result in the hinder and success to implement a PLC in Tatweer schools. The present study will also provide findings and suggestions that intend to support and help popularize the practice of PLCs in other schools where they are not currently applied.

The importance of this study lies in assisting educational reform facilitators in Saudi Arabia to transform other public schools from traditional systems that focus on teacher-centered teaching methods, such as memorization, to student-centered, teacher-cooperative systems. In addition, it seeks to inspire more researchers to focus on the issue of PLCs in Saudi Arabia and generate more knowledge with regard to the impact of PLCs on teachers' practice and students' achievement. Finally, this study expects to provide valuable results and suggestions to improve the current PLCs in Tatweer schools.

1.2. Hypotheses:

Q1. How do the perceptions of Saudi Arabian Tatweer teachers regarding the practice of Professional Learning Communities (PLCs) differ based on the teachers' gender, number of years teaching, and school district?

H01a. There are no statistically significant differences regarding the perceptions of Tatweer elementary teachers and professional learning communities based on gender. H01b. There are no statistically significant differences regarding the perceptions of Tatweer teachers and professional learning communities based on years teaching.

H01c. There are no statistically significant differences regarding the perceptions of Tatweer elementary teachers and professional learning communities based on district.

Q2. How do the perceptions of Saudi Arabian Tatweer teachers regarding the role of leadership to implement PLCs differ based on teachers' gender, number of years teaching, and school district?

H02a. There are no statistically significant differences regarding the perceptions of Tatweer elementary teachers and the role of leadership to implement PLCs based on teachers' gender.

H02b. There are no statistically significant differences regarding the perceptions of Tatweer elementary teachers and the role of leadership to implement PLCs based on the number of years teaching.

H02c. There are no statistically significant differences regarding the perceptions of Tatweer elementary teachers and the role of leadership to implement PLCs.

H03a. There are no statistically significant differences regarding the perceptions of Tatweer elementary teachers about the factors that contribute to, or hinder, the success of PLCs implementation based on teachers' gender.

H03b. There are no statistically significant differences regarding the perceptions of Tatweer elementary teachers about the factors that contribute to, or hinder, the success of PLCs implementation based on number of years teaching.

H03c. There are no statistically significant differences regarding the perceptions of Tatweer elementary teachers about the factors that contribute to, or hinder, the success of PLCs implementation based on school district.

1.3. Purpose of the Study:

The primary purpose of this study is to explore the perceptions of Tatweer teachers in Saudi Arabia about PLCs in their schools and to understand how these perceptions impact teachers' professional growth and classroom instruction. Additionally, the purpose is to gain a better understanding of what factors may contribute to the success or failure of PLCs in schools and to propose various solutions that will support teachers' use of PLCs. This study will also provide an in-depth examination of which factors within PLCs could shape teachers' pedagogical practices and influence their classroom practices so that administrators in the Ministry of Education in Saudi Arabia may have a better understanding of how administrative decisions may impact teachers regarding the implementation of PLCs. The purpose of the study includes understanding teachers' perceptions about the role of leadership in establishing the conditions necessary for implementing dimensions of PLCs. Finally, I aim to add to the body of research about the effects of PLCs, and to inform the officials in my region of the feasibility and significance of using PLCs.

1.4. Definition of Terms:

It is important to note the operational definitions of the key terms as they will be used in this study.

Learning community. This is a group of people who share a common belief that learning is the main reason for their involvement with each other and hence, strive to successfully fulfill it in the work environment (Haberman, 2004, para. 4).

Perceptions. Perception refers to the use of the human senses to understand how other people or other things are constituted (The Sage Glossary of the Social and Behavioral Sciences, 2009).

Professional. A professional is an individual with a specialized level of expertise in a given field, and one who works hard to broaden their knowledge in the field extensively (DuFour et al. 2008).

Professional Learning Community (PLC): PLCs are professionals working in the academic environment who work together in closely knit groups to share knowledge and come up with structures that are aimed at helping the learners and themselves to develop. Their main mandate is to improve learners' outcomes (DuFour et al., 2008).

2. Literature Review:

2.1. Introduction to the Chapter:

The literature review for this study included a variety of sources to achieve saturation on the topic of PLCs by accessing several online databases and websites, including Google Scholar, ProQuest, ERIC, EBSCOhost, JSTOR, Academic Search Premier, SAGE Journals Online, Google Books, and Dissertation Abstracts. There is a vast amount of literature regarding PLCs with a Google Scholar search of the subject alone yielding more than 50 million results.

Therefore, to include the most relevant review of literature, I have selected representative pieces of literature from the 2000s through the early 2019s. This timeframe best illustrates the shift in focus that literature on PLCs has demonstrated during this era.

Chapter two starts with a discussion of the historical background of the problem. Then, I move on to the theoretical framework for this study on PLCs which includes two theories: Bandura's social learning theory and Wenger's social learning theory. This is followed by the conceptual framework, which comprises six areas: professional development, the professional learning community, the role of the principal in PLCs, classroom practice and students' achievement, dimensions of the PLC (Olivier et al., 2010), and finally, study variables: gender, years of teaching and school district.

2.2. Historical Background of the Problem

With the call for educational reform that began in the mid-1980s, the National Commission on Excellence in Education (NCEE) published *A Nation at Risk* in 1983. The publication condemned schools for their failure to adequately teach America's youth, which ignited several innovative ideas to change educational practice at that time (Archer, 2012). Then, additional school reform came in 2001 with the adoption of No Child Left Behind act (NCLB). This mandate stated that the needs of every child must be met through public education and resulted in increased accountability of public schools in USA; research on teacher quality began in earnest and studies emerged on how to improve teaching practices. Additional research on effective professional development became important; for example, as stated by Smith and O'Day (1990), Professional development (PD) is an important mechanism for deepening teachers' content knowledge and developing their teaching practices. As a result, professional development might be a cornerstone of systemic reform efforts designed to extend teachers' capacity to show to high standards. (p. 249)

Through PD, career-minded teachers can constantly improve their skills, become more proficient at their jobs, and expand their knowledge base in different subject areas. PD helps teachers discover new teaching strategies to be able to make changes to their lecture styles and curricula to better suit the needs of their students. However, even with PD identified in research as key to educational reform, traditional efforts proved to be unsuccessful. According to Morrissey (2000), The narrow, piecemeal attempts made in the past to improve schools lacked the fundamental supportive cultures and conditions necessary for achieving significant gains in teaching and learning and teachers continued to work in isolation and had little support in their efforts to meet the needs of struggling students. (p. 3)

There are a number of PD programs available for educators, but not all of them are effective or worth the investment. For example, PD sessions may occur only once during a school year. Thus, PD will result in improving instruction. Such once-a-year efforts lack the opportunity to share knowledge and effective teaching practices among teachers. A recent report found that 90% of U.S. teachers have participated in PD, but the majority of those teachers believe that current PD programs are not useful or effective to improve instruction in the classroom (Darling-Hammond et al., 2014).

Barth (1991) faulted the teachers and administrators for not being eager to change the broken system of isolationism within schools. Barth challenged the teachers and administrators to emerge from the isolated classroom atmosphere and start working together for the benefit of the pupils. Under this current PD approach, teachers working in isolation cannot produce the same results as teachers who share and develop practices in groups (Schmoker, 2005).

With student results not meeting the goals of the various reform movements, professional development became a key focus of research and changes began to occur (Lieberman & Miller, 2008; Lee & Lee, 2013). Fullan (2003) stated when schools began to shift from a focus on the individual autonomy of the classroom and the isolation of the school toward a focus on specific instructional practices that directly affected students, they tended to be less bored, to have a higher sense of self-efficacy, and to see their schoolwork as having intrinsic value. These changes, in turn, were linked to more student engagement. This shift was recognized by Darling-Hammond (1996), who pointed out that the nation's education reform agenda requires most teachers to rethink best practices that guide interaction in their classrooms and learn about how children learn to efficiently move students forward in their learning. All these persistent calls for improving education have given rise to learning communities in schools. Senge (1990) developed this concept and described the learning organization as a place where people expand their capacity to learn what they desire and begin to make sense of challenging situations to then develop solutions for resolving them. That is, in a learning organization, a shared vision among its members guides them to continually learn together. Education practitioners and researchers began to create a collection of literature on the topic of the learning community (Hord, 1997b; Senge et al., 2000). DuFour et al. (2008) stated that during the early 2000s researchers not only continued to enhance the research done by other experts within the field, but also caused a quick increase in the number of schools implementing PLCs as a way to improve. Education experts saw first-hand the advantages a PLC could have for the staff and, therefore, the students because they were involved in PLCs on a day-to-day basis. According to Marzano et al. (2005), the idea of improving schools by developing PLCs is still in vogue. The goal of the PLCs is to increase students' achievement by building the competence of school staff to establish and sustain a school culture that promotes high levels of student and adult learning (DuFour et al., 2008). Therefore, as a result of school reform and legislation demanding increased accountability,

Many school systems have turned to implementing PLCs as an effective way to meet students' needs and as a model of professional development for teacher needs (Schmoker, 2005). These efforts are grounded in the work by two significant learning theories, which form the theoretical framework for this study.

3. Theoretical Framework:

The theoretical framework of this study includes two main theories, Lave and Wenger's (1991) community of practice theory and Bandura's social learning theory (1977), which explain how learning through participation and observational learning takes place between individuals involved in specialized learning communities. Bandura's (1978) social learning theory focuses on comprehending how people learn in a social environment, such as the PLC. Bandura's theory is instrumental in the formulation and implementation of workable education policies and standards (Bandura & Walters, 1977). The principles of the social learning theory have assisted educators in learning how to collaborate and jointly find solutions to problems experienced in the profession (Huffman & Jacobson, 2003).

Bandura's Social Learning Theory

Bandura's (1978) insights have been used extensively to explain how people learn in different social environments like PLCs. The theory is built on the premise that human beings are social beings and that learning is relatively hard or impossible if people depend only on their individual abilities. Social learning theory argues that people learn from one another, via observation, imitation, and modeling (Bandura & Walters, 1977). By observing the behaviors and attitudes of others around them, people learn to act in similar ways. For example, when teachers observe a math teacher instruct, other teachers will perform the same or similar instructional techniques in their classes. As most human behavior is learned through observation and the modeling among teachers encourages new behaviors. According to the social learning theory, learning is a social process that is supported by people with more or different knowledge and experience in the topic being learned (Bandura, 1978). Therefore, successful social learning happens when teachers observe or interact with peers who have more or different knowledge in a given subject (Bandura, 1978; Bandura & Walters, 1977). Such learning happens in PLC settings, where teachers collaborate to identify and address commonly shared problems. Social learning in PLCs allows teachers not only to improve their relationship with each other but also with their students.

The idea behind PLCs is that teachers will be able to better guide their students and equip them with the knowledge required to interact with practical problems because of the learning teachers have done with their colleagues (East, 2015). Without PLCs, it may be more difficult for teachers to develop this sort of heightened competency and skill needed for successful instruction of their students.

Wenger's Social Learning Theory

Wenger's (2000) social learning theory focuses on learning as an essential part of an individual's involvement in communities of practice. In order to learn, individuals have to collaborate and participate in society's everyday life (Yakhlef, 2010). According to Lieberman and Miller (2008), "Social learning and learning in community with others is known to have a significant impact on knowledge, the creation of knowledge, and knowledge of self" (p. 3).

Communities of practice within organizations develop when people are engaged in the process of collective learning. Wenger emphasized the concept of "community of practice" as a condition for learning to occur that involves the construction and transfer of knowledge. Wenger (1999) believed that learning should be a fundamental component of people's involvement in all communities of practice. According to Cuddapah and Clayton (2011), the concept of a community of practice (CoP), encourages the social learning process in PLCs, wherein a group of people share a common interest and a desire to learn from one another and contribute to the community with their variety of experiences (Lave & Wenger, 1991). CoPs allow professionals to create a community focused on learning relevant content (Lave & Wenger, 1991).

Lave and Wenger (1998) studied communities of practice among adults to identify how people in communities share knowledge, collaborate, and learn from each other (Wenger, 1999). Workers addressed new tasks through cognitive apprenticeships in which their learning is supported by knowledgeable others who instruct others through. Modeling and mentoring within actual work settings (Lave & Wenger, 1991; Wenger, & Snyder, 2000). Participants within a community of practice will actively seek out individuals with more experience and specific knowledge to guide them towards improving their instructional repertoire (Keung, 2009; Moore, 2003). Another significant aspect is the concept of reproduction of the community as new members work alongside competent others in the community of practitioners. Lave (1988) indicated that newcomers within these communities enter as beginners on the periphery and gradually move towards the center of the community as they acquire the beliefs of others.

As Cuddapah and Clayton (2011) found, people learn from one another, as described in social learning theory, and apply new knowledge and skills in their work. Teachers interact by comparing their problems and finding the best solutions, and in CoPs, social interaction, collaboration, and communication construct a foundation of knowledge and understanding by their very participation (Bozarth, 2008). PLCs have proven to be effective in improving the quality of learning through facilitating the collaboration between teachers. The collaboration allows educators to share ideas which enhances their knowledge (Lieberman & Miller, 2008). Through collaboration and participation in social relations and practice, positive contributions are made in workplace learning, which is the aim of PLCs (Lave & Wenger, 1991).

In summary, the theoretical framework supports PLCs because one of its critical components is that teachers learn through observing each other and teachers have the opportunity to construct knowledge and apply new strategies to improve schools. This study seeks to discover the teachers' perceptions about the degree that their schools function as PLC for Tatweer schools. Therefore, the literature on professional development and the role of professional learning communities in effective teacher development is extensively examined through the lens of noted authors on this theme.

4. Conceptual Framework:

Professional Development (PD)

Professional development defined as a space for acquiring new knowledge, re-crafting identities, and challenging existing cultural and social practices (Battey & Franke, 2008). The PD in PLCs is key to changing teaching practices and improving students' achievement. Unlike the traditional one-day workshop of PD training in schools that teachers and leaders believed that teachers need is ineffective way to achieve the desired results. Especially, if the topic was not chosen by the participants (Schmoker, 1999).

Darling-Hammond and Richardson (2009) reviewed 35 methodologically rigorous studies to identify elements that are prevalent in effective PD and to demonstrate a positive link between teacher PD and students' outcomes. They found positive, statistically significant effects of PD on students' achievement, and there are seven widely shared features of effective PD in the PLC: it deepens teachers' content and pedagogical skills, it is job-embedded, it provides for opportunities for practice and reflections, it is sustained over time, and it is collegial and collaborative.

Further, participation in a community of practice benefits its participants through an improvement in their work performance and an increase in the sense of professional growth.

Another possible benefit of PD within PLCs is a shift to a student-centered approach to teaching. In a quantitative study by Battey and Franke (2008), the purpose of their study was to determine if there is a relationship between PD and classroom practice. The study was conducted in an underperforming school where teacher workgroups were created so they could meet monthly for professional development. They found that PLCs participants' practices became more student-centered over time. Some teachers increased flexibility in their classroom arrangements, some varied their lesson pacing to meet the needs of learners, and others improved classroom pedagogy to use higher-order thinking strategies.

PD that is embedded in PLCs can also be considered as an alternative for in-service teacher training because the learning that takes place in the PLC is grounded in day-to-day teaching practice and is designed to enhance teachers' content-specific instructional practices with the intent of improving students' learning (Hirsh, 2011; McLaughlin, 2001). Compared with the traditional PD, where teachers sit in a room and listen to an external expert without much interaction to learn skills or strategies by actively trying them out, in PLCs, teachers learn during the school day, and participating teachers feel that the PLC helps them become more motivated through experience and knowledge sharing (Hirsh, 2011; McLaughlin, 2001). Indeed, Phusavata et al. (2017) aimed to examine the issues relating to workplace learning at the upper secondary school level and discovered that PLCs are a potential alternative for in-service teacher training.

Professional Learning Community

A search of the literature on PLCs reveals a broad range of publications from guidelines for organizing PLCs, to research on their implementation and the results of implementation PLC, etc. In this review of the literature, many common themes appeared. The most prominent was the multiple roles of the principal to ensure success PLC followed by the role of PLCs to enhance classroom practices and students' achievement, and finally, studies on how PLCs promotes long-term Professional Development (PD). The literature offers a varied array of how PLCs are defined and structured and may have been too broadly defined by numerous authors. Darling- Hammond et al. (2009), however, stated that PD that is embedded in PLCs and is implemented and supported effectively it has the potential to contribute to the development of all teachers within a team or school by generating conversations among teachers about

concrete acts of teaching and students' learning. DuFour et al. (2008) argued that the PLC concept has been diluted:

The term has become so commonplace in these days, and people use the term to describe every group's combination of individuals with interest in education such as a grade-level teaching team, a secondary school department, an entire school district, a state department of education, a national professional organization, thus. Indeed, the term has been used present everywhere that it is in peril of losing all meaning. (p. 6)

Notwithstanding DuFour et al.'s position, there is no single definition in the literature about PLC (Stoll et al., 2006), which could be explained by the following three reasons. First, there are different theoretical perspectives to understand the concept of PLCs, such as the learning organization (Hord, 1997b), the community of practice (Horn & Little 2010; Wenger, 1998), or the reflective practitioner (Lieberman & Miller, 2008; Schon, 1983). Second, PLCs can take different forms in practice (e.g., study groups; Hord, 1997b), action research (Lieberman & Miller, 2008), lesson study (Fernandez, 2002), and online communities (Blitz, 2013); also, PLCs can be implemented at both the subject department level and the school level (Little 2002).

Third, the concept and practice of PLCs are influenced mainly by the specific institutional, social, and cultural contexts in which they are practiced (Stoll et al., 2006; Wenger, 1998). Therefore, these various theoretical perspectives with which PLCs are understood contribute to the lack of one clear definition.

Despite this critique, there are some internationally accepted commonalities across the literature (Stoll et al., 2006). PLCs are commonly defined as an ongoing process through which teachers and administrators commit to working collaboratively on collective inquiry and action research with a common vision and goals. This work is conducted to achieve better results for the students they serve, building knowledge through inquiry, analyses, and the use of data for reflection and improvement of practice (DuFour et al., 2004, 2005, 2008; Hord, 1997b; Reichstetter, 2006; Stoll et al., 2006). As PLCs evolved as a strategy for professional development on a large scale in schools, the educational literature has devoted considerable attention to the topic of professional learning communities (PLCs) and the roles of its leadership.

The Role of Principals in PLCs

Leadership has a significant impact on the success of PLCs within schools (DuFour, DuFour & Eaker, 2008).

The literature associated with principal leadership and the development of PLCs indicated that even though teachers and other school employees play a vital role in the creation of a learning community, the school principal is the linchpin. The school principal, along with teachers, has demonstrably more influence than leadership from other sources (Leithwood, 2005). Principals can either help or hinder their schools in achieving higher levels of productivity and success (Hoy, 2000). Bolman et al. (2005), Elmore (2000), and Louis and Kruse (1996) indicated that leaders who lead from the center of the organization, are supportive of teachers, promote a positive and collaborative school culture, and encourage the staff to engage in inquiry have the best chance of developing and sustaining learning communities.

Furthermore, Mullen and Hutinger (2008) found that leadership is an essential resource for PLCs, both in terms of principal commitment and shared leadership. They found that the PLCs leaders are providing moral support for teachers by taking their opinion into account when making decisions and promoting an atmosphere of caring and trust among teachers. PLCs' leaders encouraged teachers' autonomy for making decisions and they worked toward whole staff consensus in establishing school vision and goals, giving a sense of overall purpose.

The Role of the Principal in Creating the Vision and Values

Vision building or giving a focus to the work of the school is a leadership skill that effective principals have mastered (Mullen & Hutinger, 2008). Kurland et al. (2010) conducted a quantitative study in 104 elementary schools in northern Israel in which 1,474 teachers participated. The study aimed to explore the influence of principals' leadership style on school organizational learning, using school vision as a mediator. The data were analyzed by using mediating regression analysis. The results were that the school vision was a significant predictor of school organizational learning and functioned as a partial mediator only between principals' leadership style and school organizational learning.

To clarify, school vision, as shaped by the principal and the staff, is a powerful motivator of the process of organizational learning in school. Bolam et al. (2005) described the principal's tasks as creating a shared mission, vision, and goals and developing the leadership capacity of those in the school. An idea may originate within teachers or any staff members, but the principal has the responsibility to facilitate, communicate, and provide the opportunity for growth. A clear vision fosters a collective sense of purpose and acceptance of group goals (Harris & Jones, 2010; Leithwood, 1992).

The Role of the Principal in Improving Students' Achievement

The responsibility of the school principal is to improve students' achievement. The principals promote a positive learning climate and develop a shared understanding of the organization and its goals and activities among their staff members, moreover, they provide guidance that improves teachers' classroom practices. DuFour (2004a) stated that the school principal inspires teachers to become leaders in developing a school-wide initiative designed to improve students' achievement. They challenge teachers to provide evidence for the improvement of learning and achievement.

Leadership largely affects students' learning because leadership promotes the professional community; teachers' participation in the professional community, in turn, fosters the use of instructional practices that are correlated with students' achievement (Mullen & Hutingner, 2008). Mullen and Hutingner analyzed research on the principal's role in facilitating and maintaining the study group as a strategy of embedded professional development. Questions asked in the study included: What are the approaches that principals use to facilitate study group processes that, in turn, foster teacher learning and students' achievement? What are the ways in which principals might best support the integration of school-wide faculty teams and school-university partnerships?

The authors offered conceptualization and illustrations of the principals' role in supporting professional learning in their faculties and the principal leadership is correlated with students' achievement and there are especially strong links between specific principal behaviors and students' learning. One such behavior was the extent to which the principal is aware of the details and problems in the leadership of the school and uses this information to address current and potential problems (Mullen & Hutingner, 2008).

The importance of the role of the principal in supporting students' achievement has been studied broadly. In a quantitative study by Leithwood and Mascall (2008) to examine teachers' perceptions, the study involved 96 schools across forty-five school districts to examine which variables within the context of a school setting influenced students' achievement. The findings of teachers' perceptions indicated that categorically collective leadership practices consistently explained a significant proportion of variation in students' achievement. Furthermore, Pyo (2013) aimed to examine the instructional leadership (IL) of high school principals and its impact on students' achievement, particularly in mathematics. This study sought to determine the: (1) self-perceived IL behaviors of high school principals; (2) IL strategies that influenced positive outcomes of academic achievement;

And (3) the relationship between the IL behaviors of principals and student mathematics achievement. To collect quantitative data, the researcher used the Principal Instructional Management Rating Scale (PIMRS) survey with 26 principals, and qualitative data were collected from three principals through an interview. A positive correlation was found between principals' IL and student performance in secondary mathematics.

The Role of the Principal in Staff Development

Providing opportunities for effective professional development is one manner for school leaders to begin to build PLCs (DuFour, 2004a). DuFour explained how school leaders could increase the likelihood that site-based staff development will enhance the school's capacity to improve students' learning. School leaders can provide needed training, informal conversations, class discussions with practicing teachers, and giving time in the daily schedule to facilitate effective PLCs (DuFour, 2004a).

Graham (2007) conducted a case study to investigate the relationship between professional learning community (PLC) activities and teacher improvement in a first-year middle school. Teacher interviews, a review of school documents, and a professional development survey were used to collect the data from core 6-8 grade teachers. The findings showed that all activities of PLCs that comprised same-subject, and same grade teacher teams had achieved significant improvements in teaching effectiveness. One of the most prominent factors that helped the effectiveness of teaching is supportive leadership. Supportive leadership provided the teachers the opportunities for professional development that helped them to increase their efficacy.

Leadership also supports teacher skills and encourages teachers to collaborate with co-workers to share knowledge and teaching practices. Ross and Gray (2006) conducted a study focused on principals and teachers to determine the impact the supportive leadership on teacher. Over 3,000 teachers and 200 schools participated. The findings revealed that supportive leadership impacted teacher efficacy. The leadership supported the employee by empowering and training to have sufficient skills to handle the tasks also the leadership enhanced teamwork among the members. The principal provided constructive feedback on their application of skill acquisition. In turn, collective efficacy was found to be a partial mediator of teacher commitment to school mission and to the school as a PLC (Ross & Gray, 2006).

The Role of Principals in Creating a Collaborative Culture and Shared Leadership

According to Fullan (2003), it is the responsibility of the principal to change the school's culture to a collaborative culture amongst teachers and administrators by providing support and encouragement for teachers. Stoll et al. (2006) examined the literature to understand professional communities and offer practical guidance on how effective PLCs might be created, developed and sustained in different school settings. They found that the nature and quality of leadership have a significant influence on the life of the school culture; moreover, without strong principal support, regardless of the leadership style, PLCs will not sustain within a school. Fullan (2001) suggested that for lasting change in the learning cultures of schools, principals must embody five essential characteristics: moral purpose, relationship building skills, knowledge creation, and sharing, understand the change process, and coherence making.

When school leaders create a collaborative school culture that allows teachers to participate in the decision-making process in PLCs, students' achievements improve (DuFour, 2004). Hord and Sommers (2008) stated that "One of the defining characteristics of PLCs is that power, authority, and decision making are shared and encouraged" (p. 10). These claims are supported in a study (Leithwood & Mascall, 2008) involving 90 elementary and secondary schools across 45 districts in nine states. Leithwood and Mascall found that shared leadership explained a significant proportion of variation in students' achievement. The differences were most significant in relation to the leadership exercised by school teams. Where teachers do create high-performance expectations, provide support and consideration to one another and build collaborative cultures.

In a similar longitudinal study, Printy (2008) found shared leadership efforts within content departments had a significantly statistically higher influence on students' achievement than subject matter interventions alone.

A major variable in fostering shared leadership is dependent on the principal's willingness and desire to decentralize his or her authority (Hord, 2004; Hord & Sommers, 2008). DeMatthews (2014) conducted a qualitative multi-case study in six elementary schools in west Texas that looked at shared decision-making. In this study, principals and teachers were observed and interviewed for one academic school year to see how leadership was distributed amongst the teachers and how they collaborated and worked together to facilitate quality PLCs. DeMatthews observed ten PLC meetings in each of six different schools, totaling 60 observed PLCs.

DeMatthews discovered that all the principals in the study believed that it was very beneficial for a PLC to consist of open-minded teachers who are ready for discussion, as well as teachers who are leaders in their schools. Most of the principals recognized that the best approach of leadership was to support the teachers during working time. The principals worked with teachers to perform work tasks rather than delegating authority which is the teacher holds all responsibility (DeMatthews, 2014).

Principals have possessed a critical role in the development and sustainability of teacher leadership, forging the conditions that give rise to the growth of communities of practice (Rosenholtz, 1989). That requires empowering the teachers to make or take part in decision making for the school and providing autonomy in the classroom (Angelle, 2007). Jackson and Temperley (2007) found that where teachers felt encouraged by their principals, they supported one another's practice in PLCs. They felt more self-confident in themselves, developed a vigorous sense of self-efficacy; also, they believed in their capacity to influence students' learning and achievement. As a result, teachers were more committed to their collaborative work to meet students learning needs.

Moreover, in schools with effective PLCs, principals promote relationships and fellowship between teachers. Sergiovanni (1991) defined collegiality as the responsibility given to teachers to become an integral part of the management and leadership processes of the school that is guided by a shared vision.

Wahlstrom and Louis (2008) conducted a case study of two schools, focusing on collegiality and the role of the principal in promoting collegiality and collaborative relationships between teachers. In one group of teachers, a climate of openness and trust caused teachers to feel stimulated by their colleagues. The study found the leader's role must be one of support and inspiration, as the leader invests in people.

The successful PLC depends on collaborative problem solving and decision making while the collaborative leader invests time to build relationships, handles conflicts in a constructive manner, and shares control (DuFour et al., 2008). Huffman and Jacobson (2003) conducted a quantitative study used questionnaires with 83 educators who are studying educational administration to identify the core components of the learning community within their schools and to realize the relationship between core components of the learning community and the leadership style of their principals. The results were analyzed by using descriptive statistics and a one-way analysis of variance.

The study showed significant findings: the leaders who exhibit characteristics of collaborative leadership style have more meaningful opportunities for success in developing a PLC. However, this study was conducted in a limited geographic region, and therefore the findings may not be generalized to other populations.

Classroom Practice and Students' achievement

One of the core objectives of PLCs is the expansion of teachers' pedagogy and the enhancement of students' achievement (Vescio et al., 2008). Many researchers have detected that there is a connection between PLCs and students' achievement and improvement in test scores and other measures of students' performance (Berry et al., 2005; Louis & Marks, 1996; Phillips, 2003; Strahan, 2003; Supovitz, 2002; Supovitz & Christman, 2003). Antinluoma et al. (2018) conducted a quantitative study in Finland that aimed to explore the perceptions of comprehensive school principals and teachers concerning the main common organizational and operational strengths and challenges of the participating schools as PLCs. 227 teachers and 8 principals who participated from 13 schools completed the questionnaire. Antinluoma et al. found that PLCs encourage teachers to make data-driven decisions, that there must be trust and collaboration to share instructional practices, and that doing both improves students' outcomes.

An organizational restructuring that fosters social groupings of teachers without providing them with strategies and supports to engage in instructional improvement will likely produce communities, but these communities are unlikely to emerge as communities of instructional practice. Supovitz and Christman (2003) aimed to evaluate two major district reform initiatives—one in Philadelphia, Pennsylvania and the other in Cincinnati, Ohio—that were designed to foster the development of instructional focused communities. In both cities, communities focused on changing the instructional practices of their members. They found a relationship between group instructional practices and gains in students' learning. Learning communities may not serve to support improvements in students' achievement on their own, as Supovitz and Christman discovered. Therefore, for students' learning to occur, there needs to be clear, thoughtful focus on teaching practices that will positively influence students' achievement.

Communities of instructional practice are specific types of communities that are focused on a particular goal: improving the learning of students through a structured investigation into teaching and its connection to the learning of students.

To support these particular kinds of communities, Supovitz and Christman (2003) found that school and district leaders must provide communities with specific structures, strategies, and supports. Structures that facilitate community engagement in instructional practice include sufficient and protected time to meet and organization that capitalizes on both the horizontal and vertical nature of schooling.

Strategies include both ways for communities to constructively interact together and content-specific techniques for exploring student performance and its link to instruction (Supovitz & Christman, 2003).

It is important to note that increases in student performance are more likely to occur when well-implemented communities provide essential and necessary conditions for teachers to engage in instructional practices that improve students' learning (Supovitz & Christman, 2003). Admiraal et al. conducted a mixed-method study to explore how the professional community affects instructional quality and the relative effects of instructional quality on students' achievement. The findings strongly supported the conceptual model of a professional community, which is the organization of teachers' work in ways that enhance the professional community has significant impacts on the organization of classrooms for learning and the academic achievement of students (Louis & Marks, 1998).

Not all PLCs are effective and bear fruit. The degree of implementation PLC may differ from school to school, some schools claim that they implement PLC, but implementation is very weak and not feasible. Effective implementation of a PLC is reflected on the students' achievement. East (2015) investigated how different levels of PLCs implementation could improve students' learning in low performing schools in West Virginia. The population of the study were teachers, administrators, and school improvement specialists who used a mixed-methods design (East, 2015). East confirmed that there was a strong correlation between the level of PLCs implementation and that of classroom practices. For example, the participants asked to rate their levels of PLC implementation and effectiveness on 21 indicator items. The most prominent were shared decisions and responsibilities, shared responsibility for mission, meaningful collaboration experiment with new methods, sharing methods of remediation, and setting benchmarks for student progress. The relationships between levels of implementation and levels of effectiveness for all categories were statistically significant. With PLCs, it is possible to eliminate some traditional and less constructive elements of teaching while ushering in new ideas and concepts that better meet the needs of learners, which is often a challenge in most schools.

Ratts et al. (2010) affirmed that PLCs alter classroom practices because educators can collaborate to review their students' work. By working together, the teachers can discuss student-oriented educational matters and come up with better pedagogical approaches. Harrie and Jones (2010) aimed to explore the extent to which teacher training in PLC principles, the actual practice of PLC principles, and students' achievement were related in a pilot project for reforming the education system in Wales. The project introduced new professional practices for teachers meant to improve learning. Harrie and Jones examined elementary teachers' descriptions of their PLCs to determine if the practice of the principles of PLC had an effect on students' academic performance. A survey was utilized to collect data regarding 194 teachers' perceptions of the existence of four dimensions of PLCs within their schools; four years of CRCT data were examined to measure students' achievement, and descriptive and inferential statistics were used to look for possible relationships between the factors. The findings indicated that with PLCs, teachers interacted with each other, learned more effective teaching approaches and let go of some of the traditional educational beliefs. Moreover, classroom practices have been introduced to ensure that students acquire 21st-century skills where students advised to be creative and analytical rather than trying to memorize what they taught (Harris & Jones, 2010).

However, Harris and Jones (2010) and Supovitz (2002) reported that to secure better students' learning outcomes within and outside the classrooms, the collaborative element must develop among teachers. They shared some examples of teacher networks that failed to improve learning and teaching because its systems were devoid of any real focus on improving learners' outcomes. Improvement through professional learning communities is only possible if teachers collaborate and focus on improving learning and teaching (Harris & Jones, 2010).

Despite the positive outcomes reported by review studies that PLC can increase students' achievement, there remains a gap in knowledge regarding the teachers, how teachers perceive their skill levels for implementing a PLC, and how they increase students' achievement. PLCs can increase teachers' capacity to serve students, but success depends on what the teachers do in their collective efforts and the values that they espoused. McLaughlin (2001) stated that professional communities, in and of themselves, are not necessarily a good thing. Values and beliefs shared by a group of teachers can be misplaced and may not support appropriate efforts to respond to the needs of students.

Dimensions of the PLC

Both Olivier et al. (2010) and Hord (1997b) agreed that PLCs have certain dimensions such as shared and supportive leadership; shared vision and values focused on students' learning; collective and collaborative learning and application; supportive structural and interpersonal conditions; and shared practice. Using these dimensions, Olivier et al. (2010) developed the Professional Learning Communities Assessment (PLCA) to assess teachers' perceptions of practices in their schools related to six dimensions they identified as key to the professional learning community.

Shared and Supportive Leadership

Shared and supportive leadership is that authority and decision-making are shared where school leaders empower teachers to participate in the school's decision-making process (Reichstetter, 2006) and provide professional support for teachers' collaborative learning (Cranston, 2009). Within PLCs, the traditional role of the omnipotent principle has been replaced by a shared leadership structure (Reichstetter, 2006). In such a model, administrators, along with teachers, question, investigate, and seek solutions for school improvement. Also, supportive leadership encourages effective teams for problem-solving and provides emotional support and a commitment to quality education (Lezotte, 2005). Campus administrators provide the necessary organizational and structural supports and they display a willingness to participate in collective dialogue without dominating, and they share the responsibilities of decision making with the staff. This leadership provided by individuals within the school is critical in guiding and supporting the successful implementation of new policies and practices (Hord, 1995). This leads to staff grow professionally and they learn to work together to reach shared goals also they gain a greater sense of responsibility for the school's goals when the principal supports their initiatives and practices shared or distributed leadership (Lezotte, 2005). For instance, when teachers are involved in selecting the curriculum or something as simple as a strategy, the teachers will work harder at the implementation of the curriculum or strategy. Furthermore, educators will take responsibility in the process and hold themselves and others account Table.

Shared Values and Vision

One of the essential PLCs dimensions is shared values and vision (Fulton & Britton, 2011). A school's vision statement outlines what the organization aspires to become and is a shared a commitment by the members of an organization to the fundamental goals of the organization (Reichstetter, 2006).

The successful PLC is only possible by having a common purpose towards a common goal through a shared vision (Hord & Sommers, 2008; Phillips, 2003; Senge, 1990). A core element of PLCs vision is a clear focus on students' learning. The shared values and vision among school members guide decisions about teaching and students' learning (Hord, 1997b) and support norms of behavior (Morrissey, 2000), with teachers' sincere commitment and willingness to accept feedback on their practice (Fulton & Britton, 2011; Jaquith, 2013; McLaughlin & Talbert, 2002). Administrators must have the capacity to develop and unite the stakeholders under a shared vision (Hipp & Huffman, 2003). Also, the values embedded in the day-to-day actions of the school staff create a learning community, the norms of a self-aware, self-critical, and increasingly capable professional organization, Utilizing the commitment of its members to seek ongoing renewal and improvement.

Collective Learning and Application

Learning organizations are sites where people continually expand their capacity to create the results they wish, where new and ample patterns of thinking are nurtured, collective aspiration is set free, and where people are continually learning how they learn together (Senge, 1990). Hord (1995) identified team learning as:

The process of aligning and developing the capacity of a team to create the outcomes its members desire, it builds on the discipline of developing a shared vision and also builds on personal mastery, for talented teams, are made up of talented individuals. (p. 218)

PLCs are an organizational model for teacher that engages school staff at all levels in processes that collectively seek new knowledge and ways of applying that knowledge to their work through deep conversations about content and professional knowledge (Caskey & Carpenter, 2012).

PLCs are collective learning groups made up of a small number of individuals, within structured, job-embedded professional communities that unite to increase their capacities to enable students to reach higher levels of performance. In collective learning, practitioners extend their knowledge by converting tacit knowledge into shared knowledge through interaction and understanding of what they taught. In an interview conducted by Graham (2007) about the collective learning in PLCs, teachers stated that they had ten times more growth than the previous year which were in their professional performance and their application for effective educational practices with students of low achievement. One teacher mentioned that she was able to see her teaching now through ten other eyes, by making use of other teachers' experiences about the best practices that help students to learn.

The teacher realized the more the PLC acted as a group, the more they could learn from one another.

This kind of collective learning is more profound and more productive because it is in a social setting, where the participants interact, check their ideas and their information, and challenge their inferences and interpretations, and process new information with each other (Hord, 2004). When one learns alone, the individual is the sole source of ideas; however, when new ideas are processed in interaction with others, various sources of knowledge and expertise grow and concepts are tested as part of the learning experiment (Hord, 2004). Team learning has three critical dimensions (Senge, 1990).

First, teams must learn to approach complex problems by analyzing them together and using their collective knowledge to ponder the issue from different perspectives. Second, the teams need to be ready to act in coordinated and innovative ways. Third, there must be interaction between teams to exchange information and engage in exploratory dialogue and have more teamwork.

Shared Personal Practice Shared personal practice is considered a critical dimension of a PLCs because it provides colleagues with opportunities to obtain support, feedback, and constructive criticism from their peers in a risk-free environment (Hord, 1995). Shared personal practice in PLCs makes teachers work collaboratively, developing more robust instructional strategies and, as a result, enhance students' achievement (Jackson & Temperley, 2007; Phillips, 2003; Hefner, 2011). In this regard, PLCs have the potential to spread and promote the use of best practices from teacher to teacher (Hirsh, 2011). Sharing personal practice requires a complete paradigm shift from traditional schools to cooperative schools where teachers exchange effective educational practices. Traditional schools are that a teacher moderates and regulates the flow of information and knowledge also the teacher uses standardized tests at regular intervals to test students' comprehension (Morrissey, 2000).

Traditional schools have not fully realized the benefits of expert teachers and to capitalize on them; because teachers traditionally work behind closed classroom doors, their individual knowledge and instructional strategies are observed only by their students. In PLCs, successful teachers in certain areas can serve as specialists and, through peer coaching, can help fellow teachers improve their practice (Kruse & Louis, 1996). This dimension includes classroom observations, where teachers observe other teachers in action and also debate and discuss observations (Hord, 1997b). According to Morrow (2010), "professional growth for teachers is a direct result of shared personal practice because of the continuous sharing of knowledge that occurs between colleagues" (p. 40). By sharing teachers their practices, improvement is sustained, interactions between teachers are strengthened,

Dialogue about professional practice is stimulated, and teachers are helped in building on each other's expertise (Louis et al., 1996; Phillips, 2003; The Centre for Comprehensive School Reform and Improvement, 2009a).

Darling-Hammond (1996) cited research reporting that teachers who spend more time collectively studying teaching practices are more effective overall at developing higher-order thinking skills and meeting the needs of diverse learners. Thus, PLC meetings become forums for individual teacher knowledge and experience to become public knowledge and to help generate new knowledge (McLaughlin & Talbert, 2002). Finally, by sharing teaching practices, teachers can address student needs and discover solutions to their professional challenges (Hord, 1997b). Hirsh (2011) stated that teachers working in groups and sharing practices are more likely to confirm that all students are getting the top education and learning opportunities every day.

Supportive Conditions: Structural and Relationship-Based

The last dimension of PLCs is supportive conditions. Supportive conditions are crucial to maintaining the growth and development of a community of professional learners (Fulton & Britton, 2011). Hord (1997b) cited two types of supportive structures found within PLCs: structural conditions and collegial relationships where they support the vision of a school and learning community. These structures are a vital to the effectiveness and innovation of teaching at the classroom level.

Supportive structure refers to structural conditions that back up teachers' collective work, such as ordinary free time and physical space (Sargent & Hannum, 2005), sufficient learning resources (Supovitz, 2002), and sound communication mechanisms (Linder et al., 2012). These structural conditions include the use of time within the workday to meet for collective learning and application, problem-solving, and decision making; the existence of appropriate policies and schedules; and structures that provide greater autonomy to reduce isolation and foster collaboration (Fulton & Britton, 2011; Hord, 1997b; Jackl & Lougée, 2012; Strahan, 2003; Williams, 2006).

As for support that is relationship-based, this refers to positive educator attitudes such as teachers' willingness to work together or their ability to accept growth-enhancing feedback for the sake of improved students' learning (Hord, 1997b; Nelson et al., 2010). Besides, the requiring respect and trust between staff members, positive and caring relationships, and a sense of shared purpose must be developed (Hord, 1997b).

5. Study Variables

5.1. Gender

Gender impacts people's opportunities, social roles, and interactions. Basic genetic and physiological differences, in combination with environmental factors, result in behavioral and cognitive differences between men and women (Coleman, 2007; Jaquith, 2013). Al-Mahdy and Sywelem (2016) looked at the perceptions of public-school teachers in three Arab countries on the dimensions of professional learning communities (PLCs), the results showed that there were significant differences between men and women Egyptian teachers regarding their perceptions of the degree to which their schools' function as PLCs.

The authors surmised that maybe women teachers are more likely than men to adopt structuring and student-oriented practices as well as to co-operate more with colleagues, and that they are more often involved in co-operative activities (Al-Mahdy & Sywelem, 2016). Women are more patient and they can multi-task in the teaching profession. Al-Mahdy & Sywelem's study is similar to a quantitative study conducted by Williamson (2008) in public schools in southeastern North Carolina. Williamson examined the difference in the perception of teachers in PLC and non-PLC schools along the five Hord PLC dimensions of leadership, values and vision, collective learning, shared teaching, and supportive conditions. The study groups were classified according to gender, ethnicity, years of teaching experience, degree acquired, and level of school (elementary or secondary). The results showed a significant difference in gender for leadership and shared vision, and significant differences between PLC and non-PLC schools in the dimensions of collective learning and shared practices.

5.2. Years of Teaching

Kini and Podolsky (2016) suggested that years of experience in teaching may be related to effective teaching practices. Effective is understood as doing important things such as raising students' achievement and use teaching methods that enhance students' understanding. Moreover, they often mentor young teachers and help to create and maintain a strong school community because the experience gained over time has enhanced their knowledge, skills, and productivity (Kini & Podolsky, 2016).

Mory (2019) conducted a quantitative study to explore teacher leaders' perceptions of the strengths and weaknesses of PLCs in the middle school setting using the Professional Learning Communities Assessment-Revised (PLCA-R) survey.

One-way ANOVAs were used to analyze differences in perceptions based on the number of years teaching and number of years on the school leadership team. There were no statistically significant differences for any of the variables on any of the PLCA-R domains, but there was a statistically significant difference ($p = .013$) in the PLCA-R overall scores for years of teaching experience. Results for the overall scores showed a statistically significant difference between 6-10 years ($M = 2.78$) and over 11 years ($M = 3.08$) of experience ($p = .010$). These results suggest that teachers with between 6 and 10 years and over 11 years of experience hold different perceptions of the professional learning communities in their middle schools. Teachers with 11 years or more of experience perceived the domains of Supportive and Shared Leadership, Collective Learning and Applications, Shared Personal Practice, and Supportive Conditions - Relationships differently than those with less teaching experience. More experienced teachers offer greater stability and coherence in instruction and relationship building as the core work of schools, and they perceive the value of working collaboratively and sharing practice as an important part of the work of the professional learning community. Kini and Podolsky (2016) stated, "Teachers' effectiveness increases at a greater rate when they teach in a supportive and collegial work environment, and when they accumulate experience at the same grade level, subject or district" (p. 1). It is often teachers who have been in the profession a long time, who know best and they have a wealth of experience that make their perceptions about PLCs differ from those of less experienced teachers.

5.3. School District

The Saudi school districts are in charge of the elementary, middle, and secondary public schools and are responsible for ensuring they serve their purpose (Meemar, 2014). District and school administrators play a critical role in improving the learning environment and overall academic progress of their students; without their leadership, creating meaningful learning environment improvements is difficult (Meemar, 2014).

School districts may be responsible for:

1. Coming up with plans to achieve goals and then taking the steps necessary to do so.
2. Monitoring finances and ensuring budget requirements are met; choosing how to spend funds.
3. Keeping track of, maintaining, and supplying the school buildings with necessary equipment such as computers, physical education equipment, etc.
4. Ensuring that all activities of the schools in the area comply with the Ministry of Education

(Meemar, 2014).

School district leaders have a big influence on whether professional development is meaningful for all teachers, responds to professional learning standards gaps, and builds teacherleader capacity in their buildings and districts. Consequently, this effect is reflected on teaching and learning. In a qualitative case study, Kennedy (2017) investigated how K-12 teachers perceive school-based and district professional development by answering three questions: Howdo teachers perceive school-based and district professional development? What types of professional development experiences do teachers find effective? Do recent professional development experiences influence how teachers collaborate with other teachers? By using one- on-one interviews and a focus group interview with four teachers were varied in age, race, experience, teachers were one elementary school teacher, two middle school teachers, and one high school teacher. The teachers in this case study provided information that supports school and district leaders when planning for professional development. The most noTable were the need for differentiated professional development that supports teaching diverse students, how school-based and district professional development experiences have explicitly impacted their behaviors, and finally the need to matching school and district professional development to teacher needs. Reeves (2010) argued that it is imperative that school leaders, district leaders, andprofessional development facilitators understand how teachers perceive school-based and district-level professional development experiences in order to effectively implement systematic,job-embedded, and ongoing professional development.

6. Research Design

To examine Saudi Arabian elementary teachers' perceptions regarding PLCs within their schools, the researcher used a quantitative approach. A quantitative approach is defined as a systematic investigation of phenomena, attitudes, opinions, behaviors, and other defined variables by gathering quantifiable data (Muijs, 2011). Quantitative research is based on collecting numerical data to explain a particular phenomenon (Muijs, 2011). Furthermore, this quantitative research study uses a revised survey initially developed for an English language population (Olivier et al., 2010). The ease of survey distribution allows the researcher to reach a wide number of teachers. Surveys make it possible to downscale a large population to a level thatcan be analyzed by using sampling (Creswell, 2012). Given the number of teachers who will be included in this study,

This quantitative study will provide information that can be used in future studies to develop additional measures of Saudi Arabian elementary school teachers' understanding, beliefs, and perceptions of PLCs.

Using a quantitative design enabled the researcher to collect data in a manner that assists in answering the three research questions and limits the scope for personal comments or biasing of results. The results achieved with a quantitative method are numerical and objectively fair in most cases (Fraenkel et al., 2012). This focus on objectivity is what enables the quantitative researcher to generalize the findings of the study (Fraenkel et al., 2012). The quantitative approach also helps to explain how the independent variables (gender, number of teaching, school district) may impact teachers' perceptions of PLCs (dependent variable).

6.1. Instrumentation

To answer the study questions, I used the Professional Learning Communities Assessment – Revised (PLCA-R) Questionnaire initially developed by Olivier et al. (2010). I included the necessary demographic questions to the revised survey to collect the teachers' perceptions of PLCs. I adapted the survey to address the research questions by adjusting some questions to measure Saudi teachers' perceptions and practices. That is, I added some questions that measure teachers' perceptions regarding the factors that contribute to or hinder the success of PLCs. The instrument included demographic questions, such as participants' gender, how many years they have been a teacher, and in which school district they work? The original form of the survey was created in the English language while this study was conducted in an Arab context.

To increase the reliability of the results, I used an Arabic version of the survey that had been used by other researchers with Arabic-speaking subjects (Al-Mahdy & Sywelem, 2016). They received permission from Olivier to translate the original survey and I contacted Olivier to ask for permission to use the translated version.

Overall, PLCA-R is regarded as a formal diagnostic tool that is effective in describing the condition of a school as a PLC and in determining the strength of each PLC dimension. The PLCA-R consists of 52 statements. Some of the aspects in the questionnaire include shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions, including both relationships and structures.

According to Olivier et al. (2010), the PLCA-R is more inclusive of school-level practices related to communities.

As such, the PLCA-R is used for many purposes: to measure the extent to which a school functions as a PLC, quantify the perceptions of members about characteristics of their community through a continuum, and identify professional practices and PLC activities (Olivier et al., 2009). Each dimension includes practices that contribute to becoming a PLC. There are 11 items for shared and supportive leadership, nine items for shared values and vision, 10 items for collective learning and application, seven items for shared personal practice, five items for supportive conditions (relationships), and four items for supportive conditions (structures). In all, the PLCA-R includes 46 items. PLCA-R uses a four-point Likert scale: 1 (strongly disagree) to 4 (strongly agree). Sample items and definitions for each dimension are presented in Table 4.

Table 4 Professional Learning Communities Assessment-Revised

Factors	Definition	Sample Items
shared and Supportive Leadership	Sharing power, authority, and decisions making within school boundaries	11 items: Staff members are consistently involved in discussing and making decisions about most school issues
Shared Values and Vision	Common goals toward which members work	9 items: A collaborative process exists for developing a shared sense of values among staff
Shared Personal Practice	Peers helping peers by de-privatizing their practices	7 items: Staff members informally share ideas and suggestions for improving students' learning
Supportive Conditions- Relationships	Relational and human capacities and activities that members are engaged in	5 items: Caring relationships exist among staff and students that are built on trust and respect
Supportive Conditions- Structures	Structural and physical conditions that support members collaborate for learning	4 items: Time is provided to facilitate collaborative work
Collective Learning and Application	Intentional learning members agree on to pursue and act	10 items: Staff members work together to seek knowledge, skills and strategies and apply this new learning to their work

7. Results

This research study investigated teachers' perceptions regarding PLC's practice, the role of leadership, and the factors that contribute to or hinder the success of PLCs implementation in Tatweer elementary schools in Tabuk, Saudi Arabia. No statistically significant differences in Saudi Arabian Tatweer teachers' perceptions were found for each of the PLC dimensions based on gender, years of teaching experience, and school districts. However, the literature has illustrated that demographic factors, such as teaching experience could affect the teachers' perceptions regarding PLCs' practice (Curry, 2010). To gain more insight into the findings, it is crucial to explain their underpinnings and link them to related literature. Primarily, the concepts of PLCs are used to clarify the findings. Moreover, the interaction between these concepts is beneficial for constructing a complete picture of the results noted. This section presents the study's findings concerning the research questions initially posed. Second, the results from the study's null hypotheses are explained and discussed in relation to the corresponding literature.

Perceptions of the Practice of PLCs Perceptions Related to Gender

With respect to the hypotheses of the first research question, the findings indicated there was no significant difference between the perceptions of teachers regarding the practice of the dimensions of PLCs: shared values and vision, collective learning and application, shared personal practice, and supportive conditions - relationships and structures. A *t*-test was selected to investigate the differences between men and women when they practice PLC in their schools. The findings of the *t*-test showed that there was no significant difference (0.05 significance level) between women and men regarding the practice dimensions of PLCs in Tabuk elementary schools, Saudi Arabia. Therefore, it appears that the gender variable has no impact on the practice of PLCs. These findings contradict Al-Mahdy and Sywelem (2016), who looked at public-school teachers' perceptions in three Arab countries regarding the dimensions of Professional Learning Communities (PLCs). Al-Mahdy and Sywelem found that the Egyptian teachers showed negative perceptions towards their schools as PLCs. There were significant differences between men and women Egyptian teachers regarding their perceptions of the degree to which their schools functioned as PLCs. The authors surmised that women are more likely than men to adopt structuring and student-oriented practices and cooperate more with colleagues (Al-Mahdy & Sywelem, 2016).

Furthermore, the findings of this research study contradict Williamson's study (2008) which examined the difference in teachers' perceptions in PLC and non-PLC schools along the five Hord PLC dimensions. Williamson's results showed significant gender differences regarding leadership and shared vision and along the dimensions of collective learning and shared practices. Williamson's study findings may be due to the availability of leadership support for teachers' practices from principals or educational supervisors. Moreover, there may be a difference in leadership style between men and women; it is possible that biological sex differences and sex-differentiated prior experiences cause them to act differently, even when they hold the same managerial position (Eagly & Johnson, 1990).

Perceptions Related to Geographic Location

With respect to the second variable of the first research question which examined the geographical location of the schools. The ANOVA findings revealed no significant differences between these groups based on the geographic location regarding the practice of PLCs in Tabuk elementary schools, Saudi Arabia.

The mean perception of PLC practice for teachers who teach in the Northern-Tabuk district was (3.05), for the teachers who teach in Mid-Tabuk District, their mean perception of PLC practice was (3.1495), for the teachers who teach in Southern Tabuk, their mean perception of PLC practice was (2.9781). Therefore, it appears that the geographic location variable has no impact on the practice of PLCs.

These findings contradict the study by Al-Mahdy and Sywelem (2016), who looked at public-school teachers' perceptions in three Arab countries regarding the dimensions of professional learning communities. They concluded that the Egyptian schools don't function as PLCs based on teachers' perceptions, whereas the Saudi and Omani schools' function somewhat as PLCs based on Saudi and Omani teachers' perceptions. The discrepancy between teachers' perceptions about the effect of the geographical location of the schools between this research study and Al-Mahdy and Sywelem's results because their study was conducted between three Arab countries; consequently, the difference in the educational administration systems and the styles of leadership may have influenced the response and perceptions of the participants.

This research study was conducted in a limited area under one educational administration and the sample used was from a single, medium-sized city in Saudi Arabia. As a result, the data are from a homogeneous sample, which could explain the low variance between those schools.

Perceptions Related to Years of Experience

The third variable examined the years of experience. The data reveal that the mean perception of PLC practice for teachers who have worked for 1 to 6 years had the highest meanscore (3.1350); and teachers who have worked for more than 16 years (3.0244); and for the teachers who have worked from 7 to 15 years, their mean perception of PLC practice was the lowest (2.9570). This might imply that teacher effectiveness improvement connected to experience is highest during teachers' initial years but remains significant as they enter their second and third decades (Hargreaves and Fullan, 2013). This may be attributed to the fact that the new teacher has the motivation and enthusiasm to work and accomplish tasks. At the same time, more experienced teachers have more productivity. They promote and increase students' learning and help their colleagues. Podolsky et al. (2019) analyzed 30 research published since 2003 that examined the influence of teaching experience on students' outcomes in the United States. They discover that teaching experience is positively related to students' achievement gains and that teachers gain more productivity when they teach in a supportive, collegial environment, or accumulate experience within the same grade, subject, or district.

These findings are contradictory to Mory's (2019) study. Mory discovered a statistically significant difference in the PLCA-R overall scores associated with years of teaching experience. Specifically,

The scores showed a statistically significant difference between teachers who taught for 6-10 years ($M = 2.78$) and more than 11 years ($M = 3.08, p = .013$). Mory (2019) suggested that teachers with between six and ten years and more than 11 years of experience hold different perceptions towards the implementation of the PLC in their middle schools. Teachers with 11 or more years of experience perceived the domains of Supportive and Shared Leadership, Collective Learning and Applications, Shared Personal Practice, and Supportive Conditions - Relationships differently than those with less teaching experience.

Mory's results may be attributed to the belief that more experienced teachers offer greater stability and coherence in instruction and relationship building as the core work of schools, and they perceive the value of working collaboratively and sharing practice as an important part of the work of the professional learning community. Kini and Podolsky (2016) suggested that the duration of teaching experience might be related to effective teaching practices.

Effective teaching is understood as fulfilling crucial tasks such as raising students' achievement and using teaching methods that enhance students' understanding. Moreover, experienced teachers often mentor novice teachers and help to create and maintain a strong school community. They can do so because the experience gained over time has enhanced their knowledge, skills, and productivity (Mullen & Hutinger, 2008).

The discrepancy between teachers' perceptions about the effect of years of teaching between this research study and previous studies may be attributed to the fact that seven years of PLC implementation in Tatweer schools may have not established a full understanding among teachers about the characteristics of the PLC. Implementation of PLCs requires coherent professional plans, strategies, and practices at all levels for a long period of time (Alyami, 2014). One of the most important challenges to implementing PLCs is an ambiguous understanding of the PLC (McLaughlin & Talbert, 2002). The PLC model in Saudi Arabia was initially introduced in 2013 in 26 schools that were part of the sample for this study (Saudi Ministry of Education, 2019), about seven years before this study was conducted. The literature indicates that a PLC is seen as a complex metaphor, one that is multi-dimensional and needs to be unpacked (Huffman & Jacobson, 2003). All dimensions of PLCs are connected to each other. A change in any of the dimensions invites changes in the other dimensions. This means that the various dimensions are intertwined and do not operate separately (Bolam et al., 2005).

Alyami (2014) stated that the ways to implement dimensions of PLC look very different in different phases of schooling and indifferent contexts and settings as a result of deliberate planning and action by leaders but also in unplanned ways and as a result of factors beyond their control. Jackson and Temperley (2007) argued that the development of a PLC seems so complex and nested that to be able to describe discrete stages is unlikely. Moreover, it takes time to fully implement the stages of PLC development for teachers and schools and building these practices into the culture of the organization takes commitment and perseverance on the part of the stakeholders (Huffman & Jacobson, 2003).

The process from initiation to the institutionalization of a PLC at any given school site may span a period of time between three to ten years depending on the capacity of the school and its progress (Huffman & Jacobson, 2003). The practice of PLCs needs to go through the three stages of PLC implementation: 1) the Starter Stage, where school works on developing the characteristics of a PLC, 2) the Developer Stage, which is further along the process, and 3) the Mature Stage,

Where teacher's involvement in key PLC activities and the school capacity to promote and sustain the learning of teachers with the collective purpose of enhancing students' learning is fully developed (Bolam et al., 2005). A PLC may progress or regress on any one or more of the dimensions over time. Hence, the importance of headteachers and senior staff both of having a coherent and explicit concept of a PLC, of deliberately sharing their understanding with colleagues in order to seek their interpretations of its implications, and of monitoring and evaluating its progress on each dimension so that appropriate action can be taken.

The Role of Leadership to Implement PLCs

Regarding the second research question's hypotheses, the findings indicated no significant difference between teachers' opinions regarding leadership's role in implementing PLCs based on gender. A t-test was chosen to elucidate the differences between men' and women' perspectives regarding leadership's role to implement PLCs in their schools. The findings of the t-test showed no significant difference (0.05 significance level) for gender and it indicated that gender did not affect leadership capacity to build PLCs at Tabuk elementary schools in Saudi Arabia.

Therefore, the gender appears to have no impact on teachers' perceptions about leadership to implement PLCs.

The lack of differences in perceptions of men and women teachers about the role of school leadership in implementing PLCs may be attributed to the similar roles of men and women school principals, as the Saudi Arabian Ministry of Education requires school principals to carry out rules and regulations issued by it.

Moreover, there may be a lack of an understanding of the dimensions of a PLC and the specific attributes associated with each. If a school leader and teachers lack an understanding of the dimensions of a PLC and the specific attributes associated with each, the assumption is that the school may never establish a completely functional learning community (Hord, 2004).

To determine the degree of implementation PLC within a school, school leaders should evaluate their PLCs from time to time, by using a multiple measures approach that includes surveys, interviews, data analysis, observations, and self-assessments would give a well-rounded picture of the degree of implementation. For example, observing a sample of PLC meetings with teachers to determine whether there is evidence that characteristics of the PLC concept exist.

Likewise, conducting interviews with principals and teachers about what has been done to support the implementation of PLCs and to gain information on their role and perspective on the implementation process. Furthermore, evaluating and measuring whether the implementation of PLCs has impacted students' achievement results.

The second and third variables examined teachers' years of experience and their specific geographic location related to specified school districts. The ANOVA results revealed no significant differences between these groups perspectives regarding leadership's role in implementing PLCs in Tabuk elementary schools in Saudi Arabia. This may be because years of experience and geographic location were not important factors in forming teachers' opinions regarding the role of leadership in implementing PLCs. As well, it may be that the criteria that teachers adopt in estimating the degree to which the school principal implements PLCs are not clear, as a result of the lack of clarity of the concepts of PLC for them. Moreover, the similarity of the work environment in schools reduces the differences in viewpoints between teachers. All schools in which this study was conducted are subject to the same educational supervision office and the Ministry of Education. Thus, they receive the same instructions and training courses. As a result, the role of the principals in those schools is similar.

Although the literature associated with principal leadership and PLCs development indicated that even though teachers and other school employees play a vital role in creating a learning community, the school principal is the linchpin. The school principal, along with teachers, has demonstrably more influence than leadership at other levels such as school district leaders, superintendents, and directors of PD (Leithwood, 2005). Thus, the findings of my research study dispute many studies that suggest that leadership helps implement PLCs by supporting cooperative culture and PLC practices in schools.

For example, Graham (2007) conducted a case study to investigate the relationship between professional learning community (PLC) activities and teacher improvement in a first-year middle school. Graham's findings showed that one of the most prominent factors that helped the effectiveness of teaching is supportive leadership. In addition, Jackson and Temperley (2007) found that where teachers felt encouraged by their principals, they supported one another's practice in PLCs. They felt more self-confident in themselves, developed a vigorous sense of self-efficacy; also, they believed in their capacity to influence students' learning and achievement. As a result, teachers were more committed to their collaborative work to meet students learning needs.

Mullen and Hutinger (2008) found that leadership is an essential resource for PLCs, both in terms of principal commitment and shared leadership. They found that the PLCs leaders are providing moral support for teachers by taking their opinion into account when making decisions and promoting an atmosphere of caring and trust among teachers. Finally, Ross and Gray (2006) who found that supportive leadership impacted teacher efficacy. The leadership supported the employee by empowering and training to have sufficient skills to handle the tasks also the leadership enhanced teamwork among the members.

Factors contributing to or hindering the Success of PLC implementation

As for the third question's hypotheses, the findings indicated no significant difference in teachers' perceptions of the factors that contribute to or hinder the success of PLCs implementation based on gender in Tabuk elementary schools in Saudi Arabia.

Perhaps this is due to similarities in educational opportunities and conditions between men and women schools. Tatweer schools implement the same school plans and strategies. All Tatweer school leaders receive their own training programs. Also, the training and development programs offered to men and women teachers are similar. Besides, teachers are subject to the same assessment criteria and the same educational supervision.

Moreover, all Tatweer schools are non-rented government buildings, so they are similar in capabilities, resources, technologies, and available equipment.

Moreover, the second and third variables examined teachers' years of experience and their specific geographic location related to specified school districts.

The ANOVA findings revealed no significant differences between these groups' perspectives regarding the factors that either contribute to the hindrance or the success of PLCs implementation in Tabuk elementary schools in Saudi Arabia. One of the questionnaire items referred to the factor of hindrance of PLCs implementation, such as lack of time for teachers to discuss practices and students' needs. According to the literature, lack of time is identified as a barrier to PLC success (Jackson & Temperley, 2007; Leithwood, 2005; Schmoker, 2006); yet, the findings of this study did not find it to be an issue with the respondents. The results of this study may be attributed to the interest of the educational administration in Tabuk in saving and organizing time for teachers' meetings.

For example, providing an hour at the end of the school day or before students arrive so teachers can meet in their PLCs (Ministry of Education in Saudi Arabia, 2020). When districts provide time for their PLCs to function correctly, they send the message that teacher collaboration and students' learning are viewed as priorities in the school (DuFour et al., 2008).

Implications for Practice and Recommendations for Future Research

The study of professional learning communities is vital because many schools in most countries have embraced the PLC model to ensure professional collaboration among teachers (DuFour et al., 2008). In general, this research study reported no significant difference between teachers' perspectives regarding the practice of the dimensions of PLCs and the factors that contribute to or hinder the success of PLCs implementation. According to Jackson and Temperley (2007), the key to PLCs improving students' and teachers' learning is schools' capacity to implement learning communities with fidelity and continuously grow. In the next section I will provide recommendations for practice and future researchers.

Implications and Recommendations for Practice

Drawing on the literature review and the present study of PLCs, the following actions are recommended for current practitioners in education. Although most studies in the literature indicate that PLCs have positive results on the school, teachers, and the level of students' achievement.

However, the results of this research study did not find a significant difference in teachers' views regarding the practice of the dimensions of PLCs, the role of leadership in implementing PLCs,

And the factors that may contribute to the success or hinder the success of PLCs. Perhaps the Interpretation for this is that Tatweer schools apply the PLC practices as a new strategy to improve students' achievement but there might be a lack of understanding of the true and deep meaning of PLC. The literature indicates that a PLC is seen as a complex metaphor, one that is multi-dimensional and needs to be unpacked (Huffman & Jacobson, 2003). One of the most important challenges to implementing PLCs is an ambiguous understanding of the PLC (McLaughlin & Talbert, 2002). Also, maybe the variables that were used in this study are unimportant factors in forming teachers' opinions. This study suggests for future researchers to other variables that may be more able to show a difference in teachers' opinions, such as the educational qualifications of teachers, or different educational regions and different grades.

Moreover, the leadership style and culture prevailing among teachers in Tatweer schools may have affected the level of implementation of PLCs. School leadership and school culture are interrelated processes. Although the school culture is built on the history and deep values of the school community, the replacement and renewal of the school culture are related to the leader (Fullan, 2001). Most schools in Saudi Arabia practice a top-down leadership style. The Ministry of Education issues regulations and circulars for all schools. Thus, this violates the culture of learning communities that support cooperation and share decisions and practices. Therefore, it might be difficult for school leaders to create a culture based on cooperation, support, and trust.

This study's findings will help policymakers and educational leaders facilitate the PLC's implementation in Tatweer and other public schools in Saudi Arabia by indicating the need to hold training courses for principals and teachers to instill PLC and take advantage of mistakes and past experiences of other schools that have succeeded in implementing strong PLC. In addition, holding training courses for school leaders and giving them a scholarship to countries that have successful experience in PLCs where leaders have the opportunity to coexist in selected schools to see how to implement the practices of PLCs and then transfer those experiences and localize them in Saudi schools. Thus, build self-efficacy schools and be able to contribute to a qualitative shift in education in Saudi Arabia.

Furthermore, working on follow-up and evaluating continuously the implementation of PLCs and to what extent the schools achieve the objectives. School leaders and educational supervisors should evaluate their PLCs from time to time, by using a multiple measures approach that includes surveys, interviews, data analysis, observations, and self-assessments that would give a well-rounded picture of the degree of implementation. Furthermore, they should evaluate and measure whether or not the implementation of PLCs has impacted students' achievement results. Thus, knowing the strengths and enhancing them while removing and addressing weaknesses in performance should help to bring PLCs to the required level for positive results.

PLC facilitators and school principals have to simplify the understanding of the concept of PLC for teachers and provide teachers with information, resources, and guidance on how to practice PLC on the ground and help them to grow professionally.

Leithwood (2005) reported that school principals should create structures that promote teacher learning by focusing on how to do a task and how much time and space to provide. An additional critical component in developing a PLC is that school leaders must understand that multiple dimensions must be attended to as interdependent characteristics for organizations. Last, leadership programs in colleges and universities should hold seminars with educational leaders who have experienced success in developing strong PLCs.

Implications and Recommendations for Research

In this section, the implications and recommendations for future research are presented.

Although there is a lot of research on PLCs in the United States, research on PLCs in Saudi Arabia remains scarce. I would recommend that researchers focus on the conditions for PLCs in Saudi Arabia to fill in the research gaps.

Based on a review of the literature and the present study of PLCs, the following recommendations might be considered for further research: this study's findings revealed no significant differences related to gender, years of teaching, and school districts. As the Ministry of Education intends to expand PLC implementation in other schools, it is crucial to conduct a similar study in middle and high schools. This study was limited to the elementary level. This would provide a larger picture of the extent to which PLCs are implemented and may show middle and high school teachers perceive different factors that affect the implementation of PLCs; for example, leadership style or the level of support from educational supervision.

Furthermore, this study was quantitative, so the next step could be a qualitative study with the same schools. Interviews with teacher study group members or focus groups from other schools could gain deeper insights into teachers' perceptions of PLC implementation. This method could provide an opportunity to investigate teacher and leader PLC training and practices more closely.

Another option might be to implement a mixed-methods approach to studying the way PLCs are implemented and understood. A PLCA-R survey instrument would be administered with additional questions asking participants the rationale and motivation behind their responses in each of the domains. These qualitative responses could then be evaluated and considered alongside the quantitative data. Knowing this type of information could advance future research, especially when there is a wide range in the instrument's domain values.

Moreover, future researchers could also consider using a questionnaire with more than a 4-point Likert-type scale when measuring professional learning communities' dimensions. The PLCA-R survey instrument used in this study is a research-based, appropriate instrument. A future consideration might include a different Likert-type scale instrument that could contain as many as seven response options that might capture a more considerable variance in the participant responses of their perceptions of professional learning communities in the school.

This study investigated teachers' perceptions about PLCs in Tatweer schools, there were certain limitations in this research. First, due to the closure of schools during the COVID-19 pandemic, the teachers in this study were asked to refer to the prior 2019 school year. As a result, this situation might have affected the results of the study because it is possible that the teachers' responses confused how they practice PLCs online, and how they were practicing PLCs before Covid 19. Second, because the PLCs are newly implemented in Arab schools and educational systems, there were few Arab previous studies that were found in the Arab context. It was difficult to find ample and comprehensive information on the topic of learning communities both in terms of implementation, requirements, and challenges, etc. Third, the data for this study was only collected from Tatweer schools that have used PLCs. Therefore, the results are not generalizable to all elementary schools in Saudi Arabia.

8. Conclusion

This chapter presented an overview of the study, an overview of the findings, a discussion of the findings, and some implications and recommendations based on this study.

The study collected the perceptions of Tatweer elementary school teachers in Saudi Arabia about the implementation and success of PLCs. The differences between the study's variables were discussed in this chapter. Finally, the researcher reported implications and recommendations for practice and future research based on the findings of this study.

Previous research has found that professional learning communities are an important form of teacher professional development (Cranston, 2009; Hargreaves, 2019; Harris & Jones, 2010; Reichstetter, 2006). According to Curry (2010), professional learning communities are designed to ensure that teachers have the opportunity to work in a collaborative setting on a regular basis to develop, plan, and implement teaching strategies that promote students' learning.

This study concluded that there were no significant difference in the perspectives of teachers regarding the practice of the dimensions of PLCs, the role of leadership to implement PLCs, and the factors that may contribute to or hinder the success of PLCs. The differences were examined based on the variables of gender, year of teaching experience, and school districts. The sample used in this research was from a single, medium-sized city in Saudi Arabia. As a result, the data are from a homogeneous sample, which could explain the low variance. Future researchers using a more varied sample of schools may show increased variance in perspectives across schools, in turn producing different results in the perspectives of the variables affecting PLCs implementation. Moreover, this research study was conducted on schools that have implemented PLCs in 2013. Thus, the period of seven years to implement PLC might have not established the full understanding for teachers.

The implementation of a PLC is a complex process and requires a natural progression into the school's culture (Huffman & Jacobson, 2003). One explanation appears to be a lack of understanding regarding the characteristics of a PLC as well as the lack of the mechanisms and capacity for implementation and sustainability (DuFour et al., 2008). The findings of this study can inform and guide other Saudi elementary schools and school leaders who may be in future transition to a Tatweer school model with PLCs.

Adopting the concept of PLC, is not sufficient to say that schools function as PLC, PLC needs to change schools culture and teachers' beliefs.

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