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Schools as Professional Learning Communities: The Case of Lebanese Private Schools

Khalil Al-Jammal

Professor, Faculty of Education, Lebanese University, Beirut, Lebanon

Abstract:

The aim of this study was to investigate the role played by principals and schools' staff in transforming their schools into successful professional learning communities (PLCs). For this purpose, an extensive review of the literature of PLCs was conducted which constituted the base for the generation of a survey instrument consisting of three sections: section A requested participants to explore the role of principals and administrative staff about creating and sustaining PLCs in their schools; section B requested respondents to determine the role played by teachers in transforming their schools into successful PLCs; and section C requested them to identify the barriers to transforming schools into effective PLCs. The questionnaire was sent to 60 Lebanese private schools. The total sample consisted of 60 school principals (N=60) and 300 teachers (N=300). Data was analyzed using SPSS 18.0 for windows. Results indicate that the image provided by teachers about sustaining PLCs in schools was far away from the norms. Although the principals' responses were not negative, they indicate that developing and supporting PLCs in schools should be further improved. Limitations of the study and recommendations for future research are suggested. The study also offers recommendations to help principals and staff creating and supporting successful PLCs in schools.

Keywords: Professional learning communities- adult learning models- school principals- school improvement

1. Introduction

Professional Learning Communities (PLCs) have become so commonplace and have been used so ubiquitously that it is in danger of losing meaning. (CCSRI, 2009; DuFour, 2004; DuFour et al., 2013; Leclerc, 2013). This lack of precision is an obstacle to building and implementing PLC processes. The PLC process is not a "new program" (CCSRI, 2009; DuFour et al., 2013). "It cannot be purchased, nor can it be implemented by anyone other than the staff itself." (DuFour et al., 2013, p.3).

Some educators may assume that "a PLC is a meeting- an occasional event when they meet with colleagues to complete a task" (DuFour et al., 2013, p.3). This perception of a PLC is wrong (CCSRI, 2009; DuFour, 2004; DuFour et al., 2013; Leclerc, 2013). In fact, a PLC is more than simply a collection of teachers working together or a social network of educators who meet to share stories, materials, and advice (CCSRI, 2009). According to DuFour et al. (2013), "If educators meet with peers on a regular basis only to return to business as usual, they are not functioning as a PLC. So the PLC process is much more than a meeting." (p.3).

Therefore, a PLC "is not a prescription, a new program, a model, or an innovation to be implemented" in the school (CCSRI, 2009, p.2). It is not a meeting. It is not "every imaginable combination of individuals with an interest in education -a grade-level teaching team, a school committee, a high school department, an entire school district, a state department of education, a national professional organization, and so on." (DuFour, 2004, p.6). While these "combinations of individuals" may share some similarities of purpose with PLCs, the philosophy and characteristics of a PLC differentiate and define it (CCSRI, 2009).

Thus, what is a PLC? Although there is no universal definition of a PLC (CCSRI, 2009), the following definitions and explanations offer a range of ways to describe it.

A PLC "is an approach or process" (CCSRI, 2009, p.3). It shifts "the focus of school reform from restructuring to reculturing. A PLC is an ongoing process used to establish a schoolwide culture that develops teacher leadership explicitly focused on building and sustaining school improvement efforts" (CCSRI, 2009, p.2).

Hord (1997) defines the PLC as an ongoing process "in which the teachers in a school and its administrators continuously seek and share learning, and act on their learning. The goal of their actions is to enhance their effectiveness as professionals for the students' benefit; thus, this arrangement may also be termed *communities of continuous inquiry and improvement*." (p.1).

Leclerc (2013) stated that what distinguishes the PLC process from other groups is the focus not only on people attending the meeting or participating in a team, but the impact of this functioning mode on student learning. The word "learning" between "professional" and "community" refers to the continuous improvement of learning, not only for teachers but also particularly for students.

According to DuFour et al. (2013), a PLC is “the larger organization and not the individual teams that comprise it. While collaborative teams are an essential part of the PLC process, the sum is greater than the individual parts. Much of the work of a PLC cannot be done by a team but instead requires a schoolwide or districtwide effort” (p.3). This author argues that a PLC “is ongoing -a continuous, never-ending process of conducting schooling that has a profound impact on the structure and culture of the school and the assumptions and practices of the professionals within it” (p.3). In a PLC process, “educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve. Professional learning communities operate under the assumption that the key to improved learning for students is continuous job-embedded learning for educators” (DuFour et al., 2013, p.4).

While these definitions and explanations capture the spirit of a PLC process, they are only a starting point for understanding it. The section related to the “review of literature” of this study examines the elements of the PLC process more closely.

2. Purpose of the Study and Research Questions

2.1. Purpose of the Study

This study aims to:

1. Explore the role of school leaders and administrative staff in creating, nurturing and sustaining PLCs in their schools.
2. Determine the role played by teachers in transforming their schools into successful PLCs.
3. Identify the obstacles that transform the schools into effective PLCs.
4. Furnish the recommendations in this regard in the light of the obstacles identified by respondents.

2.2. Research Questions

This study attempts to explore the following questions:

1. How do school leaders and administrative staff build, nurture and sustain a successful PLC in their schools?
2. Do teachers play an important role in transforming their schools into effective PLCs? To what extent their attitudes and behaviors contribute to develop and support PLCs in schools?
3. What are the barriers to transforming the schools into effective PLCs?
4. What are the recommendations that can be furnished in this regard to support and activate PLCs?

3. Literature Review

3.1. Characteristics of a Successful PLC

Most PLC definitions assume a set of characteristics that reflect the nature of an effective PLC. “An understanding of these characteristics provides educators with a shared lens through which to examine their own PLCs. They also can provide an infrastructure for shaping practice and assessing progress” (CCSRI, 2009, p.3). Some of the most commonly cited characteristics are listed in table 1.

Characteristics	References
Shared Mission, Vision, Values and Goals	Bretz (2012), CCSRI(2009), DuFour et al.(2013), Hord (1997), Huffman & Hipp(2003), Leclerc & Labelle(2012), Leclerc & Moreau(2009), NAESP(2008), Olivier et al.(2009), Ruebe l(2012), SEDL(2014a), Ullman (2009), Wagner(2006).
Ensuring that All Students Learn	Bretz(2012), CCSRI(2009), DuFour(2004), DuFour et al.(2013), Leclerc(2013), Leclerc&Labelle(2012), Leclerc&Moreau(2009).
Supportive Conditions	Bretz (2012), CCSRI(2009), Hord (1997), Huffman & Hipp (2003), Leclerc & Moreau (2009), Olivier et al.(2009), Ruebe l(2012), SEDL(2014a).
Continuous Improvement	Bretz (2012), CCSRI(2009), DuFour (2004), DuFour et al.(2013), Hord (1997), Leclerc(2013), Leclerc & Labelle(2012), Leclerc & Moreau(2009), NAESP(2008).
Collective Inquiry	Bretz(2012), DuFour et al.(2013), Hord (1997), Leclerc(2013), Leclerc & Moreau (2009), NAESP (2008), Ruebel (2012), SEDL(2014a).
Culture of Collaboration	Bretz (2012), CCE(2001), CCSRI(2009), DuFour (2004), DuFour et al.(2005), DuFour et al.(2013), Jessie(2007), Leclerc(2013), Leclerc&Labelle(2012), Leclerc & Moreau (2009), NAESP(2008), Ullman (2009).
Supportive and Shared Leadership	Bretz(2012), CCE(2001), CCSRI(2009), Hord(1997), Huffman & Hipp(2003), Leclerc & Moreau(2009), Mednick(2003), NAESP(2008), Olivier et al.(2009), Ruebel (2012), SEDL (2014a).
Shared Personal Practice	Bretz (2012), CCSRI (2009), Hord (1997), Huffman & Hipp(2003), Leclerc (2013), Leclerc & Labelle(2012), Leclerc & Moreau(2009), Olivier et al.(2009), Ruebel (2012), SEDL(2014a), Ullman (2009).
Results Orientation	Bretz(2012), DuFour (2004), DuFour et al.(2013), Jessie(2007), Leclerc&Labelle(2012), Leclerc&Moreau(2009), NAESP(2008).

Table 1: 9 Characteristics of a Successful PLC and Related References

3.1.1. Shared Mission, Vision, Values & Goals

Mission, vision, values and goals are the four pillars of an effective PLC (Bretz, 2012; CCSRI, 2009; DuFour et al., 2013; Hord, 1997; Leclerc & Labelle, 2012; Leclerc & Moreau, 2009; NAESP, 2008; SEDL, 2014a; Ullman, 2009; Wagner, 2006).

The mission (fundamental purpose) should be an inspirational, concisely written statement of what the school stands for. A school's vision statement outlines what the organization aspires to become. It should offer motivation and hope for a community that is working towards attaining an ideal. Value statements outline what the community members are committed to in order to increase teacher effectiveness and, ultimately, improve student achievement. Several authors promote the use of SMART goals (Specific, Measurable, Achievable, Relevant, Time-bound) as one effective strategy for moving forward (Cothran & Wysocki, 2013; Lotich, 2014; Pilley, 2013). These are presented in table 2.

Four Pillars	Related Questions
Mission (Fundamental Purpose)	Why do we exist?
Vision	What must we become in order to accomplish our fundamental purpose?
Collective Commitments (Values)	How must we behave to create the school that will achieve our purpose?
Specific Goals	How will we know if all of this is making a difference?

Table 2: Four Pillars of a PLC and Related Questions (DuFour et al., 2013)

3.1.2. Ensuring that All Students Learn

The PLC model “flows from the assumption that the core mission of formal education is not simply to ensure that students are taught but to ensure that they learn. This simple shift -from a focus on teaching to a focus on learning- has profound implications for schools” (DuFour, 2004, p.8).

In PLCs, educators demonstrate their commitment to ensure high levels of learning for “each” student (Bretz, 2012; CCSRI, 2009; DuFour, 2004; DuFour et al., 2013; Leclerc, 2013; Leclerc & Labelle, 2012; Leclerc & Moreau, 2009). According to DuFour (2004), this focus on learning for all students translates into three critical questions that drive the daily work of those within a PLC:

- What do we want each student to learn?
- How will we know when each student has learned it?
- How will we respond when a student experiences difficulty in learning? (p.7)

3.1.3. Supportive Conditions

In order for PLC to function productively, the physical conditions and the human capacities of the people involved must be optimal (Bretz, 2012; CCSRI, 2009; Hord, 1997; Huffman & Hipp, 2003; Leclerc & Moreau, 2009; Olivier et al., 2009; SEDL, 2014a).

Physical conditions include a variety of conditions that support PLCs such as (CCSRI, 2009; Huffman & Hipp, 2003; Olivier et al., 2009; SEDL, 2014a):

- Time which should be provided to staff to meet and examine current practices.
- Time which should be provided to facilitate active learning for students.
- Physical proximity of grade level and department personnel that should allow for ease in communicating and collaborating with colleagues.
- School facility which should be clean, attractive, and inviting.
- Appropriate technology and instructional materials that should be available to staff.
- Fiscal resources that should be available for continuous professional development.
- Well-developed communication systems that should promote a flow of information across the entire school community, including central office personnel, parents, students and community members.

Regarding people capacities and qualities, they include a variety of conditions that increase the productivity of PLCs such as (Huffman & Hipp, 2003; Olivier et al., 2009; SEDL, 2014a):

- Caring relationships exist among students, teachers, and administrators that are built on trust and respect.
- Positive teacher attitudes toward schooling, students, and change contribute to enhance teaching and learning.
- A culture of trust and respect and a sense of community exist for taking risks.
- Collegial relationships among staff members help them to establish the norms of continuous critical inquiry and continuous improvement.
- School staff and stakeholders exhibit a unified effort to embed change into the school's culture.
- Outstanding achievement is recognized and celebrated regularly in the school.

3.1.4. Continuous Improvement

Several authors consider PLCs as a commitment to “Continuous Improvement” (Bretz, 2012; CCSRI, 2009; DuFour, 2004; DuFour et al., 2013; Hord, 1997; Leclerc, 2013; Leclerc & Labelle, 2012; Leclerc & Moreau, 2009; NAESP, 2008).

According to NAESP (2008), PLC members “are engaged in an ongoing cycle of continuous improvement in which collective synergy, imagination, spirit, inspiration and continuous learning spur improvement of teaching and learning skills. People in learning communities are driven to constantly expand their competence to produce desired outcomes” (p.3).

DuFour et al. (2013) said, “Inherent to a PLC are a persistent disquiet with the status quo and a constant search for a better way to achieve goals and accomplish the purpose of the organization. Systematic processes engage each member of the organization in an ongoing cycle of the following:

- Gathering evidence of current levels of student learning
- Developing strategies and ideas to build on strengths and address weaknesses in that learning
- Implementing those strategies and ideas
- Analyzing the impact of the changes to discover what was effective and what was not
- Applying new knowledge in the next cycle of continuous improvement” (p.7).

3.1.5. Collective Inquiry

NAESP (2008) argues that “reflective dialogue about and collective inquiry into effective practices are key attributes of learning communities” (p.3). According to Hord (1997), Professional Learning Communities are “*Communities of Continuous Inquiry and Improvement*”. In a PLC, it is expected from educators to work and learn together (DuFour et al., 2013).

In fact, the process of collective inquiry “includes discussion about curriculum alignment to learning needs, common formative assessments, instructional strategies and ongoing alignment of professional development to school goals” (NAESP, 2008, p.3).

In other words, “the teams in a PLC engage in collective inquiry into both best practices in teaching and best practices in learning. They also inquire about their current reality including their present practices and the levels of achievement of their students. They attempt to arrive at consensus on vital questions by building shared knowledge rather than pooling opinions. They have an acute sense of curiosity and openness to new possibilities” (DuFour et al., 2013, p.6).

Collective inquiry enables team members to develop new skills and attitudes that in turn lead to new experiences and awareness. “Gradually, this heightened awareness transforms into fundamental shifts in attitudes, beliefs, and habits which, over time, transform the culture of the school” (DuFour et al., 2013, p.6).

3.1.6. Culture of Collaboration

Several authors stated that the effectiveness of PLCs hinges on collaboration (Bretz, 2012; CCE, 2001; CCSRI, 2009; DuFour, 2004; DuFour et al., 2005; DuFour et al., 2013; Jessie, 2007; Leclerc, 2013; Leclerc & Labelle, 2012; Leclerc & Moreau, 2009; NAESP, 2008; Ullman, 2009). CCSRI (2009) argues that “collaboration (e.g., opportunities for teachers to engage in ongoing collegial opportunities where they talk about teaching, receive frequent feedback on teaching, design classes together, teach each other, etc.) has been found in successful schools and is missing in unsuccessful schools” (p.3).

Teachers who are building a PLC are convinced that “they must work together to achieve their collective purpose of learning for all. Therefore, they create structures to promote a collaborative culture” (DuFour et al., 2005, p.27).

However, there is a difference between a PLC’s collaborative culture and a team. “The difference is the interdependence that exists within a PLC. A PLC meeting is more than teachers getting together to share data- it is a group of individuals who meet to achieve common goals for their grade level and for the school. Instead of sharing data, they respond to data, which requires a sense of mutual accountability and changing classroom practices” (Jessie, 2007, p.1).

In other words, “the powerful collaboration that characterizes professional learning communities is a systematic process in which teachers work together to analyze and improve their classroom practice. Teachers work in teams, engaging in an ongoing cycle of questions that promote deep team learning. This process, in turn, leads to higher levels of student achievement” (DuFour, 2004, p.9).

3.1.7. Supportive and Shared Leadership

Shared leadership is a core component of a school’s collaborative culture (Bretz, 2012; CCE, 2001; CCSRI, 2009; Hord, 1997; Huffman & Hipp, 2003; Leclerc & Moreau, 2009; Mednick, 2003; NAESP, 2008; Olivier et al., 2009; SEDL, 2014a). According to CCE (2001), “it allows all members of the school community to play a role in determining the direction of the school and in understanding the impetus for change” (p.4).

When schools adopt shared leadership and decision making as an organizational practice, “the principal recognizes that no one person in the building is the most knowledgeable or experienced practitioner. Rather, the principal is aware of the strengths of the staff and taps into each member’s expertise to improve teaching and learning in the school” (CCE, 2001, p.13). In addition, the principal treats the staff “with respect and as professionals, and worked with them as peers and colleagues” (Hord, 1997, p.8).

However, “even though principals’ roles may change as they redistribute and share leadership, their support is one of the resources necessary for schools to become a PLC” (CCSRI, 2009, p.6). Indeed, supportive leadership is necessary to build and sustain PLCs. As mentioned above, the physical or the structural conditions and the human capacities of the people involved must be optimal to have a successful PLC. The principal should provide PLC members with physical or structural supports and should develop the knowledge, attitudes and skills of the staff in order to have a successful and productive PLC (Bretz, 2012; CCSRI, 2009; Hord, 1997; Huffman & Hipp, 2003; Leclerc & Moreau, 2009; Olivier et al., 2009; SEDL, 2014a).

3.1.8. Shared Personal Practice

Ruebel (2012) states that “examining other teachers’ practice and pedagogical, assessment, or management behaviors should be a regular aspect of PLC work” (p.1). However, “this practice is not evaluative but is part of the ‘peers helping peers’ process” (SEDL, 2014a, p.4). In other words, it is “part of working together to make possible the act of changing practice with each other” (Ruebel, 2012, p.1). SEDL (2014a) argues that “the process is based on the desire for individual and community improvement and is enabled

by the mutual respect and trustworthiness of staff members” (p.5). Additionally, “over time, teachers become comfortable sharing triumphs as well as difficulties and letdowns with the PLC team” (Ruebel, 2012, p.1).

In a PLC, teachers:

- have the opportunities to observe peers and offer encouragement,
- provide feedback to peers related to instructional practices,
- informally share ideas and suggestions for improving student learning,
- collaboratively review student work to share and improve instructional practices,
- have the opportunities for coaching and mentoring,
- regularly share student work to guide overall school improvement, and
- have (as individuals and teams) the opportunity to apply new learning and share the results of their practices (Huffman & Hipp, 2003).

3.1.9. Results Orientation

PLCs judge their effectiveness on the basis of results rather than intentions (Bretz, 2012; DuFour, 2004; DuFour et al., 2013; Jessie, 2007; Leclerc & Labelle, 2012; Leclerc & Moreau, 2009; NAESP, 2008). Working together to improve student and adult performance is the daily business of everyone in the school (DuFour, 2004; NAESP, 2008). However, NAESP (2008) argues that “this requires reassessing traditional beliefs, assumptions and practices, and testing innovative approaches to improving performance” (p.3).

Indeed, the focus on results leads teams to participate in an ongoing process of identifying the current level of student achievement, establishing a goal to improve the current level, working together to achieve that measurable improvement goal, and providing periodic evidence of progress (DuFour, 2004). This drives teams to create a series of common formative assessments that are administered to students multiple times throughout the year to gather ongoing evidence of student achievement (DuFour et al., 2013; Jessie, 2007; NAESP, 2008). According to DuFour et al. (2013), “frequent common formative assessments represent one of the most powerful tools in the PLC arsenal” (p.8).

“Team members review the results from these assessments in an effort to identify and address program concerns (areas of learning where many students are experiencing difficulty). They also examine the results to discover strengths and weaknesses in their individual teaching in order to learn from one another. Most importantly, the assessments are used to identify students who need additional time and support for learning” (DuFour et al., 2013, p.8).

Regarding teachers, “the focus is not necessarily on the teacher whose performance indicators are low but on creating an atmosphere where the success of others can be shared and replicated” (Jessie, 2007, p.2). Results of actions can be celebrated in several forms that can bring out the best in teachers. “Teachers are like any other professional; they love sharing their successes” (Jessie, 2007, p.2).

3.2. Adult Learning Models

There are several ways to engage adults in activities that promote professional discussion and growth. Each of the 12 models listed in table 3 can contribute in building and developing schools’ PLC.

Models	References
Study Groups	Al-Jammal & Ghamrawi(2013), ATA(2010), Burdea (2013), DET(2013), Frank et al.(2011).
Peer Coaching	Al-Jammal & Ghamrawi(2013), ATA(2010), Barkley(2012), Becker(2010), DET(2013), Frank et al.(2011).
Critical Friends Group	Al-Jammal & Ghamrawi (2013), Bambino (2002), Curry(2008), Frank et al.(2011), Miller(2007).
Mapping Groups (Curriculum Review)	Al-Jammal & Ghamrawi(2013), ATA(2010), Bailey(2013), Frank et al.(2011), Kelley et al.(2008), Truesdale et al.(2004).
Clinical Instructional Rounds	Aguilar (2012), Frank et al.(2011), Marzano (2011), Marzano & Toth (2013), Williamson & Hodder(2013).
Reading Groups	Al-Jammal & Ghamrawi (2013), ATA(2010), Frank et al.(2011), Keller(2008), Miller(2009).
Mentoring	Al-Jammal & Ghamrawi (2013), ATA(2010), Barlin(2010), DET(2013), Hudson et al.(2012), Osten & Gidseg(2014).
Japanese Lesson Study	Al-Jammal &Ghamrawi(2013), ATA(2010), Chassels&Melville(2009), DET(2013), Ryshke(2011), Wilson(2012).
Individual or Collaborative Action Research	Al-Jammal & Ghamrawi(2013), ATA(2010), DET(2013), Halai et al. (2008), Koshy (2005), Sagor (2009).
Self-Directed Learning	Al-Jammal & Ghamrawi(2013), ATA(2010), DET(2013), Frank et al.(2011), Heick(2013).
Personal/Professional Learning Networks (PLNs)	Al-Jammal & Ghamrawi(2013), ATA(2010), Dede(2006), DET(2013), Fisher(2012), Johnson(2009), Patnoudes (2012), Stamatis (2011).
Community of Practice (CoP)	Bettoni (2002), Bilodeau(2003), Frank et al.(2011), Li et al.(2009), Yong(2010).

Table 3: Adult Learning Models and Related References

Table 4 shows the definitions related to adult learning models.

Models	How it works
Study Group	It takes place when a collection of educators gather to examine a topic they have agreed to study. This group, which is formed out of a recognized need or interest, gives participants a forum for reflecting together, learning together, planning together, and testing new ideas together. The group provides an atmosphere of companionship, an avenue for renewal, and an opportunity for growth.
Peer Coaching	Educators and school principals solicit and receive feedback about their practices after being observed by a peer or other observers: observation and discussion allow them to share professional practices, to develop ideas and skills that can be integrated into their evolving personal pedagogy and professional practices, to promote collegiality and support, and to ensure quality teaching and learning for all students.
Critical Friends Group (CFG)	It is a group consisting of approximately 8-12 educators who come together voluntarily, at least once a month for about 2 hours, and are committed to improve their practice through collaborative learning agenda.
Mapping Groups (Curriculum Review)	Faculty meet on a regular basis to review the instruction that students are receiving, reflect together on impact of and assumptions that underlie the curriculum, make decisions collaboratively about what must be taught to all students, and organize and develop content, skills, assessments, and resources over time.
Clinical Instructional Rounds (Adapted from the Medical Rounds Model)	Organized like rounds among medical interns, a team of teachers, administrators or both visit classrooms and then discuss what they observed using the schools/districts common language of instruction. This process has benefits such as: developing the pedagogical skills of educators within a school (or a district) through the reflective discussion that follows an observation; enabling observers to compare and contrast their own instructional practices with observed ones; and empowering the observed teachers to use the information gleaned from their observations to reflect on their own practices.
Reading Groups	Groups of teachers, faculty, meet together to discuss books they are reading.
Mentoring	Mentors are experienced practitioners who share their knowledge and skills with colleagues who have a desire to improve some aspects of their practice.
Japanese Lesson Study	It is a teaching improvement process that has origins in Japanese elementary education, where it is a widespread professional development practice. They work in a small group where teachers collaborate with one another, and they meet to discuss learning goals in order to plan an actual classroom lesson (called a “research lesson”), to observe how it works in practice, and then to revise and report on the results so that other teachers can benefit from it.
Individual or Collaborative Action Research	Individually or in teams, teachers/staff pose questions concerning their classroom or school. After collecting and analyzing data, results are shared with colleagues to develop insights that inform future practices.
Self-Directed Learning	It is making decisions about how to advance one’s own practice including: reading professional books and journals related to new teaching practices or to what the individual teaches, visiting colleagues in their classrooms, journaling, compiling professional development portfolios, taking a course, self-reflecting, engaging in action research, attending conferences, visiting other schools, getting trained to use a new technology on my own, joining professional organizations, and building my own personal/professional learning network (PLN).
Personal/ Professional Learning Networks (PLNs)	PLNs, which are based on the theory of connectivism, or learning from diverse social webs, allow teachers and administrators to connect with other teachers and administrators across the world. These connections are typically made through social media outlets including Google+, Twitter, Facebook, LinkedIn, etc. In a PLN, a person makes a connection with another person with the specific intent that some type of learning will occur because of that connection.
Community of Practice (CoP)	A CoP is a group of people who share interests, concerns or challenges, and who improve their professional practice and that of their organizations by interacting on an ongoing basis. CoPs are not limited by formal structures; they create connections among people across organizational and geographic boundaries. Many communities of practice can be created within a single organization, and people can belong to more than one of them.

Table 4: Adult Learning Models and Related Definitions

3.3. The Evolving Role of School Principals

Traditional school principals “may have considered their jobs to be solely the managers of schools” (NAESP, 2008, p.2). According to Finkel (2012), traditionally, principals have been more engaged in management functions, like making sure every teacher come on

time to classes, every student has a desk, the buses are on time and cafeterias are well supervised. In other words, principals were really not instructional leaders.

However, as mentioned above, to be able to lead PLCs effectively, supportive and shared leadership are necessary (Bretz, 2012; CCE, 2001; CCSRI, 2009; Hord, 1997; Huffman & Hipp, 2003; Leclerc & Moreau, 2009; Mednick, 2003; NAESP, 2008; Olivier et al., 2009; SEDL, 2014a). Moreover, to build and sustain PLCs, school principals should be instructional leaders (CCE, 2001; Finkel, 2012; Hord & Hirsh, 2009; Lunenburg, 2010; Mednick, 2003; NAESP, 2008).

The instructional leader should prompt teachers to continuously learn and improve their practice; this could help in turn to promote the learning and success of all students which is the primary responsibility of the principal (CCE, 2001; Finkel, 2012; Hord & Hirsh, 2009; Lunenburg, 2010; Mednick, 2003; NAESP, 2008). According to Lunenburg (2010), "school principals can accomplish this goal by focusing on learning, encouraging collaboration, using data to improve learning, providing support, and aligning curriculum, assessment, and instruction." (p.5). CCE (2001) stated that the instructional leader should "often visits classrooms to work with teachers and students or attends academic team meetings to assist the development of effective teaching and learning strategies. In this role, the principal also obtains instructional resources and professional development opportunities that improve learning, teaching, and assessment practices" (p.16).

NAESP (2008) -which states that effective school principals are instructional and "transformational"- identifies standards that principals should know and be able to do in leading and supporting PLCs. Additionally, NAESP identifies the tasks and activities (the indicators) related to each one. These standards and indicators are listed in table 5.

Standards	What does it look like when the principal knows these standards and works according to them? <i>We see the principal who:</i>
Leading by putting student and adult learning at the center of the school	<ol style="list-style-type: none"> 1. Stays informed of the continually changing context for teaching and learning. 2. Embodies learner-centered leadership. 3. Capitalizes on the leadership skills of others. 4. Aligns operations to support student, adult and school learning needs. 5. Advocates for efforts to ensure that policies are aligned to effective teaching and learning.
Leading diverse communities	<ol style="list-style-type: none"> 1. Builds consensus on a vision that reflects the core values of the school community. 2. Values and uses diversity to enhance the learning of the entire school community. 3. Broadens the framework for child development beyond academics. 4. Develops a learning culture that is adaptive, collaborative, innovative and supportive.
Leading 21 st century learning	<ol style="list-style-type: none"> 1. Ensures alignment of curriculum with district and school goals, standards, assessments and resources. 2. Invests in a technology-rich culture that connects learning to the global society. 3. Hires, retains and supports high quality teachers. 4. Ensures rigorous, relevant and appropriate instruction for all students.
Leading a culture of continuous learning for adults	<ol style="list-style-type: none"> 1. Invests in comprehensive professional development for all adults to support student learning. 2. Aligns the schoolwide professional development plan with school and learning goals. 3. Encourages adults to broaden networks to bring new knowledge and resources to learning environments. 4. Provides time, structures and opportunities for adults to plan, work, reflect and celebrate together to improve practice.
Leading the management of data and knowledge to inform decision-making and measure progress	<ol style="list-style-type: none"> 1. Makes performance data a primary driver for school improvement. 2. Measures student, adult and school performance using a variety of data. 3. Builds capacity of adults and students to use knowledge effectively to make decisions. 4. Benchmarks high-achieving schools with comparable demographics. 5. Makes results transparent to the entire school community.
Leading parent, family and community engagement	<ol style="list-style-type: none"> 1. Engages parents, families and the community to build relationships that support improved performance. 2. Serves as a civic leader who regularly engages with numerous stakeholders to support students, families and schools in more effective ways. 3. Shapes partnerships to ensure multiple learning opportunities for students, in and out of school. 4. Markets the school's distinctive learning environment and results to inform parents' choices of options that best fit their children's needs. 5. Advocates for high-quality education for every student.

Table 5: Leading PLCs: 6 Standards that a Principal Should Know and be Able to Do and the Indicators Related to Each One (NAESP, 2008)

3.4. *Teachers in a PLC: New Roles, Effective Outcomes*

An increased focus on PLCs in the school setting has resulted in a redefining of the teacher's role. Schools that function as PLCs encourage and empower teachers to move away from the traditional view of teachers as isolated practitioners, but indeed they accept the role as participants in a collaborative, learning-central model. Teachers become empowered as they tackle initiatives and take risks, accept leadership responsibilities, and feel confident as experts (Cormier & Olivier, 2009).

As active members in a PLC, teachers adopt the following roles and responsibilities:

- Acknowledge and embrace collaboration with colleagues.
- Make every effort to understand and enact the school's PLC concepts.
- Actively engage in the development of the shared vision and values.
- Communicate the school's vision and values mission to students.
- Strive towards a vision of excellence and choose to become an expert.
- Merge individual professional goals with the PLCs short-term and long-term goals.
- Engage in research-based and data-driven plans.
- Expect and participate in a continuum of learning. (Eaker et al., 2002 as cited in Cormier & Olivier, 2009, p.48).

Thus, in a PLC school, teachers work collaboratively and they are at the service of each student. According to Rentfro (2007), in a PLC school, teachers:

- Work together by writing common assessments, planning curriculum, and sharing teaching duties.
- Refer to students as "our" students instead of "my" students, reinforcing the collective atmosphere.
- Work together to identify at-risk students, and teams problem-solve to intervene for each student.

On the other hand, by participating in PLCs, teachers can experience a variety of benefits that contribute to improved student achievement. CCSRI (2009) and SEDL (2014b) identify the following 5 benefits:

- Reduction of isolation of teachers;
- Increased commitment to the mission and goals of the school and increased vigor in working to strengthen the mission;
- Shared responsibility for the total development of students and collective responsibility for students' success;
- Greater job satisfaction and higher morale; and
- Lower rates of absenteeism.

However, SEDL (2014b) adds 6 other benefits as follows:

- Powerful learning that defines good teaching and classroom practice, that creates new knowledge and beliefs about teaching and learners;
- Increased meaning and understanding of the content that teachers teach and the roles that they play in helping all students achieve expectations;
- Higher likelihood that teachers will be well informed, professionally renewed, and inspired to inspire students;
- Significant advances into making teaching adaptations for students, and changes for learners made more quickly than in traditional schools;
- Commitment to making significant and lasting changes; and
- Higher likelihood of undertaking fundamental, systemic change (p.1).

4. Methodology

4.1. *Research Tool*

Data was collected via a questionnaire for the purpose of this quantitative study. Based on an extensive review of the literature of PLCs, the researcher developed a questionnaire consisting of 50 items. The same questionnaire was sent to both private school principals and teachers. The instrument was piloted on a sample comprised of 8 school principals and 30 teachers. Therefore, few amendments for language and syntax were introduced.

The survey instrument consisted of three sections: A, B, and C. Section A, consisting of 17 items, requested participants to explore the role of principals and administrative staff about creating and sustaining PLCs in their schools; section B, consisting of 20 items, requested respondents to determine the role that should be played by teachers in transforming their schools into successful PLCs; and section C, consisting of 13 items, requested them to identify the barriers to transform schools into effective PLCs.

In sections A, B, and C, a four point likert scale was used to rank participants' responses. Response choices were: 1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree.

4.2. *The Sample*

The sample of this study consisted of 450 people: 75 private school principals and 375 private school teachers, localized in Beirut. Teachers are equally distributed in schools (5 teachers from each one). Along with the survey, a cover letter and an informed consent form were attached in addition to the full contact information of the researcher. The cover letter detailed the purpose of the study and mentioned a guarantee of anonymity, for participants and how data will be used.

Principals and teachers are invited to complete the questionnaire and return it, along with the signed consent form, to the given address by regular mail or as a scanned document via email or fax. If this way is not available, respondents were invited to return the

questionnaire, along with the signed consent form, to the assistant researcher. Only 410 surveys were returned, out of which 360 questionnaires were usable: 60 questionnaires for principals and 300 questionnaires for teachers.

Finally, it should be noted that the empirical work of this study was conducted between the 1st April and the 15th of May 2014.

4.3. Data Analysis

Data was analyzed using SPSS 18.0 for windows. Descriptive statistics were used to describe and summarize the properties of the mass of data collected from the respondents. Means scores, standard deviations and percentages were calculated per each item of the survey instrument.

5. Results and Discussions

This part of the study includes the following three sections:

- Role of Principal and Administrative Staff in Transforming the School into a PLC.
- Role of Teachers in Transforming the School into a PLC.
- Obstacles Preventing the Transformation of the School into a PLC.

5.1. Role of Principal and Administrative Staff in Transforming the School into a PLC

Table 6 presents data collection on Section A of the questionnaire.

Item	Private School Principals' Lenses			Private School Teachers' Lenses		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation
1	60	2.83	.457	300	1.78	.682
2	60	2.70	.720	300	1.82	.604
3	60	2.83	.457	300	1.78	.682
4	60	2.70	.720	300	1.66	.673
5	60	2.77	.593	300	1.79	.677
6	60	2.85	.360	300	1.78	.577
7	60	2.73	.660	300	1.65	.639
8	60	2.77	.593	300	1.79	.677
9	60	2.85	.360	300	1.78	.577
10	60	2.70	.720	300	1.66	.673
11	60	2.70	.720	300	1.82	.604
12	60	2.83	.457	300	1.78	.682
13	60	2.70	.720	300	1.61	.653
14	60	2.70	.720	300	1.75	.629
15	60	2.83	.457	300	1.65	.665
16	60	2.73	.660	300	1.65	.639
17	60	2.70	.720	300	1.66	.673

Table 6: Descriptive Statistics about the Role of the Principal and the Administrative Staff in Transforming the School into a PLC

Table 6 includes 17 roles that should be played by the principal and the administrative staff to create and sustain PLCs in schools. According to table 6, the mean score related to school principals' responses is more than 2 (> 2) for all the 17 items; it varied between 2.70 and 2.85.

Table 6 indicates that the mean score of 7 items is 2.70 (SD=.720):

1. Lead learning teams (learning communities) at the school through the school's vision, mission and values, and not through laws and bureaucratic procedures (2).
2. Provide an optimal model of behavior which is consistent with the mission and values of the school, and this contributes to the establishment of credibility towards others (4).
3. Provide various ways and opportunities of professional development for learning communities at the school, which includes administrators, teachers, technicians and other employees, and allow sufficient time to do so (10).
4. Build collaborative teams to accomplish specific tasks; these teams, which have enough time to do their work, are encouraged to use scientific research in general and action research in particular, as a way to address the problems and issues of common concern (11).
5. Focus on improving the quality of school's outputs by working with learning communities in order to provide better educational services commensurate with the development and progress of the current era (13).
6. Focus on supporting learning communities to improve the quality of the product, so as to improve the competitiveness of the school with other schools (14).
7. Support and appreciate efforts to build a culture of learning in school (17).

Table 6 shows that the mean score of 2 items is 2.73 (SD=.660). These items are:

1. Exchange ideas and experiences, learn together from successes and failures, and disseminate innovative ideas among school staff (7).
2. Provide advanced communication systems in order to facilitate and accelerate the delivery of information to learners and parents (16).

The mean score of the following 2 items is 2.77 (SD=.593):

1. Build a culture of learning based on the disposal of hierarchical or overbearing relationships (among school personnel or between them and learners), and create a school environment that encourages fellowship relationship with school staff, and encourages building horizontal relationships so that all employees are respected and their views and contributions are recognized and appreciated (5).
2. Consider failures as normal things and transform them into learning opportunities (8).

Table 6 indicates that the mean value of 4 other items is 2.83 (SD=.457):

1. Develop a vision, mission and objectives so as to be consistent with the spirit of the modern era; all employees and all concerned parties must participate in the development of the vision, mission and objectives (1).
2. Build learning communities that are involved in the decision-making process by relying on collective leadership thus getting rid of the habits and methods of individual leadership (3).
3. Focus on results through working with learning communities at the school to determine clear and measurable objectives and to identify the indicators on the occurrence of progress towards these objectives (12).
4. Provide advanced communication systems in order to facilitate and accelerate the delivery of information to all school staff: teachers and administrators (15).

Finally, the mean score of the remaining 2 items is 2.85 (SD=.360):

1. Encourage administrators and teachers to have reflective dialogue on professional practices; encourage employees to explore, participate in teamwork, and take innovative initiatives and provide the necessary training for them to acquire these skills (6).
2. Make sure that the policy of the school as well as its curricula and decisions are consistent with its mission, vision and values (9).

On the other hand, table 6 shows that school principals' data are not consistent with teachers' data. Indeed, table 6 shows that the mean score value related to teachers' responses is less than 2 (< 2) for all the 17 items; it varied between 1.61 and 1.82.

According to table 6, the mean score of 1 item (13) is 1.61 (SD=.653): Focus on improving the quality of school's outputs by working with learning communities in order to provide better educational services commensurate with the development and progress of the current era.

Table 6 indicates that the mean value of the following 3 items is 1.65:

1. Exchange ideas and experiences, learn together from successes and failures, and disseminate innovative ideas among school staff (Item 7: SD=.639).
2. Provide advanced communication systems in order to facilitate and accelerate the delivery of information to all school staff: teachers and administrators (Item 15: SD= .665).
3. Provide advanced communication systems in order to facilitate and accelerate the delivery of information to learners and parents (Item 16: SD=.639).

The results show that the mean score of 3 other items is 1.66:

1. Provide an optimal model of behavior which is consistent with the mission and values of the school, and this contributes to the establishment of credibility towards others (Item 4: SD=.673).
2. Provide various ways and opportunities of professional development for learning communities at the school, which includes administrators, teachers, technicians and other employees, and allow sufficient time to do so (Item 10: SD=.673).
3. Support and appreciate efforts to build a culture of learning in school (Item 17: SD=.673).

According to table 6, the mean score of 1 item (14) is 1.75 (SD=.629): Focus on supporting learning communities to improve the quality of the product, so as to improve the competitiveness of the school with other schools.

This table shows that the mean score of 5 other items is 1.78:

1. Develop a vision, mission and objectives so as to be consistent with the spirit of the modern era; all employees and all concerned parties must participate in the development of the vision, mission and objectives (Item 1: SD=.682).
2. Build learning communities that are involved in the decision-making process by relying on collective leadership thus getting rid of the habits and methods of individual leadership (Item 3: SD=.682).
3. Encourage administrators and teachers to have reflective dialogue on professional practices; encourage employees to explore, participate in teamwork, and take innovative initiatives and provide the necessary training for them to acquire these skills (Item 6: SD=.577).
4. Make sure that the policy of the school as well as its curricula and decisions are consistent with its mission, vision and values (Item 9: SD=.577).
5. Focus on results through working with learning communities at the school to determine clear and measurable objectives and to identify the indicators on the occurrence of progress towards these objectives (Item 12: SD=.682).

Table 6 indicates that the mean score of the following 2 items is 1.79:

1. Build a culture of learning based on the disposal of hierarchical or overbearing relationships (among school personnel or between them and learners), and create a school environment that encourages fellowship, relationship with school staff, and

encourages building horizontal relationships so that all employees are respected and their views and contributions are recognized and appreciated (Item 5: SD=.677).

2. Consider the failures as normal and transform them into learning opportunities (Item 8: SD=.677).

Finally, the mean score of the remaining 2 items is 1.82:

1. Lead learning teams (learning communities) at the school through the school's vision, mission and values, and not through laws and bureaucratic procedures (Item 2: SD=.604).
2. Build collaborative teams to accomplish specific tasks; these teams, which have enough time to do their work, are encouraged to use scientific research in general and action research in particular, as a way to address the problems and issues of common concern (Item 11: SD=.604).

Data presented in table 7 refers to the role of principals and administrative staff in transforming the school into a PLC through the private school principals' lens. On the other hand, data presented in table 8 refer to the role of the principals and the administrative staff through the private school teachers' lens.

Items		SA	A	D	SD
<i>School principals and administrative staff play an important role in transforming their school into a PLC. Therefore, they:</i>					
1	Develop a vision, mission and objectives so as to be consistent with the spirit of the modern era; all employees and all concerned parties must participate in the development of the vision, mission and objectives.	0	52	6	2
2	Lead learning teams (learning communities) at the school through the school's vision, mission and values, and not through laws and bureaucratic procedures.	0	51	0	9
3	Build learning communities that are involved in the decision-making process by relying on collective leadership thus getting rid of the habits and methods of individual leadership.	0	52	6	2
4	Provide an optimal model of behavior which is consistent with the mission and values of the school, and this contributes to the establishment of credibility towards others.	0	51	0	9
5	Build a culture of learning based on the disposal of hierarchical or overbearing relationships (among school personnel or between them and learners), and create a school environment that encourages fellowship relationship with school staff, and encourages building horizontal relationships so that all employees are respected and their views and contributions are recognized and appreciated.	0	51	4	5
6	Encourage administrators and teachers to have reflective dialogue on professional practices; encourage employees to explore, participate in teamwork, and take innovative initiatives and provide the necessary training for them to acquire these skills.	0	51	9	0
7	Exchange ideas and experiences, learn together from successes and failures, and disseminate innovative ideas among school staff.	0	51	2	7
8	Consider failures as normal and transform them into learning opportunities.	0	51	4	5
9	Make sure that the policy of the school as well as its curricula and decisions are consistent with its mission, vision and values.	0	51	9	0
10	Provide various ways and opportunities of professional development for learning communities at the school, which includes administrators, teachers, technicians and other employees, and allow sufficient time to do so.	0	51	0	9
11	Build collaborative teams to accomplish specific tasks; these teams, which have enough time to do their work, are encouraged to use scientific research in general and action research in particular, as a way to address the problems and issues of common concern.	0	51	0	9
12	Focus on results through working with learning communities at the school to determine clear and measurable objectives and to identify the indicators on the occurrence of progress towards these objectives.	0	52	6	2
13	Focus on improving the quality of school's outputs by working with learning communities in order to provide better educational services commensurate with the development and progress of the current era.	0	51	0	9
14	Focus on supporting learning communities to improve the quality of the product, so as to improve the competitiveness of the school with other schools.	0	51	0	9
15	Provide advanced communication systems in order to facilitate and accelerate the delivery of information to all school staff (teachers and administrators).	0	52	6	2
16	Provide advanced communication systems in order to facilitate and accelerate the delivery of information to learners and parents.	0	51	2	7
17	Support and appreciate efforts to build a culture of learning in school.	0	51	0	9

Table 7: Role of the Principal and the Administrative Staff in Transforming the School into a PLC - Private School Principals' Lenses

Note: 4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree

Table 7 shows that none of the school principals have chosen the “strongly agree” response to any of the 17 roles that should be played by them and by the administrative staff to create and sustain PLCs in schools. However, the vast majority has chosen the “agree” response to each of these roles: 51 of 60 participants have chosen the “agree” response to 13 of 17 items while 52 of them have chosen the same response to the remaining 4 items.

Concerning teachers, table 8 shows that their view is different. Indeed, if “disagree” responses are grouped with “strongly disagree” ones, this implies that the overwhelming majority (the number of respondents varied between 260 and 288 teachers) has a “negative”/“very negative” perception regarding the 17 roles that should be played by principals and administrative staff to develop and support PLCs in schools. In other words, the vast majority of teachers did not choose “strongly agree”, “agree” or even “agree/strongly agree” response to any of the 17 items.

Items		SA	A	D	SD
<i>School principals and administrative staff play an important role in transforming their school into a PLC. Therefore, they:</i>					
1	Develop a vision, mission and objectives so as to be consistent with the spirit of the modern era; all employees and all concerned parties must participate in the development of the vision, mission and objectives.	3	35	156	106
2	Lead learning teams (learning communities) at the school through the school’s vision, mission and values, and not through laws and bureaucratic procedures.	3	23	190	84
3	Build learning communities that are involved in the decision-making process by relying on collective leadership thus getting rid of the habits and methods of individual leadership.	3	35	156	106
4	Provide an optimal model of behavior which is consistent with the mission and values of the school, and this contributes to the establishment of credibility towards others.	6	16	148	130
5	Build a culture of learning based on the disposal of hierarchical or overbearing relationships (among school personnel or between them and learners), and create a school environment that encourages fellowship relationship with school staff, and encourages building horizontal relationships so that all employees are respected and their views and contributions are recognized and appreciated.	2	38	156	104
6	Encourage administrators and teachers to have reflective dialogue on professional practices; encourage employees to explore, participate in teamwork, and take innovative initiatives and provide the necessary training for them to acquire these skills.	6	6	204	84
7	Exchange ideas and experiences, learn together from successes and failures, and disseminate innovative ideas among school staff.	2	21	147	130
8	Consider failures as normal and transform them into learning opportunities.	2	38	156	104
9	Make sure that the policy of the school as well as its curricula and decisions are consistent with its mission, vision and values.	6	6	204	84
10	Provide various ways and opportunities of professional development for learning communities at the school, which includes administrators, teachers, technicians and other employees, and allow sufficient time to do so.	6	16	148	130
11	Build collaborative teams to accomplish specific tasks; these teams, which have enough time to do their work, are encouraged to use scientific research in general, and action research in particular, as a way to address the problems and issues of common concern.	3	23	190	84
12	Focus on results through working with learning communities at the school to determine clear and measurable objectives and to identify the indicators on the occurrence of progress towards these objectives.	3	35	156	106
13	Focus on improving the quality of school’s outputs by working with learning communities in order to provide better educational services commensurate with the development and progress of the current era.	5	13	142	140
14	Focus on supporting learning communities to improve the quality of the product, so as to improve the competitiveness of the school with other schools.	2	25	169	104
16	Provide advanced communication systems in order to facilitate and accelerate the delivery of information to learners and parents.	2	21	147	130
17	Support and appreciate efforts to build a culture of learning in school.	6	16	148	130

Table 8: Role of Principal and Administrative Staff in Transforming the School into a PLC - Private School Teachers’ Lenses

Note: 4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree

5.2. Role of Teachers in Transforming the School into a PLC

Table 9 presents data collection on Section B of the questionnaire.

Item	Private School Principals' Lenses			Private School Teachers' Lenses		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation
1	60	2.38	.825	300	1.73	.594
2	60	2.32	.892	300	1.63	.680
3	60	2.58	.645	300	1.74	.675
4	60	2.32	.892	300	1.66	.673
5	60	2.58	.645	300	1.79	.677
6	60	2.38	.825	300	1.78	.577
7	60	2.58	.645	300	1.65	.639
8	60	2.58	.645	300	1.79	.677
9	60	2.22	.783	300	1.78	.577
10	60	2.18	.930	300	1.66	.673
11	60	2.55	.622	300	1.82	.604
12	60	2.43	.767	300	1.78	.682
13	60	2.28	.922	300	1.61	.653
14	60	2.28	.846	300	1.75	.629
15	60	2.28	.922	300	1.66	.669
16	60	2.58	.645	300	1.65	.639
17	60	2.30	.889	300	1.66	.673
18	60	2.27	.918	300	1.61	.653
19	60	2.35	.860	300	1.75	.629
20	60	2.30	.889	300	1.66	.673

Table 9: Descriptive Statistics about the Role of Teachers in Transforming the School into a PLC

Table 9 includes 20 roles that should be played by teachers to build and develop PLCs in schools. According to this table, the mean score related to school principals' responses is more than 2 (> 2) for all the 20 items; it varied between 2.18 and 2.58.

The results indicate that the mean score of 1 item (10) is 2.18 ($M=.930$): Strive to promote the mental activity and the search for what is useful and valuable as well as estimate the value of outstanding learning and make every student reach to the maximum level of learning according to his/her potentials.

Table 9 shows that the mean score of another item (9) is 2.22 ($SD=.783$): Make students realize that what they are doing in the context of collaborative teams will be recognized and appreciated (collectively honor).

According to this table, the mean score of Item 18 is 2.27 ($SD=.918$): Discuss, in collaborative teams, the work and activities of students (homework, projects, and exams) in order to enhance their knowledge, attitude and skills in teaching.

The results indicate that the mean score of the following 3 items is 2.28:

1. Make learners believe they are capable of learning, and that the error is allowed during learning process, as well as transform mistakes into opportunities for learning rather than looking at them as events that should be avoided or prevented (Item 13: $SD=.922$).
2. Discuss among each other the teaching strategies they use (in collaborative teams) and share experiences in this field (Item 14: $SD=.846$).
3. Focus on improving results through setting learning goals and outcomes that should be clear and measurable as well as identify indicators to measure teachers' performance in order to determine how to achieve these goals and outcomes (Item 15: $SD=.922$).

Descriptive statistics related to principals' responses indicate that the mean value of the following 2 items is 2.30:

1. Attend the classrooms of their colleagues and discuss, in collaborative teams, their observations and suggestions related to different areas, such as teaching strategies, time management, classroom discipline, classroom management style, spatial organization, and organization of the physical environment of learning (Item 17: $SD=.889$).
2. Cooperate with each other not only to reach a common understanding of conditions of students and their needs, and curriculum and educational policy, but also to change the concepts and practices, and to produce materials and activities that will improve education, curriculum, and assessment (Item 20: $SD=.889$).

The results show that the mean score of the 2 other items are 2.32:

1. Engage in Learning Communities (teams) at the level of the school, which include administrators, teachers and specialists in various areas -e.g. teams that are built to study a specific problem: the problem of the flight of students from the school, or the problem of school violence (Item 2: $SD=.892$).
2. Believe in the mission and vision of the school which are declared and known by all of them and are committed, through their words and actions, to the principles and values contained in this mission and vision (Item 4: $SD=.892$).

According to table 9, the mean score of the following item (19) is 2.35 (SD=.860): Study, in collaborative teams, the problem or phenomenon from different aspects (for example, when studying the phenomenon of the lack of motivation of learners, the team does not analyze the effect of one variable, such as teaching methods; the team also looks for the influence of other variables, such as classroom environment, school curriculum, family factors, social factors, and perhaps the interference between all these variables).

Table 9 indicates that the mean value of the following 2 items is 2.38:

1. Believe that self-confidence, confidence in others, teamwork, coordination, and cooperation are essential ingredients for success (Item 1: SD=.825).
2. Provide a classroom environment which encourages dialogue and discussion between teachers and learners and among learners themselves (Item 6: SD=.825).

Descriptive statistics of table 9 show that the mean score of 1 item (12) is 2.43 (SD=.767): Make learning useful and interesting through strengthening the link between the course contents and the needs of learners, their problems, and their reality.

These statistics indicate that the mean score of another item (11) is 2.55 (SD=.622): Identify high expectations for learners, and make them know what is expected of them to know and acquire, as well as provide the necessary assistance or support to them by teachers to get to the required levels.

Finally, the results show that the mean score of the remaining 5 items is 2.58 (SD=.645):

1. Engage in Learning Communities (teams) at the level of the classroom or the subjects they teach -e.g. the teams that include a number of teachers in order to study the learning difficulties in a particular subject, develop teaching strategies in a specific field, or determine the feasibility of the application of modern techniques in learning (3).
2. Recognize that the teacher became a facilitator of knowledge, instead of being the only source of this knowledge (5).
3. Provide a classroom environment where innovative ideas are welcomed and respected (7).
4. Encourage learners to work in collaborative teams and make collaborative work a basis for learning -groups that are built within each classroom on a particular academic subject, or groups that are formed outside the framework of subjects and classrooms such as environment team, school radio team, culture team, sports team, and arts team (8).
5. Use formative assessment and new assessment tools which help to identify the strengths of the learner and aspects that need to be improved, as well as develop a plan to fill the gaps and improve the teaching and learning process (16).

On the other hand, table 9 shows that the mean score value related to teachers' responses is less than 2 (< 2) for all the 20 items; it varied between 1.61 and 1.82. According to table 9, the mean value of the following 2 items is 1.61:

1. Make learners believe they are capable of learning, and that the error is allowed during the learning process, as well as transforming mistakes into opportunities for learning rather than looking at them as events that should be avoided or prevented (Item 13: SD=.653).
2. Discuss, in collaborative teams, the work and activities of students (homework, projects, and exams) in order to enhance their knowledge, attitude and skills in teaching (Item 18: SD=.653).

The results indicate that the mean score of 1 item (2) is 1.63 (SD=.680): Engage in Learning Communities (teams) at the level of the school, which include administrators, teachers and specialists in various areas (e.g. teams that are built to study a specific problem such as the problem of the flight of students from the school, or the problem of school violence).

Table 9 shows that the mean value of the following 2 items is 1.65:

1. Provide a classroom environment where innovative ideas are welcomed and respected (Item 7: SD=.639).
2. Use formative assessment and new assessment tools which help to identify the strengths of the learner and aspects that need to be improved, as well as develop a plan to fill the gaps and improve the teaching and learning process (Item 16: SD=.639).

According to table 9, the mean value of 5 items is 1.66:

1. Believe in the mission and vision of the school which are declared and known by all of them and are committed, through their words and actions, to the principles and values contained in this mission and vision (Item 4: SD=.673).
2. Strive to promote the mental activity and the search for what is useful and valuable as well as estimate the value of outstanding learning and make every student achieve to the maximum level of learning according to his/her potentials (Item 10: SD=.673).
3. Focus on improving results through setting learning goals and outcomes that should be clear and measurable as well as identify indicators to measure teachers' performance in order to determine how to achieve these goals and outcomes (Item 15: SD=.669).
4. Attend the classrooms of their colleagues and discuss, in collaborative teams, their observations and suggestions related to different areas, such as teaching strategies, time management, classroom discipline, classroom management style, spatial organization, and organization of the physical environment of learning (Item 17: SD=.673).
5. Cooperate with each other not only to reach a common understanding of conditions of students and their needs, and curriculum and educational policy, but also to change the concepts and practices, and to produce materials and activities that will improve education, curriculum, and assessment (Item 20: SD=.673).

The results show that the mean score of 1 item (1) is 1.73 (SD=.594): Believe that self-confidence, confidence in others, teamwork, coordination, and cooperation are essential ingredients for success.

According to the results, the mean score of another item (3) is 1.74 (SD=.675): Engage in Learning Communities (teams) at the level of the classroom or the subjects they teach (for example, the teams that include a number of teachers in order to: study the learning difficulties in a particular subject, develop teaching strategies in a specific field, or determine the feasibility of the application of modern techniques in learning).

Descriptive statistics of table 9 indicate that the mean value of the following 2 items is 1.75:

1. Discuss among each other the teaching strategies they use (in collaborative teams) and share experiences in this field (Item 14: SD=.629).
2. Study, in collaborative teams, the problem or phenomenon from different aspects -for example, when studying the phenomenon of the lack of motivation of learners, the team does not analyze the effect of one variable, such as teaching methods; the team also looks for the influence of other variables, such as classroom environment, school curriculum, family factors, social factors, and perhaps the interference between all these variables (Item 19: SD=.629).

Table 9 shows that the mean score of the other 3 items is 1.78:

1. Provide a classroom environment which encourages dialogue and discussion between teachers and learners and among learners themselves (Item 6: SD=.577).
2. Make students realize that what they are doing in the context of collaborative teams will be recognized and appreciated – collectively honor (Item 9: SD=.577).
3. Make learning useful and interesting through strengthening the link between the course contents and the needs of learners, their problems, and their reality (Item 12: SD=.682).

The results indicate that the mean score of the following 2 items is 1.79:

1. Recognize that the teacher became a facilitator of knowledge, instead of being the only source of this knowledge (Item 5: SD=.677).
2. Encourage learners to work in collaborative teams and make collaborative work a basis for learning – groups that are built within each classroom on a particular academic subject, or groups that are formed outside the framework of subjects and classrooms such as environment team, school radio team, culture team, sports team, and arts team (Item 8: SD=.677).

Finally, table 9 shows that the mean score of the last item (11) is 1.82 (SD=.604): Identify high expectations for learners, and make them know what is expected of them to know and acquire, as well as provide the necessary assistance or support by teachers to get to the required levels.

Data presented in table 10 refers to the teachers' role in transforming the school into a PLC through the private school principals' lens. On the other hand, data presented in table 11 refers to the teachers' role through the private school teachers' lens.

Items		SA	A	D	SD
<i>Teachers play an important role in transforming their school into a PLC. Therefore, they:</i>					
1	Believe that self-confidence, confidence in others, teamwork, coordination, and cooperation are essential ingredients for success.	0	36	11	13
2	Engage in Learning Communities (teams) at the level of the school, which include administrators, teachers and specialists in various areas (e.g. teams that are built to study a specific problem such as the problem of the flight of students from the school, or the problem of school violence).	0	36	7	17
3	Engage in Learning Communities (teams) at the level of the classroom or the subjects they teach (for example, the teams that include a number of teachers in order to study the learning difficulties in a particular subject, develop teaching strategies in a specific field, or determine the feasibility of the application of modern techniques in learning).	0	40	15	5
4	Believe in the mission and vision of the school which are declared and known by all of them and are committed, through their words and actions, to the principles and values contained in this mission and vision.	0	36	7	17
5	Recognize that the teacher became a facilitator of knowledge, instead of being the only source of this knowledge.	0	40	15	5
6	Provide a classroom environment which encourages dialogue and discussion between teachers and learners and among learners themselves.	0	36	11	13
7	Provide a classroom environment where innovative ideas are welcomed and respected.	0	40	15	5
8	Encourage learners to work in collaborative teams and make collaborative work a basis for learning (groups that are built within each classroom on a particular academic subject, or groups that are formed outside the framework of subjects and classrooms such as environment team, school radio team, culture team, sports team, and arts team).	0	40	15	5
9	Make students realize that what they are doing in the context of collaborative teams will be recognized and appreciated (collectively honor).	0	26	21	13
10	Strive to promote the mental activity and the search for what is useful and valuable as well as estimate the value of outstanding learning and make every student reach to the maximum level of learning according to his/her potentials.	0	32	7	21
11	Identify high expectations for learners, and make them know what is expected of them to know and acquire, as well as provide the necessary assistance or support by teachers to get to the required levels.	0	37	19	4
12	Make learning useful and interesting through strengthening the link between the course contents and the needs of learners, their problems, and their reality.	0	36	14	10
13	Make learners believe they are capable of learning, and that the error is allowed during the learning	0	36	5	19

	process, as well as transform mistakes into opportunities for learning rather than looking at them as events that should be avoided or prevented.				
14	Discuss among each other the teaching strategies they use (in collaborative teams) and share experiences in this field.	0	32	13	15
15	Focus on improving results through setting learning goals and outcomes that should be clear and measurable as well as identify indicators to measure teachers' performance in order to determine how to achieve these goals and outcomes.	0	36	5	19
16	Use formative assessment and new assessment tools which help to identify the strengths of the learner and aspects that need to be improved, as well as develop a plan to fill the gaps and improve the teaching and learning process.	0	40	15	5
17	Attend the classrooms of their colleagues and discuss, in collaborative teams, their observations and suggestions related to different areas, such as teaching strategies, time management, classroom discipline, classroom management style, spatial organization, and organization of the physical environment of learning.	0	35	8	17
18	Discuss, in collaborative teams, the work and activities of students (homework, projects, and exams) in order to enhance their knowledge, attitude, and skills in teaching.	0	35	6	19
19	Study, in collaborative teams, the problem or phenomenon from different aspects (for example, when studying the phenomenon of the lack of motivation of learners, the team does not analyze the effect of one variable, such as teaching methods; the team also looks for the influence of other variables, such as classroom environment, school curriculum, family factors, social factors, and perhaps the interference among all these variables).	0	36	9	15
20	Cooperate with each other not only to reach a common understanding of conditions of students and their needs, and curriculum and educational policy, but also to change the concepts and practices, and to produce materials and activities that will improve education, curriculum, and assessment.	0	35	8	17

Table 10: The Role of Teachers in Transforming the School into a PLC - Private School Principals' Lenses

Note: 4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree

Table 10 shows that the majority of school principals (the number varied between 32 and 40 participants) have chosen the "agree" response to 19 of 20 roles that should be played by teachers to develop and support PLCs in schools. Principals "agreed" that teachers play these 19 roles effectively in order to transform their schools into a PLC.

Concerning the remaining item (9), if the "disagree" response is grouped with the "strongly disagree" one, it follows that the majority of principals (34 respondents) have a "negative/very negative" perception about 1 of the 20 roles that should be assumed by teachers. In fact, the majority of principals don't consider that teachers "make students realize that what they are doing in the context of collaborative teams will be recognized and appreciated (collectively honor)". Moreover, it is quite clear from the results that none of the school principals has chosen the "strongly agree" response to any of the 20 teachers' roles.

However, table 11 shows that teachers' data is not consistent with principals' data. Indeed, if "disagree" responses are grouped with "strongly disagree" ones, it follows that the overwhelming majority of teachers (the number varied between 260 and 288 participants) have a "negative/very negative" perception about the effectiveness of their roles in building and sustaining PLCs in schools. In other words, teachers "disagreed/strongly disagreed" that they play effectively any of the 20 roles that should be assumed by them to transform schools into effective PLCs.

Items		SA	A	D	SD
<i>Teachers play an important role in transforming their school into a PLC. Therefore, they:</i>					
1	Believe that self-confidence, confidence in others, teamwork, coordination, and cooperation are essential ingredients for success.	5	8	187	100
2	Engage in Learning Communities (teams) at the level of the school, which include administrators, teachers and specialists in various areas (e.g. teams that are built to study a specific problem: the problem of the flight of students from the school, or the problem of school violence).	6	16	138	140
3	Engage in Learning Communities (teams) at the level of the classroom or the subjects they teach (for example, teams that include a number of teachers in order to study the learning difficulties in a particular subject, develop teaching strategies in a specific field, or determine the feasibility of the application of modern techniques in learning).	3	30	152	115
4	Believe in the mission and vision of the school which are declared and known by all of them and are committed, through their words and actions, to the principles and values contained in this mission and vision.	6	16	148	130
5	Recognize that the teacher became a facilitator of knowledge, instead of being the only source of this knowledge.	2	38	156	104
6	Provide a classroom environment which encourages dialogue and discussion between teachers and learners and among learners themselves.	6	6	204	84
7	Provide a classroom environment where innovative ideas are welcomed and respected.	2	21	147	130

8	Encourage learners to work in collaborative teams and make collaborative work a basis for learning (for example, groups that are built within each classroom on a particular academic subject, or groups that are formed outside the framework of subjects and classrooms such as environment team, school radio team, culture team, sports team, and arts team).	2	38	156	104
9	Make students realize that what they are doing in the context of collaborative teams will be recognized and appreciated (collectively honor).	6	6	204	84
10	Strive to promote the mental activity and the search for what is useful and valuable as well as estimate the value of outstanding learning and make every student reach to the maximum level of learning according to his/her potentials.	6	16	148	130
11	Identify high expectations for learners, and make them know what is expected of them to know and acquire, as well as provide the necessary assistance or support by teachers to get to the required levels.	3	23	190	84
12	Make learning useful and interesting through strengthening the link between the course contents and the needs of learners, their problems, and their reality.	3	35	156	106
13	Make learners believe they are capable of learning, and that error is allowed during learning process, as well as transform mistakes into opportunities for learning rather than looking at them as events that should be avoided or prevented.	5	13	142	140
14	Discuss among themselves the teaching strategies they use (in collaborative teams) and share experiences in this field.	2	25	169	104
15	Focus on improving results through setting learning goals and outcomes that should be clear and measurable as well as identify indicators to measure teachers' performance in order to determine how to achieve these goals and outcomes.	2	27	137	134
16	Use formative assessment and new assessment tools which help to identify the strengths of the learner and aspects that need to be improved, as well as develop a plan to fill the gaps and improve the teaching and learning process.	2	21	147	130
17	Attend the classrooms of their colleagues and discuss, in collaborative teams, their observations and suggestions related to different areas, such as teaching strategies, time management, classroom discipline, classroom management style, spatial organization, and organization of the physical environment of learning.	6	16	148	130
18	Discuss, in collaborative teams, the work and activities of students (homework, projects, and exams) in order to enhance their knowledge, attitude, and skills in teaching.	5	13	142	140
19	Study, in collaborative teams, the problem or phenomenon from different aspects (for example, when studying the phenomenon of the lack of motivation of learners, the team does not analyze the effect of one variable, such as teaching methods; the team also looks for the influence of other variables, such as classroom environment, school curriculum, family factors, social factors, and perhaps the interference among all these variables).	2	25	169	104
20	Cooperate with each other not only to reach a common understanding of conditions of students and their needs, and curriculum and educational policy, but also to change the concepts and practices, and to produce materials and activities that will improve education, curriculum, and assessment.	6	16	148	130

Table 11: The Role of Teachers in Transforming the School into a PLC - Private School Teachers' Lenses

Note: 4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree

5.3. Obstacles Preventing the Transformation of the School into a PLC

Table 12 presents data collection on Section C of the questionnaire.

Item	Private School Principals' Lenses			Private School Teachers' Lenses		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation
1	60	2.77	1.064	300	3.09	1.143
2	60	1.88	.640	300	3.59	.493
3	60	1.75	.704	300	3.63	.483
4	60	3.65	.481	300	3.59	.493
5	60	2.53	1.200	300	2.53	1.214
6	60	1.83	.827	300	2.33	1.116
7	60	2.30	1.046	300	2.33	1.116
8	60	1.75	.704	300	3.59	.493
9	60	3.22	.666	300	3.33	.618
10	60	3.37	.712	300	3.88	.326
11	60	3.02	.748	300	3.09	.751
12	60	1.75	.704	300	2.59	1.070
13	60	2.40	1.440	300	3.61	.599

Table 12: Descriptive Statistics about the Barriers Inhibiting the Transformation of the School into a PLC

It is quite clear from the results that the mean score value related to principals' responses is more than 2 (> 2) for 8 of 13 items listed in table 12; it varied between 2.30 and 3.65 (respectively):

1. Shortage of educational and technological equipment, thereby hindering active learning (Item 7: $M=2.30$, $SD=1.046$).
2. Lack of financial resources, thereby hindering the professional development of teachers and administrators in the school (Item 13: $M=2.40$, $SD=1.440$).
3. Pressure of daily administrative work facing the school principal: checking mailbox, caring for routine procedures, etc. (Item 5: $M=2.53$, $SD=1.200$).
4. Time allotted for the collaborative work in the school (both at the level of teachers or students) is not enough (Item 1: $M=2.77$, $SD=1.064$).
5. The customs and traditions of the school and the society that reinforce the traditional school culture based on hierarchical relationships, whether among school staff or between them and pupils (Item 11: $M=3.02$, $SD=.748$).
6. Intensity of the curriculum, thereby hindering active learning (Item 9: $M=3.22$, $SD=.666$).
7. Lack of materials and moral incentives that would encourage teachers to do so (Item 10: $M=3.37$, $SD=.712$).
8. Lack of training: teachers do not have the knowledge nor the skills required to do so (Item 4: $M=3.65$, $SD=.481$).

However, table 12 shows that the mean score value related to principals' responses is less than 2 (< 2) for the remaining 5 items; it varied between 1.75 and 1.88 (respectively):

1. Lack of training: the school principal and the admin team do not have the knowledge nor the skills required to do so (Item 3: $M=1.75$, $SD=.704$).
2. Senior management, which oversees the school management, does not give much importance to this aspect (Item 8: $M=1.75$, $SD=.704$).
3. Formal written texts (school rules) that reinforce the traditional school culture based on hierarchical relationships, whether among staff or between them and students (Item 12: $M=1.75$, $SD=.704$).
4. Teachers are not convinced about the usefulness of working with their colleagues in collaborative teams (Item 6: $M=1.83$, $SD=.827$).
5. The large number of students in the classroom, thereby hindering active learning both inside and outside the classroom (Item 2: $M=1.88$, $SD=.640$).

On the other hand, table 12 indicates that the mean score value related to teachers' responses is more than 2 (> 2) for all of the 13 items representing the barriers inhibiting to develop and support PLCs in schools; the mean value varied between 2.33 and 3.88 (respectively):

1. Teachers are not convinced about the usefulness of working with their colleagues in collaborative teams (Item 6: $M=2.33$, $SD=1.116$).
2. Shortage of educational and technological equipment, thereby hindering active learning (Item 7: $M=2.33$, $SD=1.116$).
3. Pressure of daily administrative work facing the school principal: checking mailbox, caring for routine procedures, etc. (Item 5: $M=2.53$, $SD=1.214$).
4. Formal written texts (school rules) that reinforce the traditional school culture based on hierarchical relationships, whether among staff or between them and students (Item 12: $M=2.59$, $SD=1.070$).
5. Time allotted for the collaborative work in the school (both at the level of teachers or students) is not enough (Item 1: $M=3.09$, $SD=1.143$).
6. The customs and traditions of the school and the society that reinforce the traditional school culture based on hierarchical relationships, whether among school staff or between them and pupils (Item 11: $M=3.09$, $SD=.751$).
7. Intensity of the curriculum, thereby hindering active learning (Item 9: $M=3.33$, $SD=.618$).
8. The large number of students in the classroom, thereby hindering active learning both inside and outside the classroom (Item 2: $M=3.59$, $SD=.493$).
9. Lack of training: teachers do not have the knowledge and the skills required to do so (Item 4: $M=3.59$, $SD=.493$).
10. Senior management, which oversees the school management, does not give much importance to this aspect (Item 8: $M=3.59$, $SD=.493$).
11. Lack of financial resources, thereby hindering the professional development of teachers and administrators in the school (Item 13: $M=3.61$, $SD=.599$).
12. Lack of training: the school principal and the admin team do not have the knowledge and the skills required to do so (Item 3: $M=3.63$, $SD=.483$).
13. Lack of materials and moral incentives that would encourage teachers to do so (Item 10: $M=3.88$, $SD=.326$).

Data presented in table 13 refers to the obstacles inhibiting the transformation of the school into a PLC through the private school principals' lens. On the other hand, data presented in table 14 refers to those obstacles through the private school teachers' lens.

	Items	SA	A	D	SD
1	Time allotted for the collaborative work in the school (both at the level of teachers or students) is not enough.	18	20	12	10
2	The large number of students in the classroom, thereby hindering active learning both inside and outside the classroom.	2	3	41	14
3	Lack of training: the school principal and the admin team do not have the knowledge nor the skills required to do so.	1	6	30	23
4	Lack of training: teachers do not have the knowledge nor the skills required to do so.	39	21	0	0
5	Pressure of daily administrative work facing the school principal (checking mailbox, caring for routine procedures, etc.).	20	7	18	15
6	Teachers are not convinced about the usefulness of working with their colleagues in collaborative teams.	3	7	27	23
7	Shortage of educational and technological equipment, thereby hindering active learning.	13	5	29	13
8	Senior management, which oversees the school management, does not give much importance to this aspect.	1	6	30	23
9	Intensity of the curriculum, thereby hindering active learning.	20	34	5	1
10	Lack of materials and moral incentives that would encourage teachers to do so.	30	22	8	0
11	The customs and traditions of the school and the society that reinforce the traditional school culture based on hierarchical relationships, whether among school staff or between them and pupils.	16	30	13	1
12	Formal written texts (school rules) that reinforce the traditional school culture based on hierarchical relationships, whether among staff or between them and students.	1	6	30	23
13	Lack of financial resources, thereby hindering the professional development of teachers and administrators in the school.	26	0	6	28

Note: 4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree

Table 13: Obstacles Inhibiting the Transformation of the School into a PLC - Private School Principals' Lenses

Table 13 shows that 5 of the 13 items are considered as an obstacle preventing the building and support of PLCs in schools.

According to this table, if "agree" responses are grouped with "strongly agree" ones, it follows that all the school principals (60 participants) perceived/strongly perceived item 4 as a barrier inhibiting the transformation of schools into PLCs (Lack of training: teachers do not have the knowledge nor the skills required to do so).

In addition, if "agree" responses are grouped with "strongly agree" ones, it can be concluded that the majority of principals (the number varied between 38 and 54 participants) perceived/strongly perceived the following 4 items as an obstacle preventing to develop PLCs in schools (respectively):

1. Time allotted for the collaborative work in the school (both at the level of teachers or students) is not enough (1).
2. The customs and traditions of the school and the society that reinforce the traditional school culture based on hierarchical relationships, whether among school staff or between them and pupils (11).
3. Lack of materials and moral incentives that would encourage teachers to do so (10).
4. Intensity of the curriculum, thereby hindering active learning (9).

Conversely, if "disagree" responses are grouped with "strongly disagree" ones, this implies that the majority of school principals (the number varied between 33 and 55 respondents) don't perceived/never perceived the following 8 items as barriers to transform schools into effective PLCs (respectively):

1. Pressure of daily administrative work facing the school principal: checking mailbox, caring for routine procedures, etc. (5).
2. Lack of financial resources, thereby hindering the professional development of teachers and administrators in the school (13).
3. Shortage of educational and technological equipment, thereby hindering active learning (7).
4. Teachers are not convinced about the usefulness of working with their colleagues in collaborative teams (6).
5. Lack of training: the school principal and the admin team do not have the knowledge nor the skills required to do so (3).
6. Senior management, which oversees the school management, does not give much importance to this aspect (8).
7. Formal written texts (school rules) that reinforce the traditional school culture based on hierarchical relationships, whether among staff or between them and students (12).
8. The large number of students in the classroom, thereby hindering active learning both inside and outside the classroom (2).

On the other hand, table 14 indicates that 10 of the 13 items are considered as barriers to transforming schools into effective PLCs.

Indeed, if "agree" responses are grouped with "strongly agree" ones, it follows that all teachers (300 participants) perceived/strongly perceived 5 items as obstacles inhibiting the creation and support of PLCs in schools:

1. The large number of students in the classroom, thereby hindering active learning both inside and outside the classroom (2).
2. Lack of training: the school principal and the admin team do not have the knowledge nor the skills required to do so (3).
3. Lack of training: teachers do not have the knowledge nor the skills required to do so (4).
4. Senior management, which oversees the school management, does not give much importance to this aspect (8).
5. Lack of materials and moral incentives that would encourage teachers to do so (10).

In addition, if "agree" responses are grouped with "strongly agree" ones, this implies that the overwhelming majority of teachers (the number varied between 234 and 294 respondents) perceived/strongly perceived the following 3 items as barriers preventing to build and sustain PLCs in schools (respectively):

1. The customs and traditions of the school and the society that reinforce the traditional school culture based on hierarchical relationships, whether among school staff or between them and pupils (11).
2. Intensity of the curriculum, thereby hindering active learning (9).
3. Lack of financial resources, thereby hindering the professional development of teachers and administrators in the school (13).

Moreover, if "agree" responses are grouped with "strongly agree" ones, it can be concluded that 2 other items are perceived/strongly perceived by the majority of teachers as obstacles to develop and support PLCs in schools (respectively):

1. Formal written texts (school rules) that reinforce the traditional school culture based on hierarchical relationships, whether among staff or between them and students (Item 12: 168 participants).

2. Time allotted for the collaborative work in the school (both at the level of teachers or students) is not enough (Item 1: 207 participants).

Conversely, if “disagree” responses are grouped with “strongly disagree” ones, this implies that the majority of teachers doesn’t perceive / never perceive the remaining 3 items as barriers to transform schools into effective PLCs (respectively):

1. Pressure of daily administrative work facing the school principal: checking mailbox, caring for routine procedures, etc. (Item 5: 168 respondents).
2. Teachers are not convinced about the usefulness of working with their colleagues in collaborative teams (Item 6: 204 respondents).
3. Shortage of educational and technological equipment, thereby hindering active learning (Item 7: 204 participants).

Based on the forgoing, it can be concluded that item 4 is considered as a barrier to transform schools into effective PLCs by both all school principals and all teachers (Lack of training: teachers do not have the knowledge nor the skills required to do so).

In addition, the other 4 items (1, 9, 10, and 11) considered by the majority of principals as obstacles to transforming schools into PLCs are also mentioned by the majority of teachers:

1. Time allotted for collaborative work in the school (both at the level of teachers or students) is not enough (1).
2. Intensity of the curriculum, thereby hindering active learning (9).
3. Lack of materials and moral incentives that would encourage teachers to do so (10).
4. The customs and traditions of the school and the society that reinforce the traditional school culture based on hierarchical relationships, whether among school staff or between them and pupils (11).

	Items	SA	A	D	SD
1	Time allotted for the collaborative work in the school (both at the level of teachers or students) is not enough.	165	42	48	45
2	The large number of students in the classroom, thereby hindering active learning both inside and outside the classroom.	177	123	0	0
3	Lack of training: the school principal and the admin team do not have the knowledge nor the skills required to do so.	190	110	0	0
4	Lack of training: teachers do not have the knowledge nor the skills required to do so.	177	123	0	0
5	Pressure of daily administrative work facing the school principal (checking mailbox, caring for routine procedures, etc.).	105	27	90	78
6	Teachers are not convinced about the usefulness of working with their colleagues in collaborative teams.	78	18	129	75
7	Shortage of educational and technological equipment, thereby hindering active learning.	78	18	129	75
8	Senior management, which oversees the school management, does not give much importance to this aspect.	177	123	0	0
9	Intensity of the curriculum, thereby hindering active learning.	120	162	15	3
10	Lack of materials and moral incentives that would encourage teachers to do so.	264	36	0	0
11	The customs and traditions of the school and the society that reinforce the traditional school culture based on hierarchical relationships, whether among school staff or between them and pupils.	96	138	63	3
12	Formal written texts (school rules) that reinforce the traditional school culture based on hierarchical relationships, whether among staff or between them and students.	72	96	69	63
13	Lack of financial resources, thereby hindering the professional development of teachers and administrators in the school.	195	99	0	6

Note: 4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree

Table 14: Obstacles Preventing the Transformation of the School into a PLC - Private School Teachers’ Lenses

6. Conclusion

The image provided by teachers about building and sustaining PLCs in schools is dark. Indeed, the overwhelming majority of teachers have a “negative/very negative” perception of the effectiveness of roles that should be played by principals and administrative staff (17 roles) and the effectiveness of those that should be played by them (20 roles) to create and develop PLCs in schools.

Regarding barriers inhibiting the transformation of schools into effective PLCs, teachers have identified 10 of the 13 mentioned in the questionnaire: 5 of these obstacles have been identified by all teachers (300 participants). Obviously, the identification of most of these obstacles by teachers also shows how the image provided by them about creating and developing PLCs in schools is negative.

On the other hand, this study shows that the image provided by school principals about transforming schools into effective PLCs is not consistent with the image provided by teachers. Although this image is not negative, it can be further improved.

The vast majority of school principals argued that they play with administrative staff all roles required (17 roles) to develop and support PLCs in schools: the vast majority has chosen the “agree” response to each of these roles. However, none of the principals have chosen the “strongly agree” response to any of the 17 roles.

In addition, the majority of school principals assured that teachers play the roles required (19 of 20 roles) to transform schools into effective PLCs: the majority has chosen the “agree” response to 19 of 20 roles. Nevertheless, none of the principals has chosen the “strongly agree” response to any of the 20 teachers’ roles.

Concerning obstacles that inhibit transforming schools into effective PLCs, principals have identified 5 of the 13 mentioned in the questionnaire. However, these obstacles are not minor and therefore they should not be neglected if school leaders want to build effective PLCs in their schools.

Based on the results of this study, it can be concluded that these 5 obstacles are also mentioned by teachers: one of them is mentioned by both all school principals and all teachers and the other 4 barriers are named by the majority of principals and the majority of teachers.

Obviously, the 5 obstacles mentioned by principals and the 10 obstacles named by teachers should be taken into consideration when proposing recommendations and suggestions to transform schools into effective and productive PLCs.]

7. Limitations and Recommendations

7.1. Limitations and Suggestions for Future Research

The sample of this study is one of the limitations confronting the validity of this study. In fact, geographically, the sample was localized in the *Mohafazat* (Governorate) of Beirut; the other five Lebanese *Mohafazats* were not represented in the sample. Future research should attempt to involve a larger and more representative sample of school principals and teachers across Lebanon.

In addition, the sample included only private school principals and teachers. No principals and teachers from the public school sector were involved. Future research should involve such participants so that a more comprehensive understanding of building PLCs skills is derived.

Moreover, the administrative staff was not represented in the sample of this study. Various school customer groups, especially the pupils and their parents, were not represented in this sample too. Future study should take these points into consideration.

On the other hand, the data had been collected using the quantitative procedure. The instrument used was the questionnaire. Researchers can also use a quantitative observation in order to have their own objective findings on the items evaluated by respondents.

Regarding the methodology, it could be improved. In fact, the current study has employed the quantitative methodology. It would be more valid to employ the qualitative methodology as well. In other words, the conduction of a semi-structured interview with some school leaders and teachers would be an added value for this study because this instrument allows researchers to have their own objective perception on the same items in the questionnaire. Future research should take this point into consideration.

7.2. Recommendations

This study suggests, through a selected sample of private school principals and teachers in Beirut, that developing and supporting PLCs in schools is not really effective.

Schools should integrate the building and the development of effective PLCs in their mission and vision. Strategic decisions as well as daily practices should contribute to create and support successful PLCs in schools.

In addition, the philosophy of the curriculum as well as its structure and content (objectives, activities, strategies of teaching and learning, and strategies of evaluation) should be at the service of the creation and development of productive PLCs in schools.

Schools should also allow sufficient time for collaborative work (either at the level of staff or students). Moreover, schools should provide materials and moral incentives to encourage teachers to transform their institution into successful PLCs.

School leaders and staff should try to change the customs and traditions of schools and society that reinforce the traditional school culture based on hierarchical relationships, whether among school staff or between them and pupils.

School policy concerning staff professional development should be oriented towards transforming schools into successful PLCs. Principals and school staff are called to enhance their knowledge, attitudes and skills related to the creation and the development of productive PLCs in schools (characteristics of successful PLCs, adult learning models, evolving role of principals, school's staff, students and parents). Several ways and activities can be used to achieve this purpose, such as:

- Reading professional books and articles
- Conducting individual action research
- Participating in formal training sessions
- Taking additional college courses (formal courses) such as enrolling in an MA or a PhD Program
- Visiting other schools which work as Professional Learning Communities.

School leaders and staff should facilitate and support the building of various forms of collaborative teams which is essential to create effective PLCs and to build a culture of collaboration in schools e.g. curriculum mapping (curriculum review), peer coaching, mentorship, study groups, critical friends group, clinical instructional rounds, reading groups, Japanese lesson study, collaborative action research, personal/professional learning networks (PLNs), and community of practice (CoP).

Finally, training providers and colleges of education are encouraged to make use of the findings of this study in designing their curricula related to school management (or school leadership), educational supervision, teaching diploma, and training of trainers (ToT).

8. References

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