

**Investigating Teachers' and Educational Leaders'
Perceptions and Practices on the Effectiveness of a
Teacher-led Professional Development Model in Abu
Dhabi Private Schools**

تقصي تصورات وتطبيقات المعلمين والقادة التربويين حول فعالية نموذج
التطوير المهني بقيادة المعلمين في مدارس أبو ظبي الخاصة

by

KHAYAL AL ALLAQ

**A thesis submitted in fulfilment
of the requirements for the degree of
DOCTOR OF PHILOSOPHY IN EDUCATION**

at

The British University in Dubai

May 2020

الجامعة
البريطانية في
دبي



The
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ABSTRACT

In view of growing emphasis in the field of education world-wide, and particularly in the United Arab Emirates, there is a strong demand for the refinement of instructional practices through practical and effective professional development. Teacher-led Professional Development (TLPD) is implemented by teachers in the field, rather than by external practitioners. It involves collaborative and reflective meetings, peer observation, and the cooperative refinement and implementation of strategies.

This study investigated educators' perceptions of the value of TLPD, and explored their notions on its impactful instructional benefits. In a sequential mixed-methods approach, data were first collected via a questionnaire from 305 educators from private schools in Abu Dhabi and Al Ain. Then classroom observations, semi-structured interviews and document analysis yielded qualitative data.

The findings revealed that teachers perceive TLPD to be effective for: 1) collaboration; 2) meeting school-wide priorities; 3) building leadership capacity; and 4) creating professional learning communities; thus 5) consolidating effective school leadership. These findings may offer principals, policymakers and teachers' solid insights into establishing a professional learning programme that contributes to effective reform, with practical and immediate advancement in pedagogy, positively impacting the educational process in the UAE and world-wide.

Key Words: Teacher-led Professional Development; Teacher Empowerment; Professional Learning Communities

ملخص

في ضوء التأكيد المتزايد على أهمية الارتقاء بقطاع التعليم على نطاق العالم بشكل عام وفي الامارات العربية المتحدة على نحو خاص، هناك حثٌّ دائبٌ على صقل الممارسات التعليمية من خلال التطوير المهني العملي والفعال. التطوير المهني بقيادة المعلم هو نموذج للتدريب المهني يقوده المعلمون في هذا المجال، بدلاً من المدربين الخارجيين. وينطوي هذا النموذج على اجتماعات تعاونية وتأملية، ومشاهدات الأقران، وتنقيح تعاوني وتنفيذ تفاعلي للاستراتيجيات.

كان الهدف الرئيسي من هذه الدراسة هو استقصاء وجهات نظر التربويين حول فعالية التطوير المهني بقيادة المعلمين وكذلك معرفة آرائهم حول دور التطوير المهني بقيادة المعلمين في صقل وتحسين المهارات التدريسية. وقد تم استخدام تصميم متعدد المراحل ومختلط للإجابة على أسئلة البحث في هذه الدراسة. تم جمع البيانات الكمية أولاً عن طريق استبيان من 305 معلمين من المدارس الخاصة في أبو ظبي والعين. ثم تم جمع البيانات النوعية من خلال إجراء مشاهدات صفية ومقابلات شبه المنظمة وتحليل الوثائق.

أظهرت نتائج الدراسة بأن التدريب المهني بقيادة المعلمين فعال في (1) تقوية التعاون المهني، (2) تحقيق الأهداف التعليمية الاستراتيجية للمدارس (3) بناء قدرات قيادية (4) إنشاء مجتمعات تعلم مهنية (5) تعزيز القيادة المدرسية الفعالة.

من المتوقع أن تقدم النتائج أفكاراً ورؤى متعددة لمديري المدارس وصناع السياسات التعليمية و للمدرسين حول تأسيس برنامج تدريب مهني بقيادة المعلمين ليساهم في تطوير و تقوية الاستراتيجيات التعليمية التي لها أثر سريع و مباشر في إثراء العملية التعليمية في دولة الامارات العربية المتحدة و كذلك في جميع أنحاء العالم.

الكلمات والعبارات الرئيسية: التطوير المهني بقيادة المعلمين، تفعيل الدور القيادي للمعلم، مجتمعات تعلم مهنية

Dedication

I dedicate this doctoral thesis to individuals that have always been and will always be my
lighthouse amidst tempests of life: my parents, my lovely family,
and my life mentor Lyn Craig

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This doctoral thesis, with all the details it contains, all the deliberation it involved, the sleepless nights it often required, and the tales of success and anguish it witnessed, would not have been possible without my close association with specific special people that stood by me throughout the time of envisioning, composing, and completing this research study. Hence, I take this extraordinary opportunity to extend profound feelings coming from the deepest part of my heart towards the following people:

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Khayal Al Allaq

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List of Abbreviations

ADEK: The Department of Education and Knowledge in Abu Dhabi

CPD: Continuing Professional Development

KDHA: Knowledge and Human Development Authority

MoE: Ministry of Education

OECD: Organization for Economic Cooperation and Development

PD: Professional Development

PLC: Professional Learning Community

SPSS: Statistical Package for the Social Sciences (software package)

TLPD: Teacher-led Professional Development

Chapter One

1.1 Introduction

Since there is a noticeable consensus in our ever-changing world today, considering education as the initial learning experience that precedes people's vast scope of learning that takes place in the professional path of life (Day, 1999; Graham, 2006; Jarvis, 2004; Knapper & Cropley, 2000; Organisation for Economic Co-operation and Development [OECD], 1998b; Nguyen et al., 2018; Van As, 2018; and Deal et al., 2020), building a successful experience for students is one sublime cause that brings all educational contexts together. When it comes to the current educational map, there is a fact that is undeniable and that is harmoniously linked to what forms part of the educational process in the world, which is the need for more depth and complexity in lessons to accommodate students' abilities and to stretch teachers' repertoire of skills (Long, 2012; and Igbinakhase & Naidoo, 2020).

This in turn requires the systematic and meaningful planning of learning opportunities for teachers in order to create an advanced learning context and experience for students (Spillane, 2015; Houchens, 2017; Putri & Widjajanti, 2019; and Hines et al., 2020). This is important, given that the world in general has already been shifting towards the era of accountability in the field of education. In view of the vast array of challenges that teachers face in the contemporary era of high stakes testing and international standards and exams, leaders have a constant need to forge a culture that promotes ongoing teacher training and teacher learning (Chen et al., 2017; Darling-Hammond, 2006; Polly & Orrill, 2016; Rehn et al., 2018; Swain, 2015; Youngs & Kings, 2002).

Another educational trend is Standard-based Education, which capitalizes on increasing teachers' accountability by setting learning targets for students to meet through the active involvement of stakeholders to ensure the active alignment of learning to the standards (Marx and Harris, 2006). It is an approach for bridging the gap between the learning outcomes and the evaluation of students' achievement, against meeting the pre-set learning outcomes that are aligned to the standards (Laksitowening, Santoso & Hasibuan, 2017).

Accordingly, limited exposure to professional learning experiences for teachers can jeopardize students' improvement and teachers' professional growth (Desimone, 2009; Sawchuck, 2012). Arising from an authentic account of professional development, the earliest successful experiences of professional development always linger in the memory as the key stepping stones towards an individual's journey towards professional fulfillment and qualifications refinement (Zepeda, 2018). Therefore, educational learners should strive to create meaningful and efficient PD experiences for their teachers to make every session a window for more professional growth and an opportunity for gaining expertise and knowledge. Illustrating the same point, DuFour (2004) asserted that school leaders should create a culture that encourages and nourishes daily opportunities for teachers to grow and advance (p.1).

Another discussion that supports the aforementioned is presented by Darling-Hammond (2006) in which he underscores the vital role of school leaders in steering positive professional development change and creating opportunities for teacher collaboration that form the essence of successful professional development (Yager et al., 2012). This in turn relates to another discussion that is integrally linked to leaders' roles in creating a culture of collaborative exchanges of experience among teachers, in the form of professional learning teams (Mendels,

2012). A metaphor created by Fullan (2007) portrays principals as “gatekeepers of change” (p. 156) who strive to drive change and transformation in their schools. Thus, the creation of a culture and a context that encourage inquiry and critical thinking is a paramount condition for improving teaching and learning (Croft et al., 2010; Hammond & McLaughlin, 2011).

The most effective professional development experiences are due to the authenticity, the relevance, and the empowerment that create differences and then allow for more difference to be made. When it comes to customized professional development that is based on years of experience, authentic relevance and genuine need for intervention, then PD becomes a vast resource of people, circumstances, contexts, and needs. PD becomes an intricate set of action plans that either makes or impedes the educational process and the growth of the educational institution, depending on how it is they are systematically planned and executed. To guarantee a fruitful professional development experience, having a clear vision and empowering teachers are essential to the actualization of PD programs that meet particular needs and that cater to teachers’ needs and work on moving them to a more advanced level of pedagogy (Zepeda, 2018). Based on the aforementioned, professional development should be set in a way that ensures immediacy and practicality of implementation (Abu-Tineh & Sadiq, 2018; Guskey, 2003). Hence, to structure a PD program that is overarching and is responsive to private school teachers’ needs in the UAE, there needs to be a focused and pragmatic program that guarantees the adaptability of techniques, applicability of strategies, and refinement of instruction.

1.2 Context of the Study: History of the UAE Education & Professional Development

Until the mid-1920s, the educational context in the United Arab Emirates, like life itself there at that point of time, was characterized by simplicity. During that time, education took the

form of lessons delivered by a local preacher in reading and writing and Islamic instructions (UAEF Interact, 2008, p. 8). After the discovery of a large oil reserve in the Gulf region in 1950s and 1960s, transformational changes started to take place under the reign of Sheikh Zayed bin Sultan Al Nahyan in 1966. Crowned with the Union in 1971, Sheikh Zayed's reign witnessed advancement at an unprecedented rate in areas of technology, infrastructure, economy, social and health services, and standards of living (UAE Interact, 2008; UAE National Media Council, 2013). With reference to the time the current study has been conducted in, the United Arab Emirates is an ambitious, multicultural and modern nation; vibrant with dramatic explorations of educational practices, scientific initiatives, and international cultural and economic engagements, especially with the focus on the UAE National Agenda that focused on leading the world in public safety, education, economy, entrepreneurship, and human development (UAE Government, 2014).

With this in mind, since the UAE was founded in 1971, its leaders regarded educational improvements as a central priority to advance the country's development in all aspects (UAE National Qualifications Authority, 2013). Sheikh Zayed bin Sultan Al Nahyan believed firmly in the profound value of education and stated that true wealth does not lie in money. It lies in men and this is what we call the true power that we value, and the greatest use of wealth is investing it in creating generations of educated and trained people (UAE Interact, 2008, pp. 19–20).

Building on this deeply rooted faith education, Sheikh Zayed's sons subsequently continued the legacy of their founding father and actualized remarkable advancement in education within less than a century. Today the educational context in the United Arab Emirates is undergoing profound transformations and clear revitalization, and the challenge in education in the UAE in the 21st century is to advance the quality and the relevance of education (UAE

National Media Council, 2013, p. 175). Before the focused professional development began, the educational leadership in the UAE had defined the educational priority for 2015-2016 which was improving teaching strategies and methods, which became the main focus of the country's five-year strategic plan in Education 2020, emphasizing the importance of teacher quality (Salem, 2014). Studying the educational context needs in the UAE, MacPherson, Kachelhoffer, and El Nemr (2007) underscore the need to rectify key problems in the UAE educational context which ranged from unsuitable curricula, inadequate libraries, ineffective instructional methods, superficial use of ICT, poor learning support, inadequate instructional spent in schools, ineffective school culture, inefficient school systems and lack of professionalism.

Also in focusing the central point on educational reforms, ADEK stated that "Educational change requires a deep commitment by principals, vice-principals, and teachers to engage in continuous self-reflection and growth through ongoing and meaningful professional development" (ADEK School Leadership, Handbook, 2012b, p. 3). MacPherson et al. (2007) asserted that UAE educational leaders needed to follow a distributed leadership approach to secure active connections with the stakeholders and the community. Also, Gallagher (2011) stated that the educational context in the UAE needed a coherent professional development plan which is currently nonexistent and is identified as a main barrier to successful reform (p. 69). Additionally, in the course of investigating the various possible challenges that education has faced, the Department of Education and Knowledge (formerly the Abu Dhabi Educational Council) stated that teachers' lack of relevant skills in pedagogy, as well as a lack of professional development opportunities for them, as the main challenges to be countered (Abu Dhabi Education Council, 2009a; Badri & Al Khaili, 2014).

In response, ADEK has embarked on two types of intensive strategic plans and training are: standardized and school-based. One example of the standardized programs was the Tamkeen Programme for which ADEC contracted western private education companies to create training courses for teachers. The other form was school-based professional development which was delivered by a head of faculty in the case of kindergarten, or cycle one or a visiting advisor in the case of cycles 2 and 3. There is relatively insufficient prior research on Teacher Professional Development in the UAE (McChesney, 2017). However, with the existing literature, evidence indicates that in ADEK schools, teacher engagement in professional development is high (Abu Dhabi Education Council, 2009b, 2012e; Badri, Al Nuaimi, Mohaidat, Yang, & Al Rashedi, 2016; Barrera-Pedemonte, 2016). For instance, the 2013 OECD Teaching and Learning International Survey found that over 90% of the teachers surveyed in Abu Dhabi participated in PD which gave Abu Dhabi a significantly higher rate of participation in professional development than other OECD countries (OECD, 2014b).

Ironically, despite this evidence of high participation in professional development, the quality of these PD sessions and the impact that they report are still raising concern (McChesney, 2017) for one important reason, namely that traditional courses and training are the most prevalent forms of teacher professional development (Badri et al., 2016), and teachers reported finding subject-specific and personalized coaching by education advisors more constructive and effective than workshop-style that was provided to them (Al Hassani, 2012; Augustine, 2014). In view of this, a considerable proportion of the teachers reported that their PD needs were not being fulfilled (Badri, Al Nuaimi, Yang, Al Rashedi, & Al Sumaiti, 2017).

The following UAE-specific studies provide a clear outlook for the potential developments that can take place in the educational context in the field of professional

development in the UAE. Using an anthropological study design, Harold and Stephenson (2010) projected the potential improvements that action research can bring to UAE positive educational reform. The researchers chronicled the “capstone seminar” of an undergraduate research module at Zayed University. The qualitative data were gathered over a period of five years, and the results showed that student teachers underwent difficulty during higher-level English research. Also the results showed that student teachers also found collaboration a main norm in this context (Harold & Stephenson, 2010, p. 240). The researcher concluded with the assertion that through the combination of collaboration and research, the authors found that students developed research and leadership skills that would prepare them to be potential UAE educational leaders in the future.

Another qualitative study in the UAE was conducted by Stephenson, Dada, and Harold (2012) who followed a longitudinal case study approach to discern central themes in the implementation process of a teacher leadership training programme, which was aimed at building teachers’ leadership capacities through collaborative research interactions that are informed by social learning theories (Stephenson et al., 2012, pp. 54-55). The researcher used observations, dialogue, focus groups. The findings indicated that the shared leadership approach was integral to the success of the PD program and also that collaboration contributed to the participants’ cultural responsiveness and professional collaboration and construction of knowledge. On the other hand, the study cited factors that hindered this success such as mistrust, anxiety, fear of bias, and negative attitude towards PD.

The researcher’s experience in the educational context in the UAE has extended over more than sixteen years, during which she held administrative and pastoral roles that enabled her to have the eye of both a teacher and a leader. This exposure has steadily built a passion and

interest in teaching and learning, through adapting and adopting approaches that would drive students' learning forward and can delve into the details of educational reform, which she has been part of in the educational fabric she belonged to and learned from. This experience of growing as a teacher, researcher, and educational leader helped the researcher experience different roles to vicariously envision the students, the teachers, the leaders, and the entire educational contexts.

The researcher's early experiences as a contributor to professional development came during the time she was a new but proficient teacher. Ever since then, the intrigue that was instilled in the researcher as a teacher who wanted to lead change has planted the seeds of professional development leadership readiness, and thus that very experience has undoubtedly nurtured the idea of teacher-led professional development (Avçi 2016; Marshall & Rossman 2016). The multiplicity of professional and academic experiences has often left an evident trace on the researcher and her connection to the research study (Hoskins, 2015).

Considering the gradual development of the researcher's interest in the field of teacher-led professional development, the positionality of the researcher has had its impact on constructing the experience and knowledge of TLPD and the way she perceives experience from the different perspectives she has held through the years (Marshall & Rossman, 2016). According to Bourke (2014) positionality reflects a subjective as well as objective combination. For this reason, there is a normal tendency to sway between being impartial or subjective. Kerstetter (2012) reported that researchers are often perceived by scholars as mediators moving between sheer subjectivity or objectivity, or what they usually refer to as being a "complete insider" or a "complete outsider". Based on the explained this, the researcher combines both roles, as she is both an

insider, given the fact she has been a teacher for many years and has developed her role through leading improvements in teaching and learning, even when she was a private-school teacher in the UAE, which added insight and practical knowledge to her experience.

On the other hand, the researcher can be regarded as an outsider in terms of her role as a senior educational leader overseeing TLPD and the development of teachers that contributed to it. Another reason that the researcher can be considered an outsider is that she comes from a different culture and country, and she can draw parallels or contrasts between the UAE educational context and her own country's context: Iraq. From the late 1970s and up until the present day, Iraq has been a republic that has suffered heavily from political upheaval, wars and economic sanctions; circumstances which have impacted the educational arena in Iraq and affected various factors pertinent to education and pedagogy (Roy, 1993; De Santisteban, 2005;; Issa & Jamil, 2010; Jawad and Al-Assaf, 2014; Ranjan & Jain, 2009). This provides a perspective that enables the researcher to see things the way they are (D'silva et al., 2016), to draw some emotional distance and preserve objectivity (Chawla-Duggan, 2007). Therefore, it is of tremendous importance to fathom the influence and role of positionality in driving the research study.

Embracing the 21st century's core skills and demands, the Gulf Cooperation Council (GCC) countries have witnessed a noticeable shift from the traditional educational systems that are deeply rooted in the notion of the teacher being the central giver of knowledge, to the empowerment of students as contributors to knowledge, and so be part of the knowledge-based economy that is no longer reliant on oil but rather on technology, science, education, tourism, and business (Khaleej Times, 2015; UAE Government, 2015; UAE Vision, 2021, 2010).

Therefore, for the UAE and any other country to become primarily recognized as a country that possesses a strong economy, this country has to advocate and apply facilities of technology, innovative thinking, and the building of knowledge (Hvidt, 2016). In solid attempts to steer the attention to a globalized economy that is diverse and solid, leaders in the Gulf region in general and the UAE in particular have set national agendas and clear goals towards sustaining economic improvement through building job opportunities that require critical content knowledge (Hvidt, 2016), which resulted in an emphasis on transforming education and market place requirements (AlQasmi, 2012). Hence, the UAE vision of 2021 has asserted the importance of exploring and utilizing science, research, education and technology to create impactful changes in the country's economy (2009).

Some of the challenges that are underscored by the Arab Knowledge Report 2010-2011, include the lack of a consistent link between teaching and market demands (UNDP, 2015). This in turn creates a gap for many of our graduates as stated by the report, which outlined that generally, most universities and colleges in the Gulf region and in the wider Arab world face obstacles in bridging the gap between the low level of education in elementary and middle cycles and the academic demands in universities, which dictates the necessity to upgrade teaching in all settings and contexts including private schools, regardless of obstacles they might face in funding training for teachers (Jahan et al., 2015; World Bank, 2008).

Hence, the need for building a strong foundation of education and learning has become one of the UAE's major priorities. This is also consistent with the central purpose of the Department of Education and Knowledge which is preparing students to acquire skills and competencies for the 21st century, in order that they can be innovative future citizens of the UAE (ADEC, 2015). Thus, with the growing demands and requirements of the current educational

arena, teachers need to be equipped with ongoing knowledge and expertise to expand their skills and enhance students' achievement (Grosemans, Boon, Verclairen, Dochy, & Kyndt, 2015). Research has shown that there is a link between teachers' professional development and the enhancement of their cognition, ability to deal with students, and acquisition of professional attitudes (DeVries, Jansen, & van de Grift, 2013; Kyndt, Gijbels, Grosemans, & Donche, 2016; Meirink, Meijer, & Verloop, 2007).

1.3 Statement of the Problem

The context discussion provides a base for the pressing need to advance various aspects of life, of which is education is seen as the most important. It is rapidly becoming evident that the UAE is embracing the national agenda of 2021 with all its targeted steps and its multifarious strands, particularly the ones that concern upgrading the field of education as a pivotal component of the twenty-first century targets (Cavanaugh, Hargis, Munns & Kamali, 2013). In this sphere, the MOE in addition to other educational authorities exemplified in ADEK in Abu Dhabi and KHDA in Dubai, have initiated focused programs and agendas that are disseminated across the country to ensure that educational practitioners and teachers are equipped with the required pedagogy that enables them to move the educational context forward, and to place the UAE at the forefront of educationally advanced nations (UAE Vision, 2010). Apart from advancing the tenets of education, the National Agenda capitalizes on fostering attainment in international exams, responding to critical thinking and logical reasoning, and applying cooperative learning principles and strategies. These key elements of the agenda make it paramount for all schools to consider creating specialized and responsive professional development experiences for teachers and heads of faculties to ensure a country-wide renaissance of teaching and learning that would help the UAE to actualize the national agenda

objectives in the most practical and efficient way. Not doing so risks neglecting this fundamental preparation for the coming generations that would lead to the deterioration of the country's economic and cultural status (Gardner, 2004). In light of this, the experience that guarantees the availability of the principles of an effective professional development experience lies in enabling teacher leaders to coach their fellow teachers, as they can relate to teachers' needs, everyday struggles, practical classroom needs, and the ways to put theory into practice immediately.

Therefore, the qualities of a PD that can combine the aforementioned qualities to draw on distributed leadership in its features of empowering teachers and delegating duties to teaching staff to take part in the positive transformation of the educational process (Deegan, 2014; Klar, 2012; Stringer and Hourani, 2016; Thorne, 2011). Many experiences of principals proved that following a distributed approach to leadership enabled them to meet reform requirements and country-wide educational priorities (Bredeson & Kelly, 2013; Kaniuka, 2012; Klar, 2012). For this reason, we can evidently sense the necessity for embracing this approach to leadership in order to create a community of professionals that are reflective of genuine everyday teacher concerns, difficulties, and professional needs (Margolis & Huggins, 2012). In this respect, research clearly indicates that distributed leadership enriches teacher leaders' involvement in advancing schools' professional instructional opportunities and practices (Yager et al., 2012).

Also, empirical and theoretical findings from various global and local studies indicate that there is a necessity for further research in several areas that form gaps in this study. These recent studies called for studies that investigate collaborative, customized, and innovative approaches to PD, enhancing teachers' practices through involving teachers themselves in the enhancement of their schools and classrooms as fundamental features of contemporary

approaches to PD. These can result in effecting transformations, enforcing positive reform, putting professional learning communities into action, reaping the benefits of PD programs, following a bottom-up approach to PD, enacting distributed leadership, and activating 21st-century practices and techniques. To illustrate this, Binkhorst et al.(2018) maintained that research could be conducted on how vertical teams can be governed within the frame of shared leadership and how coaching programs can be set beforehand to train coaches.

A further gap in the body of literature pertinent to the authentic involvement of teachers in PD was suggested by Gallo-Fox and Scantlebury (2016) that encouraged teachers' site-based PD by co-teaching and other internal practices in teacher learning and training. Other studies urged professional developers to enable teachers to explore and be enlightened about the opportunities and dimensions of teacher leadership and how to authentically embed this experience (Sinhaand & Hanuscin, 2017). Focusing on the influential role of teacher leadership, bridging this gap in the literature recommends the necessity to encourage collaboration, building capacity, embracing change, and using students' data to improve teaching and learning (Yin & Zheng, 2018). Liu et al. (2016) urged scholars to venture into research into the possible benefits of shifting the approach to PD from top-down (principal-dedicated approach) to bottom-up (teachers contributing to and running the PD culture). Calling for a combined PD model in which teachers of different subjects collaborate, learn, and reflect is one focus that needs to be highlighted in the literature to inform teaching, learning, and curricular progression (González & Skultety, 2018). Locally, Litz et al. (2016), who conducted a study in the UAE on various leadership styles, recommended a collaboration between principals and middle leaders and the other stakeholders to further foster teaching and learning (Dammak, 2017; Dirani & Hamie, 2017; Flores, 2018; Hallinger et al., 2017). Considering the fact that most of the studies are

global, there is an evident rationale for the need for a local study that authentically explores the role of empowering teachers to take the lead in PD and to start to steer the wheel of educational advancement in their schools and contexts. Moreover, the idea of the study is purely based on a creative initiative that was piloted with a small group of educators and departments, and then started to be formally applied as a whole-school PD scheme. This then provides a strong basis upon which the study is built and should be consolidated to obtain insight into the approach, and to reach conclusions on how this method of PD can further teaching, learning, leadership, and the involvement of stakeholders (Sun & Xia, 2018).

The education reform that the UAE is embarking on, stresses the necessity of students to be involved in learning, of which critical reflection, interaction and collaboration are key components (El Sayary, Forawi & Mansour, 2015). The former discussion shows the firm link between the current study with its foci of collaboration, innovation, problems solving, partnership with educational leadership and its relevance to the needs of the UAE context. The intention is to build a fertile context for embracing TLPD to expand pedagogical practices that are aimed at instilling the academic and interpersonal skills that our generations of learners need to become eager critical thinkers, and educators need to equip learners with the ability to be actively engaged in higher order thinking, innovative learning, and collaboration (El Sayary, Forawi & Mansour, 2015; Lepone, 2016). The answer to this is educational reform in the culture of professional development that needs to be contrary to what has been prevalent in terms of being traditional and distant from what teachers really need to progress. A framework of interactive professional learning is required in which teachers are active contributors, reflective practitioners, and well-rounded educational leaders, and that studies and constructive change is that led by data-driven educational research, informed by teachers' and students' needs. To sum

up the local context exemplified in the UAE vision of advancing education, the need for change in the professional development context, and the international trends of empowering teachers all provide rationale for the study.

1.4 Purpose of the Study

This study has a major twofold purpose: 1) to investigate teachers' and leaders' perceptions about the effectiveness of a teacher-led professional development model, and 2) to explore teachers' and leaders' notions and practices regarding the impact of teacher-led professional development. This was done within a framework of a 21st-century, distributed leadership approach that empowers teachers and assists them in creating a teacher-led professional development culture in some private schools in the UAE in order to enhance students' learning and teachers' expertise. To achieve this, the researcher targeted private schools, recognizing the benefits of creating a focused PD culture that addresses focal educational targets that the schools embrace; caters to teachers' various pedagogical needs; forges leadership opportunities, and consequently works towards actualizing the holistic targets of the National Agenda in enhancing the educational environment. Moreover, the study exemplifies an example of a private school experience in empowering teachers to mobilize fundamental changes to teaching and learning. The fact that the researcher is a teacher and a vice principal who set up the PD plan from its infancy gives a firsthand account of the possible circumstances, benefits, challenges and outcomes of setting-up and implementing a personalized PD method that focuses on meeting fundamental school priorities and plans.

Drawing on the authentic and contemporary needs of the United Arab Emirates, and building on its 2021 vision concerning preparation for the next 50 years initiative, this revolves

around planning for an educational experience that capitalizes the twenty-first century set of skills that enable the Emirati generations to explore the new horizons of the future. The UAE leaders have repeatedly advocated various educational and pastoral initiatives stressing that education is one form of great wealth that the United Arab Emirates possesses. In addition, the UAE education inspection framework outlines and details the quality standards that underpin the principles that help educational leaders to meet the Nation Agenda targets of achieving world-class education and to prepare today's youth to be the creative global leaders of the upcoming era (framework). Accordingly, the effective and planned delivery of teaching and learning is one of the key 21st century set of skills perceived in the Emirati context (Frache et al. (2019) to meet the demand of Emiratis.

In this regard the following three factors are reported as essential steps to actualizing this high-quality education: constructive leadership and governance, structured and efficient intervention, and the personalisation of the intervention and learning. This is linked to a set of 21st century skills in terms of critical thinking and collaboration, problem solving, communication, critical thinking (Chell, G. and Dowling, 2013), global awareness, information literacy, and technological literacy (Campbell and Kresyman, 2015), that all connect to the same set of requirements for the actualization of national agenda targets . Also, considering the focus on leadership and governance, we can find that it is important to build a leadership framework that is solid, well informed and that empowers teachers and helps them acknowledge their strength and employs them for their own advancement and their colleague's improvement. This in turn creates and interlocks with the fabric of mutual needs and relationships between the TLPD, the national Agenda, 21st century skills and also distributed leadership, especially concerning change mindset. Accordingly, the resulted harmonious and flexible set of

relationships that combine teachers and leaders would facilitate effective decision-making and interventions as leadership skills and opportunities are offered to teachers and middle leaders (Owen, 2016) as they work together towards a shared theme and a common goal (Xie, 2008)

The central aim of this research study was to investigate the role of the teacher-led PD model in transforming the professional development culture in a school, from the conventional top-down model to a culture of cooperative and interactive professional teams run within a framework of distributed leadership to enhance pedagogy and foster students' learning. The study looks closely at how this model can meaningfully consolidate school priorities, build capacity, and extend teachers' instructional repertoire of strategies and skills. This multifaceted change that is deeply rooted in an authentic experience inspired by authentic need has produced key results that inform teachers' instructional practices, professional development models, and the building of leadership capacity in schools.

1.5 Study Objectives and Questions

Study Objectives

The study objectives are the following:

- 1) investigating teachers' and leaders' perceptions about the effectiveness of a teacher-led professional development model, and
- 2) exploring teachers' and educational leaders' notions and practices on the impact of the teacher-led professional development.

Study Questions

The study revolved around the following overarching question: What is the impact of the teacher-led professional development model on enhancing teachers' pedagogy and school culture?

The study aimed at achieving its key objectives through answering the questions below:

1. What perceptions do Abu-Dhabi private school educators have regarding a teacher-led professional development model?

The first questions focus on unfolding the various perceptions that Abu Dhabi private school educators have towards TLPD in terms of the range of benefits it offers, and the various ways with which it helps teachers and leaders actualize pedagogical and educational priorities.

2. Are there any differences in the various perceptions that teachers of different genders, years of experience, subjects, and work cycles have about the teacher-led professional development model?

The second question targets the extent to which Abu Dhabi educators differ in their opinions about TLPD depending on their genders, years of experiences, and work cycles.

3. To what extent does the TLPD impact teachers' practices and educational leaders' skills?

The third research question explores the range of possible educational, instructional, and pedagogical gains of TLPD.

1.6 Significance and Relevance of the Study

This study investigates the role of empowering teacher leaders to take part in running a school-wide professional development program to enhance teachers' pedagogical practices, and give them direct access to strategies that can practically and innovatively move instruction forward within a context of a distributed leadership. In shedding light on the role of this model of leadership, we need to also make reference to 21st-century competencies and skills that enrich this approach to PD, and the related factors, figures and relationships that surround it. Hence, the study aims to enlighten senior and middle level educational leaders, coaches, mentors, and teachers on the merits of embracing an advanced model of leadership in effecting innovative

change that is instigated, run, and followed-up by teachers who relate to the field and endeavor to refine it.

1.7 Scope of the Work

The study is driven by the purpose of investigating the educators' perceptions on the value of teacher-led professional development. A sequential explanatory mixed method is used to answer the research questions in a way that guarantees depth and breadth (Johnson & Christensen, 2012). The first stage of the study involves the quantitative part that aims at investigating educators' perceptions regarding the teacher-led professional development model. The data was collected via a questionnaire from a sample of 300 respondents. The sample was selected using purposive sampling from a specific group pertinent to the study focus. The results were analysed and tabulated and were used as a main tool to construct the subsequent qualitative phase that included the class observations and the interview questions. The qualitative part delves into more detail about the practical impact of the teacher-led professional development model on teachers' pedagogical practices. The final phase which was the interview phase involved a sample of 20 respondents ranging from teachers, leaders, and coaches. As a final stage, the phases of the study were compared and explained in order to target the study purpose.

1.8 Summary of Chapter 1

Chapter one discussed the significance of teacher leadership and distributed leadership in driving professional development; it also shed light on the need for embedding 21st-century skills in the educational arena and the different initiatives that take place in it. The statement of the problem also underscored the gap in literature that gives rationale for the study and gives it relevance and importance. To give the study an effective starting point, the researcher outlined

the research questions, tying them to the previous discussion and moving from them to the more focused definitions of key terms. In the set of terms defined, the researcher emphasized Professional Learning Communities as a concept that sums up key principles that pave the way for effective professional development.

1.9 Structure of the Thesis

This study comprises five principal chapters: Introduction, Literature Review, Methodology, Data Analysis, and Discussions and Recommendations. The current chapter is the introduction that underscores essential elements such as the rationale, significance, problem statement, the purpose of the research study along with the research questions, in addition to the scope of the work. The next chapter extensively outlines the theoretical framework, conceptual framework, and literature review. The theoretical framework outlines the main theories employed in the study including constructivism and other theories connected to it, such as evidence-based management, Role Theory, interactionism, and Social Cognitive Theory. The conceptual framework is explained through an illustrative diagram of the theoretical framework, as well as the interwoven and intricate link between the theoretical framework and the conceptual framework. The literature review touches on key elements in teacher-led professional development, such as PLC, teacher leadership, effective PD, the culture of collaboration, distributed leadership, and enhanced self-worth. Former studies on the aforementioned are documented to provide a substantial body of evidence. Chapter three explains the methodology that the study uses through a structured organization of explaining the research design, the study population, the sample, the research instrumentation, data collection, pilot study, validity and reliability, in addition to ethical measures and considerations. Chapter four discusses the data analysis used in each study stage using tables and diagrams, and quotations from the participants

to add more clarity and depth, with the results of every phase analysed separately. The fifth chapter summarizes the whole study, capturing comparisons of results in the various stages of the study. The chapter also underscores the discussions of the findings and the holistic integration of results. The chapter concludes with the main recommendations, key limitations, and challenges faced in the study as well as suggestions for further research.

Chapter Two: Literature Review

2.1 Overview

The purpose of this study was to investigate teachers' and leaders' perceptions and notions on the effectiveness of teacher-led professional implementation in private schools. In this chapter, substantial empirical and theoretical evidence is outlined to support the myriad merits of collaborative, reflective, and teacher-led professional development. The previous studies build an overarching base for this study in terms of the theoretical threads that interweave different concepts, processes and actions in the study, and it also surveys up-to-date research in the areas of professional development, teacher leadership, effective characteristics of professional development, the value of collaborative practices in professional development, and the role of constructive professional learning communities in transforming the educational setting and building a culture of collaboration, leadership distribution, data-driven actions, and increased teacher and leader motivation (Westbroek, 2019). Research asserts that the educational leadership arena has been witnessing a shift from traditional leadership practices to distributed leadership approaches (Blanton, 2019; Smylie, Mayrowetz, Murphy, & Seashore-Lounis, 2007). In light of this, the focus is placed on leadership practice that fosters interaction, teacher involvement and empowerment rather placing this focus on the leader (Gronn, 2000; Spillane, Halverson, & Diamond, 2001). For this reason, professional development becomes a vital opportunity for distributed leadership to be manifested through active interaction with teachers and the structured involvement of them in shaping and sustaining professional development in the school to meet shared goals to effect tangible change (Gronn, 2000; Spillane, 2005; Yager et al., 2012). When leaders embrace this mindset in fulfilling professional priorities, they build capacity through the teachers that they involve constructively in the professional

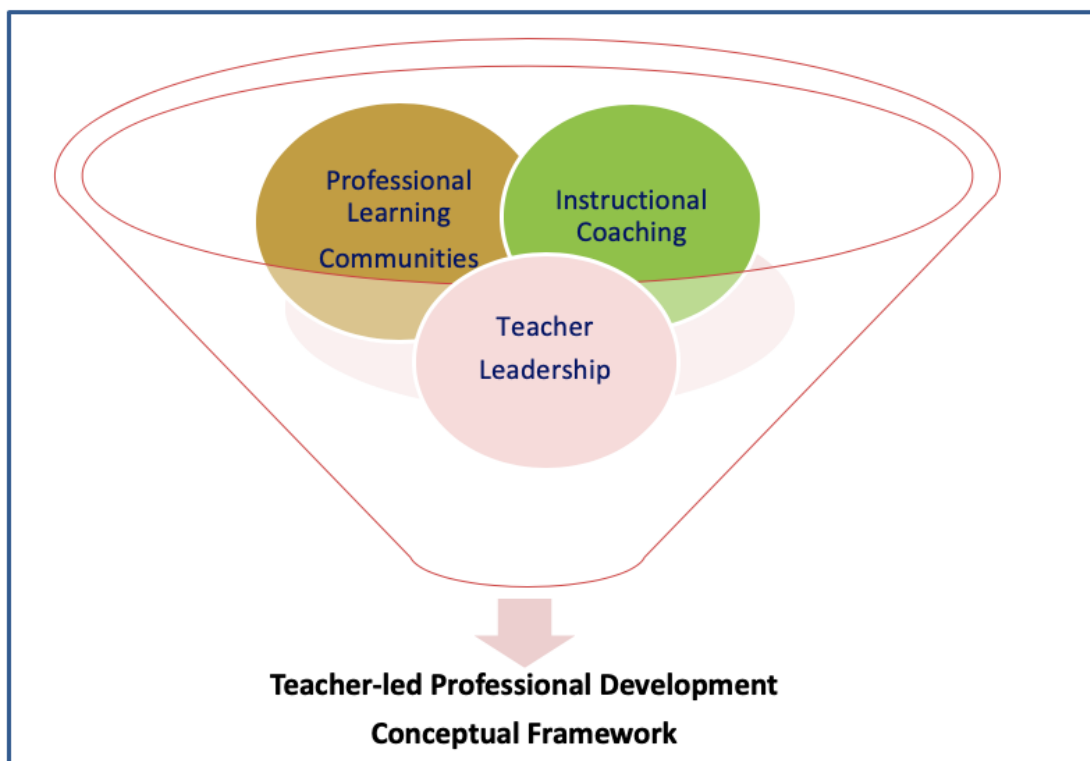
development process, and this in itself is the core of distributed leadership premises (Vlachadi & Ferla, 2013). A multiplicity of studies on teacher-led professional development indicate the evident effect of this practice on building capacity and creating leadership opportunities, ownership, belonging, and self-recognition (Pais, 2019). This form of professional development promotes positive curiosity, competitiveness, inclination to innovate and to think beyond the ordinary (Ramahi, 2019), which in turn has its valuable benefits for teaching and learning.

The more educators venture into the demands and requirements of the 21st century, the more the image crystalizes in terms of the necessity of adapting 21st-century skills of collaboration, critical and innovative thinking, especially when we consider the need to reach and maintain a standard-based provision and delivery, and hence it is rapidly being acknowledged that the tenets of the 21st century have been gaining stark prominence (Greenstein, 2012; Long, 2012; Sheninger & Larkin, 2012; Wilson, 2006). Therefore, in order to guarantee successful and beneficial outcomes for any strategic educational plan or initiative, the need is dire for 21st-century skills to actualize educational endeavors and projects to effect a tangible positive change in the educational process. To further illustrate the 21st-century leadership attributes, Wilson (2014) asserted that these skills revolve around twelve different indicators: 1) clarity of vision, 2) strategic planning, 3) promoting and exemplifying collaboration, 4) data-led decision making, 5) systematic thinking, 6) instructional forms of leadership, 7) building the school culture, 8) targeted population, 9) clear means of communication, 10) constructive involvement of stakeholders, 11) advocating and integrating advanced technology, and 12) universal and cultural understanding and responsiveness. Contemplation of the foregoing premises reveals how they have solid ties with the demands of the process of change related to launching a new PD model following professional learning communities' major principles.

2.2 Conceptual Framework

This section elucidates key concepts that frame the study and underlie the study in its myriad stages, ideas, actions, and themes. These concepts form a conceptual umbrella of thought that serves as an overarching thread of interrelated terms in the field of education in general and professional development in particular. As can be seen from the below figure, the concepts work hand in hand in one context that forms the teacher-led professional development in terms of the principal concepts of teacher leadership, professional learning communities, and instructional coaching. This can then lead to a solid combination of collaboration, commitment, vision, and practical manifestation of knowledge and experience.

Figure 1



2.2.1 Teacher Leadership

Different bodies of literature define teacher leaders as educators that work collaboratively with colleagues and school leaders to optimize and improve students' learning experiences (Fullan, 2001; Lambert, 2003a; York-Barr & Duke, 2004). Building on the same concept, and perhaps extending it, is a definition shared by Whitett and Riley (2003), who stressed the element of influence on an individual or a group activity that is directed by a certain goal or direction as a focal part of teacher leadership. To illustrate, teacher leaders are educators that forge learning contexts and experiences in order to advance the instructional practices of their colleagues, as asserted by Katzenmeyer and Moller's (2001) explanation of the same term meaning teachers who actually lead inside and beyond the boundaries of a classroom as they influence pedagogy and contribute to the school community (p. 6). Another fundamental notion in research literature about teacher leaders is the reference to them as catalysts for school improvement practices and initiatives (Durant & Frost, 2003; Leithwood & Riehl, 2003; Pugalle, Frykholm & Shaka, 2001; York-Barr & Duke, 2004). Another interesting depiction of the role of teacher leaders was given by Silva, Gimbert, and Nolan (2000) when they described teachers in the position of leadership as sliding doors that are open to reveal opportunities that influence teachers and students through continuous collaboration, reflection, and discussion.

When it comes to the active administration of roles at the whole school level, teacher leadership that is assigned formally as a position can yield better results and can evidently enhance students' achievement (Barth, 2001; DuFour & Eaker, 1998; Lieberman & Walker, 2007; Muchmore, Cooley and Crowell, 2004). This is because teachers within this role can facilitate school-wide projects and plans, such as professional development. In their study on teacher leadership, Katzenmeyer and Moller's (2001), along with York-Barr and Duke's (2004)

meta-analysis of an extended 20-year period of research review on teacher leadership, sum up the definition of teacher leaders as passionate professionals that have deep knowledge of their function and their roles which spring from their formal work, and go beyond their job descriptions to contribute to the educational fabric in which they exist, and which then form an important part of their role. They are, as Krisko (2001) asserts, individuals that possess leadership skills that are highly responsive to situations, various age groups, challenges, opportunities, and different needs.

2.2.2 Instructional Coaching

A fundamental asset of coaching as a form of professional development is that it is closely related to teachers' personalized professional priorities and students' learning needs and targets. The context in which coaching takes place is usually a responsive situation that requires immediate planned and targeted intervention. Though instructional coaching started from the early work of Joyce & Showers (1996), it is considered a relatively new approach in professional development that some school leaders resort to in order to make changes in teaching behavior and instruction (Killion & Harrison, 2006; Knight, 2007). What makes it an effective means of professional development is that the coaches are experienced in the field that they are coaching (Feger, Woleck, & Hickman, 2004; Kowal & Steiner 2007). Accordingly, teachers benefit from the collaborative opportunity to team teach, plan, peer observe, reflect and receive feedback (Borman, Feger, & Kawami, 2006). Thus, when a coach is an experienced practitioner that has expertise in the area of professional development that is being addressed, then the coaching contribution will be meaningful and constructive as the coach's experience will be translated into authentic sharing of experience and targeted follow up (Davis, 2016). Based on the above

discussion, instructional coaching can advance pedagogy as it is linked to mutual refinement of instruction and provision.

By using instructional coaching, teachers of experience and pedagogical repertoire can enhance instructional changes that reap learning and teaching benefits. This helps both the coach and the coached to go beyond the boundaries of the classroom and step into a vaster professional scope of intervention, improvement, and reflection (Crandall, 2011). It is a two-way benefit experience that inevitably fosters the instructional practices of both parties (Richards & Lockhart, 1994). This aspect of coaching as a powerful tool of academic and pedagogical transformation was deftly addressed by Richard DuFour (2004) in his book on professional learning communities. He elucidated the impact of instructional coaching as a catalyst for change because it is essentially linked to the continuity of students' learning (p. 6); it instigates collaboration among teachers (p.8), and it is result-orientated (p.10); hence it is deeply rooted in accountability, collaboration, and reflection. Other books published by educators and teachers in the early 21st century called for similar tenets and shared reflections on instructional transformations caused by coaching (Lewis, Perry & Hurd, 2004). Alongside this, significant improvement was reported in the Japanese educational system resulting from in-service professional development and voluntary contributions of different study groups (Sato and Leavitt, 1992, p. 163). Thus, instructional coaching is a pragmatic and efficient means of teacher professional development due to the scope of collaboration and collegiality it provides, the capacity it builds, and the enhancement of instructional practices that it guarantees (Denton & Hasbrouck, 2009; Fullan, 2011; Hargreaves & Fullan, 2013; Rodgers & Rodgers, 2007; Saphier & West, 2010).

2.2.3 The Professional Learning Communities (PLC)

The Professional Learning Community concept has been emphasized in literature since the 1990s. The main reason behind this is that this concept's premises chiefly support educational reform (Giles & Hargreaves, 2006; Harris & Jones, 2010), development of teaching practices (Horn & Little, 2010; Jackson & Good, 2009), and enhancement of students' learning experiences (Hughes & Kritsonis, 2007; Lomos et al., 2011). For this reason, establishing PLCs has become one of the paramount steps for school reform in many countries (Stoll et al., 2006). Although we cannot neglect the literature that states that developing PLCs can be a painstaking and time-consuming experience (Harris & Jones, 2010; Wells & Feun, 2007), educational contexts can benefit from the premises of the PLC to facilitate instructional practices and students' learning (Pang & Choi, 2012). In their discussion and explanation of PLC, Stoll et al. (2006) explain that a PLC is a group of practitioners that collaboratively and critically interact and discuss their practices reflectively in order to grow and step forward and effect positive change in the educational context (p. 223). The PLC rests on premises of collaboration, involvement, and mutual, ongoing learning (Hord, 1997). Indeed, in spite of the multifarious forms that the PLCs can take, there remains a principle that brings all the PLC forms together: all stakeholders work in collaboration to plan, follow up with, and reflect on professional initiatives and plans to optimize teaching and learning (Hipp & Huffman, 2010).

Past and contemporary research brings to light the teaching and learning benefits that schools gain from the incorporation of PLCs (Vescio et al., 2008). Teachers in a school that implement PLCs are satisfied, dedicated, committed employees that are keen on making a positive change (Jackson & Good, 2009). Moreover, Lee et al. (2011) and Vescio et al. (2008) maintain that teachers become more innovative, responsive, and confident when they are

involved in PLC initiatives and practices. Most importantly, students gain motivation and engagement from the adoption of PLCs in the school (Stoll et al. 2006) and they also improve academic performance in a PLC-enriched context (Lomos et al., 2011).

When a PLC is introduced initially, it can be done through a bottom-up approach based on the institution's needs (Vangrieken et al., 2017). However, Louis, Marks, and Kruse (1996) advised that the PLC can be conceptualized in five elements: shared vision and values, collective responsibility for pupils' learning, collaboration, shared practice, and reflective conversations. This emphasis on participants' contribution and collaboration was research-validated in some Chinese studies (Yin & Zheng, 2018; Zheng, Yin, Liu, & Ke, 2016). The overall benefits of PLC mainly are fostering and improving teachers' practices, adopting a strategy-focused, learner-centered pedagogy and consolidating achievement and school community culture (Yin & Zheng, 2018).

When examining the literature that captured the phase prior to PLC it was found that Watson (2014) outlined this period and the initiatives that followed to empower teachers to lead instructional change in schools. This researcher's article underscored the development of PLC and how it gradually started to pave the way for professional learning transitioning from professional development, and the role that collaboration plays in the effectiveness of PLC. Watson (2014) also alleged the necessity to conduct more research on PLCs stating that there is a gap in the understanding of them. Examining the PLC literature after 2005, it was found that there is more inclination to focus on the empowerment of teachers in actualizing change and in thinking about their own metacognition (Charner-Laird, Ippolito, & Dobbs, 2016), assuming organizational roles (Wilson, 2016), and enhancing positive change in the school culture

(Buttram & Farley-Ripple, 2016). In comparison, other researchers conducted studies that consolidated the concept of the PLC and the different contribution it has had and can have in the transformation of the learning culture in schools. Richmond and Manokore (2011) conducted a five-year study on PLC run by teachers to improve pedagogy. They undertook a thorough study of a 5-year reform-based project data on teaching science through teacher collaboration and communities. Following a framework of distributed leadership, the researchers analysed teachers' Professional Learning Communities' discussions during their meetings. The data analysis gave rise to five themes, which was complemented by teacher interviews that confirmed the discussion's findings. The findings indicated the teachers' ability to counter external obstacles through their PLCs, and the results also confirmed the importance of leadership and facilitation in maintaining the professional learning communities. The scholars concluded their discussion affirming the need to know the way with which these communities can be built, sustained, and supported in challenging contexts (p. 569).

Similarly, Poekert (2012) conducted a qualitative study in Miami Date focused on investigating the impact of collaborative teacher learning and PLCs in shaping and polishing teachers' pedagogical strategies, and increasing teachers' pedagogical growth in a reform-based initiative that aimed at improving teaching skills of elementary teachers. The researcher used classroom observations of 21 teachers, in addition to interviews and document analysis, and the data gleaned helped confirm the instructional benefits of teacher collaboration in professional development. In addition to supporting prior empirical research on teachers' role in effecting change and transformation in their school, the study also asserted that setting targets, running

action plans, creating opportunities for collaboration, and fostering collegiality are essential elements for actualizing positive change in the school within the framework of PLCs.

2.2.4 Distributed Leadership

Distributed leadership is often referred to as the formal sharing of responsibilities among several individuals in an organization (Harris, 2013; Klar, 2012; Woods, 2016); in the scope of the distributed leadership model, leadership responsibilities and duties are collaboratively shared among various individuals and contexts (Hulipa et al., 2012, p. 1746). As can be discerned from the term, distributed leadership relies in essence on the major body of leadership, which is the principal, and his or her perception of steering the responsibilities and duties (Ross et al., 2016). The concept of distributed leadership draws a frame that combines stakeholders within an organization and shows how they can activate constructive leadership. It connotes dynamicity and vibrancy of action, in comparison with static traditional structures of roles in which several people work together towards actualizing shared goals (Gronn, 2002; Mayrowetz, 2008; Spillane, 2006). Within the context of distributed leadership, teacher leaders can join certain groups that drive professional development and instructional change (Cooper, Stanulis, Brondyk, Hamilton, Macaluso & Meier, 2016; Nicholson, Capitelli, Richert, Bauer & Bonetti, 2016). Based on the aforementioned, several professional learning opportunities can evolve when a systematic distributed set of roles is governed by a leadership that caters for teacher empowerment and a contribution to a school PD culture of fundamental decision-making.

2.2.5 The Need for Effective Professional Development Programs

Building an effective teacher workforce that encompasses teacher training that improves instructional practices is one key factor in optimizing students' learning and achievement (Conn,

2017; McEwan, 2015). Therefore, teacher CPDs have been undergoing stages of quality assurance, evaluation of implementation and reflection in order to discern the effect of such programs on students' learning, for the purpose of enacting change in the educational system (Seidman & Tseng, 2011). The focus on teachers' readiness to embark on innovative teaching in which teachers act as the focal point of effective application and implementation can lead to transformations in teaching and learning (Gettings, 2017; Gross, 2016; Guzey, Moore & Harwell, 2016; Liao, 2016; White & Nitkin, 2014). Some researchers have discussed the role of the sustainability of such programs to generate changes in learning and achievement, as their lasting impact has been the focus of recent research (Bailey, Duncan, Odgers & Yu, 2017; Jenkins et al., 2018). For instance, studies of evaluation have shown the possibility of learning changes that drive improvement in student outcomes (Wolf, Turner, Jukes, Dubeck, 2018) due to the implementation of successful teacher PD. Several studies have examined the interaction and effectiveness of a web-based teachers' coaching program and found that it enhanced teacher-student interactions in addition to student learning over a two-year period in high schools (Allen, Pianta, Gregory, Mikami, & Lun, 2011). The researchers attributed the change in student achievement to the fact that the PD was sustained and given time to be implemented with some interventions. In contrast, a different recent study captures the lack of sustainability of a PD program which resulted in low levels of improvement in student academic performance (Murray, Rabiner, Kuhn, Pan, & Sabet, 2018).

Quality assurance and evaluation of PD programs has a crucial role in dictating CPD programs. A recent investigation and synthesis of 223 evaluations of in-service training programs in various schools of low- and middle-income countries asserted that teachers with limited skills need particular and specific guidance to reach the acceptable level (Ganimian &

Murnane, 2016). Thus, there is a dire need for a PD program that focuses on specific guidance, differentiated to accommodate various teachers' needs and variations in order to guarantee targeted success (Ganimian & Murnane, 2016).

Irony to the focus of this study and its purpose, is the robust evidence of the necessity of having an outside trainer that provides ongoing practical guidance for teachers in and outside the classroom (Kraft, Blazar, & Hogan, 2018). However, In one of the studies into personalized coaching, the results indicated the improvement of teacher-student interaction and the learning environment (Brown, Jones, LaRusso, & Aber, 2010; Raver et al., 2011) and prolonged and long-lasting gains in student learning and achievement (Allen et al., 2011). In a more recent meta-analysis by Kraft et al. (2018), 51 of 60 reviewed studies showed that coaching as an in-service training medium was one of the most effective models of professional development. According to Forte and Flores (2014), effective school leadership is a rich context for developing professional collaboration (p. 91), as it also strengthens teacher interaction and job satisfaction ((Forte & Flores, 2014; Goddard et al., 2015).

Evans (2014) perceives professional development to be a spontaneous and non-formal experience which does not have to always be a formal or explicit experience (p. 181). In addition, he explained that the PD process happens through active interaction that eventually paves the way for learning communities. Similarly, Cunningham, Etter, Platas, Wheeler and Campbell (2015) contended that the construction of teacher knowledge and experience can occur constructively through interactive professional learning relationships and experiences such as coaching and mentoring, as well as technological integration (Callahan, 2016; Joyce & Showers, 1982; Neuman & Cunningham, 2009). In addition, other scholars, such as Darling-Hammond and Richardson (2009) asserted that the most efficient PD approaches embrace practical

implementation, and not merely abstract discussions that teachers usually feel detached from and not involved in, which is contrary to models that encourage teacher interaction and involvement (DuFour, DuFour, Eaker, and Many, 2010).

2.2.6 Teacher Professional Collaboration

Multifarious terms have been used interchangeably and synonymously with professional collaboration which mostly signify different activities carried out in a school (R.D. Goddard et al., 2007). Such such terms include teacher networks, collegiality, teacher teams, and professional learning communities (Vangrieken, Dochy, Raes, & Kyndt, 2015). Professional collaboration is fundamentally linked to activities and initiatives that are led and carried out by teachers rather than school leaders (OECD, 2014, pp. 245-255). Hence, engaging teachers in the application of new instructional practices across the school is a paramount factor for school innovation and advancement (Bakah, Voogt, & Pieters, 2012a; McKenney, Boschman, Pieters, & Voogt, 2016). Therefore, the Dutch governmental bodies have recently asserted the need and intention to provide teachers with a fundamental role in constructing teaching and learning materials (Platform Onderwijs 2032, 2016).

2.2.7 Definition and Operationalization of Key Concepts

Coaching: Scholars define coaching as a multi-staged process whereby a lead teacher, leader, or practitioner professional enacts guidance for another person through smart target-setting, regular feedback, and reflection in order to improve a certain skill or area (Edwards, Snowden, & Halsall, 2016).

Professional Development (PD): Avido-Ungar (2016) depicted professional development as the ongoing refinement of skills and instructional practices during a person's career or educational

journey. An inspirational depiction of the value of professional development is underscored by Mizell (2010) who stated that professional development cannot be considered valuable unless it improves teachers' instruction and unless it fosters administrators' leadership skills.

Self-efficacy: A celebrated term and theory advocated and coined by Bandura (1997) capitalizing on people's self-recognition and worth.

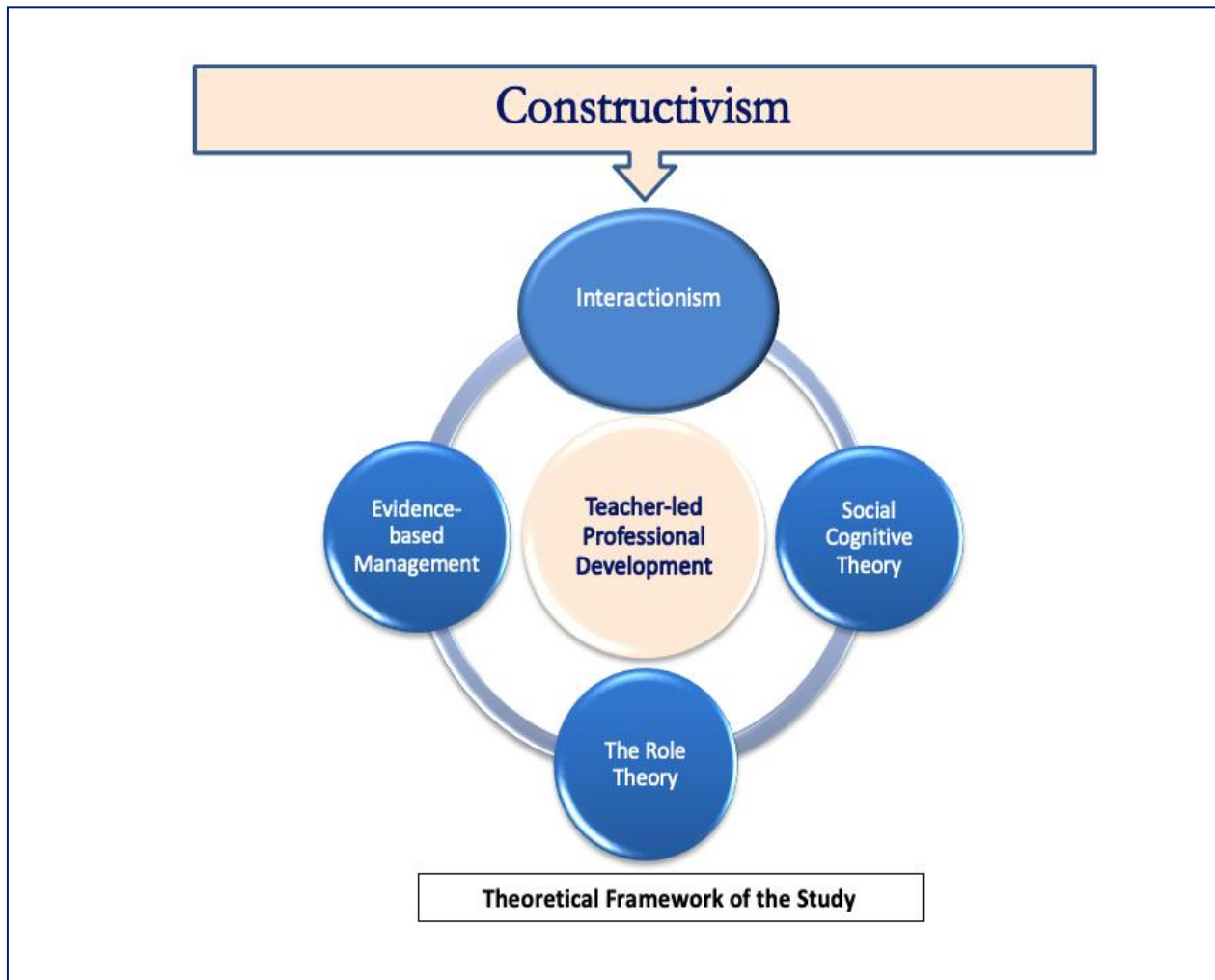
Distributive Leadership: This is defined as several channels of organized guidance that are usually united by a common culture, approach, and direction (Rappino, 2008). Other scholars, in a substantial body of literature on distributive leadership, refer to it as a group of leaders that advocate and adopt a certain set of ideas on how to lead their institution (Gilchrist, 2017).

Professional Learning Community (PLC): A process that is governed by systematic target-setting governed by a set of different factors that aim to empower leaders, teachers and students to enhance and refine the educational process (Dufour, 2005; Hord, 2009).

2.3 Theoretical Framework

This section provides insight into the theoretical framework of the study in terms of how the theories form a base of different but interlocked shades of thought that provide valid rationale for the study and solidify its necessity, nature, and stance. The theoretical framework depicts an intricate set of ideas that draw on constructivism as a wider area of thought and then cascade this into other more specific theories that are related to the practical implementation and execution of ideas, application of plans, and dissemination of roles and responsibilities.

Figure 2.A.



2.3.1 Role Theory

According to Biddle (1997), the perspective of role Theory first appeared simultaneously in various disciplines in social sciences beginning from the 1930s. The theory essentially analyses and focuses on the interlocked roles and expectations that are expected by individuals occupying a certain social position, especially a position that revolves around offering help and assistance, such as nursing and teaching. In this sense, Biddle (1997) draws on the former factors in defining the Role Theory as a perspective of thought that involves the examination of behavior that is pertinent to personnel working within a setting that has an amalgam of processes and procedures, and that are influenced and affected by this behavior (Biddle, 1997, p.4). In subsequent years, researchers began to find a more sophisticated and refined relevance to Role Theory, deviating away from simplistic explanations of the theory's implications. They focused more on the elevated analysis of teachers' roles as drivers of professional development and identities, and also linked Role Theory to the transformation of teaching and learning in schools (Beijaard et al., 1995; Connelly & Calndinin, 1999). Role theory also has its presence in shaping the perspective of teachers from a societal perspective that perceives them as engineers of change, and also from a personal and local perspective that captures them as steerers of change in their contexts (Korthagen, 2004).

Drawing on the premises of sociology and social psychology, role theory revolves around the effective distribution of roles among different individuals in different contexts in light of a set of common followed rules (Garcia, 2000; Hindin, 2007) Linking Role Theory to the change process that underlies the PD model that the researcher is advocating, it can be seen that there are convoluted routes and roles, multifarious people and tasks, in addition to complex situations and contexts that all flow and interact to make up realities of change. In the same vein, Role Theory

has strong ties with interactionism as asserted by many scholars and researchers. In this regard, the celebrated philosopher George Mead discussed the common ground shared by these two theories in his book *The Mind and the Self* (1934).

The notion of the role as a part that is played by an individual has existed for a long time, but then it gained prominence and started to develop explicitly in the 1930s. The meaning and the root of role from the perspective of Role Theory came from the scripts that were learned by heart by actors in theatrical performances (Biddle & Thomas, 1966). The same researchers then explained the theory in relation to the stage, as an illustration of the idea in real life. In this respect, they explained that people in a society hold different roles and positions which are determined by several factors that include social norms, rules, demands, the roles of other people with whom they interact, the way people respond to the roles, and by the individual's specific characteristics and abilities (p. 4). In the same field, Bess and Dee (2008) discussed the advantages and disadvantages of occupying formal roles, including include having specific boundaries that shape the individual's scope of responsibilities in defining standardized sets of behavior that help make the roles systematic and productive. On the other hand, formal roles can inhibit flexibility and smooth assimilation and adaptability in a certain organization. Thus, the key is to create a balanced approach to roles in a way that guarantees formality and at the same time adaptability (Bess & Dee, 2008). Owens and Valesky (2007) asserted that Role Theory has been employed intensively by researchers and practitioners to gain a better understanding of organizational behavior (p.131).

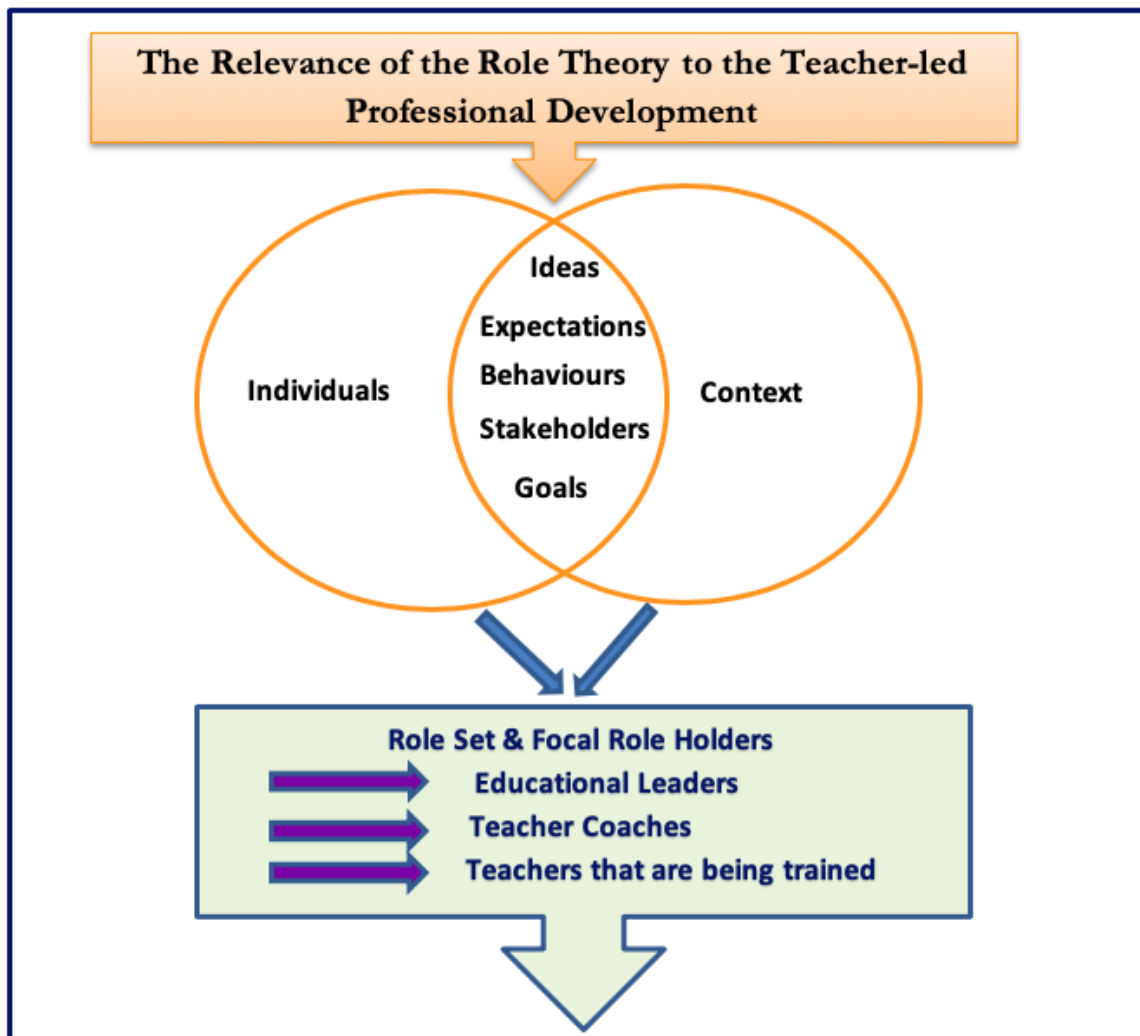
During the period of 1920s and the beginning of the 1930s, the Role Theory framework became prominent and salient simultaneously across multifarious disciplines in the field of social

sciences. In a concise definition of the Role Theory, Biddle (1979) stresses that Role Theory is linked to the study of a plethora of behaviors that define individuals that belong to a certain context and to a multiplicity of processes and actions that are influenced, produced, clarified, and impacted by those individuals' behaviors (p. 4). What strengthens the relevance of Role Theory and its connection to the current study is that it has been integrally linked to professions that are characterized as 'helping'; these professions include education, counseling, social work and definitely healthcare (Rheiner, 1982; Hardy and Conway, 1988; Payne, 1988). Thus, when we think of teacher-led professional development and the numerous factors, people, circumstances, influences, and contexts it involves, we think of the status of the people that are performing the roles and the different patterns of behaviour it instigates, and the context in which they work together. The context in this study is the school and the outside community by which the school is affected and to which the school reports and provides influences and initiatives.

The focal role holder plays a significant role in shaping and steering other people's roles in this context. The focal role holder is the educational leader and middle leaders that facilitate the professional development frame to ensure cascading the other roles of the rest of the individuals (teachers who are coaches, and teachers who are trainees). Merton (1957) defines the people whose ideas and expectations impact and shape the role of others as *role set* which can be linked to the focal role holder in the context in which the role is activated and embedded. **Figure 1.b** shows the organization and flow of roles in Role Theory. Individuals in the educational context are the stakeholders, educational leaders and teachers, while the context is the United Arab Emirates with and namely the emirate of Abu Dhabi which is governed by the Department of Education and knowledge set of rules and regulations. The roles become very interactive and influential as they interlock with the various ideas, expectations, behaviours, and goals the

individuals have and which the context dictates. This results in additional roles and responsibilities that arise from the teacher-led professional development as it progresses and evolves.

Figure 2.B.



For this reason, the links between Role Theory and interactionism are meaningful and solid as they are manifested in the myriad roles and communication channels that the discussed PD model would require. In support of this are the ideas shared by Blumer et al. (1969) in which he underscored how interactionism rules the several roles, rules, relationships, meetings and

interactions. When the foregoing set of roles and interactions are built harmoniously and start to yield the desired results that were planned ahead of time, a new sense of self-actualization and self-worth emerges crowning the process of change and interaction with the positivity and determination of fulfilling the targeted plan and consequently working hard to make it succeed.

2.3.2 Interactionism

Pertinent and meaningfully linked to the premises of Role Theory is another theoretical perspective which is interactionism. In the field of sociology, interactionism depicts a theoretical disposition that elicits different social interactions and processes (such as collaboration, conflict, identity formation, and assimilation) from the interactive relationships among people (Blumer et al. 1969). Interactionism started in the second half of the 20th Century. It involves the way individuals influence society and get influenced by it through the myriad meanings that arise from interaction. George Herbert Mead is considered one of the eminent advocates and developers of interactionism. Linking interactionism to the current study, figure 1 details the highly intricate and interlocked relationships that the professional development involves. It shows how the construction of knowledge happens alongside and through interaction. The interlocked lines show a visible interweavement of the interactionism that takes place in different relationships with the senior leaders that first form their professional development vision from interaction with the stakeholders, empirical research, theories, and educational trends. Then, the interaction evolves to encompass middle leaders; the key figures that would actualize the vision through the ongoing formative and summative interaction with teachers, students, the learning environment; and also the senior leaders and the decision makers. The aforementioned mode of interaction provides a rich context for generating experience, skills, priorities, improvements, flaws and solutions. Thus, interactionism forms a fundamental base for building this study.

The Canadian sociologist Ervin Goffman added a powerful element of thought into the frame of interactionism, which is the role of control in interaction. In other words, there must be systematic control of how the interaction yields meaning, roles, actions, and procedures. This can be linked to Role Theory, Constructivism, and also to instructional and distributed leadership. When we contemplate Goffman's notion of control in interaction, we find that without the systematic instructional and collaborative dimension of professional development we cannot actualize productive interaction that can yield change, intervention, and reflection. In relation to the aforesaid, the applied teacher-led professional development can then be essentially linked to interactionism in terms of how the professional development primarily relies on a harmonious set of interactions and relationships that form the reality of the growth in the educational system and in the teachers' repertoire of skills.

2.3.3 Evidence-based Management

Evidence-based Management (EBMgt) is a theoretical disposition that helps leaders and decision makers embark on managerial decisions and various practices and approaches that are informed by evidence elicited from the different resources including research and empirical evidence, experiences, evaluations, and observations. These are built on contextual managerial practices and initiatives; and the different principles, interests and preferences of people who are key players in the management practice and that are internally affected by the management decision and practices (Lilienfeld et al., 2013; Spring, 2007). Despite the fact that proponents of this theory allege that this is more efficient for knowledge-related organizations, research by the University of Oxford has shown that EBMgt is a crucial base that facilitates contextualization and embedding knowledge and decision making into livable and pragmatic practices (Fischer et al., 2016).

2.3.4 Social Cognitive Theory

Based on the fact that the current study aims to explore various levels of leadership, roles, and contexts that are activated through the consistent construction of reality, knowledge, and experiences, constructivism serves as one of the main theories that contextualize and give meaning and depth to the study. Under the umbrella of constructivism, Social Cognitive Theory is integral to the proposed study in terms of the light it throws on the nature of learning as a social behavior that is affected by observation (Bandura, 1986, 1994, 2007). Through the process of interaction, comparison of skills and discussion, a person can build his or her own repertoire of skills (Bandura 1986, 1994; Zimmerman & Schunk, 2004). Social Cognitive Theory, which was developed by Bandura (2001), states that the ideas and emotions people have about a certain skill can greatly influence the way they learn this skill. The theory essentially depicts three factors that come in vital play to regulate human learning: environmental, personal and behavioral (ibid, 2001). These foregoing elements result in interaction that leads to reciprocity, as illustrated in figure 1. In this sense, any counseling and coaching efforts can bring about the targeted changes in the individual's behavior (Bandura, 2011).

Linking the theory and the elements that define its tenets, it can be seen that the context of teacher-led professional development relies on teachers' and leaders' perspectives, ideas, and beliefs about the value of this model (Emotional Factors). It also relies on the teachers' and leaders' characteristics and qualifications that enable them to actualize such a model (Personal Factors). It depends on the general prevalent culture that defines and contextualizes the school and the extent to which this context can be enriched, modified, nurtured and constructed to meet the school's professional priorities (Environmental Factors). To add, Social Cognitive Theory also capitalizes on how the individuals have recognition of self-beliefs that help them to lead

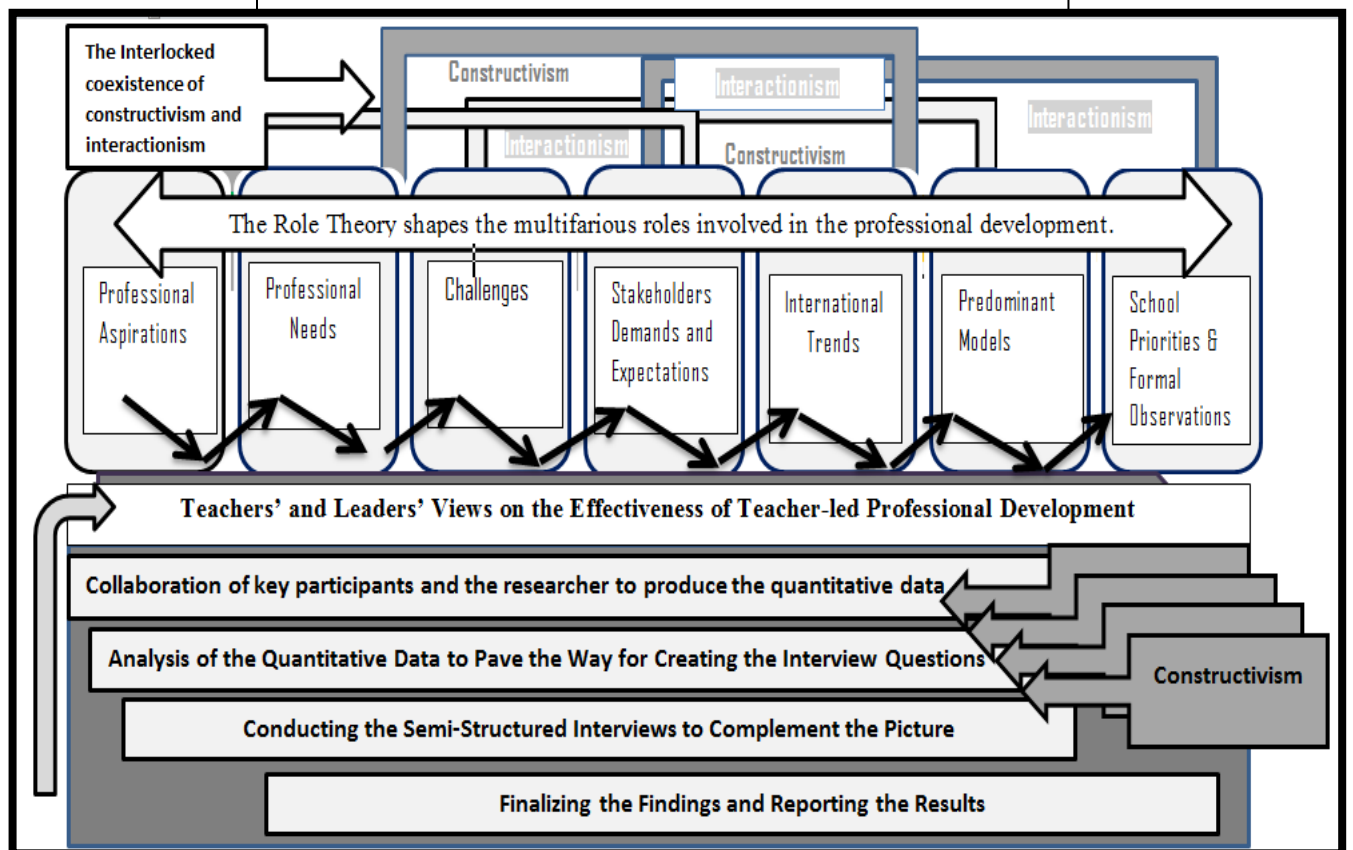
their way towards their goals and actions that they fulfill through different roles and contexts (Zimmerman, 2000). Linking this theoretical framework to the current study, we can see that the intricacy of different relationships, discussions, priorities, and adaptations gives rise to the development of the study stages, from the exploration of topic stages to the gathering and reasoning of findings and recommendations.

In this sense, the researcher's role is brought to life through the many contexts of roles that she could build within her capacity as a vice principal. The roles range from head trainers, from the senior leadership layer; coaches, from the teachers that belong to the very good and outstanding levels according to senior leadership evaluation; and to the senior leadership team that overlooks and monitors the whole process. The duties of the indicated figures primarily rely on interaction, collaborative preparation, the exchange of ideas and delivery of sessions.

Apart from that, the new PD model along with its underlying stages, manner of execution, phases of quality assurance, and reflection is a bottom-up approach through which experienced and outstanding teachers can provide professional help and coaching for other teachers within a systematic framework of coaching and professional development. Hence, based on the tenet of cooperation, which is a pivotal component of this model, we can say that constructivism meaningfully underlies the way the study is conducted and fulfilled. In the same vein, the theory of constructivism forms the base on which the researcher is basing the whole research approach and the perspective or lens through which the researcher sees the study and attempts to answer its questions, including the pilot phase, the revision phase, the implementation and the reflection phase. Thus, the current study was established from the perspective of a social constructivist's view in the sense that qualitative researchers solidly

believe that knowledge is constructed and built rather than discovered and revealed (Stake, 1995, p. 99). In sum, constructivism fleshes out two perspectives: the thread that combines all players and figures in this study, and it also represents the way the researcher perceives the whole study and the plethora of stages, changes, and circumstances that it has.

Figure 3: The Theoretical Framework Shaping the Study and Its Stages



Analysis of Figure Three

The diagram above illustrates the interlocked and positively interacting nature of the professional development model as it works and flows alongside the theories that underlie it and

the key people that construct its crux of action. The top part of the diagram shows the two principal theories that overarch the study and give it its meaningful umbrella of thought, planning, and execution. The lines pertaining to constructivism are dark grey, intersecting with the light grey lines that represent interactionism.

Looking at the second part of diagram, it can be seen that both lines provide a visual background for the elements that shape the need for the professional development model. These include the professional aspirations, needs, challenges, stakeholders' demands and expectations, international trends, predominant models, and school priorities that stem from the national agenda and classroom observations. The black arrows that frame the different factors show the different levels of relationships, interactions, and communications that take place within and across these different elements. Nevertheless, interactionism is a dominant feature of this part as it extends across the elements and serves as the overall base for them.

The third part of the diagram shows the interplay of the different stages of the study and the different participants in them. Interactionism takes a salient role in every box suggesting a single stage of the study, beginning with collaboration and ending with the finalization of findings and the reporting of results. On the right side of these staged processes is constructivism shaping the overall administration of the study, which serves as a visual embodiment of how the researcher perceives the study as a construction of knowledge and experience, and how it also envelopes every single process that is carried out in the study.

2.4 Literature Review

The researcher intends to underscore different studies that place emphasis on key themes that are linked to the proposed study variables. The themes are the role of Professional Learning

Communities in fostering a collaborative culture to professional development; the 21st-century skills as factors for fostering innovative change in education; the role of focused coaching in yielding desirable results in teaching and learning; the value of teacher leadership in driving professional development; the instructional benefits of teacher-led PD; the effectiveness of instructional leadership in activating change; and the teacher-led PD as an efficient context that meets the characteristics of effective PD experience, in addition to the self-efficacy that results from empowering teachers.

2.4.1 The Role of Instructional Coaching in Improving Teaching and Learning

Considering how coaching as an experience stems from the authentic application of skills and an unthreatening means of exchanging instructional practice, it can be inferred that coaching as a characteristic adds more depth, practicality, and efficacy to the program in which it is used. Stemming from personal experience, the researcher received her early training as a teacher from a middle leader, who chose at that time to change from being an observer and scrutinizer, to experience the role of a caring coach. This was the crux of success for the researcher at that time as a novice teacher eager to learn and ready to explore teaching and learning. Connected with this, and based on several empirical studies, coaching is perceived as an efficient strategy for professional development, for it is professionally relevant, contextually authentic, and thematically focused (Stover et al., 2011). The current study also capitalized on how several beneficial outcomes can arise from coaching such as continuous reflection, working on improving targeted actions, and expanding instructional experiences. This explains the rapid improvement that takes place in many of the informal contexts of training. It is perhaps the feeling of safety and the freedom to put theory into practice without the fear of scrutiny.

Anthony (2009) brought to light the myriad advantages of coaching through the investigation of the merits of instructional coaching of literacy; he focused on the role of coaching in enhancing instructional practices, building communities, and improving students' achievement. The study was administered in New York using an ethnographic approach to observations and interviews with teachers. The analysis of this data relied chiefly on reflective interpretation from field notes, observations and interviews. The first stage involved observations, follow-up debriefings, discussion meetings, reflective briefings, and formative ongoing evaluation. The teachers responded positively to the coaching intervention through improved self-recognition and enhanced teaching pedagogy. The findings supported coaching as a tool for building capacity, enhancing instructional knowledge and repertoire, increasing student achievement and building a cooperative school culture. The fact that this study was qualitative enabled the researcher to delve into different insights and practices that the respondents revealed in the interview and through the different actions and observation examined and reflected upon in class visits.

When sufficient time is spent on researching a phenomenon and exploring it, more realities, circumstance, benefits, and challenges crystalize and become more fathomable. This can be especially seen in longitudinal studies such as one that unveiled a similar set of benefits to the above studies on focused PD and coaching. Biancarosa, Bryk and Dexter (2010) undertook a longitudinal study that aimed at exploring the impact of collaborative coaching in the development of literacy instruction and practices. The first phase of the coaching program included training for the coaches before the start of the formal training. After that the researcher collected data, starting from the second year of the program, with the study's findings showing improvement in instruction and students' learning and attainment. Although this study was

challenged by two studies' findings on the same focus by Garrett (2008) and March (2008), who offered a different perspective on coaching contending that it is a tool that did not yield any impact on students' achievement, the multiplicity of studies assert the practicality and the suitability of coaching as a tool for teaching improvement, learning engagement and eventually leading to improved student achievement. This is confirmed in a study by Witmer (2019) which followed a quantitative design to analyse the impact of instructional coaching initiatives on the National Occupational Competency Testing assessment outcomes of career and technical educational students. Wilmer used two independent samples t-tests, while another test was used to evaluate the difference between the results prior to and after the implementation of the instructional coaching. The results reflected the positive outcomes of coupling teaching with instructional coaching, which was shown in students' increased achievement in the exams. In addition, the present researcher's experience as a coach, and a vice principal helped her witness and see instructional coaching benefits in action, especially in student achievement; however, it is important to indicate that the impact on achievement might require some time to be reflected on.

The pragmatic approach that instructional coaching provides in enforcing and facilitating educational change brings to mind the necessity of utilizing in-school capacity to gear-up for the change and make it happen in the most practical way possible. In tackling this point, instructional coaching lends itself as an effective way of helping to make instructional changes in teaching and learning. Bryant (2019) investigated the effect of instructional coaching on assisting math instruction. The study followed an intrinsic case study design that targeted five middle school teachers' viewpoints through semi-structured interviews. The themes that emerged from the interviews included cooperation, observation and feedback, data analysis, professional

development and achievement. This resulted in constructing a professional development program that was based on collaborative interaction between teachers and coaches. The study can inform constructive change culture that results from instructional coaching and teacher interaction in professional development. What makes this interaction one of the fastest ways to professional learning change is that it involves a non-threatening environment, ongoing reflection, and targeted improvement. In the course of working closely with teachers and middle leaders, the researcher finds the link authentic and relevant, especially that

Coaching as a practice is integrally linked to change, as it is designed to target it and to make it positive. In support of this, Dietrich (2019) did a qualitative phenomenological study to explore the experiences of instructional coaches that was aimed at influencing change in their schools and positively altering instruction. Six instructional coaches participated in the study and responded to semi-structured interviews that were based on Seidman's (2013) three interview protocols. Dietrich used NVivo to code the themes and categorize them. These themes were quality assured by member checks and thorough profiles that were created on the participants' research sites. The findings indicated several themes that clarify barriers in instructional coaching but also indicate the growing impact of it as an authentic learning experience. However, the study indicates that individualized coaching is more effective and that the coaching is less threatening when the focus is mainly on students' learning rather than teacher's instruction. Nevertheless, even when attention is drawn to students' achievement solely, teachers are often considered to be the ones to be held accountable for students' attainment, especially in some of the conventional and superficial educational contexts that are often prevalent in many of the Arab countries.

The solid link between teaching and coaching makes the latter an efficient tool for constructive instructional changes for the reason that it stems from the heart of the classroom and because of challenges or dreads rising from the classroom. Thus, when a coach offers practical and authentic advice, the trainee feels more confident and at ease in applying the recommendations or implementing strategies taught. This is clearly mirrored in the upcoming studies that chiefly focus on the practical and authentic pedagogical benefits of coaching.

Similarly, Jasso (2018) did a qualitative and quantitative study investigating teachers' views on efficient instructional coaching in terms of what elements of instructional coaching contribute most to improvement in teaching and learning. To collect quantitative data, the Jasso administered a survey to 500 teachers from six states from multiple U.S. regions. To collect qualitative data, the researcher interviewed five teachers while another two teachers kept a journal record for a month to reflect on coaching interaction. The results indicated that teachers find instructional coaching a beneficial professional development program that is integrally linked to their classroom practice and which helps them apply new strategies.

Technology-related professional development is often perceived as one of the most challenging ones as it is one of the models that defies the predominant teaching and learning models. Macdonald (2018) explored the effectiveness of instructional coaching in a K-8 school district in Southern California as a model for combining technology with teaching. He followed a quasi-experimental design, and a pre-survey was used to collect data from 433 staff members and a board of education, in addition to 62 questions post-survey. The results indicated the more practical, informative and relevant benefits yielded from the instructional coaching compared with a traditional professional development model. The study also gave useful insights on the

advantages of integrating technology in instruction. Perhaps this serves as one of the strongest pieces of evidence on the merits of instructional coaching, for the study is linked to the coaching of technological skills which are not perceived generally as challenging to master, and which indicates that coaching in this case can even help trainers and leaders to equip their teams with skills that are not easy to acquire.

Emphasizing the sustainability of coaching as a form of ongoing professional development, Holland (2018) addressed the discussion and argument of researchers that emphasize the effectiveness of mentoring and coaching as a continuous PD model. The paper aimed to show how a mentoring community can assist mentors in creating professional engagement. The researcher followed a qualitative approach following a participatory action research model, and the participants included 12 mentors that collaboratively developed a community for professional learning. The workshops were videotaped and scrutinized, while other sources of data were reflective journals and plan progress diaries. The researcher used NVivo software to code the themes that arose, and the findings of the study reported engagement, interaction, collaborative learning, and expanding learning and knowledge.

As can be discerned from the reported benefits of instructional coaching, including instructional coaching as part of a PD program will help teachers, and middle and senior leaders make instructional change a more accessible and achievable target as it is based on targeted improvement resulting from an authentic need for change and improvement. The current study is integrally linked to instructional coaching in the way it empowers teachers and the way it makes professional development an embedded practice that draws on strategy, reality, collaborative problem-solving and pragmatic intervention. As can be seen, six studies out of nine were

qualitative. Hence, the current study offers an additional perspective to the value of instructional coaching by conducting a mixed-methods approach.

2.4.2 Twenty-first Century Skills and the Collaborative Nature of Teacher-led PD

The competencies and skills of 21st century learners and leaders come together to form a combination essential to an era that is marked with rapid changes and responsive adaptations that need to be made, especially in the field of education and educational leadership. It is often difficult to separate cooperation in the context of professional development from twenty-first century skills, as all these skills and competencies are deeply rooted in interaction, collaboration and collaborative reflection and planning. In this regard, Wilson (2014) revealed the features of 21st-century leadership following a quantitative method through administering a 21st-century leadership survey in Southeastern Virginia to find out the views of 108 participants on a leadership training university programme, focusing on the preparation of principals to be 21st-century educational leaders. The results showed that though the principals agreed on the adequacy of the training programme; the findings reflected the need to re-write the program to include fundamental 21st-century skills that can prepare educators to become contemporary 21st-century leaders. In his extensive discussion of 21st-century leadership, Wilson (2014) underscored the twelve pivotal traits of constructive 21st-century leadership that were explained at the beginning of the current chapter. The twelve features of 21st century leadership provides insight into the various components that comprise an effective PD initiative that is school or district wide, and combines sub-tips that work for school leaders, coaches and teachers in creating a change culture and a change attitude.

Discussing the factors that sufficiently prepare leaders for the adoption of 21st-century skills, Stack-Feinburg (2012) conducted a study that had a similar focus to the above study, emphasizing 21st-century characteristics that prepared educational leaders to make constructive and transformational changes in their school learning and teaching environments. The researcher used a qualitative design to answer the research questions through conducting interviews with 13 school leaders who made changes in their school districts. The findings indicated that the leaders made beneficial changes through concise measures to move their educational institutions to a higher level. The researcher recommended having a shared clear vision as a fundamental condition for positive transformations in schools. When a clear vision is established, the educational context become driven by a clear roadmap and a targeted path for improvement, and this is one of the main factors for making studied changes in the educational context. This is because drives any professional initiative, especially when the educational leader is the instigator of this change and when the leader believes in disseminating this vision to the rest of the team members.

Considering the fact that there is ongoing national and international focus on 21st-century innovative teaching and learning, it can be seen that adopting a creative mindset and approach towards education is an essential key for steering innovative change and making it realistically achievable. This notion is supported by a study conducted by Butler (2016) who followed a descriptive design that aimed at investigating 21st-century characteristics in five chosen schools, and also investigated the impact of the administrative approach of leadership in following innovative measures and strategies. The instruments used involved two surveys, a reflective tool, and Kouzes and Posner's Inventory of Leadership. The findings indicated that leaders have positive self-recognition and that teachers have insight into the areas of innovation that exist and

that can be further exploited to enable innovative change. This clearly shows a link between embracing 21st century skills and the creation of a positive working environment that is conducive to motivation and constructive change.

Building on the research that supports 21st-century skills in leadership, a qualitative study focused on how 9 school leaders think of 21st-century education and how they can actualize their perceptions on 21st-century teaching and learning, Zeigenfuss (2010) contended that in order to make positive changes in education, educational leaders should take on board new knowledge and key skills that enable them to meaningfully become 21st-century change leaders. The emerging themes included the teaching and learning story and leadership in the 21st century. The results reflected the developing skills in 21st-century teaching and learning. The study recommended the creation of a detailed reference on the paramount importance of 21st-century leadership skills that leaders should be equipped with. Perhaps this can serve as a practical way of highlighting the skills that leaders need to lead 21st century teaching and learning change and transformation.

Phenomenological research lends itself as a design that can delve into depths of experiences and contexts. With reference to this, Tan Francisco (2017) investigated the change process led by 11 school leaders through a phenomenological study. The leaders responded to an online questionnaire and then semi-structured interviews. The findings gave rise to four themes: the attributes of leaders that steer change, broad goals, key concerns, and ideas on 21st-century skill incorporation in the educational context. The results focused on the importance of having visionary leaders that can drive positive change and transformation. The results also placed emphasis on the necessity of communication with stakeholders, the readiness to collaborate,

inspire and respond to individuals, and the ability to make important decisions on paramount issues and situations. The data reflected that the leaders in this study demonstrated understanding of teaching and learning objectives of the 21st century that focus on critical thinking, innovation, communication and collaboration. This understanding is supposed to be expanded on through the educational leaders' manifestation of these skills by adopting the approach of collaboration, openness, and innovation and critical reasoning in order for it to be a tangible and authentic approach to change. Teacher learning happens when collegial approaches are followed and when this collaboration becomes work-embedded and an inseparable part of the work culture (Darling-Hammond & Richardson, 2009; Opfer & Pedder, 2011; Putnam & Borko, 2000).

Collaboration is part of change and part of action, and this is why educational reform needs different parties and groups to work in unison and harmony so that change is made smoothly. In support of this, Tabatabaee-Yazdi et al. (2018) conducted a mixed-methods study with a focus on the quantitative approach, aimed at determining the effectiveness of teachers' practices in an Iranian context from the students' perspectives. The researchers also investigated the link between CPD and the enhanced pedagogical practices of teachers and their effectiveness. The quantitative data were gathered from a survey administered to 316 institutional instructors. In addition, 828 students answered a teacher success questionnaire which targeted students' views on the extent of success their teachers showed in their instructional practices. The findings emphasized the role of collaborative and reflective approaches to professional development in enhancing teachers' pedagogical efficiency and students' learning.

Any professional learning opportunity that is built on relevant needs and authentic priorities can yield fruitful outcomes since it is designed to accommodate targeted teacher

objectives. In support of this is a study conducted by Schmid (2018) who shed light on the importance of teacher collaboration in professional development and the direct impact of effective professional development in advancing teaching and learning. The study was a qualitative multiple case study and focused on three teachers who worked on a language arts program 'Reading First'. They reported that their students scored 10% higher than the California Standards Test. To triangulate data and get more insight into the responses, the researcher conducted classroom observations and interviews. The findings capitalized on the role of teacher engagement in their own professional development in enhancing their practices, and the effect of teaching behavior on learning attitudes.

The intricacy of professional development stems from the various relationships and layers of communication it underlies. These relationships become more fundamental when the practices shared are related to innovative technology, as much of the work and the communication is done virtually. McPherson-Bester (2019) employed an exploratory qualitative study to investigate the experiences of teachers in Illinois after engaging in collaborative professional development, to find threads of evidence according to Wardford's (2011) principles which link between theory and practice, reteaching, recurrence and technological innovation. The researcher attempted to find the link between these principles and Vygotsky's (1978) Zone of Proximal Development. The results indicated that teachers improved their instruction through the approach of modeling, reflection and feedback which was a direct outcome of collaborative professional development. The study also reported increased self-confidence after adopting these tenets.

In a study that actually gave a relatively contrasting image of the impact of teacher meeting and collaboration in professional development, Abercrombie (2018) did a mixed-methods study that targeted the impact of reflective professional development that 31 students underwent in a year-long literacy professional development program. The teachers gathered in reflective and study meetings where they had seven sessions of three-hours each, which included the planning of literacy lessons and activities. Evaluations from before and after the professional development sessions were collected and compared, and the findings indicated a substantial impact on the way the teachers described their literacy teaching. However, the study indicated minimal impact on teachers' pedagogy. It is hypothesized that this might be due to the brief duration of the professional development. The fact that teachers described the way they deliver literacy lessons differently indicates that there is undoubtedly a possibility for evolution and consolidation of this impact. The more time is spent in such practices, the more visible the effect becomes in the long run.

One study that proves the former point about the benefits the professional learning program can yield when sufficient time is given was conducted by Callahan (2018) in a descriptive study that extended over 13 months. The researcher aimed at exploring a professional development project that was made by a community of in-services teachers that created and applied social studies lessons. The researcher described the process of the lesson studies conducted by three secondary history teachers while they wrote the lesson plans, taught themes, reflected on them and re-taught them in a collaborative lesson. The findings indicated that teachers effectively taught and catered for students' various levels and abilities, and the need for direct coaching and support for teachers to efficiently analyse students' work products.

An additional focus on the significance of prolonged programs that aim at educational transformations is addressed in Howard's (2019) comparative study to explore two teacher leaders' agency in organizing lesson study groups using sociocultural theory. The sample included two study groups led by two teacher leaders. To collect data, the researcher relied on data gathered over the course of four years in the form of videos, reflections, debriefings, interviews, survey, documents, lesson plans, articles and lesson study notes. The findings indicated the importance of teacher leaders' contribution to the enhancement of other teachers' professional learning despite the different approaches they had followed. The study also stresses the necessity to define the teacher leader's role in order for it to be actualized and then practiced in any educational context. This supports one of the current study's main professional development tools, which is peer observation, especially when also used as a means of sharing practice rather than a means of evaluation.

Peer observation is one of the coaching approaches that allows two individuals in one context to see changes in action. The change in this context takes an implicit and explicit form as the peer observer witnesses a strategy being implemented and learners being influenced, while the observed is sharing this practice and disseminating knowledge and pedagogical strategies. Peer observation is often perceived as a vital method of peer learning and exchange of practices (Dos Santos, 2017) due to the genuine opportunities it provides for enhancing teaching and learning. In a study that capitalized on the efficiency of peer observation as a feature of effective professional development, Vincent (2018) conducted phenomenological action research on a sample of middle school teachers in northern South California. The study investigated the collection of teacher recommendations for the protocol of peer observation. The study also aimed at exploring whether teachers thought that peer observation was an effective means of

professional development. The data was collected through interviews, focus groups and classroom observations, and the findings of the study reflected the consensus of teachers on considering peer observation as an effective form of professional development. The findings also highlighted that peer observation is mostly effective when used as a means of professional development rather than a means of evaluation. However, some feedback that contradicts the former study states that the benefits gained from peer observation are inconsistent and in some instances are seen as a matter of ticking a box (Martin, 2016). Nevertheless, more studies are being conducted to explore the practical enhancement of teacher practices through peer observation as a contributory factor.

Another study that revisits the significance of leadership involvement and prior planning, in addition to peer observation in actualizing the benefit of professional development, is the one administered by Koonce (2018) through a qualitative study to examine the obstacles and facilitating factors in principals' involvement in professional development in order to discern the resources and approaches needed to maximize principals' engagement in the professional development process. The study sampled 249 participants in a large-scale survey; 20 participants were principals sampled purposefully across a vast geographical area in the Midwest to do the interviews. Common threads and themes were identified and coded, with the findings indicating that in low ranking schools, principals needed more planning, organization, and professional confidence, while in high ranking schools there was a culture of organization, collaboration, modeling of good practice and teacher peer observation. Linking this study to the current research study, we can see similar building blocks of organization, coaching, collaboration and exchange of instructional practices all existent, which in turn contributed to the strength of the study and its rationale.

Many studies focused on showing the contrast between the intended bottom-up model to professional development and the traditional top-down approach. The latter results in feelings of dread and a lack of interest from the teachers' side as they know that the content that will be addressed is theoretical and lacks authentic relevance and practicality (Chan, 2016; Farrell, 2019; Stevenson, 2014). Capitalizing on the importance of relevance in professional development, Watkins (2019) did a phenomenological study that explored teachers' evaluations of the professional development they had received and the extent to which their professional growth continued after the initial training. The data gathered showed that there were several factors that attracted teachers to professional development, such as the relevance of the focus, the ability to choose, the context or the setting of the training, pre- and post-training collaboration and the ability to reflect on the professional learning. The findings also reported improved student learning after the district's professional development. This study greatly emphasizes the rationale of the current research due to it tackling vital elements that the researcher wants to explore through the professional development model.

Building capacity and broadening the scope of leadership opportunities through a combination of empowering teachers and delegating those who are willing to lead change can be one of the ways that facilitates educational change. Hamilton (2019) examined certain leadership behavior adopted by principals towards teacher leadership appointment. The study followed a mixed-methods design using a sequential explanatory design that takes place in two different phases. In the first stage, teachers were surveyed to find teacher leadership readiness in their district in Orange County, California. In the second stage, semi-structured interviews were used with teachers in order to gain more insight into the results of the survey. The results revealed that

principals who tended to delegate leadership roles to teachers were less likely to get teachers that willingly want to hold leadership roles; while principals that gave teachers the freedom to voluntarily accept teacher leadership opportunities were often perceived as thoughtful and more likely to get teachers to volunteer and occupy such positions. The study also highlights the necessity for principals to adopt a collaborative school culture and build capacity in order to drive school improvement. The intriguing part of this study is the idea of delegation. Some educational leaders perceive random delegation as an act of building capacity, which is actually only a superficial depiction of educational delegation. This specific study supports the belief that proper delegation is built on studying teachers' interests and readiness rather than deciding the roles beforehand and taking teachers' interests for granted.

Teacher collaboration is often regarded as an in-house source of exchange of knowledge, reflection and opinion (Putnam & Borko, 2000; Liu, Hallinger, and Feng, 2016). Geraghty (2019) used a mixed methods study to explore teachers' and students' collaboration in promoting school positive change. The study followed a mixed methods action research design on a single case. The participants included educators of public schools, the school principal and around 15 students that contributed to the change project. The study data were drawn from a pre- and post-Teacher Agent survey and also from interviews and journal reflections. The results showed that both teachers and students were able to be part of an impactful and positive change culture in their school. When we contemplate this study, we can derive various lessons of teacher collaboration and its impact on enhancing a school's culture of professional learning.

In order to effectively examine the facets of teacher collaboration and how it can solidify professional development, scholars have ventured into mixed methods to reach conclusions about quantitative as well as qualitative aspects of the experience. In this regard, Wright (2019)

conducted a mixed-methods study to explore teachers' perceptions about professional development practices provided for the implementation of new technology in the classroom. The researcher analysed several benefits and challenges of the new technology and the way it was linked to teachers' efficacy, their improved instructional practices and their grasp of the content. The population was high school teachers in southeastern Pennsylvania. To collect quantitative data, a questionnaire was administered and to gain in-depth knowledge, follow-up interviews were conducted. The findings indicated that the teachers found differentiated professional development more appropriate and effective because it met particular needs. Teacher also emphasized the need for collaboration and reflective discussion with other teachers to ensure enhancement of their instructional practices. Hence, the element of reflection comes hand in hand with collaboration and with joint plans and implementation, because these enhance reasoning, modification, and trial and error, which in turn make the reflective part a necessary one.

When it comes to any aspect of professional change and collaborative commitment to professional learning communities, there are several factors that can work as impediments or opportunities in these processes. Rodrigues (2019) explored the perceptions of school leadership teams in creating collaborative professional efficacy and the practices that either hinder or drive professional learning communities in a public school in California. A mixed-methods design was used through surveys and interviews to obtain a full picture of the perceptions and views. The findings indicated the link between the collaborative nature of PLC on building trust, cooperation, and enhancing self-efficacy through continuous professional development opportunities. As for the hindering factors, the teachers reported the difficulty of the analysis and dissemination of data to other colleagues. The study concluded that an emphasis on the role of

leadership was pivotal for enhancing the collective efficacy of school-wide initiatives. The study's conclusion brings to our attention one commonality that many studies have in the field of PLC: the more studies venture into the change processes and the transformative nature of positive alteration in the educational system, the role of leadership becomes highly paramount and sensitive. Leaders are perceived as the drivers of the change and advocates of innovative transformation. Accordingly, their role is the crux of the change process and the success or failure it might entail.

Educators that are involved in research-driven instruction can enhance the change processes in their schools as they can advocate them, model them, and assist in implementing them. Hanks (2019) conducted an action research to identify the effect of a talent-management model of professional development. The aim was to shift from compliance with already imposed and purchased programs, to critical and thoughtful decision-making regarding research-based strategies and combine them with peer collaboration, reflection, and adjustments of instruction. The findings suggested that the most evident impact occurred when both teachers and leaders participated in the training. This model has also contributed to the culture of collaboration and it authentically brings to mind several experiences of professional development success that the researcher from the current study has been part of, and interestingly, the most powerful element of such successful professional development successes is the teacher-leader professional collaboration, another facet that is integrally linked to the current research study.

Another study that focuses on the above theme is one administered by Mead (2018) who conducted a study to investigate how research-based professional development can be used to inform constructive professional development and make effective changes in pedagogy. In the

context of the study, the researcher argues that by drawing on research related to professional learning and by synthesizing research and evaluative skills of the university professionals, a university can create and innovate a professional learning program that is comprehensive and relevant. This program can be shared with some public-school leaders to accommodate recommendations and interventions suggested by those leaders. The study included two evaluation stages and one exploratory study of professional learning sessions and programs. The study included evaluations of artifacts and follow-up evaluative sessions. The results indicate the researcher's ability to inform instruction and to grow as an evaluator and a researcher. The researcher also indicated the possibility of professional growth in the educational context when professional development is transferred into applicable practice. The study concluded with the recommendation of facilitating professional development through an organized structure and constructive leadership. This study shows how deeply convinced the educator becomes in embracing practical strategy application when he or she is a researcher basing the study views on scientific understanding and facts.

Ironically, different bodies of research have emphasized the opportunities for external professional development, while fewer studies focus on the internal opportunities for professional development (Eurofound, 2015; Peleman et al., 2018; Sheridan et al., 2009; Snyder et al., 2012). Bennett (2019) did a pragmatic mixed-methods study to investigate teacher coaching in secondary school and applied triangulation in views and methods. The findings showed that coaching was perceived as a preferred professional development model; however, four aspects played a role in the flow of the coaching program, namely funding, training, purpose and evaluation. The study concluded with a recommendation for creating a robust quality assurance and evaluation approach for training. This particular element of quality assurance is

essential to the success of a professional development program as it provides important steps forward and it directs attention to the points of strength, and also to possible pitfalls which contribute to the success and refinement of a program.

Interweaving Vygotsky's theory into professional development is common in the studies on professional development, especially in the common features of learning between young learners and teachers in terms of the need for interaction, scaffolding, and communication (Shabani, 2016). Similarly, Woody (2019) conducted a study based on Vygotsky's social development theory to investigate the most effective professional development approaches to enhance instructional practices. The researcher followed a qualitative case study using interviews to elicit information from eight teachers in vocational schools. Common themes were coded and transcribed, and triangulation was ensured to guarantee credibility. The results revealed that teachers needed collaborative planning time and inclusion in professional learning communities and understanding of content objectives. The foci of collaboration, PD participation, and knowledge of content objectives are closely linked to what effectively builds a teaching repertoire and the professional reflection that facilitate educational change.

The creation of Professional Learning Communities requires a strong base of visionary leadership and a focus on studied and systematic change. In exploring this, Brown (2019) conducted a study to investigate the role of a principal in creating effective professional learning communities. The researcher used mixed methods to collect data from teacher surveys and interviews, which revealed that professional learning communities can be enhanced when principals have a pragmatic and hands-on approach in guiding and running these communities. The study, hence, strongly recommends principals to encourage teacher collaboration, dialogue,

and reflection in order to actualize improvement of teacher instruction and student achievement. This supports a discussion by Peleman et al. (2018, p. 17) in which they emphasized the responsiveness of students to teachers' attempts to improve instruction. This becomes evident in incidents of team teaching; the sight of teachers working hand in hand, attempting to make a change and to assist students is always received positively by students as they can directly see their teachers' collaboration coming to life in a vibrant and friendly way.

When it comes to the deep exploration of the merits of teacher collaboration in professional development, qualitative studies often succeed in unveiling the positive side of the collaborative initiatives to educational change. As part of the studies that create an evident link between the non-threatening environment and the increased possibilities to succeed and grow, one by Housen (2018) involved a case study to explore the experiences of three teachers in terms of their improved instructional pedagogy after their participation in a professional learning community. The theoretical framework was based on self-directed learning and Knowles's (1980) theory of andragogy. The results revealed that teachers who were engaged in self-directed professional learning communities reflected creativity and improved command over teaching and student engagement. Thus, the current research study strongly advocates the implementation of such collaborative practices to make positive visible changes in student engagement and teachers' pedagogy.

Supporting the above argument on the increased efficacy of teachers when their needs are catered to in an anxiety-free environment, Prince (2018) conducted a qualitative case study to investigate the effect of professional learning communities on teachers' self-recognition and to what extent those teachers' self-image change was based on their contribution and participation

in the professional learning communities. The sample was selected purposively and conveniently, and it consisted of 10 teachers and two principals from two different campuses, who participated in a focus group and individual interviews. The researcher used NVivo to code the qualitative data, and the results indicated that teachers' self-worth increased as a result of participating in professional learning communities. For the campus that did not use a PLC as an integral practice, teachers often resorted to creating their own structure of a PLC but experienced a great deal of stress in doing so. The study adds value to the body of literature on the role of teacher interaction and collaboration and the necessity of collaboration as a catalyst for school improvement.

The collaborative success with PLCs in the educational context brings about more than instructional change. It spreads levels of positivity in all players as each individual in the collaborative process contributes to a certain piece of the puzzle. Building on the foregoing concept of the enhancement of self-worth, Fraunfelter (2019) undertook a study to explore the link between teachers' involvement in professional learning communities and their feelings of self-worth and efficacy. The study followed a quantitative correlational method with multiple regression. The sample included 88 teachers in 12 primary and secondary schools adopting the professional learning communities' approach. The instrumentation involved two surveys to determine the extent to which teachers' involvement in professional learning communities enhanced their self-perception. The results revealed a correlation between the PLC practices and the involvement and self-perception of teachers. The study recommended including online digital technologies in running these professional learning communities. This can strongly enhance teachers' self-recognition because it also has to do with overcoming instructional challenges in an area many teachers still do not find easy to deal with, which is technology. Thus, the

recommendation of the technological addition would achieve two aims at once: build professional collaboration and enhance innovative instructional pedagogies.

Collaboration as a 21st-century skill and a component of modern educational contexts' success is increasingly perceived as a building block for successful professional development. Dill (2018) did a quantitative study to investigate high school teachers' views on the effectiveness of professional development within their school contexts, especially in terms of individuals that are cooperative and those who are not cooperative. The study's theoretical framework drew upon prior research on teacher collaboration and professional learning as well as collaborative practices. The researcher synthesized different bodies of research, and the results revealed that a constructive professional development program should be collaboratively planned, applied, quality assured and assessed. Professional learning should also be strongly relevant to teachers' knowledge, students' needs and the school's priorities, and leaders in a school that implements this kind of professional development should create a culture of cooperation and feedback by adopting an effective distributed leadership approach. In addition, the section on quality assurance is consistent with Bennet's (2019) study that also stressed the necessity of quality assurance in the PD program as a main component of its success.

Continuous professional development builds a culture of ongoing professional growth and enhancement of practices (Dagnew & Engida, 2015) by embedding opportunities of professional learning and collaborative exchange of practices. Keegan (2019) conducted a self-reflective study in action research on the effectiveness of CPD that involved a qualitative case study design that included teachers and students along with the empirical and theoretical research. He found that his experience as a reflective researcher and practitioner contributed to his experience; however, he found that this model needed to be fortified with a systematic system

of CPD in order for it to yield more effective results. However, it is more efficient and effective for the act of reflection to be cooperative and collective rather than solitary and individual, as it can affect the whole school community and can make rapid progress when it is a collaborative action (Binyamin, 2018).

Professional development that is linked to language teaching is one of the examples that welcomes collaboration, as language includes several skills that are intricately affected by each other. There are recent studies that have focused their interest on English language professional development that would facilitate the teachers' growth in teaching and help students make progress in their learning (Crandall & Christison, 2016; Hashimoto & Nguyen, 2018; Wilden & Porsch, 2017). Building on this notion, Ustuk and Comoglu (2019) systematically reviewed lesson study as a model of professional development for language teachers. The comparison that the researchers conducted was based on research evidence and empirical studies. The review concluded with the lesson study as a platform of teacher agency, reflection and collaboration, which in turn can benefit teachers in advancing their language teaching practices. Similarly, Kalinowski et al. (2019) discussed features of professional development to improve teachers' pedagogy and students' language proficiency. The researchers reviewed 38 programs and thoroughly outlined features of effective professional development across different subject areas. The review concluded with the idea of collaboration, reflection, and self-improvement, which reminds us again that when it comes to professional learning change, collaboration and reflection are seen as fundamental skills for the success of educational transformation and learning.

On the other hand, Lembke et al. (2018) argued that few teachers get the opportunity to receive sufficient training to deliver effective pedagogical practices. In this regard, the researcher

would like to offer an objection to this opinion. For teachers to qualify to take part in the exchange of instructional practice of other colleagues, they do not have to undergo rigorous training, as in-house coaching, peer observation, modeling by the senior leadership team, and the empowerment of teachers are all factors that play a pivotal part in enhancing teachers' pedagogies. Nevertheless, the authors reported an attempt to close the gap by constructing a data-based professional development programme that is cooperative, sustainable and continuous, to improve writing instruction. The findings indicated the effectiveness of this collaborative approach in enabling teachers to make progress in the classroom and their improved sense of empowerment and involvement.

In the same area, studies on the benefits of collaboration in teacher professional development emphasize the effectiveness of teacher-led professional development in instilling the culture of collaboration in the school system (De Simone, 2018). McKeown et al. (2019) conducted a mixed-methods study to explore the features of successful professional development that is governed by self-regulation. The data were collected using surveys, semi-structured interviews, and focus groups with 14 teachers. The findings revealed particular characteristics of effective professional development such as opportunities for collaboration, relevance, applicability, and reflection. This also strengthens other studies that stressed collaboration as a fundamental gain of teacher-led professional development.

Professional development is definitely seen as a continuous window of growth for educators (Fischer et al., 2018; Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009). Indeed, this opportunity has become simultaneously more intriguing and more challenging with the advent of technology and e-learning, as new forms of PD have emerged as a

result (Bates, Phalen, & Moran, 2016; Fishman et al., 2013). Bostancioglu (2018) investigated the effectiveness of an online community of practice as a form of technological professional development. A community of teacher learners was formed by a group of EFL teachers to learn about the effective use of e-learning in instruction. The researcher used a mixed-methods design and sampled his participants through convenience sampling, with data collected via surveys and interviews. The results indicated the effectiveness of participation in a collaborative context of professional development. The study recommended the adoption of teacher collaboration to further teachers' practices and actualize learning improvement. The fact that the study followed a mixed-methods design considerably strengthens the results of this study on how teacher collaboration can make tangible changes in the educational process

Decades of research studies and experiences have indicated that there are three vital elements that should be in any effective professional development: interaction, relevance to the subject matter, and sustainability (Amendum & Fitzgerald, 2013; Borko, 2004; Desimone & Stuckey, 2014; Gersten, Dimino, Jayanthi, Kim & Santoro, 2010; Lindvall, Helenius, & Wiberg, 2018; Parsons, 2014; Penuel, Gallagher, & Moorthy, 2011; Yoon, Liu, & Goh, 2010). Refe Rymarczyk (2019) conducted a qualitative study drawing on the aforementioned premises of active and transformative learning in a community college context. The participants included full-time and part-time faculty members who joined a technology PD that included interactive and active learning as main features. The data was collected through interviews and then analysed using NVivo, with the findings indicating that the faculty preferred active learning and professional development through a collaborative framework of professional learning. The study contributes to future studies that aim at highlighting constructive models of professional development.

Building on premises of professional sustainability is a study by Gutierrez (2017). Although Gutierrez's intended to empower teachers to become a vital part of the research-based professional development, his study can be perceived as a way to sustain PD by involving and empowering teachers in their PD, especially when the factor of reflection is included. Reflection will usually give rise to other views and other components that need practice, implementation and refinements. The study gives a thorough overview of the current case in curricular reform, in terms of using sustainable, collaborative, and teacher-led professional development. The researcher focused on identifying what areas need to be improved in response to the recent curriculum reform. It employed qualitative analysis of teachers' reflections on their experience of collaboration with university researchers in a year-long research-based cooperative professional development. Thematic analysis was applied to audio and video resources from teachers' interviews after a detailed categorization process. Findings suggested that this research-based experience facilitated immediate learning, collaboration, teacher empowerment, teacher ownership and involvement in educational transformations. This way, when teachers are involved fundamentally in professional development, there is ongoing learning and ongoing development that facilitate ongoing evolvement and progress in teaching, as one-time PDs cannot be effective enough to be sustained and to effect transformative changes in instruction (Darling-Hammond, 2017; Desimone, 2009; Kragler, Martin & Sylvester, 2014). In contrast, the ongoing and embedded culture of PD becomes a continuous part of the change and improvement culture in a school and, thus, any initiative become possible to achieve.

There is an increasing need to shift the way in which teacher-led professional development is perceived. There have been many misconceptions that shaped the way collaborative PD is conducted and many link it to the aspect of formality. In general, there is

increased controversy related to the perceptions of PD and the formality and rigor with which it is perceived. This controversy has led to diverse conceptualizations of CPD (Adams, 2014; Goudarz & Najibeh, 2015), and this problem stems from considering it as formal when it is an external pursuit of professional training, and informal when it is an internal school activity. However, this in itself poses a clear misconception that is not to be overlooked. When professional development is internal but based on thorough analysis of needs, then it is rigorous enough to be labeled as formal, the approach with which the educational leadership deals with this sort of professional development. Elucidating the scope of collaboration that teacher-led PD provides, Swai (2018) conducted a multisite case study to investigate the views of teacher leaders on teacher-led professional development. The study was shaped by the notion of symbolic interactionism. The data was collected through in-depth interviews, and the findings showed that the model of teacher-led PD fosters collaboration and interaction among teachers, active exchange of instructional practices and experiences, and the contextualization of professional learning. The study ended with a recommendation to embrace the practice of teacher-led professional learning in order to enhance teacher leadership within the school, adding to the extensive body of literature on the benefits of empowering teachers to lead educational change as they become active contributors to the education in their schools.

The online context of professional development remains controversial due to the challenges it often involves and the fact that its dimensions and regulations change, given its digital nature (Wenger et al., 2009). Plein (2018) explored a professional online space for teachers and educators to inform and shape formal professional learning experiences through an interpretive qualitative inquiry study. In the qualitative study, participants were able to participate in both asynchronous and also synchronous discussions through hashtag interaction.

The researcher used Gee's (2004) affinity spaces conceptual framework as a framework for the study. The theoretical framework emphasized intrinsic motivation and self-directed learning that is instigated by passion to improve teaching and learning. The researcher had the eye of the insider in the study from the participants' perspective and was able to collect and then analyse 6,000 tweets and 300 Facebook posts. After thorough analysis of data, the findings revealed that in the experience of online professional learning, the diverse needs and communications enhanced the interactions among participants; the exchange of pedagogical experiences, and also the personalized learning experiences that the participants had. The experience gave them the ability to crowdsource, reflect on their experiences, and become involved in interactive activities and the practice of role-shifting. This is one relevant study to today's challenges of conducting onsite professional development amidst the circumstances surrounding the current COVID-19 virus outbreak which caused the virtual alternatives of professional development to be more prevalent, and hence collaboration through them has also become a required condition for the success and efficacy of professional development.

The notion of using social media platforms as a means of professional communities' construction and as contexts of learning, is rather intriguing and promising at the same time. Goodyear et al. (2019) conducted an exploratory study on the characteristics of a particular Twitter-based Professional Learning Community. The research questions revolved around the nature of online professional learning communities and the way they can facilitate teaching and learning. The data were collected via the 901 tweets of 100 participants, in addition to 18 detailed semi-structured interviews with both moderators and participants. The findings indicated increased collaboration, reflection and sharing practices. Technological evolution in the future

will surely give rise to other examples of using social media as a means of professional development (Krutka, and Carpenter, 2017; Maloney et al., 2017).

Contrary to the conventional way in which expanding professional knowledge is seen, teachers undertaking collaboration, peer observation, collective planning, and reflective dialogues are active participants of professional learning and they often implement initiatives that relate to the use of new innovations and technologies (OECD, 2014). Following a case-study design, Cederlund (2018) investigated the value of collaborative professional development. The study is a cross-school teacher team program in which teachers share instructional experiences and work in various municipalities. The work was followed by observations, interviews, logbook analysis, reflection studying, and online communication. The results showed that this model provides a context for professional cooperation, non-threatening reflective discussions, and transformative practices. This is another study capitalization on reflection as a crucial success factor for professional development especially that it eliminates performance anxiety and enhances collegial discussion and problem solving which is one direct outcome of professional reflection.

Adding to the body of research that emphasizes the power of reflective dialogue and teacher collaboration in actualizing positive change in schools, Black (2019) intended to propose a collaborative approach to professional development by analyzing the professional knowledge of five pre-school educators. The transcripts of collaborative meetings and semi-structured interviews, observations, as well as field notes serve as sources of qualitative data. The findings indicated the importance of collaboration, team discussions, informal and guided readings,

documentation of students' work, information, and artifacts, as factors that are closely linked to school improvement that is studied, informed by research, and facilitated by on-going reflection.

Professional collaboration is a concept that connotes a vast range of activities in educational contexts (Goddard et al., 2007), and it often conflates with PLC, collegiality, teacher leaders, and teacher groups (Vangrieken, Dochy, Raes, & Kyndt, 2015). Messiou (2019) explored how collaborative action research can enhance professional collaboration and professional thinking and inclusive practice in schools. The researcher analysed the experience of three countries and eight secondary schools. The study involved the application of an established professional development based on interaction with students and involving them in the learning process. The findings from the thematic analysis of data over three years indicated that there were three prominent ways through which collaborative action research enhanced inclusive thinking in schools, which are teacher collaboration, reflective practice, and student involvement in the study. The unconventional element of involving students in the study on professional development provides an enriching factor that helps triangulate participants and inform more comprehensive findings.

Teacher reflection has been captured as an influential factor in school improvement since the beginning of the 20th century. However, recent studies place more emphasis on teacher reflection compared with the older ones in stressing its role in decision making and fostering school improvement (Xu et al., 2015; Toll, 2018). When we consider the current changes in the educational context in light of the COVID-19 outbreak and the challenges it has brought, it can be seen how valuable reflection is and how it should become a daily practice that encourages adaptability and responsiveness to rapidly changing circumstances.

Woolway et al. (2019) did a qualitative study that aimed at exploring how teachers' reflection and collaboration contributed to the growth and development of professional learning communities through a practice action research design. The sample included teachers of grade 8 natural science from a suburban high school in Gauteng, with data collected from reflective sessions. In this regard, the researcher relied on Zeichner and Liston's (1996) level of reflection that focuses on principles of teacher reflection as part of their ongoing professional development, and combined it with Tsangaridou and O'Sullivan's (1994) basic level of reflection which contends that students need to reflect on three levels in the course of their learning, namely description, justification and critique. Teachers' reflections were coded and analysed and the findings revealed that teachers' reflection relied on a trusted and safe environment. The study highlighted the importance of recognizing motivated teachers to enable them to lead professional development.

A similar study supporting the power of reflection was conducted by McElearney et al. (2019) whose study involved the creation of a professional development package for teachers as a preventive educational program. The researchers used a survey to gather quantitative data from 318 teachers with results analysed via SPSS. The teachers reported a number of preferences such as collaborative work, interaction communication sessions, coaching programs, and self-reflection. The study provided a group of recommendations that are grounded in research and that prioritize teachers' preferences. Thus, the study combines several factors that facilitate a successful professional development program in terms of collaboration, interaction, reflection and personalization.

Collaboration as a non-threatening context for learning, helps teachers who are contributing to professional development to develop self-confidence. In this regard, Sexton (2019) conducted a quantitative study to evaluate the impact of practice, modeling and reflection on fostering teachers' self-perception in implementing a new technological strategy through structured professional development. To answer the research questions, the researcher chose a sample of 46 educators in San Antonio, Texas. The data were collected through a survey,, analysed using SPSS with the results indicating the effectiveness of structured professional development that incorporates reflection, discussion and collaboration in enhancing teachers' self-perception and fostering their confidence. The positive emotional outcomes of such collaborative professional development apply to both trainers and trainees as they feel enriched by the acquired skills and strategies.

Advocates of international policy assert that PD is a mechanism for teachers' pedagogical advancement (Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016; U.K. Office for Standards in Education, 2006; U.S. Department of Education, 2010). Thus, in order for this pivotal tool to assist teachers efficiently, the factors that make it successful need to be examined and taken into consideration. Kayi-Aydar and Goering (2019) built on literature-constructive professional development where teachers participate with peers to co-construct professional learning experiences. The study was based on the notion of professional learning communities through establishing a community of Socratic Seminar sessions. The sample included 23 teachers who were videotaped, or audio recorded. The results suggest meaningful collaboration, discussion, teachers' leadership opportunities and professional learning growth. The rich discussion, the continuous reflection, and the collaboration build an environment that motivates teachers to construct knowledge and apply it.

Contrary to some studies that advocate prolonged periods of PD implementation to reap instructional benefits, Borup and Evmenova (2019) conducted a case study to investigate the efficiency of a 6-7week professional development course to improve faculty instructional practices in a college. Eighteen faculty members were participants whose views were gathered through interviews, surveys, and forum platform comments. The results indicated increased involvement, motivations, and interactive learning. Despite the brevity of the implementation period, the study reported tangible benefits and improved attitudes, which indicates that attitude also plays an important part in responding to the professional development regardless of its designated time of application. This specific element of focused, targeted and brief sessions that are followed by implementation and reflection provides a more responsive and sustainable method to professional development and allows for the accommodation of many arising needs and issues.

Sztajn and Wilson (2019) in their book *Learning Trajectories for Teachers: Designing Effective Professional Development for Math Instruction*, provide insightful recommendation for improving math instruction in the elementary grades. The authors derive evidence from empirical and theoretical research based on the experience of four distinct groups of teacher educators that engineered successful professional development. The book also exhibits some scholars' contributions. The book highlights key successful elements to effective professional development, such as active teacher learning, connectivity of teams, and social constructivism as a crux of growth and development for any educational contexts whose leaders, teachers, and stakeholders aspire to embrace transformative changes in teaching, learning, and overall school culture.

When we look closely at the body of the surveyed literature, it can be seen that it was mostly qualitative research exploring details of collaboration and interaction. However, the second most common design in the cited literature was mixed methods. In this regard, the current study serves as a first of its kind as a TLPD study that focuses on the UAE context following a mixed methods approach, explaining the powerful effect of collaboration, reflection, cooperative critical thinking, and systematic reflection as direct gains from TLPD.

2.4.3 Characteristics of Effective Professional Development

In recent studies, substantial evidence gleaned from various stakeholders, practitioners, students, policy makers, and educational leaders have consensus on the importance of effective professional development in refining teachers' practices and enhancing students' learning (Crandall & Christison, 2016; Hargreaves & Fullan, 2012; Hashimoto & Nguyen, 2018; Wilden & Porsch, 2017).

The characteristics of effective professional development experiences have been outlined clearly in Darling-Hammond and McGaughlin's (2011) explanation which highlighted five attributes: 1) have meaningful engagement and pedagogical involvement grounded in theory and rich reflection, 2) have focused and planned collaboration and interaction, 3) have relevance to the teaching and learning situation, 4) be continuous and sustained, and 5) be supported by the senior leadership and stakeholders (Chen, 2017; Nochumson, 2018; Pelch & McConnell, 2016; Roth et al., 2015; Schultz, 2019). These characteristics of professional development are related to vital pillars of professional development such as the need for interaction and communication with stakeholders as well as the planners and runners of the program. They also entail accommodating the needs of both students and teachers. In addition, these traits have to be combined within a

framework of systematic pre-planning that is communicated, reflected upon, refined and responsive to updates and necessary changes. When we contemplate the above features, we can see that the context of teacher-led professional development is what nurtures these features and refines them. Teacher-led professional development has gained increasing prominence in the last decade, and since then literature has shown that the role teachers play in steering the professional development is critical to the development and improvement of pedagogy, as it caters to collaboration, interaction, active involvement and empowerment (O'Hare & Pritchard, 2008, p. 45). In the same area, Avalos (2011) reviewed literature over the course of a decade on professional development and discerned that teacher-driven professional development is an intricate process that brings about a wealth of positive features, one of which is that teachers are central to the process as they are the subjects and objects of the professional growth and improvement (p. 17). This form of professional development provides teachers with a voice and pedagogical involvement, for the more they are involved in enhancing their own practices, the more effective the process becomes as they instinctively know what they need for the success of learning (Lucillo, 2009, p. 64).

The juxtaposition between traditional professional development and innovative professional development often brings to the surface the differences in teacher involvement. This was shown in a study by Pina (2019) who conducted qualitative action research to investigate teachers' perceptions of traditional professional development in a southern urban school district in the United States. The researcher used Knowles's andragogy which is an adult learning framework. Open-ended questionnaires were used and the results indicated improvement of teachers' perception of traditional professional development due to the use of the andragogy

framework. The teachers stressed their desire for more responsibility and involvement in the professional development, which is another aspect that emphasizes the power of teacher involvement in advancing professional development.

The following study strengthens the current doctoral study in terms of using mixed methods to explore the range of advantages that teacher-led professional development offers. Karim (2019) aimed at exploring the most and least useful practices in teaching Common Core Standards Mathematical Practice Standards in schools that had taken part in effective professional development. He also wanted to investigate teachers' perceptions and recommendations for constructive professional development. The study followed a mixed-methods case study design and was conducted in a Northern California School district where teachers were part of an MPS professional development for three years. Data were collected from archives, teachers' reflections, surveys, and interviews, and the triangulated data gave rise to various themes and patterns on effective professional development, with the findings indicating improved teacher practices. The teachers agreed that the most prominent feature of effective professional development is its suitability for immediate application in the classroom. Teachers also commended the culture of collaboration and hands-on learning that professional development provided. The researcher recommended replication of this study using a mixed-methods explanatory sequential case study, a fact that gives rationale for the current study, as mentioned earlier. The suitability of PD for implementation is a crucial factor for its success and relevance. Teachers also gain confidence and a sense of safety with the knowledge that the PD strategy can be applied easily in the classroom.

One powerful aspect of successful professional development is providing the element of choice, since teachers differ in their expertise and their instructional needs and repertoire (Fenton, 2017). Hinsley (2018) did a quantitative and descriptive study that aimed at measuring the viewpoints of teachers that worked in the 20 highest and lowest ranking Missouri school districts. The findings from the study stressed the importance of collaboration as a culture of professional development, in addition to the element of choice opportunity. The findings indicated teachers' readiness to take part in professional development, and teachers of both categorized sets of schools mirrored the preference to have a say and a choice in their professional development. Another study that stressed the same concept was conducted by Staley (2019) who evaluated the effectiveness of teacher observation protocol as a personalized professional learning experience that is ongoing and job-embedded. The researcher used a case study design at Redwood High school to qualitatively evaluate the program to discern the effects of successful teacher observation protocol. The findings indicated that the teachers were not in favour of district leaders and administrators to dictate professional development, and that they value teacher interaction and collaboration. The findings also showed that teachers appreciate personalized professional development and the choice to engage in it, and peer observation as a practical and effective means of professional development. This is another integral link to the current study as it includes peer observation, practicality of application, and the element of choice.

The practicality of implementation will always mark effective professional development as teachers aspire to attend PD sessions that can immediately help them in the classroom. In this respect, Grillot (2019) conducted a study to understand and report teachers' views about the effect of professional development on instructional methods and student achievement as part of

workforce learning in a rural community college in Kansas. Social Cognitive Theory was used as a framing conceptual framework. The researcher used a qualitative single case study and an online survey which contained some open-ended questions to provide a more informative set of responses. The results showed that the educators described professional development as impactful when it was focused on teaching methods and instructional strategies that were practical and applicable, while they disliked the ones that were merely theoretical and irrelevant. When the PD is detached from the reality of the teachers' everyday needs and struggles, then it loses its value and vice versa.

In another study that built on the same aspect of the applicability of PD content as a key factor for the effectiveness of any PD program, Li et al. (2019) examined the impact of professional development sessions on teacher use of PD information and online communication in education for an elementary school's teachers in Mongolia. A survey was used to collect data in two periods of time, 2012 and 2016, in order to recognize the change in several factors and also the effectiveness of communication through technology. The results indicate that factors of collaboration, innovation, ICT integration, and the feeling of being acknowledged as a participant in the educational change process are paramount characteristics for effective professional development. Some of the successful strategies for application are cooperative learning strategies, such as Kagan Structures. One main factor for their ease of learning is the fact that they can be applied immediately after learning. The researcher draws on firsthand experience in her Kagan-model school that has run several workshops on Kagan structures and other cooperative learning strategies.

Capitalizing on the effectiveness of collaboration among teachers to drive teaching and learning, Marcellini (2019) did a qualitative action research case study in a traditional high school with a majority Hispanic population. The study aimed at helping teachers transfer content into instruction through a number of professional development sessions. The data collected involved document reviews, observations and a post PD-session questionnaire. The findings indicated that collaboration, motivation, hands-on activities, and strategy-based techniques all helped teachers transfer content into applicable strategies. The study ended with recommendations for decision makers, policy designers and legislators to consider all the factors that would transform instructing and steer children's learning. These factors combine many of the characteristics discussed earlier in the chapter, such as collaboration, reflection, and applicability.

The current study is linked to the simple yet important function of professional development , namely its effectiveness in meeting teachers' needs, as it is based on needs' assessment and on reflective meetings and triangulated observations and analyses. Clarifying the same characteristics, Van Holten (2016) conducted a descriptive study to explore differences in the views on the efficiency of the training of teachers who have professional development experiences and those that are not engaged in any. The study sampled teachers from K-12 in Maryland's eastern shore, and in the analysis the data was coded and tabulated. The findings indicated that teachers from both groups preferred more opportunities for professional development, to enhance instruction and to meet different learners' needs. The element of personalization is highly important in PD culture and it strengthens the argument that TLPD serves as an effective model of PD as it is personalized and attuned to teachers' and learners' needs.

The familiarity with the context in which the PD is conducted in addition to the relevance of the PD to the needs of this context play an essential role in the success of this PD experience. Dogan (2017) conducted a quantitative study to explore the link between professional development and the enhancement of instructional practices. Using the TALIS (Teaching and Learning International Survey, 2013), the researcher surveyed around 1475 teachers teaching middle school. The results of the study indicated that PD is mostly effective when it is conducted in a contextually relevant setting, and when it is integrally linked to teachers' instruction and practice. This is another common thread that links the current study to the research findings, as the study took place in a context that is familiar and for purposes that were relevant to the teachers' needs.

Stressing the need for relevance and practicality in professional development, Alqahtani (2018) investigated teachers' views of PD sessions and programs in Kuwait. The views were juxtaposed with the criteria of Learning Forward's standards of professional development. The researcher employed both qualitative and quantitative designs. The views of 201 teachers were collected and other teachers were comprehensively interviewed, and the findings indicated that teachers in Kuwait do not think highly of the professional development they have experienced because these PD sessions were not effective or relevant to teachers' needs. This strengthens the studies by Grillot (2019), Dogan (2017), and Van Holten (2019) that all stressed the element of personalization as a main condition for PD success and effectiveness.

Similar to the above study is one by Zide et al. (2018), who explored teachers' perceptions of continuous professional development designed to equip them with skills to meet the 21st century's challenges and skills. The reflections of teachers were thoroughly investigated, and the findings indicated that teachers are partially dissatisfied with the professional

development they are receiving due to the lack of involvement on their part and repetitiveness of PD content. The paper concludes with a recommendation of involving teachers in professional development as they need to use these new skills and knowledge to implement changes in their pedagogy and their classrooms. Teachers in this sense are key constructors of the professional experience as they know what they lack and what they need to bridge the gap between their involvement and their colleagues.

Careful organization and planning of PD in which accessibility of resources is ensured and participation is made available, is a factor that is essential for the success of any PD programme. Zereshkian et al. (2019) conducted a qualitative study to investigate the continuous professional development needs of the University of Toronto's Department of Radiation Oncology and analysed how these needs were accommodated in its professional development program. Data were collected from 11 semi-structured interviews which were then coded and analysed using NVivo software. The results indicated that the participants felt that they lacked motivation in participating in CPD due to irrelevant content, lack of incentive, and lack of time. The study ended with a recommendation to administer a needs' assessment before planning the CPD. The program planners should also take into account technology accessibility, obstacles to participation, and ways to motivate trainees to join and benefit from the program. Hence, all precautions need to be taken into account and a contingency plan should be set beforehand.

Quality assurance is definitely an aspect that contributes to the success or failure of any professional development program. Thus, it is crucial to scrutinize and critique professional development programs to provide regular feedback and feed forward to consolidate improvement and rectify flaws. Ekinici and Acar (2019) aimed at providing a model for effective professional

development after assessing the views of primary school teachers on professional development. The sample included 20 teachers from Istanbul, Turkey. The researcher used a qualitative design to conduct the case study through semi-structured interviews on several elements in professional development, especially characteristics of effective PD. The results indicated the importance of practicality, freedom of choice, relevant content to the active learning model, and planning and strategy development. The study concludes with a recommendation for developing process monitoring and effective evaluation and monitoring. The quality assurance in this regard provides a critical eye to scrutinize PD and refine it.

Also focusing on quality assurance and evaluation was a study by Owens et al. (2016) who aimed at evaluating a Michigan job-embedded policy PD program that was recently implemented using a set of criteria that included focus, relevance, and target orientation as well as a social dimension. Although the results indicated that the policy accommodates the four areas in the criteria for effective PD, there are some recommendations that need to be taken into account to further improve the policy, which are the continuous communication among state, higher education, intermediate education, assessment and data use, personalized training, professional development programs and structuring a professional development committee that is state-wide and job-embedded to guarantee continuity and sustainability. This can be linked to several studies discussed in this chapter that are related to the sustainability of distributed leadership and middle school leaders' roles in order to maintain and sustain the PD program.

Although the below cited study focuses on the involvement of school leaders in PD, it also stresses the importance of teacher collaboration and reflection as part of the PD process. The study was conducted by Nooruddin and Bhamani (2019) who did a case study to investigate the

involvement of school leaders in CPD. The sample included two school leaders that were chosen through purposive sampling. Qualitative data was collected from interviews and professional development observations which revealed that the leaders pursued CPD in a systematic way that involved a systematic process-based approach which started with identifying teachers' needs, then providing professional development, and finally monitoring and evaluating implementation. Among the characteristics of successful professional development are areas of applicability of strategies, relevance of content, and teacher reflection and collaboration. This study focused on leader involvement in PD but leader encouragement of teacher collaboration indicated a culture of collaboration, and the belief in the importance of involving teachers in reflective and interactive discussions as part of the PD process.

To completely fathom the conditions that guarantee PD success, investigating the elements that prevent PD effectiveness can reveal the other side of the experience. To study factors that impede effective PD, the Teaching and Learning International Survey (TALIS) was conducted in 2013 with 5 million teachers in 34 countries to find out their views about the obstacles in PD. Apart from factors related to conflict with work schedule and family demands, teachers cited the lack of meaningfulness and the feeling of detachment from the workshop as some of the reasons, which demonstrates the necessity to involve teachers more in a process as fundamental as professional development.

In contrast, PD programs that fail in being effective and in benefiting teachers are the ones that lack relevance and lack connection to the teachers' interest and needs. Elucidating this point, a study confirming teachers' feelings of detachment from the PD is the Boston Consulting Group's (2014) study. It involved 1300 stakeholders and 1600 teachers. The results indicated

that teachers were dissatisfied due to a lack of involvement and contribution to the professional development.

In the book *Personalized Professional Learning*, Rodman and ASCD (2019) explored personalized professional development. The authors defied the notion of “one size fits all” in professional development, and underscored innovative learning to upgrade teachers’ practices while meeting schools’ and district requirements and priorities. The authors concluded with clear recommendations for recognizing and accommodating teachers’ interests, providing opportunities for collaborative professional development and self-reflection, and teacher empowerment.

A series of studies on the features of effective professional development stressed the element of choice, relevance to needs, and practicality of implementation as main features of successful PD. For example, Zepeda (2019) provided a comprehensive set of guiding recommendations for effective professional development. The book works as a road map for school leaders, professional leaders, directors, and teacher leaders. Additionally, the author draws on research and experience to recommend empowering teachers and providing them with opportunities to lead and model learning, and share practices, discussion and collaboration, and recognition of best practice.

An additional study that stresses involvement and applicability was by Ufnar and Shepherd (2019) who presented a thorough study that examined the Scientist in the Classroom Partnership model of constructive professional development for k-12 teachers. The study aimed at exploring the features of this program that would qualify it to be effective for teacher professional development. The data were collected from surveys, focus group interviews, and

narrative report meetings. The findings indicated several features that illustrated the characteristics of effective professional development, such as improvement of subject knowledge, enhanced teaching strategies, and inquiry techniques.

Some studies stress both freedom of choice and ease of implementation as essential factors for successful professional development. De Groot-Reuvekamp et al. (2018) targeted exploring an effective PD program that improved students' grasp of historical time. The program was applied with six elementary school teachers. The results showed that the most effective and salient students' learning gains were assisted through teachers who were able to effectively implement the program while using the academic curriculum assigned. The teachers attributed the success of the implementation to the organized structure of the program, the easy of using the training material, and the room for freedom and independence, which all contributed to the advancement of teaching and learning. These factors in a way also relate to teacher empowerment, as the freedom of choice gives teachers self-recognition while the ease of implementation motivates them and enhances their self-confidence.

Similarly, Fenton (2017) shared key information about the PD needs of teachers implementing the integration of technology in education. The sample included 191 teachers drawn from 10 different school districts. The results indicated that effective professional development takes place when teachers are offered authentic chances to collaborate, communicate, peer observe, and reflect on what has been gained. The teachers specifically capitalized on collaboration with peers as a powerful element that is more effective than large group professional development and one-on-one coaching. The teachers also added that they prefer personalized and professional development tailored to various group levels and abilities.

Identifying tenets that strengthen a professional development model that includes teachers as facilitators, Goos et al. (2018) outlined research-driven largescale sustained PD models for teachers at large schools in Australia. The program involved the creation of a curriculum, and confidence and expertise in teaching. The study sample included 61 teachers, curriculum coordinators, and school district leaders and principals who were comprehensively interviewed. The findings indicated that several factors built a successful professional development, such as collective visioning action planning, allowing teacher collaboration, and following a supportive leadership model. The collective visioning in the previous study actually brought all stakeholder together in this. It also enhances collaboration between leadership and teachers and also creates a strong connection between the rudimentary stages of PD, that begins with an idea until the final stages that end with its implementation and impact.

To fully complement the PD process, follow up is paramount. Otherwise, PD loses its purpose and value. El Bilawi and Nasser (2017) investigated the reflections of teachers on MOE professional development sessions in Egypt. The context of the study was three national schools. The study aimed at identifying challenges and benefits of the implementation of the professional development. The teachers expressed dissatisfaction regarding a lack of follow-up, leadership support, and practical applicable examples of professional development. This clearly contradicts all the other studies in this section that cited the factors for success, and which display a significant contrast between those studies and the one above.

In sum, the foregoing reviewed studies on various factors that facilitate effective PD programs and initiatives give rationale to the current study, as they detail the pivotal elements to

be included and helped the researcher remove any factors that would jeopardize the value and impact of professional development.

2.4.4 Distributed Leadership and Building Capacity and Self-Recognition

With the new paradigm shift that took place on views and methods on educational leadership, high prominence has started to be placed on new approaches that do not merely contextualize power as a facility that belongs to one educational leader, especially in that more tasks, demands, and responsibilities have evolved as part of today's leaders' pressures (Burke, Fiore, & Salas, 2003). In response, Distributed Leadership, as a model that embraces shared responsibilities and collaborative teams, has become a preferred type of leadership (Ritchie & Woods, 2007). In addition, Bush (2013) alleged that distributive leadership is a preferred approach to leading education in the 21st century, for it creates a framework of people, contexts, relationships, duties, and goals that are governed by collective responsibility; thus, DL is a recommended practice that makes the duties of a principal more accessible and achievable in light of the challenges that a traditional approach to leadership poses on a principal who is expected to manage the school in isolation (Natsiopoulou & Giouroukakis, 2010). In his discussion of DL, DeMatthews (2014) asserted that a model of DL that is well-structured and effectively governed can greatly empower the educational institution in which it exists, as it creates leadership opportunities and enhances problem-solving, ownership of educational priorities and performance, which in turn prepare the teachers to acquire and exhibit leadership skills.

The emphasis in this kind of leadership is placed more on interaction and communication than on results and actions, as the players in this context are not only the ones that hold formal

leadership positions, but those that have the influence and the agency to move decisions and actions forward (Harris, 2013a). Despite the fact that conflicting literature still exists on the positive impact of DL (Gronn, 2006 p.1), there are a considerable number of studies that stress the model's resilience and practicality (Hargreaves, 2016; Hargreaves & Ainscow, 2016; Harris, 2011; Harris 2013a). In their detailed and critical discussion of DL, Harris and DeFlaminis (2016) pointed out and challenged several arguments on DL and recommended that more empirical research is conducted on this model of leadership to gain more insight into it. Distributed leadership is often referred to as the leadership functions that can be assigned to or embedded in other people's responsibilities and scopes of duties and tasks in a certain organization (English, 2008, p. 115). In this sense, the principal is not the sole holder of power and authority and is definitely not the only one who executes, monitors, runs, or influences actions and plans. Elmore (2000) asserted that for improving students' learning, there should be a radical change in the school structure of leadership, and this change should be based on the following tenets: 1) the leaders' commitment to improving instructional practices within their capacity, 2) all teachers should be open to new ideas and should allow their work to be criticized and scrutinized for improvement, 3) leaders should exemplify the behavior they demand from their teachers, and 4) the different roles designated should be in line with the different range of expertise possessed by the educators.

These principles frame a combination of factors that provide a fertile environment for instructional and educational change in schools. The first tenet stems from the leaders' desire to transform and change the culture; this provides a great sense of purpose since it is driven by the leader's ambition to enable his or her voice and vision. The second principle is complementary to the first one, which is the teachers' receptiveness to innovations and changes proposed by the

leadership. When teachers are open to change, they can facilitate it and help the school combat any associated difficulties that come with it. The third principle is linked to the leader's ability to set an example to be followed by others in order to strongly advocate the change and support its implementation. The final tenet is the compatibility between the priorities set in the change process and the qualifications and skills that are exhibited by the teachers and the leaders in the school.

There has been a growing argument on the way DL is used or regarded. Some scholars, including the ones who are the originators of the concept of 'distributed leadership' such as Spillane, Halverson, and Diamond (2001) and Gronn (2002), depict it as a different form of leadership style. For instance, Gronn sees it as a "unit of analysis" (p. 424) while others such as Spillane (2006) considers it as a perspective (p. 9). Garcia Torres (2019) used hierarchical linear modeling to explore the link between DL and professional interaction and collaboration and teachers' retention in schools in the United States. The research drew data from the Organization for Economic Cooperation and Development OECD (2013) and from TALIS (Teaching and Learning Survey, 2013). The results reported that there was a strong and positive link between distributed leadership and teachers' job satisfaction, perception of ability of contribution, interaction, professional collaboration, and accountability. The study has implications for schools embarking on professional development models that empower teachers. The current study with the focal role of a visionary leadership that empowers teachers to actualize priorities and work towards, adopts distributed leadership as a perspective and means of collaboration and delegation so that all teams work towards a shared set of goals.

Detailing the role that DL plays in strengthening teachers' self-perception, Davis (2014) did a study in which he employed the distributed leadership theoretical framework that is structured by Spillane (2006) and Elmore (2000), aimed at investigating the relationships that combine school culture, distributed leadership and self-efficacy. The researcher also used Bolman and Deal (2003) for school culture and used Bandura's (1997) self-efficacy to drive the study, and he employed a correlational design to reach his findings. The sample included 54 certified K-5 teachers from nine schools within one school district. The quantitative data were collected through the 68 questions that the participants completed on DL while the qualitative data were collected from different inventories for DL. The surveys consisted of one for school culture and a scale for teacher self-efficacy; the data from the surveys were analysed via Pearson's Correlation. The study's findings indicated a significant relationship between the variables of DL and self-efficacy of teachers, between the school culture and self-efficacy, and between the variable of DL and school culture. However, the study showed a real necessity for developing the school leadership programs and forging a positive school culture for improving teacher retention.

The emphasis on establishing school leadership programs is to provide a solid base for building a culture of teacher contribution to the leadership map in the educational context. This is supported by a more recent affirmation by Ingersoll et al. (2017) on how DL enhances both teachers' attitude and students' achievement. It is mainly the interlocked set of factors and cause and effect cycles that take place within the vibrant network of leaders and teachers that create teacher involvement and eventually fosters their self-perception. In addition to the above study, a study was conducted in Connecticut by Zinke (2013) for the purpose of determining the relationship between shared leadership, teacher's self-worth, and student achievement. The

researcher used a qualitative design to answer the research questions. The participants included 106 educators, 91 teachers and 15 administrators. and the results showed a moderately significant link between the merits of distributed leadership and teachers' feeling of self-worth and efficacy. However, there was no significant link between teachers' self-efficacy and students' academic achievement. The qualitative results stressed that there should be a shift away from the conventional top-down leadership approaches that used to dominate in the past (Angelle, 2010). Despite the fact that the literature confirms the strong relationship between teachers' positive self-regard, DL and students' attainment (Copeland, 2003), the study did not clearly indicate this relationship. Nevertheless, the study does confirm the positive connection between distributed leadership and teachers' positive self-worth. This clearly indicates that there is increased benefit on various aspects related to the educational contexts and the builders of its main components.

Distributed leadership serves as a fertile environment for professional learning communities' implementation and adoption (Toro, 2018). A study by Tooher-Hancock (2014) investigated the perceptions of the International Baccalaureate Middle Years program coordinators about their leaders' commitment to distributed leadership; how supported the coordinators feel by their leaders; and how the aforementioned variables are related to the coordinators' clarity of role and their professional self-recognition. The researcher used a mixed methods approach by collecting both qualitative and quantitative data via the Distributed Leadership Inventory. The 1,013 participants were chosen through stratified systematic random sampling from different regions including the Americas, Asia Pacific, Africa, Europe, and the Middle East. The results confirmed that the commitment to distributed leadership in support for middle leaders would improve the clarity of roles and would increase the sense of self-

actualization and worth of those leaders. The study's findings also supported the idea of obtaining comprehensive insights into distributed leadership and this could be attained from professional development and through networking and community education. What makes distributed leadership an effective mindset for building capacity is the range of teacher leadership opportunities it provides in an educational context (Morettini et al., 2018).

Also in supporting of this notion and the previous study, is a research study conducted in mid-south Tennessee. Seymour (2017) focused on analyzing educational leadership in a high-performing middle school from the distributive point of view and the mechanics of shared leadership in different roles and contexts. The study also looked at the link between shared leadership and a collaborative culture in the school, and the link between shared leadership and teachers' self-efficacy. To answer the research questions, the researcher followed a case study design and used mixed methods to find out the relationship between the shared leadership, professional learning communities, and teachers' improved self-recognition. The qualitative data were collected from interviews, document analysis and observations, while the quantitative data were collected through a survey. The results showed that what impacted teachers' self-recognition was mainly the shared leadership opportunities that the teachers got the chance to explore through the professional learning communities.

Distributed leadership is rapidly becoming an approach to leadership that provides complementarily interrelated opportunities for middle and senior leaders (Masekoameng & Zengele, 2015). It also enhances job performance (Kayode, 2016; Liao et al., 2019; Turker, 2016). Wicks (2017) explored the role of middle leaders in fostering effective professional development through distributed leadership in a multiple-case study. Data were collected through

interviews, focus group interviews, classroom observations and document analysis. The results showed three main themes on building capacity and leadership teams, namely, finding opportunities for constructing leadership, coaching new teachers, and the time constraints to fulfill goals. The study highlights the importance of distributed leadership in accomplishing the aforementioned opportunities, and ended with a recommendation to replicate the study.

Adopting a distributed leadership assigns responsibility to and mandates accountability from teachers; therefore, those teachers need to qualify to occupy that specific role. Therefore, the teachers' knowledge of the subject, familiarity with the strategies and readiness to learn are principal indicators of teacher qualification to hold a teacher leader role. In support of distributed leadership is a qualitative multi-case study conducted by Stahl (2019) to identify the teacher leaders' influence on instructional practices through a framework of distributed leadership. The design approach it followed was to obtain descriptive accounts of the teacher leaders' experiences. An online survey was also administered to all teachers in a single school district to discern the qualities of a teacher leader and to discern individuals who were perceived as teacher leaders. The qualitative data were collected from interviews that gave rise to various themes. The results showed that teacher leaders were informative and had the knowledge of the subject matter and therefore could improve their own practice and their colleagues' instructional practice through collaboration and professional development. This also shows that the element of collaboration is central for the success of both teacher-led initiatives and distributed leadership.

Principals' effective leadership is definitely one of the most influential factors that helps educators pave the way for successful professional learning communities, due to the wide scope of administrative and other responsibilities that a principal navigates on a daily basis (Bryk, Camburn, & Seashore-Louis, 1999; DeMatthews, 2014; Giles & Hargreaves, 2006; Hairon &

Goh, 2017; Harris, 2010; Harris & Jones, 2010; Huffman, 2003; Huffman & Jacobson, 2003). More recently, Stubblefield (2019) did a case study research to explore the views of seven teachers and two leaders on the distributed leadership practices and how they enhanced the implementation of professional learning communities. The conceptual framework was elicited from DuFour's (2009) Professional Learning Communities discussion and work. The research questions posed were related to the practices of distributed leadership that school leaders followed to run the PLCs in their schools. The findings derived from the study showed that the distributed leadership practices require leadership empowerment for the teachers in order for them to work collaboratively within a context that is trustful and anxiety-free. The study recommended initiating a culture of teacher leaders to make a noticeable social change in their educational contexts.

Distributed leadership is not a temporary event or trend; it should be deeply embedded in a school system to yield positive outcomes in advancing the school culture (Tennant, 2018). Klink (2019) conducted an exploratory study on the sustainable nature of distributed leadership in a large urban school. The main purpose was to determine factors that contributed to the sustainability of distributed leadership in a school. The researcher used a mixed-methods descriptive study using a survey and follow-up interviews. The participants were from the Annenberg Distributed Leadership project. The results of the study indicated that mutual trust between the school leader and the teachers, and the highly pragmatic and functional leadership group in whom teachers could confide and voice concerns, were principal reasons for the sustainability of the distributed leadership that increases teachers' productivity and retention, which links back to former discussions on the role of distributed leadership in enhancing teacher retention and improved pedagogy (Ingersoll et al. (2017).

The creation of successful professional learning communities contributes to the overall positive climate of a school, with anxiety-free learning and the increased ability to face difficulties. Cranston (2019) used Lazarus's (1999) model of stress and assimilation to investigate the paramount factors that would affect the teachers' levels of stress, based on their prior information of school culture and professional development. The researcher used a one-way ANOVAs and Multipole Regressions. The findings showed that successful implementation of professional development and creating a positive school climate contributed to less teacher stress. This can be added to studies that support the collaborative culture that professional learning communities create, especially when this is coupled with the efficient application of professional development.

The role of the educational leaders remains prodigious when it comes to educational reform as it can sustain teacher empowerment and effective delegation. In the following study Kim and Lee (2019) explored the connection between instructional leadership and teachers' active contribution and participation in different types of professional development in Singapore, South Korea, and Singapore. The researchers used the Teaching and Learning International Survey dataset of 2013 and followed a two-level regression model to discover the impact of principals' leadership on teachers taking part in professional development. The results indicated that principals' leadership affects teachers' mentoring, peer observation, and coaching practices compared to any other model of professional development. This shows that leadership that supports the practices of collegiality and professional collaboration will surely enforce the refinement and dissemination of these practices.

Intrinsic motivation unlocks limitless opportunities for self-improvement and this is especially meaningful when the educational leader acknowledges teachers' potential and

supports them. McPherson-Bester (2019) conducted an archival study in Illinois with 223 teachers and leaders using a questionnaire and a 6-point Likert scale. The statements in the survey described a school environment and climate that is conducive to professional learning. The findings from the correlation and the linear regression showed a significant connection between the practice of leaders who acknowledge their employees' abilities, support them, and facilitate their self-improvement. This embodies in a way distributed leadership as well as transformational leadership that are given valid recognition and delegate vital roles in order to make positive changes in school vision and culture and drive teaching and learning forward.

There is substantial evidence from school improvement literature about the necessity of building capacity in school communities in order to achieve a kind of improvement that is constant and sustained (Harris, 2004; Wilcox & Angelis, 2012). Thus, for a principal to bring about change in the school culture, there needs to be focused effort on developing leadership capacity among staff (DuFour, DuFour, & Eaker, 2008). When capacity is built in the school, the principal becomes a leader who inspires and energizes other leaders and all their aspirations towards actualizing beneficial plans and realities (DuFour et al., 2008). In support of this is the common shared characteristic that is present in most recommendations for leaders, which is the development of leadership. In this regard, Heck and Hallinger (2010) alleged that a collaborative kind of leadership is definitely a catalyst for positive change in schools (p. 246). The literature also cited that schools that had success stories in improving students' learning were schools in which collaboration among teachers was a reinforced culture inspired by principals who were experienced in building capacity and leadership opportunities.

2.4.5 Teacher Leadership as an Effective Tool for Professional Development

With reference to the literature that focuses on how teacher leadership can enhance constructive changes in schools, a study conducted in New Jersey by Rosen (2014) had the purpose of examining the professional contribution of three teacher leaders that were part of a professional development program which they were supposed to deliver in their own schools. The study also aimed at discovering various factors that impacted on professional development led by teacher leaders. The sample also involved the respective principals of the three teacher leaders. The researcher used a case study design and the data sources were the PD sessions, observation, interviews, and examination of related documents. The findings reflected that there are several factors that influence professional development including teacher leaders' roles, internal as well as external resources, and professional relationships. The study also confirmed the importance of including teacher leaders as part of the organization structure in the school. This step is essential to the feeling of acknowledgment and recognition that the teacher gets from being identified as part of the organization structure, which insinuates their symbolic role in being building blocks of change and improvement in the educational organization they belong to.

Allowing teachers to lead improvement beyond their classroom builds a culture of self-improvement, collaboration, and change. Stoops (2011) carried out a study in California to scrutinize and examine the leadership skills of 32 teachers that belonged to eight schools, two of which support teacher leadership. The study emphasized the powerful role that teacher leaders can have in steering teaching and learning. The teacher leaders joined a PD program that they were tasked to deliver in their own schools that followed an organizational structure that supports teacher-led schools. The study focused on describing the most important leadership skills of the teacher leaders and to recognize the organizational frameworks that support teacher-led schools.

In addition, the study aimed at unfolding the personal and professional advantages of teacher-led professional development and also the possible barriers. The study followed a mixed methods approach in which a survey was used along with the four open-ended questions. The sample included 32 teachers, and the results from the study highlighted benefits that included feelings of enhanced ownership, the benefits of small grade-level teams of learning. The study confirmed the professional and the personal benefits of allowing teachers to lead beyond the boundaries of the classroom.

Despite the various benefits of teacher leadership in professional development, there are some obstacles that need to be taken into consideration (Svanbjornsdottir, Macdonald, & Frimannsson, 2016), such as the sensitivity that occurs with other colleagues, lack of confidence in the new role, doubts about the learning environment, time constraints, and work pressure and load. Such factors can be detrimental if not addressed right from the start. Hence, for teachers to assume roles in professional learning communities, a systematic scheduled time should be put in place to guarantee this paramount communication (Harion & Tan, 2016).

Due to the comprehensiveness that qualitative studies provide when it comes to unveiling aspects of teacher leadership and its effects, Lovelace (2019) used a qualitative phenomenological study to gain insight into the different views of teachers about formal and informal approaches to school leaders. A sample of thirty k-12 classroom teachers from three school districts were part of the study. Data were collected from semi-structured interviews about various areas related to the impact of teacher leaders on advancing learning, and characteristics that teacher leaders exhibited. The results showed that teacher leaders or coaches positively influenced the culture of the school. The factors that were identified as conducive to success of

teacher leader programs were teachers' acceptance and teachers' expertise. This highlights an integral part of the collaborative culture which is relationships. The factor of teacher responsiveness plays a crucial role because their lack of collaboration will pose threats and obstacles. Hence, when collaboration is established, it can result in program success.

Encouraging teachers to be coaches and leaders of change should be supported by the school leaders through induction that prepares those teachers and helps them realize their potential. These programs should also draw on research and empirical findings to reveal the benefits of teacher-led improvement. Becuwe et al. (2016) did a case study that examined the role of a teacher facilitator in teacher teams. The study context was a pre-service teacher training centre in Belgium where teachers facilitated professional development implementation and execution. The data were collected from focus groups discussions and semi-structured interviews. The findings suggested that the role of the teacher facilitator was important and that its importance stemmed from the multifaceted way the role was demonstrated, which is through monitoring, scaffolding the training process, and providing practical support. The study recommended using these resets in facilitating the teacher-led team PD program. Universities can also develop such postgraduate courses by collaborating with educational leaders so that more teacher-led initiatives can be launched.

Additionally, the overall school culture has a direct impact on the availability of teacher leadership opportunities, as the school culture sets the expectations, builds the opportunities, and provide supports. Acton (2019) aimed at investigating factors that support or hinder teacher development. The researcher used a sequential explanatory mixed-methods design that took place in two stages: first the survey stage was completed by teacher leaders, and the second stage

comprised semi-structured interviews. The findings indicated that teacher leaders were mostly driven by personal interest and the desire to cultivate certain values in their students. Although those teachers had the passion and the desire to make a positive change, they were also hindered by a lack of support from their leaders. The study focused on areas that would affect teacher leadership, such as a lack of expertise to confront resilient static school culture. This revealed that teacher leadership development requires a change in the entire school culture in addition to the need for principals to enable and empower school structures.

A paradoxical element of teacher leadership is the fact that it is deeply rooted in providing collegial professional support. Indeed, the more teachers are empowered, the more they give to the teaching profession. Breiman (2019) conducted a qualitative action research that enabled teachers to be contributors to the research by exploring the way peer observation enhanced teacher collaboration and instructional development. The study, which took place in a suburban high school, also looked into recognizing factors that were effective and others that were impeding, using peer observation. Three teams of educators participated, in the form of two experienced teachers coupled with inexperienced teachers, and their role was to report how this pairing up with peers provided professional development in the work context. The findings showed that the activity of peer observation contributed to several benefits that included collaboration, exchange of instructional practices, enhancing strategies, creating a sense of collegiality, and providing a non-threatening professional development experience. The impediments were related to the difficulty of scheduling time. Recommendations included imbedding a school system that integrated peer observation as a fundamental element of professional development and enhancing the sense of collaboration among teachers by incorporating mentoring and coaching as integral professional learning opportunities. As can be

seen from the above study, the coaching and mentoring opportunities solidified relationships among teachers and strengthened collaboration and interaction.

Pertinent to the success of teacher leadership opportunities is a well-structured program that prepares teachers for such roles. Adding to the body of qualitative studies, Kendall (2019) conducted a qualitative case study about the view of teacher leaders on their development journey. The study in this regard focused on three possible factors: the professional base, professional teacher learning, and the workplace context. The study involved surveying a professional development program after its completion, and focused on measuring the participants' enhancement of leadership skills, grasp of knowledge, and practice. Another subset survey was administered to find interested respondents who were then interviewed. The participants found that the program constructively fostered their leadership skills and fortified their confidence. The other fundamental benefit that the program provided was the collaboration and the social and professional connection that they gained from being in contact with stakeholders and educators. The study recommended leadership scaffolding for promising teacher leaders. Regarding the social and professional connection, another component that can be added is orientation on emotional intelligence skills as the teacher leaders are placed in a sensitive context where they have various professional interactions with different layers of educators. This then makes knowledge of how to deal with different personalities important.

Teacher empowerment helps them form an identify of change and enables them to feel that they are advocates of professional change and transformation in their school. Klein et al. (2018) presented several findings drawn from a multi-year qualitative study of science teachers that took part in a grant-funded professional development program. The researcher looked

comprehensively into the sense of agency and intervention the science teachers followed in the professional development. Several themes crystallized, such as the two teacher leaders' views of change, the value of coaching and assistance, the effectiveness of reflection, and acceptance of obstacles as growth opportunities. The study provided insight into professional development programs that empower teachers and facilitate their leadership abilities.

Even in the most sensitive context of interaction such as teaching cultural and racial issues, teacher collaboration and teacher-led PD provides a pragmatic way of teaching minority groups. This is supported by Johnson et al. (2019) who created a historiography that chronicled teachers' effort to teach multicultural groups and minoritized racial and religious groups in public schools between the 1920s and 1970s. The researchers drew on secondary research and primary resources; among the findings and themes they discerned were ones related to the importance of a teacher-led curriculum and professional development. Also, Bevins (2019) reported a model of professional development that increased capacity in an educational context in Ghana. The researcher built his research on the context of a large-scale science teachers' model of professional development that was planned, implemented and followed-up by teachers working with practitioners from the United Kingdom. Qualitative data were collected from interviews and storyline meetings, and the findings indicated that this teacher-led professional development model aided their self-confidence, improvement of pedagogical practices, and knowledge of running effective professional development sessions. The study concluded with a recommendation to adopt that model which might be useful for other contexts. The various instructional, emotional, collegial, and institutional benefits the model provides makes it an efficient model of educational change. As much as qualitative research is not suitable for generalizability, it provides depth and breadth of phenomenon exploration that gives a clearer

understanding, and TLPD is one context that requires such in-depth exploration. All these qualitative studies reported positive results even with the intricate and thorough analysis the qualitative instruments offered.

Supporting the above notion is a qualitative study by Zhang and Cook (2019) who conducted a case study to present a professional development model for promoting teachers' reflective skills in professional development. The sample consisted of 13 teachers that were followed for a whole year. Some of them were assigned to a comparison team, and the others to an intervention group. A reflective professional development session was constructed when considering classroom observations and teacher reflections. The intervention team of teachers carried out a reflective course of professional development, and the findings indicated that the intervention group gave more advanced instruction than the comparison group. In addition, the findings confirmed the positive impact of reflective professional development in teacher training as a practice that enhances teachers' self-evaluation and advancement of pedagogy.

When the change process is made as an accessible opportunity for teachers with potential, then they feel the sense of ownership of this change and they become motivated to make it succeed. Attard (2017) investigated teacher-led professional development by pursuing a reflective self-study. The researcher argues that teachers need to take full ownership of their teaching and pedagogy to lead a change in their classes, and then schools. The data were collected over a period of ten years in which the author took part in multiple studies employing self-study as a methodology. Alongside the period of regular research and study, the author had been using self-reflection as a tool for professional development. The author then used thematic and reflective analysis to categorize themes and thoroughly discuss them. The themes indicated

several benefits of self-study if it were used by teachers in their own classrooms. The array of benefits includes teachers' ownership and autonomy, relevance of professional learning, continuous learning processes, and perceiving challenges as opportunities.

One of the substantial requirements for the effectiveness of professional development is that it should meet the school's needs. Hence, it should be derived from and based on the instructional interests of the participants in order to engage them and get them involved. In this regard, Vernon-Dotson and Floyd (2012) asserted that educators need to embed professional development into their daily practices and that PD should be driven by data (p. 39). Kilinc (2014) discussed Fullan's (1994) notion of the significant role that teacher leaders can have in spreading a positive frame of interaction in the school community by structuring their own professional growth and the growth of others, and therefore leading improvement, initiative and change in their school (p. 1730). In support of this is a study conducted by Bennett et al. (2019) who emphasized the significant gains of the teacher-led professional development in terms of the effective building of capacity, the authentic construction of knowledge, and the relevant connection of professional knowledge to application and practice (Mitchell & Sackney, 2000, p. 117). In an intriguing discussion on the constructive outcomes of teacher-led professional development, Vernon-Dotson and Floyd (2012) contended that teacher-led professional development turns teachers from passive recipients to active educators taking the lead in shaping and transforming their practices (p. 45). Furthermore, when teachers lead change in their school, they recognize the importance of their role and become inspired to further their potential in transforming and influencing student learning by taking initiatives, setting targets, and assisting themselves and others to change and improve rather than blaming students and other factors (Katzenmeyer & Moller, 2009, p. 1730). Teachers in this context focus on self-improvement and

the building of relationships to construct and actualize prominent and fruitful ideas (Margolis & Huggins, 2012, p. 955).

2.4.6 The Role of Professional Learning Communities in Enhancing Professional Development

One of the fundamental attributes of professional learning communities (PLCs) is their effectiveness in driving a positive school culture. In support of this is a study by Greene (2015) who explored whether the use of PLC protocol can advance the professional learning culture as shown through research-driven PD and professional learning communities. The study followed an action research approach and involved a sample of 50 certified staff in the field of education. The selection was random for 25 of the sample who participated in the treatment in which PLC protocols were implemented; while the other 25 staff resumed their already established PLC without using protocols. Descriptive statistics demonstrated that the implementation of the PLC protocols positively affected the learning community as a facet of effective PD and the overall effectiveness of professional development.

A pivotal sphere in which PLCs evolve and bring fruitful outcomes is the professional development. In this regard, Peterson (2014) explored teachers' perception of the PLC PD for educators using an action research in a New Jersey elementary school, with qualitative data from one on one, in-depth interviews as well as a focus group. The research also collected quantitative data from surveys, which revealed that the teachers believed in PLCs as a vital method for professional development, which could yield positive and sustainable results for both teachers and students. The researcher used purposive sampling to choose 9 teachers as a sample from a pool of grades 5 to 8 in elementary school. The teachers in the study identified the main positive

of PLC PD as the collaboration of the exchange of practices and that other benefits included overall effective professional relationships with teachers and administrators.

Capitalizing on the effect that PLCs have on pedagogy, Bitterman (2010) conducted a study that investigated teachers' perceptions of how professional learning communities could advance teaching and learning in a middle school. The researcher used a multi-methods design to find evidence on the link between professional learning communities and teaching and learning. A survey was conducted for grade 7 teachers, and then purposive sampling was used to select the interview sample. The findings revealed that the concept and implementation of PLCs could support successful teaching and learning. Nevertheless, the study brought forth some important themes such as the significance of learning patterns; the support given by the organization in which the PLC is used; the enquiry-based orientation, and the necessity for planning and advancing the framework.

Establishing a climate of professional trust is one direct result of wise educational leadership. For teacher-led initiatives to success, the feelings of trust and security are key. Vangrieken et al. (2017) undertook a study to thoroughly explore teacher communities that relied on cooperation, involvement and interaction in facilitating teacher professional development. The study involved a systematic and thorough review of empirical research about teacher communities. The researchers reviewed 40 studies from 15 different countries worldwide. Sixty eight percent of the studies were qualitative ones that utilize semi-structured interviews and observations, 28% were mixed methods and 5% were quantitative. The researchers analysed the studies following the narrative method and identified three forms of teacher communities: formal, member-orientated and formative. The findings revealed conditions that guaranteed

success, namely, supportive leadership, group collaboration, and trust and respect. These are components that can be yielded from a context where collaboration plays a fundamental role in decision-making and professional development.

In a study that addressed the impact of transformational leadership and professional learning communities on teacher pedagogy in Mozambican primary schools, Luyten and Bazo (2019) collected quantitative data using a survey that was administered to 518 teachers from 95 primary schools. The findings indicated the close link between PLCs and instructional changes in schools, as teachers work hand in hand with leaders in schools, whereas PLCs are embedded in the school culture; hence, ongoing reflection, discussions, shared planning and systematic action are salient features of such schools.

To ensure the effectiveness of PLCs, effective and systematic communication needs to be an integral component (Assen et al., 2018) because it fosters teachers' interaction, discussion, problem-solving, and reflection (Hallinger, Liu, & Piyaman, 2019). Furthermore, school leaders should play a pivotal role in this communication in order to convey values and goals to facilitate an ongoing purposeful dialogue (DuFour, 1998), especially given that there are alarming findings regarding the diminishing sense of active participation among teachers and leaders (Alles, Seidel, & Gröschner, 2019; Dussel, 2016; Hsieh, 2017; Major & Watson, 2018). In support of this, Barber (2019) conducted a study to discern the link between an elementary principal's role in the construction of a professional learning community that allowed collaborative professional development to take place. The study collected data from teachers' and principal's interviews. The results of the study show a maximized benefit of PLCs when the presence of the principal is

powerful and effective, since it can help in transforming school culture, encouraging teacher reflection and dialogue, and improve instruction.

Building professional learning communities has an element of belonging and containment which builds a context of care, support, and understanding (Hallam et al., 2015). Kutchak (2019) investigated the impact of PLCs on school culture and students' learning. The study was a phenomenological one utilizing in-depth interviews with nine teachers from three elementary schools in a Western Pennsylvania school district over a four-week period. The themes gathered from the interviews were mutual trust, sense cooperation, and analysis of data. The findings of the study showed that the PLCs had a direct positive impact on teachers' learning and knowledge acquisition, student achievement, and the school culture.

Another study that cited the climate of trust as one of the benefits of PLC implementation is by Taha-Resnick (2019) who conducted a mixed-method study to explore QRIS (California Quality Rating and Improvement System) administrators' perception regarding professional development after attending three professional learning communities meetings, undergoing professional development, and doing a pre- and post-training survey. The quantitative findings supported the favorable results related to staff planning, while the qualitative data showed trust and preference for PLCs as a constructive model of professional development.

Highlighting the culture of trust, Pedersen (2019) conducted a correlational study on the connection between educators' views on professional learning communities and the extent of trust they have among the PLC members. The researcher used two surveys to collect data and analyse it. The sample included 104 teachers in three school districts in Iowa, New York, and Illinois. The results indicated a solid connection between teachers' understanding of professional

learning communities and the level of trust they have towards colleagues, principal, and stakeholders. The study showed that the most important variables that made contributions to the aforementioned understanding of effective PLCs were distributed leadership, collaborative learning and implementation of practice, and consolidating the climate of trust among staff members.

When professional learning communities are built on effective success criteria, then the professional learning that results from these PLCs is efficient and pertinent to teachers' needs. Kirksey (2018) investigated the characteristics of effective and also non-effective professional learning communities from the perspective of teachers using a case study qualitative design. The questions that steered the research were related to the integral difference between exemplary and non-exemplary professional learning communities. The researcher sampled two schools; one was considered a school with a constructive PLC and the other with an ineffective PLC. A comparative and comprehensive analysis was conducted from the data collected via a teachers' questionnaire. The findings indicated the necessity of consistency of practice, continued collaboration and maintaining communication as favorable elements in an exemplary professional development. These notions set the scene for a solid environment for professional learning that takes place within a context that is conducive to non-threatening and reflective learning.

Jaroscak (2018) investigated the extent to which teachers perceived their schools as PLCs and to recognize the difference between the participating sampled schools. The driving purpose of the study was to determine the link between the thorough implementation of PLCs and the school performance ratings, based on state evaluations. A pool of 77 teachers from four different

schools took part and descriptive data was collected through a PLC Assessment Survey. The researcher used a one-way ANOVA to identify the significance in the differences among responses. Although the analysis showed no significant difference in the responses, the study highlighted a framework that both leaders and administrators can follow to drive teaching and learning further.

One of the viewpoints that scholars have adopted for many years is that a school principal should not be the sole decision-maker or the sole disseminator of knowledge and experience (Johnston, 2015). However, there is undoubtedly a need for a vision communicated by the leader to enact plans, and an approach needs to be adopted through which the principal can communicate the vision and delegate roles and duties, which in itself requires the principal's understanding of what leadership means and how positive change can be implemented through this role (Harris, 2013). In proof of this, Flowers (2018) conducted a study using a mixed-methods design to analyse the school district's views on supporting PLC implementation, and the study also aimed at unveiling the role of PLCs in optimizing school improvement. The sample included 100 participant teachers and administrators from a high school of 2,219 students. The instrumentation included a survey and semi-structured interviews. The results indicated the significance of leadership and culture in steering the change process and school improvement and the effective implementation of professional learning communities.

Since PLCs carry a sense of unity and collaboration, some of the salient features of their success are commitment to the school's vision, collective targets, and collaborative school culture (Smith et al., 2016). Chang-Seo (2018) conducted a qualitative case study to explore teachers' views and experiences on the effective characteristics of professional learning

communities in their school, a high school in Southern California. The data were collected from a questionnaire, interview protocol, classroom observations and document analysis. The findings indicated that the implementing of effective PLC contributes to teachers' sense of commitment to the school, sustainable teacher improvement, and students' achievement.

A PLC, as an essential approach to teacher collaboration (Stratemeyer, 2017), brings together different channels of authority and responsibility and interlocks various relationships and roles, and this positively contributes to the success of collaborative tasks and projects. Martello (2018) followed a qualitatively designed case study to identify the effect of professional learning communities on the domains of educators' responsibility, which were preparation, teaching, learning environment and professional commitments. The researcher based the study on Bandura's social learning theory, and the research question revolved around the effect of the teachers being part of the PLC regarding their teaching responsibilities. The data were obtained from narratives, interviews, and study of formal assessment tools. The findings reflected the necessity of establishing a PLC to instill a culture of collaboration in order to move forward students' achievement.

Since PLCs are communities of reflective dialogue and interaction (Lee & Lee, 2018), they are based primarily on effective communication. Schaap and De Bruijn (2018) helped explore professional learning community development within a school's boundaries and responsibilities. The researchers observed four examples of professional learning communities over the period of three years. The instrumentation included a questionnaire and participatory research with the findings revealing that the feeling of accountability, ownership, and professional interaction had a direct impact on the progress and development of professional

learning communities. The study concluded with a recommendation for fostering reflective dialogue that enables PLCs to progress further.

Some scholars combine the notion of PLCs with distributed leadership due to the interdependence of both terms in the field of professional development and empowering teachers and sharing a collective responsibility (Ross et al., 2016). Thornton and Cherrington (2019) reported findings gleaned from an interpretive case study that explored current views on leadership models in Singapore to support professional collaboration and professional learning communities in their schools. Six principals and two teachers were involved in the study in which individual and focus group interviews were conducted. The findings indicated that the participation in PLCs resulted in the growth and development of principals' leadership practices, adoption of distributed leadership models, following a collaborative leadership model, and enhanced teacher collaboration.

The culture of PLCs requires empowering teachers and building capacity (Jones & Thessin, 2015) in order to train those teachers to be contributors to the learning communities. Phusavat et al. (2019) aimed at developing a pedagogy that would facilitate a school becoming a work context for professional learning and development. They conducted a qualitative case study at Mayyayom Suwitserianusorn School in Bangkok Metropolitan Administration. The researchers integrated Design Thinking to determine the link between motivation, cognition, and emotion for students. They also conducted follow-up debriefings and follow-up meetings which were conducted to further explore teachers' views and the impact on students' learning. The findings revealed that professional learning communities can facilitate the school becoming a learning and professional development workplace for students and teachers. Thus, the study

meets the calls for training in-service teachers to become contributors to continuous professional development that would help transform schools, teaching and learning.

Implementing professional learning communities entails a change of culture. It also entails the ability to alter the educational landscape of an educational context (Bishop & Dennis, 2016). For this reason, the school needs to adopt and adapt a set of skills to pave the way for the change and for the application of a PLC initiative. Qvortrup (2019) drew on a project that was conducted at the start of 2015 combining 13 Danish municipalities of about 240 schools and 10,000 practitioners working together as part of the Program for Learning Leadership. The project aimed to provide data for educators, leaders and teachers to support instructional practices for school leadership. The program also provided research-based skill development guides and professional groups structured in professional learning communities as the basic target for transforming the results into practical instructional practices for professional development. The quantitative data gathered in 2015 and re-administered in 2017 indicated that school data and skills development could facilitate constructive change and improve teachers' self-reflection and assessment. The study also stressed that the skills packages should be addressed to the teams rather than individuals.

Elucidating the above concept of making positive change possible, leaders need to be at the forefront of collaborative change and innovative outlook. Trilaksono et al. (2019) did a case study research based on the initiation of a professional learning communities project in 10 schools in Eastern Indonesia. The purpose of the study was to recognize the most efficient leadership transformation model by looking at different types of learning communities between administrators and teachers. The researchers wanted to find an advanced leadership model that

transformed a school's leadership. They used an action research approach employed over a period for 10 months when the professional learning communities' activities and project were being conducted. The results showed that the leadership change model could be accomplished effectively within the framework of professional learning communities, with a focus on the school principal as a leader of collaborative change.

When we consider proper professional learning, we find it mostly linked to application and experience and also to the exchange of practices. To do that, a system of organized meetings, sessions and reflections needs to be implemented to provide a regular building of skills and repertoire. In a study that showed the need for PLCs rather than the sole provision of material, Schumacher et al. (2019) discussed the development of a guide for facilitators of maths professional development in a professional learning community context. The guide consisted of materials structured to facilitate teaching math problem-solving based on Woodward's (2012) research-based information and recommendations. The report highlighted the recommendation for a professional learning community environment in order to improve teachers' practices and students' ability to critically think, reason, and solve problems. Thus, creating resource materials is only part of the process, not the end target.

The approach to the effective application of PLCs involves stages, people, ideas, and actions. The process needs a setting that is ready to witness, embark on and sustain change; it also requires a leader's perspective that is willing to let go of authority that belongs to one person and instead delegates it to several. Hence, the aspects that arise from the foregoing requirements are tenets integrally relevant to the present doctoral study. These concepts include distributed leadership, professional learning communities, collaboration, and accountability. In an

illustration of the previous discussion, a study conducted by Vijayadevar et al. (2019) followed a case study to examine the current views of different leadership models and practices and how taking part in professional learning communities can enhance the educational collaboration of principals in Singapore. The study sample included eight principals and two teachers, who served as part of two established professional learning communities. The data were collected from focus group interviews, professional learning community meetings, reflections, and pre- and post-professional learning communities' interviews and debriefings. The findings indicated that several advantages were obtained from the experience, such as improved collegiality, collaboration, distributed leadership approaches, and transformation of leadership perception of collaborative leadership practices.

The varied range of studies discussed in the previous parts gives us the current stance of teacher-led professional development in comparison with conventional, so-called formal professional development. Surveying the studies on formal and informal professional development, there is consensus on the practicality of informal opportunities in creating teacher collaboration exchange of practices, versus the external opportunities or the ones merely provided in a top-down approach. (Briggs & Sommefeldt, 2002; Burns & Chisholm, 2003; Eddy et al., 2005; Garrick, 1998; Heijden et al., 2009; Smith, 2011). However, the areas of peer collaboration and teacher-led professional development were considered unresearched until 2010 (Foss et al., 2010). In support of this is a study by Sindberg (2016) who explored the way a professional learning community of music teachers served as a sustainable example of professional development through a case study design. The sample included seven music teachers from a school in the Midwest who had implemented a professional learning community program over the course of two years. The study's findings revealed the positive impact of the

professional learning community approach on teachers and also showed the importance of collaboration among teachers, the transformation of teacher instructional practices, and the impact of the program on teachers' emotional aspect.

Summary of Chapter Two

The current chapter aimed at elucidating the principal concepts and theories that underpin this study and that support the various views and tenets that the study advocates and puts into practice. The chapter discussed the attributes of instructional coaching, the PLCs, distributed leadership, and teacher leadership as paramount bases on which the study aims to evolve and for the discussion to be contextualized and theoretically framed within. The researcher also chose Role Theory, interactionism and constructivism as main theoretical spheres that provide a solid base for the study. The chapter discussed a varied range of studies and literature on the aforementioned concepts within contexts that show how the adoption of distributed leadership coupled with teacher empowerment, and an open responsive mindset, can yield tangible benefits in teaching and learning through the myriad benefits it can have on school reform and professional development.

This chapter offered a comprehensive discussion of concepts, theories, and literature that elucidate and support Teacher-led professional development. The purpose of the discussion is to a) locate the current research study within the context of the literature and the studies on the research topic, b) to establish a clear rationale of the study purpose, and c) to provide a clear base that informs the methodology (in chapter 3), analysis (in chapter 4) , and the study's conclusions and findings (in Chapter 5). The chapter opened with a discussion on the shift from traditional leadership approaches to a distributed model of leadership that empowers teachers, instills a culture of professional collaboration and integrates the 21st-century leadership skills that call for collaboration, systematic thinking, visionary

decision making, with the integration of advanced technology, in addition to other elements explained at the beginning of the chapter.

In Section 2.2, the conceptual framework was discussed and showed the relations between TLPD and the concepts that are related to it which gives it a meaningful dimension in research and practice. The three central concepts that were discussed were teacher leadership, instructional, and professional learning communities. Section 2.2.1 thoroughly outlined the concept of teacher leadership and the potential advantages of teacher empowerment and activation of their involvement in the school improvement process. In section 2.2.2, instructional coaching was discussed in relation to personalized and targeted professional development that draws on teacher collaboration, reflection, modeling, collegiality and non-threatening professional development. Section 2.2.3 clarified the concept of PLCs and the tenets of collaboration, on-going improvement, shared target, collaborative reflection, focus on strategy, and improvement of student achievement that it integrally involves. The section also elucidated some key terms that complement the study background in the discussion of twenty-first century leadership skills, distributed leadership and characteristics of effective professional development. These terms were discussed in terms of their link to the idea of teacher empowerment, the importance of embracing a well-rounded style of distributed leadership that facilitates involvement of teachers and middle leadership in the change process and the school development plan. The discussion of twenty-first century skills and characteristics of effective PD outline the factors that should be included and others that should be avoided for building a solid professional development programme.

Section 2.3 depicted the theoretical framework and analysed the link between the overarching theory, which is constructivism, and the other theories that stem from it to frame the study and give it solid warrant. The sections 2.3. Role Theory was extensively discussed and its connection to the myriad roles, responsibilities, and influences that come with TLPD individuals who consist of stakeholders in addition to teachers and educational leadership. The discussion of this part showed the development of the

theory from the beginning of the 1930s to until now, which moved from encompassing simple contexts to more influential and active roles that are related to societal and educational reforms and changes, and thus can be linked to the study and the various stages it involves, as well as the people and impact that they reflect.

In section 2.3.2. the theory of interactions was explained in relation to the interactive nature of transformational initiatives such as professional development and the section strengthened the part with a reference to Coffman's control in interaction. Under t section 2.3.3, Evidence-based Management theory was discussed with reference to research-informed, data-driven and evidence-steered educational decisions and initiatives, which includes school-wide programs and district-wide project and plans. The section concludes with an extensive discuss on Social Cognitive Theory (section 2.3.4) in which the theory is illuminated in terms of its link to the construction of knowledge, understanding, social and interactional relationships that take place within environmental, personal, and behavioral shades of interactions and feelings, which then shapes various individuals, stages, and contexts in the TLPD model in the current study. The section featured an illustrative figure (3) that portrayed the active play of the various theories as well as concepts that shape the study, affect it and are affected by it at the same time, which confirms the roles of teachers as practitioners with knowledge, skill, agency, and experience that enable them to make educational changes.

Section 2.4.1 reviewed studies related to the positive impact of instructional coaching on enacting educational changes. Through the discussion of nine studies on the effect of instructional coaching on expanding teachers' expertise, student achievement and schools' collaborative culture, it was concluded that most of the studies that examined coaching were mostly qualitative; hence, the current study contributes to the field of literature on instructional coaching by providing insights gleaned from a mixed-methods design. The researcher also drew on research and practice in countering the argument against coaching as a tool that enhances achievement, clarifying that although improvement in achievement

because of coaching may be slow, it does not negate the fact that it increases achievement in the long term.

Section 2.4.2 reviewed literature on embedded twenty-first century skills and also collaborative facets of TLPD. The studies mostly ranged between qualitative, which were the majority of the studies reviewed, and also a number of studies that followed the mixed methods design. The current study contributes to this area of research as the only study of its kind in the UAE that investigates TLPD as a means of teacher collaboration and 21st century skills following a mixed methods approach to solidify both quantitative and qualitative findings.

Section 2.4.3 reviewed literature that demonstrated the characteristics of effective professional development. The section chiefly drew on the characteristics outlined by Darling-Hammond and McGaughlin (2011) who summed up the characteristics as meaningful involvement, relevance, systematic collaboration, support by leadership, and sustainability. The studies discussed highlighted and confirmed those features in various contexts. This section played an important role in shaping the framework of an effective TLPD that embeds these positive characteristics and eliminates any obstacles that would lessen its value and benefit.

Section 2.4.4 reviewed literature on the role of distributed leadership styles on enhancing teacher empowerment, collaboration, and reflection to drive educational improvement. The studies reviewed emphasized the various merits of distributed leadership and its impact on enhancing teacher involvement in PD and other educational initiatives. The current study actually contributes to the body of research by offering an authentic and empirical account of how the adoption of effective distributed leadership enables leaders to actualize whole-school priorities.

Section 2.4.5 reviewed literature that focused on teacher empowerment as a catalyst for effective professional development and means for enhancing pedagogical gains. Several studies that were mostly

qualitative revealed that schools in which teachers are empowered and given the opportunities to lead improvement witness several positive outcomes such as increased teacher leader confidence, enhanced pedagogical practices, fostered reflection and preparedness for educational changes. The section closes with a discussion of several studies on the role of TLPD on broadening teachers' expertise and coaching skills in a frame of self-improvement and reflection.

Section 2.4.6 was the last section of the literature review and it mainly reviewed studies that elucidated the role of Professional Learning Communities in enhancing the culture of professional development. The various studies cited in that section indicated that PLCs not only transform the school culture where it is appropriately implemented, but it also affects pedagogical, emotional, attitudinal, and professional aspects in all the teachers and leaders that are part of the professional learning communities culture.

In the extensive research of the former literature, the researcher offered a discussion of the wide array of instructional, interpersonal, professional, and intellectual gains of the various facets that facilitated TLPD and became an integral part of a successful professional development in schools. The plethora of benefits were further strengthened by the some of the different perspectives that some researchers offered such as Garrett and March (2008) who contended that in-school focused coaching does not impact positively on teacher achievement. The researcher believes that this specific argument gives rationale for embedding the coaching culture as part of the school, as coaching will affect student achievement only when enough time is invested on focused teaching improvement. Also, a different perspective was shared by Abercombie (2018) whose study's findings showed that there was no significant impact of TLPD on pedagogy; nevertheless, the brevity of time spent could be the main cause of not seeing tangible and significant improvement. Other arguments were those that downplayed teacher-led initiatives and considered them less effective than external expertise brought to school to train staff (Eurofound, 2015; Peleman et al., 2018; Sheridan et al., 2009; Snyder et al., 2012).

Some researchers also regarded peer observations as a practice that could be doubt-raising and superficial, such as the discussion by Martin (2016); however, peer observation in the current study has also been quality assured and closely monitored departmentally and school-wide. Also, a considerable number of studies stressed the effectiveness of such teacher-led interventions (Buchanan and Khamis, 1999); Hammersley-Fletcher and Orsmond, 2005, p. 213; Bournes-Hayes, 2010); Hendry and Olive, 2012; and Staley, 2019). In this regard, the researcher considers the current study a unique contribution to the literature, as it draws on each and every term discussed in the literature and offers an authentic, middle-eastern, Arab, Gulf and UAE-relevant research stance, that advocates teacher empowerment, innovative distributed leadership, and enhancement of school cooperative culture.

Regarding the foregoing discussion of theories, concepts and studies, the current study can be logically placed, developed, and interwoven to accommodate the following steps and stages that it requires to be fulfilled and actualized. The next chapter illustrates the sequential explanatory mixed-methods design utilized, the participants chosen, and the instrumentation that is used to reach the study's results and answer the research questions.

Chapter Three: Methodology

3.1 Introduction

This research study used a sequential explanatory mixed methods approach. The study had a twofold purpose: 1) to investigate teachers' and leaders' perceptions about the effectiveness of a teacher-led professional development model, and 2) to explore teachers' and leaders' notions and practices regarding the impact of the teacher-led professional development. Based on this, the study is structured to acquire more clarity and elucidation in multiple phases using numerous instruments. The quantitative part of this sequential explanatory mixed methods research is conducted in the first phase in the form of questionnaire administration and analysis, while the qualitative part was conducted in the second phase, which included document analysis, semi-structured interviews and classroom observation. Subsequently the quantitative and qualitative data were integrated, discussed, and juxtaposed to meet the objectives of the study and comprehensively answer the research questions.

This chapter will begin with the presentation of the research design, site, instrumentation, population, sampling and participants, validity and reliability, and will end with the ethical instrumentation.

3.2 Approach

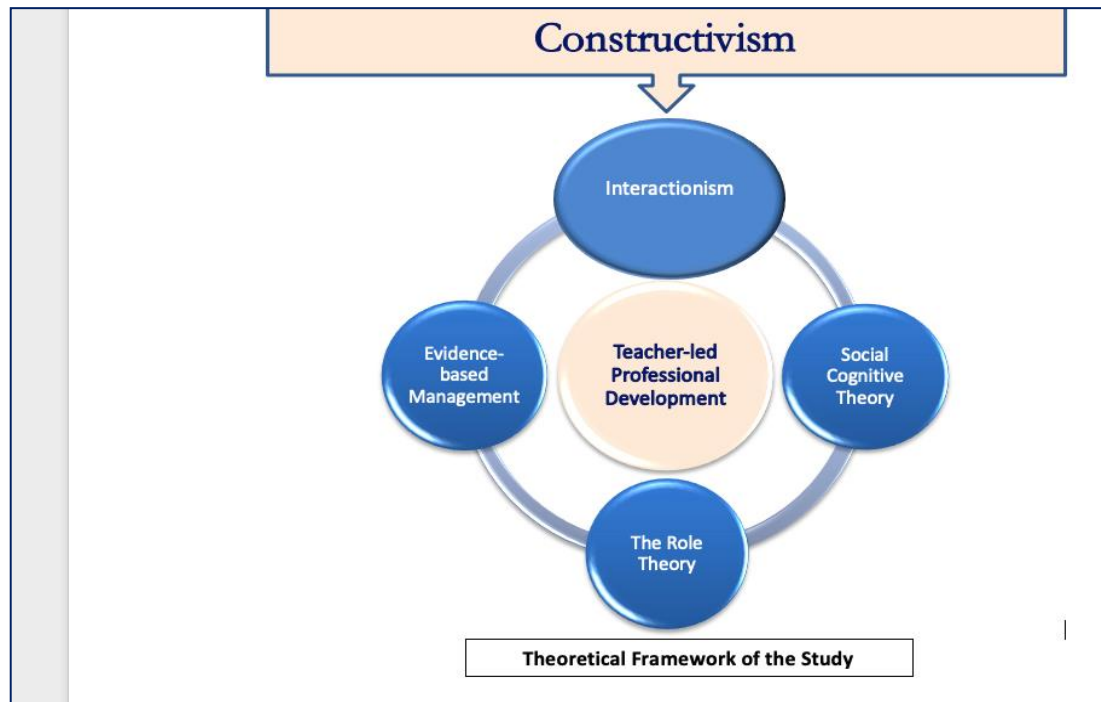
The study used an explanatory mixed-method design for the purpose of combining the qualitative and the quantitative methods that are comprised of various elements. For the past two decades, the mixed-methods design has been regarded as the third research paradigm that has given additional legitimacy to the conventions of quantitative and qualitative methods (Tashakkori & Teddlie, 2010; Teddlie & Tashakkori, 2009). Merging the quantitative and the

qualitative data is established on the tenet that the researcher intends to compile evidence in view of the theoretical stance he/she embraces and the questions that the research aspires to answer (Pasick et al., 2009). In essence, quantitative methods are deductive by nature and are pertinent to quantifying and measuring a certain situation, phenomenon, incident, or procedure. On the other hand, qualitative methods are linked to deciphering how certain experiences, incidents, and procedures happen and function (Pasick et al., 2009). The quantitative method of the study involved the administration of the TLPD questionnaire (see Appendix I). This is followed by quantitative analysis of the data to discern clusters of thought that need to be revisited or consolidated in order to address them in the qualitative part which includes the classroom observations, document analysis and then the semi-structured interviews (see Figure 4 for the Research Phases).

Creswell and Plano-Clark (2011) depict research design as the procedures followed to collect, analyse, interpret and report data to further drive decision-making that facilitates the research study and helps the researcher answer the research questions. Since its rise in the 1990s, the mixed-methods approach has become popular and more reliable in the world of research and scholarly work (Kazemipur, 2014) for the sake of gaining a more thorough exploration of the topic being investigated (Creswell, 2003). Greene defined mixed methods as a concept that invites active interaction with multiple viewpoints and multiple media for making sense of the world. Fraenkel, Wallen, and Hyun (2015) explained that it is a method that uses both qualitative and quantitative methods in one study for acquiring a more comprehensive understanding of the research problem. The researcher finds Creswell and Plano Clark's (2011) definition insightful in terms of touching on the essence of the effectiveness of the mixed methods approach. They

contended that it is a combination of qualitative and quantitative components that provide depth and breadth of insight on the topic that is being explored.

Figure 4: Phases and Approaches



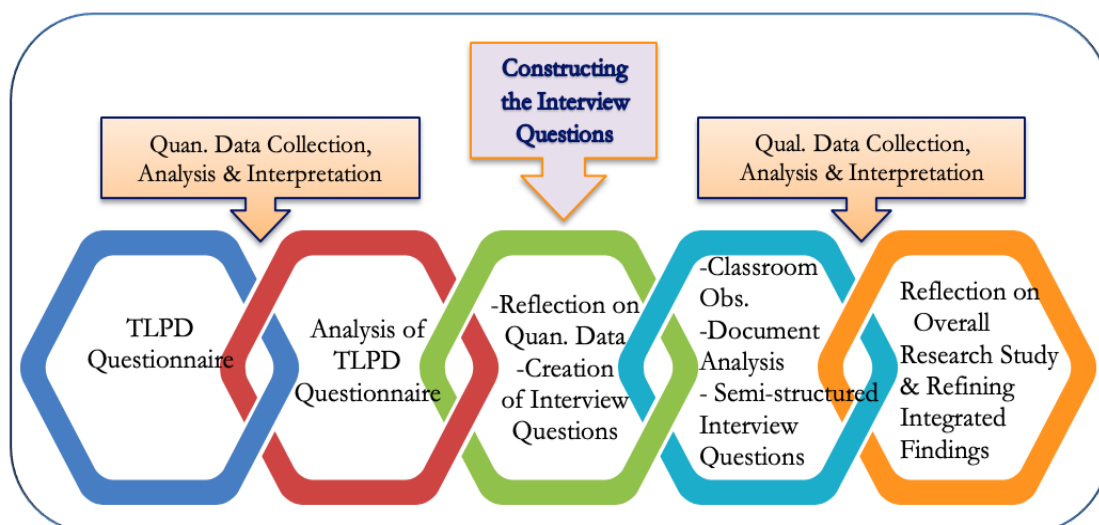
The researcher's rationale for using mixed methods, in addition to gaining a deeper understanding of the phenomenon (Creswell & Clark, 2011, p. 5) is also the suitability of mixed methods for answering the research questions (Teddlie and Tashakkori, 2011). Similarly, Rowan and Huston (1997, p. 144) argue that it is pivotal to have interrelation between the research approach and the research questions because this integral connection reflects the researcher's deep understanding of the nature of the study and knowledge of how to actualize and investigate it. Furthermore, the mixed methods design addresses two motives, which are elaboration and development (Arnault & Feters, 2011). Elaboration is used for the sense of elucidating points gathered from the quantitative data, and development is used to develop any further instruments that the first design gives rise to. Green (2007) stated that the main purpose for using mixed

methods is to gain full understanding the complexity and the intricacy of the phenomenon that is being studied (p. 20).

With the given circumstances that defined the study, the researcher used a mixed methods approach to extensively explore teachers' perceptions on the value and impact of a teacher-led professional development through quantitative and qualitative instruments to gain plausible insight and understanding (Creswell, 1998) and to fathom multifarious circumstances that gave rise to specific conclusions and realizations (Yin, 1994).

The study also required multiple stages for answering the questions and collecting relevant data. Hence, the researcher used a sequential mixed methods approach (Creswell, 2003; Tashakkorie & Teddlie, 2003) to harmoniously enact the different stages of the research and fulfill the various situations and details that go with them. Furthermore, quantitative data that were collected strengthened the possibility for results generation (Creswell, 2014) and lessened the bias in the rich qualitative data that were collected (Lincoln, Lynham & Guba, 2011). Therefore, these reasons are integrally linked to the nature of the study that the researcher conducted in terms of exploring a highly subjective model, which is the proposal of a teacher-led professional development and the perceptions of the key people that ran and steered its stages.

Figure 5: Research Phases



In light of the foregoing, the study followed an explanatory sequential mixed-methods design to first collect quantitative data from a questionnaire. Then the qualitative data gleaned from classroom observations were studied and analysed and followed by semi-structured interviews. As well as this, document analysis took place to study the PD curriculum, the different developmental drafts of the PD structure, and its accompanying graphic organizers. This approach helped in building on the quantitative results to obtain further details through the subsequent use of qualitative instruments to form a full picture. Additionally, the mixed-methods approach has been favored over the sole reliance on either qualitative or quantitative methods (Kington, Sammons, Day, & Regan, 2011; Onwuegbuzie & Collins, 2007; Tashakkori & Teddlie, 1998). The researcher also aims to study the experience more extensively and authentically.

In terms of the philosophical foundation that the study was based on, the study drew on premises of post-positivism and constructivism. Qualitative methodologists considered the qualitative methods as more artistic and non-conventional methods of research (Fraenkel, Wallen & Hyun (2015). Based on the constructivist paradigm, people construct reality in their social interaction. Hence, research is an inseparable entity from the people that take part in it and this very reality can also alter through time, interaction, and different mindsets. For this reason, there is no absolute objective reality in the course of the researcher's attempt to fathom the myriad interpretations that are constructed by people in the social context (Mertens, 1998). Based on the foregoing, teacher-led PD is a phenomenon that is constructed interactively among groups of people, and which gives as well as elicits a plethora of meanings (Mertens & McLaughlin, 2004, p. 99). Thus, drawing on premises of constructivism, the researcher interacted with people that attempted to discern and construct knowledge based on their intricate interpretation of the world,

which in turn would be the base of meaning for the researcher in his or her journey of building reality (Creswell, 2014). In this way, the researcher attempted to understand the world and make sense of it from the interpretations and explanations of the people that contribute to this experience (Crotty, 1998).

In a similar vein, the post-positivist paradigm perceives studying the social world in the same way that the natural world is studied (Mertens, 1998, p.7). Accordingly, since the objective reality exists in our surrounding context, knowledge can be constructed and developed in light of accurate features of people's behavior (Creswell, 2014). During the quantitative phase of the study a post-positivism paradigm was followed to make sense of the variables and also for setting the hypothesis. In this stage of the study, the researcher attempted to detect participant perceptions and the significant differences in these different perceptions. On the other hand, a constructivism paradigm was employed to build the realities of a teacher-led PD model by gathering qualitative data on teachers' and leaders' notions on the impact of a teacher-led PD on learning, teaching, and leadership. The research philosophy of the study was also coupled with Patton's (2008) inductive examination strategy that explores different circumstances and factors that underlie the professional development that was led by teachers in a bottom-up manner and then paved the way for more concepts and realizations to emerge as the study evolved and developed, providing more solid evidence for the necessity of further research and ongoing exploration of the research topic (Merriam, 1998). Thus, the philosophical perspective which constructs the base of the study is the interlocked combination of post-positivism and constructivism.

Creswell (2014) depicted the four main philosophical paradigms that were elucidated by many scholars. He contended that the post-positivism and constructivism, which were embedded

in this study, each highlighted multifarious beliefs and views. Post-positivism serves as the scientific paradigm that underlies the quantitative part of the study, while constructivism provides a collaborative and interactive lens from which the individuals' perceptions, notions, and experiences are brought to light and reality. Based on the aforementioned, both philosophical premises are tied to the research questions and the question as post-positivism is linked to the quantitative part (the TLPD questionnaire) to quantitatively gather educators' perceptions on the experience of TLPD; while constructivism underpins the qualitative phase that involved the observations, the document analysis and the semi-structured interviews to discern a broader and more comprehensive understanding on the experience and its details and benefits.

As elucidated in Chapter one, the study aimed at answering the following questions:

1. What perceptions do Abu-Dhabi private school educators have regarding a teacher-led professional development model?

The first question focuses on unfolding the various perceptions that Abu Dhabi private school educators have towards TLPD in terms of the range of benefits it offers and the various ways with which it helps teachers and leaders actualize pedagogical and educational priorities.

2. Are there any differences in the various perceptions that teachers of different genders, years of experience, subjects, and work cycles have about the teacher-led professional development model?

The second question targets the extent to which Abu Dhabi educators differ in their opinions about TLPD depending on their genders, years of experiences, and work cycles.

3. To what extent does TLPD impact teachers' practices and educational leaders' skills?

Table 1

Questions	Qual Quan	Instruments	Site	Participants	Data Analysis
RQ1: What perceptions do school leaders and teachers have regarding a teacher-led professional development model.	Quan	- Questionnaire	- Private Schools (in Al Ain and Abu Dhabi)	Total 305 Teachers (<i>n</i> =290) (out of whom 40 were coaches) + Middle Leaders (<i>n</i> =10) + Senior Leaders(<i>n</i> =5)	SPSS
RQ2: Are there any differences in the various perceptions that teachers of different genders, years of experience, subjects, and work cycles have about the teacher-led professional development approach?	Quan	- Questionnaire	- Private Schools (in Al Ain and Abu Dhabi)	<i>Teachers (n=290)</i>	SPSS
RQ3: To what extent does TLPD impact teachers' practices and educational leaders' skills?	Qual	-Interviews - Observations	- Private Schools (in Al Ain and Abu Dhabi)	Total 26 Teachers (<i>n</i> =20), Middle Leaders (<i>n</i> =4) + Senior Leaders (<i>n</i> =2)	Coding and Document analysis

3.3. Site Selection

The context of this study is three private schools in the emirate of Abu Dhabi in the United Arab Emirates. The private schools follow the American Curriculum and are Kagan model schools; two of which are situated in the city of Al Ain, which is part of the Abu Dhabi while the third is located in Abu Dhabi itself. The holding company that oversees the school branches has a defined uniform framework that governs the quality of leadership, curriculum and instruction in the three schools. The vision of the holding organization is driven by tenets of innovation, critical thinking, professional collaboration, and ongoing refinement of the educational system.

The research setting is defined as the physical context, situation and location in which the data are collected (Polit & Beck, 2017, p. 744). The study was conducted in three private schools in the UAE. The schools follow the Common Core American Standards and curriculum and advocate cooperative learning, innovation, building capacity and embracing initiatives and projects in teaching, learning, and leadership. The qualitative part of the study which is the implementation and the semi-structured interviews was conducted in the researcher's school which is a model Kagan school that has around 2400 students, 96% of whom are from the UAE; 200 teachers that belong to various nationalities and educational backgrounds; 8 middle leaders, and 4 senior leaders. The researcher chose this specific setting due to its integral relevance to her senior leadership role as a vice principal.

Linking this to positionality, Bourke (2014) and Mercer (2007) contended that positionality has its influence on the researcher's perspective as it can be a combination of both subjective (insider) and objective (outsider). The researcher exemplified both roles and

perspectives of positionality. One facet of this positionality was the objective ‘outsider’ during the quantitative part that was conducted in the other school branches since the researcher is not a staff member of those schools. On the other hand, she is a vice principal in the school where she conducted the observations and semi-structured interviews, which makes her an ‘insider’ in terms of being closely involved in the reform initiatives and the transformations that took place in the school over a period of 16 years. The latter factor of ‘insider’ positionality gives strong rationale for conducting the qualitative part as it provides a more intricate and detailed description of how the experience was formed: how it developed from an idea to a proposal to result in a framework of teacher-led professional development. Other reasons include that the overall professional development model focuses on innovation, fostering 21st-century competencies, and empowering teachers and middle leaders. Therefore, the context represents a suitable and authentic setting for conducting the study.

3.4 Population, Sampling, and Participants

Based on Johnson and Christensen’s (2014) definition, population is the collection of aggregation that is the focus of the researcher’s study. Similarly, according to Pilot and Beck (2012, p. 273), a population is defined as the overall aggregation of people of particular interest to the researcher. Another definition of population given by Ary et al., (2010, p.148) is all individuals of any defined group of people, events, or artifacts. Some scholars assert that the study population can be examined prior to choosing the sample from it (Banerjee & Chaudury, 2011, p. 8). Additionally, Kumar (2011, p. 176) explained sampling as the selection of individuals that can represent the whole population. Ader (2008) explained that the population that the researcher needs to focus on should be capable of giving the researcher information that helps them meet the objective of the research study and to provide answers to its questions.

The study targets a population of teachers, teacher leaders (coaches), middle leaders, and school educational consultants in a particular private K-12 American-curriculum school in Al Ain, and one of its branches. Familiarity with the context of the study is essential for the effectiveness of the sample, meaning familiarity with the TLPD model of professional development. In addition, the school and its branches advocate the same premises of innovation, interactive technology, creative approaches to teaching and learning as well as the empowerment of teachers and middle leaders. As Johnson and Christensen (2014) argued, the knowledge and understanding of the population is paramount for the flow of the study.

The researcher resorted to convenient sampling for the quantitative data collection for the purpose of ease of accessibility (Denzin, 1989). On the other hand, in dealing with the qualitative data, more familiarity and experience was needed from the respondents' side. Based on Merriam's (1998) discussion of the qualities of an effective respondent as a person who is meaningfully acquainted with the study culture and details, and due to the nature of the study and the model it advocates, purposeful sampling is more appropriate for the qualitative part of the study. This is because it is more suitable for eliciting evolving themes that are responsive to and are a result of the specific context and its norms (Erlandson et al., 1993, p. 82). Based on this, the researcher excluded the participants that had not applied the teacher-led PD model, which left one particular group of participants who had experienced the model and so could reflect on it.

Accordingly, purposive sampling would be in this case more meaningful as it targets a specific criterion. In this regard, Tongco (2007) asserted that purposive sampling involves a non-random selection of participants by a researcher that knows the criteria, based on which the participants can reflect knowledge and expertise about the research topic or experience (p. 61).

Gay, Mills, and Airasian (2011) also asserted in their discussion of the rationale for researchers resorting to purposive sampling that the researchers who choose this kind of sampling usually possess a specific and clear criterion that they want to find in their participants for the sake of precision and meaningfulness (p. 141).

The researcher used convenience sampling in the study because the focal point of the study was a new PD model that was implemented in specific private schools that advocate capacity-building and exploration of new ideas and initiatives. The PD model differed in essence from the overall models of PD that are common in the UAE, which are mostly top-down in nature. Hence, choosing specific individuals that underwent the teacher-led training would meaningfully serve as the required study sample that can authentically and credibly give feedback and aid in the execution of the study stages. The accessed population of the study targeted a total of 305 participants containing 28 different nationalities, with different ethnicities, backgrounds and cultures. The participants comprised teachers ($n=290$) forty of whom were coaches. In addition, middle leaders ($n=10$), were chosen along with senior leaders ($n=5$). The rationale for choosing this target population was the fact that the researcher was proposing a new professional model that is especially designed to fit the needs, priorities, and initiatives that her school has embarked on and its staff have been acquainted with and are consistently seeking to improve. Therefore, every individual chosen as part of the sample would serve as a meaningful and informative addition to the research experience.

According to Kumar (2011, p. 176), sampling is the selection of individuals that can represent the whole population. For this reason, familiarity with the context of the study is essential for the effectiveness of the sample. Based on Merriam's (1998) discussion, the qualities

of an effective respondent are a person who is meaningfully acquainted with the study's culture and details, and due to the nature of the study and the model it advocates, purposeful sampling is more suitable for eliciting evolving themes that are responsive to and are a result of the specific context and its norms (Erlandson et al., 1993, p. 82). Gay, Mills, and Airasian (2011) asserted in their discussion of the rationale for researchers resorting to purposive sampling that the researchers who choose this kind of sampling usually possess a specific and clear criterion that they want to find in their participants for the sake precision and meaningfulness (p. 141).

The researcher used convenience sampling in the study because the focal point was a new PD model that was implemented in a specific private school that advocates capacity building and exploration of new ideas and initiatives. Convenience sampling includes the selection of individuals based on their availability, ease of recruitment, or willingness to take part in the research study (Johnson & Christensen, 2014).

3.4.1 Demographic Details of the Participants

The study included 305 participants that represented various cultural and language backgrounds reflecting the metropolitan nature of the UAE social fabric. Although the participants came from various countries and backgrounds, they mostly represented two main language speakers, English and Arabic. The majority of the participants were male and female native speakers of Arabic representing around 60% of the participants. The Arab group of participants represented 52% and were from Jordan, Palestine, and Egypt. Around 22% were Emiratis, 5% of the participants were native speakers of English from the United States and England, while 21% were non-native speakers of English from Pakistan, India, and the

Philippines. The teachers had different teaching experiences but most of them were experienced and familiar with the professional development model in the UAE private school.

The interview respondents were 26 and came from various countries such as Egypt, Jordan, Algeria, Philippines, Iraq, Palestine, Tunisia, Pakistan, and Syria. The respondents were 20 teachers, 4 middle leaders, and 2 senior leaders. Some of the teachers were coaches and others were trainees, who taught different grade levels from the three main cycles of education. All of them are part of the same school and are English-medium subject teachers. (See Table 2)

Table 2: Demographic Data of the Sample

Variable	Subcategory	Frequency
Age	under 25	17
	26-30	45
	31-40	109
	41-50	112
	51-60	19
	above 60	3
	Total	305
Subjects	Arabic	27
	Science	40
	Islamic	28
	Math	32
	English	78

	Others (Leaders, other subjects)	100
	Total	305
School Levels	Elementary	145
	Middle	67
	High	93
	Total	305
Teaching Years	1-2	16
	3-5	31
	6-10	69
	11-15	71
	more than 15	118
	Total	305
Degree	Bachelor	198
	Master	72
	Ph. D	14
	Others	21
	Total	305
Nationality	Arabs (Egyptian, Palestinian, Jordanian)	159
	Western (USA, UK)	14
	Asian (Pakistani, Indian, Philippines)	65
	UAE	67
	Total	305

3.5 Instrumentation

A research instrument is defined as a tool to measure the studied social phenomenon that is being observed (Sugiyono, 2009, p. 102). Babbie (2001) also depicts a research instrument as one that is employed to collect the needed data to find suitable solutions for the problem that is being investigated. The study used the following instruments:

1.5.1 Teacher-Led Professional Development Questionnaires (TLPDQ)

The questionnaire was structured in three parts: demographic details, closed-ended questions, and open-ended questions. The demographic component of the questionnaire consisted of nine closed-ended questions that highlight information related to the participants' age, gender, years of teaching, current school level being taught, subjects taught, nationality and frequency of attending professional development sessions.

The second section of the question consists of Likert-scale items that focus on unfolding educators' perception on five clusters of thought. The first cluster underscores the role of teacher-led PD in relation to its enhancement of leadership capacity; this part has five statements related to the role of TLPD in structuring a collaborative culture, interactive learning environment, enabling leaders to create leadership opportunities for teachers, and how it helps leaders disseminate school-wide priorities. The second cluster has statements that illustrate creating a collaborative learning environment through five statements that provide a rich context for creating PLCs; promoting the sense of teachers' professional accountability and responsibility; creating a non-threatening PD environment for teachers to interact and problem solve; ease of modification to address teachers' urgent professional needs and issues; and building a collegial professional environment among teachers. The third thought cluster involves

TLPD's role in providing instructional benefits. The five statements are linked to improving teachers' instructional practices and skills; developing teachers' confidence and self-esteem; helping leaders and heads of department in meeting school priorities; providing teachers with opportunities to reflect on the PD strategies collaboratively; and encouraging teachers to enhance their teaching skills to become coaches in the future. The fourth thought cluster is related to TLPD as CPD. The five statements included allowing teachers to peer observe each other to improve PD strategy applications; provide teachers with strategies that can be applied immediately in the classroom; help teachers engage their students, and keep them involved in learning; establish the relationship between all school stakeholders, and contribute to the overall professional growth in the school. The fifth thought cluster includes the ideas related to teaching areas that the TLPD could foster. The statements included the role of TLPD in enhancing cooperative learning, teaching strategies, differentiation, classroom management, interactive use of technology, and students' critical thinking.

The final section of the questionnaire comprises four open-ended questions on the key benefits the TLPD can provide, how the TLPD builds capacity, how it creates a collaborative culture, and how it instils and promotes 21st-century skills. The questionnaire is structured using a five-point Likert-scale (5=strongly agree, 4=agree, 3=neutral, 2=disagree, and 1= strongly agree). Accordingly, to Cohen et al. (2007), the Likert scale represents a type of ordinal data that reflect the order of responses. To provide a clear depiction of data description, descriptive data are used to describe present data, and this includes the mean, which is the average score, in addition to the standard deviation, which is the measure of score range calculated as the square root of the variance (Cohen et al., 2007).

The researcher constructed a questionnaire that is pertinent to the research questions and that helped the researcher to reach conclusions about teachers' and leaders' perceptions on the effectiveness of a teacher-led professional development. The process of creating the questionnaire involved generating the statements by referring them to the research questions and brainstorming several categories that serve as thematic umbrellas for the sub-statements. Subsequently, content validity was established after the researcher shared the statements with a panel of university professors and researchers to gather opinions and refine the statements to ensure clarity and meaningfulness. At this stage, the researcher sent the questionnaire document to different professors. The questionnaire was accompanied by another validity-check document to allow the evaluators to easily comment on the clarity of meaning, the organization of the layout and the language accuracy of the statements. The researcher studied the professors' comments, annotations, and suggestions and made the required additions and modifications. See Appendix I for the original and revised draft that concerned providing headings (Clusters of Thought), changing some words for more clarity, and excluding some statements to avoid repetition. The final version of the questionnaire (see Appendix II) was updated, then piloted with some teachers to complement the validity process.

3.5.1.a. Pilot Study

Researchers define reliability as research result consistency and validity as the extent to which an instrument can accurately measure the variables it is designed to measure (Johnson & Christensen, 2014). Fraenkel, Wallen and Hyun (2014) recommended the use of a research pilot to test the validity and reliability of the research instrument used. To further ensure validity and reliability of the pilot, the study was kept anonymous in order to encourage candid responses, as advised by Fraenkel, Wallen, and Hyun (2014). Cronbach's Alpha reliability degree of

significance of the pilot sample that included 40 participants was calculated to measure the internal consistency of the instrument to judge the consistency of responses. Cronbach's Alpha coefficients ranged from .58 to .79 in all the clusters and the total of the whole survey was reported as .83, which shows that the questionnaire items were consistent and evidently reliable with a total of 26 items (see Appendix I).

Table (3) Pilot Sample Analysis: *Cronbach's Alpha Reliability Statistics*

Category		
	Cronbach's Alpha	N of Items
Cluster 1 Teacher-led PD and Leadership	.61	5
Cluster 2 Teacher-led PD as a Collaborative Professional Learning Environment	.79	5
Cluster3 Instructional Benefits of Teacher-led Professional Development	.69	5
Cluster 4 Teacher-led PD as a Tool for Continuous Professional Improvement	.69	5
Cluster 5 Teaching Areas That Teacher-led PD Can Enhance	.58	6
All items	.83	26

3.5.2 The Qualitative Data Collection Process

3.5.2.1 Teacher-Led Professional Development Semi-Structured Interviews

According to Matarazzo (1978) an interview is a deliberately organized conversation between two or more people to take part in verbal and non-verbal communication that aims at collecting information which can assist one party or both to meet a target. The definition elucidates how vital a conversation can be in unveiling important information that contributes to research. In support of the aforementioned is Bryman's (2004) assertion of how the interview is a widely utilized method in qualitative research. Bryman (2004) also maintained that what makes

the interview an effective method is the fact that it is flexible. Another argument for interviews was presented by Burns (2000) who portrayed the interview as a kind of verbal exchange of information and opinion and insight from an individual or a group. Burns (2000) additionally underscored the three different types of interview as the unstructured or the open-ended interview, the structured interview or what is referred to as a survey interview, and also the semi-structured interview. Smith (2003) explained that semi-structured interviews allow for more flexibility, fluency of thought, and in-depth exploration of the experience responsively.

The researcher chose interviewing as a second instrument due to the fact that they can yield rich and informative data that authentically and meaningfully capture the lived incident or incidents of the interviewees and the way they relate to the experience and make sense of it (Siedman, 2006, p. 9). Furthermore, since interviews are considered a purposeful conversation, they can produce a thorough understanding of the situation and the experience (Ralis & Rossman, 2012; Rubin & Rubin, 2012). The researcher used semi-structured interviews based on the quantitative data that the questionnaires produced. Merriam (2001) advocated the use of semi-structured interviews because they allow respondents to spontaneously answer the questions and respond to the context of the interview. Cohen et al. (2008) also recommended interviews because they assist researchers in testing hypotheses and solidify the instrument that is employed in the research.

The researcher composed the interview questions following analysis of the quantitative data and the classroom observations. Following the quantitative analysis, certain questions lacked thorough responses from the open-ended questions of the questionnaire, such as ‘consolidation of the 21st-century skills’, ‘the link between TLPD and innovation’ as well as ‘the creation of leadership opportunities. The classroom observations also gave rise to specific areas

to be revisited and elaborated such as ‘the TLPD professional benefits’, ‘the creation of a collaborative culture’, and ‘meeting school-wide professional priorities. Based on this, ten questions were composed to cover the main clusters of thought that covered the questionnaire and new foci were added to comprehensively cover different factors and details related to the TLPD. (See Appendix IV for the complete list of interview questions.)

The researcher used semi-structured interviews to probe into more details about teacher-led professional development and to give room for responsive elaboration, rich discussion, and spontaneous development of questioning. The research recorded the interview because the interview recording, as discussed by Smith (2003), produces concise reading of data and a more effective data analysis.

3.5.2.2 Document Analysis

In their definition of document analysis, Fraenkel, Wallen and Hyun (2014) explained it as an indirect strategy for examining practices and viewpoints, by analysing documents that have been used or are being used for work purposes and can serve as reflective artefacts of these practices and perceptions. ‘Document’ as a term refers to an array of written historical or journalistic records, photographs, and meeting notes, in addition to recorded notes and speeches from educators and leaders (Erlandson et al. 1993). Document analysis is a useful piece of evidence as it is not restricted by time and place (Fraenkel, Wallen and Hyun, 2014), and this factor is considered one of the advantages of using it. On the other hand, the disadvantages of using it is that it does not reflect the participants’ behavior (Fraenkel, Wallen and Hyun, 2014). It has to be done systematically in order to give forth valuable and informative data (Merriam, 1988).

As an analytical method used actively in qualitative research, document analysis entails examining and interpreting data to gain understanding, create meaning, and eventually contrite empirical knowledge (Corbin & Strauss, 2008; see also Rapley, 2007). In this study, it is complementing the picture of teacher-led professional development by studying all related documents and details that add essence to the experience and give it rationale and meaning. Without the thorough examination and reflection of prior and associated documents that enabled and accompanied the implementation of TLPD, there would be a gap in the full picture, and there would also be a missed opportunity for the addition of authentic and relevant details that shaped the idea, helped it evolve, strengthened it and fostered the reflective thinking that was put in it.

Atinkson and Coffey (1997) describe documents as social facts that are created, disseminated, and refined in socially driven ways (p.47); when we link this to the Holding Company's Professional Development Policy and programme, the induction guide, and the other relevant documents that were produced as part of the pre-proposal reflective meetings (such as the proposal meetings and the resources that were shared as part of these meetings), we can evidently decipher the social factors that mark these documents and contextualizes it. Bowen (2009) explains that resources that can serve as forms of document analysis include but are not limited to agendas, advertisements, diaries and journals, even programs, program proposals, and summaries. Bowen (2009) also advocated the use of document analysis for the purpose of triangulation of the research instruments. Bowen also explained the use of document analysis in mixed methods and cited an example of a mixed methods study by Rossman and Wilson (1985) in which document analysis was utilized to define the factors and agencies that steered the programme's development and improvement.

This idea also applies to the current study. Driven by research and empirical evidence, the researcher played a focal role in considering the idea of TLPD in the organization; creating the rationale for it, participating in the construction of the PD program framework and then creating the proposal, delivering it, proving it, and actualizing it. The processes, deliberations, and actions embedded intricately in the TLPD model that the researcher has implemented cannot be excluded without being analysed as part of the research qualitative analysis form. Also, Sogunro (1997) used document analysis in his mixed methods in a study that explored a PD program and also used interviews, surveys and observations. Sogunro asserted that document analysis provided substantive details and information on the objective of the programme, the history of it and the context the rationale behind it. Other researchers contended that document analysis is suitable for the analysis of a single programme (Stake, 1995; Yin, 1994), which also applied to the model that was implemented in the current study. Based on this and supported further by Merriam (1988), all types of documents can assist the researcher in unfolding meaning and gaining insight related to the research problem (p. 118). Prior (2003) insightfully explained how document analysis should be perceived in terms of assisting and strengthening research, by 1) acknowledging document analysis as a field of research; 2) considering the documents situated products, not fixed ones; 3) documents produced from social interactions should thus be considered collective products; 4) there should be thorough understanding of the process of producing the document (p. 26).

Coming that perspective, the professional development program and proposal document reflects critical analysis of evidence (Merriam 2009) with regard to the thinking and the thorough deliberation that preceded the launching and implementation processes of the teacher-led PD structure. The inferences that were collected from documents supported the answers of the third

research question in showing how the school leaders and teachers perceive the teacher-led professional development experience, and this in turn supports Fraenkel, Wallen, and Hyun's (2014) assertion of necessitating the analysis of the relationship between multifarious components that are linked to the researched questions and objectives. The documents and the slide show notes feature the early drafts to the updated and refined ones to ensure authenticity and credibility of the development process that the research idea arose from. The review of documents provided further understanding of a certain situation and experience which makes its analysis more accessible and its investigation more facilitated (Bowen, 2009).

The professional development structure and program were designed after meetings with an educational consultant and the senior leadership teams. The meeting minutes, emails, drafts of the PD overview and different versions of the PD program were studied and analysed. The analysis process took place in four stages. The first phase included the thorough reading of the documents. The researcher used Google Documents as the medium for reading, by copying and pasting the resources onto it for ease of use. During that process, content analysis began with the use of the highlighting features on Google Documents. The second stage involved highlighting the commonalities and identifying the patterns and recurrent themes and ideas. The third stage involved reading the themes and comparing them with the questionnaire results and discerning the link between the elicited themes and the research study questions and the research epistemic perspective. The fourth stage was the stage of deciding the final themes gleaned from the process, in order to use them to complement the qualitative analysis of the data. (Refer to Figure 6 to see the illustrated processes of the document analysis.)

Figure 6. Stage of the Document Analysis



3.5.2.3 Lesson Observations

According to Fraenkel and Wallen (2006), lesson observations serve as a data collection tool that is used by a researcher or a research assistant. Lesson observations were conducted in the study to touch on the impact of the teacher-led professional development foci in enhancing teaching and learning. This involved observation of the physical learning environment, strategy implementation, the learning engagement, and the progress that students make in response to the implementation of the strategies learned. This was specifically important

after the questionnaire analysis results that gave rise to very high degrees of responses in favor of TLPD in helping teachers acquire and enhance teaching skills and pedagogical practices.

The main reasons that the researcher opted for classroom observation were achieving triangulation and also gaining full understanding of the educators' experiences in TLPD, so she used classroom observations to gain a thorough understanding of the various benefits and gains of the TLPD for leaders and for teachers. As asserted by Silverman (2005), classroom observation is one of the fundamental data resources in qualitative research; thus, the qualitative part of this study could not have been fulfilled and eliminated without the researcher being in the classroom face to face with actions manifested, strategies implemented, support provided, and obstacles faced. The context richly exemplified TLPD coming to life with students receiving new strategies of learning, and teachers doing their best to impart knowledge and build understanding by actively supporting students to make progress and to actualize learning; and the teacher coach taking part in the observation as a facilitator assisting a fellow teacher and ensuring the strategy succeeds and friendly intervention is provided when need be. The researcher in this context had the eye of the observer and a reflective supporter, and she also was there as the researcher taking part in the authentic context in which the observation took place (Fraekel and Wallen, 1993) without attempting to alter it or manipulate it in any way (Gay et al., 2009). The purpose that the researcher had in conducting the observations was to see the instructional gains of TLPD in the classroom, and the extent to which it showed the role of the coaches in supporting the environment of collaboration and teacher-led improvement.

To impartially support the research purpose, the researcher adopted the role of an objective external observer, using field notes and an electronic observation tool "iAspire" (See

Appendix V). To ensure complete objectivity, the researcher did not attempt any interaction with the students. However, the researcher attempted to interpret genuine interactions, unplanned interactions, and non-verbal expression (Meriam 2009). The researcher conducted a total of 15 lesson observations, that combined different functions: a) qualitative research tool, b) quality assurance of senior and middle leadership, c) peer observation (with one additional peer teacher present), and a coaching experience (with the presence of one coach teacher). The researcher adopted Geertz's (1973) 'Thick Description' approach to observation, according to which human behavior is observed in-depth along with the context in which it takes place and along with the details that result from this behavior and contribute to drawing a holistic image about it. The researcher included an additional observer for the sake of establishing validity (see further details on observation validity in section 3.7). The additional observer in every lesson was either a middle leader or senior leader.

3.6 Data Collection and Data Analysis

Taylor and Bogdan (1984) contended that the main goal of analyzing data is to reach reasonable and logical conclusions and generalizations (Merriam et al., 1988, p. 139). For that, data analysis needs to be performed in order to give the study a frame of structure and organization (Marshall & Rossman, 1999). It is thus not a process that has a certain beginning and end; it is rather a continuous process in the study and an attitude that enables the researcher to reflect as he or she progresses into the study stages and as data unfold (Rossman & Rallis, 1998).

3.6.1 Test of Normality

The researcher checked the raw data for inconsistencies, double coding, and any other obvious errors and put studied effort and focus on ensuring error-free data entry. Then, the researcher drew a comparison between the minimum and the maximum values for each variable in the descriptive output within the allowable range of values in the codebook. Next, the researcher examined the means, and standard deviations to check reasonability of the values. After that she examined the N column to ensure that there were no missing data in any of the variables, as this would be a problem when doing statistics with more variables. Since the test of normality was not met and to ensure the accuracy of results, non-parametric tests such as Chi-square, and Mann-Whitney U had fewer assumptions and often could be used when the assumptions of parametric tests were violated.

3.6.2 Quantitative Data Analysis

The quantitative data in the TLPD questionnaire were analysed using descriptive statistics in the Statistical Package for the Social Sciences (SPSS) in order to identify the mean and the standard deviation. This was done in steps that included congregating the data from the questionnaires, coding the questionnaire items into numbers, and the numbers that were converted were transferred to SPSS. After that, the group of tables that were produced from the performed analysis were employed to complement the research sections and support the methodological part of the research. The analysis of the quantitative data took place at the beginning of the research study in preparation for the observations and then the creation of the interview questions. The analysis of the quantitative data was done through descriptive statistics tabulated to visually illustrate the figures.

3.6.3 Qualitative Data Analysis

The researcher adopted the Grounded Theory tenets to comprehensively analyse the data thematically by a process of order, transcription, classifications and then recognizing various themes that underlie the data. The research employed thematic analysis of the qualitative data by highlighting patterns and organizing common themes gleaned from the information (Braun & Clarke, 2006). The researcher used this thematic analysis as it provides answers to the third research questions and complements the overall data analysis process.

Researchers and scholars contend that the Grounded Theory approach in analysis has an intuitive and responsive nature and they also state that it allows for creativity within a frame that is organized and systematic, which would result in producing rich data (Hussein et al., 2014). Grounded Theory also gives a logical intellectual interpretation of qualitative data which results in developing and refining the analysis (Goulding, 1998). In more detail, the researcher thoroughly examined the interview notes. This was followed by using the composition platform Microsoft Word to type in answers and highlight recurrent words and phrases. Subsequently, the common ideas and topics were color-coded. The researcher then categorized each group of words under a certain theme for easy reference. In this regard, Merriam (2001) pointed out that the use of ICT has become a familiar practice in data analysis whether this analysis is done in isolation or as part of a group.

3.7 Validity and Reliability

There are some threats that can affect the validity in the quantitative approaches and also in the credibility of the qualitative approaches. To address the qualitative threats, prolonged time in the study field along with the triangulation was employed. Consultation with a critical panel of

researchers was carried out to monitor qualitative data dependability and quantitative data reliability. To establish the validity of the questionnaire and interviews, the researcher did the following:

Face Validity: The researcher established face validity through involving a panel of five university instructors who thoroughly evaluated the relevance of the research questions to the items chosen in the questionnaire. They also looked at the cluster of thoughts it contained and the formation of the semi-structured interview questions after the initial quantitative analysis was done.

Content Validity: This was established through a panel of educational evaluations experts and researchers who reviewed the questionnaire and interview questions for fidelity to the main constructs, clarity of expression, language accuracy and also cultural appropriateness to the Emirati context. Hence, in order to ensure the validity of the quantitative data, the content validity of the quantitative research instrument ‘questionnaire’ was done through critical peer reviews, pilot testing, and professional reviews by a panel of professors (Almanasreh, Moles, & Chen, 2019). As for the validity of qualitative data, the researcher considered the uniformity of interview questions, pilot testing, and post-piloting modifications (Cannel & Khan, 1968). Also, the researcher used Guba’s (1981), Maxwell’s (1992) and Walcott’s (1994) guidelines of ensuring credibility of feedback, constructive listening, prolonged time of participation in the research site, authentic reporting and writing, and seeking feedback for refinement. Apart from that, the interview questions were also shared with a group of researchers that included PhD students and professors. Considering the lesson observations, descriptive validity was done by triangulating observations from assigning multiple observers to ensure uniformity of comments and observations (Cosgrove, 2018; Johnson, 1997; Perez, 2019).

In establishing the document analysis validity, the researcher ensured that the revision was made by researchers in relation to Mouton's (1996) dimensions of validity which are theoretical, measurement, representativeness, reliability, and inferential validity. The face validity was established through the process of revision of the documents which were created recently by the senior leadership and consultancy team in the school, based on the needs and the context of the school and its particular demographical and contextual details and needs. Based on the revision, the documents used represent a valid piece of analysis that were chosen from a set of other selections of documents, but bearing in mind the representativeness of the document being part of the process of establishing the professional development program and culture in the school, and the different stages that it underwent until it was published and approved.

For testing the validity of observations, the researcher used the following measures to assess the validity of interviews involving additional observers and establishing 'inter observer agreement' by comparing the agreement instances of the evaluators on each observation variable in the observation system, so that if the availability of 8 out of a total of 10 features were accomplished, then there would be 80% agreement.

In addition, reflexivity was a method used to validate observation. This took the form of ongoing monitoring and reflection on the data collection after completing the field work and examining the extent to which it might have been influenced by any factors. Reflective discussions happened with cross observers, educational leaders in the context and educational researchers in the academic field on the produced observational data to ensure that there was always a shared set of observations, results. Another method of validity is the triangulation of the qualitative tools by comparing the observation findings to the findings of the other instruments (Interviews and document analysis). A third way is respondent validation which involves

sharing the observations with some of the respondents that answered questions for other research instruction tools such as the questionnaire or the interviews, to see the degree the observation findings agree with the rest of the findings from other tools. Also comparing accounts by respondents on the observations to the observers' findings is another form of establishing respondent validation as Ball (1981) did in his mixed methods study and as he advocated in another 1984 study. In this case, the peer observation 'takeaways' form served as a reference to compare findings and develop further discussion and affirmations. In addition, triangulation was another direct check of validity of the observations by thoroughly cross checking the findings with other tool's data findings. In all the preview of forms of validity checks, the researcher remained mindful of any threats to validity and addressed them immediately by strictly following the steps above.

As for the reliability, Yin (2003) explained that reliability means that data collection procedures can be repeated and would produce the same results. Scott and Morrison (2006) maintained that if a certain measure is highly reliable, then it produces the same results on multiple occasions. Creswell (2012) defines the reliability as the stability of the scores used to measure the variables. To test the reliability and the internal consistency, the researcher employed Cronbach's Alpha by using SPSS to accurately discern how each item is strongly or weakly related to the instrument use in general, and its relation to the other items in particular so that elimination of some items was done based on the findings from this. To illustrate, the score range for reliability was between 0.00 to 1.00. Based on this, internal consistency was seen as getting higher if the score was close to 1.00 (Mujis, 2011).

3.7.1 Dealing with Possible Insider's Bias

Having been wary of the fact of being an insider researcher, especially in the qualitative part of the study, the researcher used the guidelines proposed by Guba (1981), which included ensuring credibility, transferability, dependability, and confirmability. The researchers also followed Greene's (2014) guidelines which included keeping field journals, conducting onsite team discussions, triangulation, debriefing. Apart from the aforementioned, the researcher also benefited from the recommendation asserted by Van Heugten (2004) on how to avoid potential bias. This included stream of consciousness notes, self-talk and reflection, and discussing the experience with others so that the researcher tries to explain to other people that are not familiar with the experience what the study entails and what it is unfolding. Also one important practice that the research adopted in avoiding bias is the notion of 'reflexivity' which was developed by Pierre Bourdieu (1992) through engaging the researcher's self in questioning and challenging perceptions and distancing one's self emotionally and socially from the participants in a way that is appropriate and logical (Mauthner & Doucet, 2003).

3.8 Ethical Considerations

Mertens (2003) posits that ethical consideration in research should be an inseparable part of the planned and implemented research process (p. 135). As an initial step, the researcher ensured fulfilling the university research ethics documentation which was shared with the University Research Ethics Committee (see Appendix II), and the procedure featured filling out the Research Ethics form for low-risk research. The researcher completed the personal information section detailing contact information and email address, provided a brief outline of the study by writing a 250-word description showing the details of gaining the school's permission to conduct the study, and creating the consent form which was updated twice to fit

the expectations of the research ethics committee. The researcher also clearly outlined the study phases and what data method and instrument was planned to be used at the time. Furthermore, the researcher showed in detail the ethical dimensions that would be taken to ensure the safety and convenience of the participants as well as their anonymity during the data analysis phase, and additionally guaranteed confidentiality of the participants throughout the research process. Therefore, the researcher explicitly shared the ethics and the protection that all participants were ensured to receive in every stage of the study. The researcher chose the participants on the basis of their relevance to the study topic.

With regard to all the data involved in the study, the audio recordings, the Google Forms charts, the annotations, the color-coded thematic explanation, and the transcriptions, were securely stored on a password-protected computer. The researcher followed the numerous steps to fulfill the ethical requirements including obtaining consent from the schools to conduct the study; ensuring that the research instruments (the questionnaire and the interview) contained an introductory section that elucidated the research study and its purpose; explaining to the interviewees the purpose of the study and clarifying to them the content of the informed consent; formally introducing the study and the researcher's role; reflecting tact in showing readiness to receive and answer questions by the participants; and reassuring them that their concerns would be taken into consideration (Fraenkel & Wallen 2009); and bearing into mind their suitable times for conducting interviews. (See Appendices II for the complete set of the Research Ethics Documentation and Appendix III for the Consent Form copy.)

Chapter Four: Results

4.1 Introduction

The purpose of this research study was to explore the perceptions of Al Ain and Abu Dhabi private school educators with differing years of experience, genders, and work cycles regarding the impact of teacher-led professional development and their notions regarding the value of teacher-led professional development.

This chapter presents the results of each of the research questions listed in chapter one. The study employed a mixed-methods approach to collect data from educators including mainly teachers (N=305) of 82 private and public schools. Those educators were recruited to respond to a survey and then some of them were interviewed via semi-structured interviews to explore the various impactful results of teacher-led professional development on the instructional practices of teachers.

The quantitative data were collected using a survey while the qualitative data were collected using classroom observations, document analysis and semi-structured interviews. The study used different statistical analyses to find out the results for each of the research questions such as a descriptive statistical analysis (means and standard deviations), an Independent Sample t-Test and an ANOVA test; and also used thematic analysis of the qualitative data. Additionally, Cronbach's Alpha reliability degree of significance was calculated to measure the internal consistency of the instrument to judge the consistency of responses.

4.2 Reliability Statistics of TLPD Survey

Before displaying the results of the first research question, it is important to go through a reliability test to ensure the internal consistency of the instrument as shown in Table 4 below.

Table 4: Cronbach's Alpha Reliability Statistics

Category		
	Cronbach's Alpha	N of Items
Cluster1 Teacher –led PD and Leadership	.89	5
Cluster 2 Teacher –led PD as a Collaborative Professional Learning Environment	.90	5
Cluster3 Instructional Benefits of Teacher-led Professional Development	.91	5
Cluster 4 Teacher-led PD as a Tool for Continuous Professional Improvement	.90	5
Cluster 5 Teaching Areas That Teacher-led PD Can Enhance	.94	5
All items	.97	26

Cronbach's Alpha reliability degree of significance was calculated to measure the internal consistency of the instrument to judge the consistency of responses. Creswell (2012) defines reliability and states that the scores from measuring variables that are stable and consistent were important to stand as the degree of reliability of the participants' responses to judge the consistency of their answers. Cronbach's Alpha coefficients were calculated and to have high reliability (.97). As shown in Table 5, all the clusters ranged between .89 and .94.

4.3 Results of Research Question 1

The first question's focus is on collecting the perceptions of educators about the TLPD. In response to the first research question, "What perceptions do Abu-Dhabi private school educators have regarding a teacher-led professional development model?", the following data were collected and presented in five tables. Mean scores, and standard deviation, were measured and presented as follows:

To help in understanding the perceptions of educators about the TLPD, the following table displays the results of the whole survey's responses and the five clusters.

Table 5: Mean Scores and Standard Deviations of the Whole Survey and Clusters

Cluster	No	Mean	SD
Teacher-led PD and Leadership	305	4.29	.643
Instructional Benefits of Teacher-led Professional Development	305	4.26	.658
Teacher-led PD as a Collaborative Professional Learning Environment	305	4.23	.612
Teaching Areas That Teacher-led PD Can Enhance	305	4.21	.656
Teacher-led PD as a Tool for Continuous Professional Improvement	305	4.18	.693
The Whole Survey	305	4.23	.564

Table 5 shows that the mean scores of the perceptions of school teachers and educators regarding a teacher-led professional development model were mostly high and the mean scores ranged between 4.18 to 4.29. In addition, the overall mean score of the five clusters of the whole survey was 4.23.

After displaying the results of the whole survey and the five clusters, the following shows the results of each cluster separately.

Table 6: Cluster 1 Teacher-led PD and Leadership

Variable	Mean	SD
Creates an interactive school professional learning environment	4.40	.696
Enhances a school collaborative culture	4.34	.743
Enables school leaders to create leadership opportunities for teachers	4.33	.774
Improves leadership skills	4.23	.823
Helps leaders disseminate school professional priorities to all teachers	4.19	.826
Total average of Cluster1 Teacher-led PD and Leadership	4.28	.627

Table 6 shows that the degrees of the perceptions of school teachers and educators regarding a teacher-led professional development model were mostly very high in four sub-items of the category (*Cluster1 Teacher-led PD and Leadership*). The mean scores ranged between 4.19 to 4.40 which fall under the ‘high’ band. In addition, the overall mean score of the thought

cluster was also very high. The average mean score of all the sub-category items was 4.28. All responses were in favor of ‘the role of TLPD fosters creating a collaborative culture that provides leadership opportunities and help school leaders meet whole school priorities. The highest two means scores were in relation to the idea that TLPD ‘creates an interactive school professional learning environment’ and ‘enhances a school collaborative culture’, while the lowest two scores were ‘improving leadership skills’ (4.23) and ‘helping leaders disseminate school professional priorities to all teachers’ (4.28). Based on this, the researcher sought to include the highest and the lowest scoring statements in the semi-structured interview questions to explore the reasons in more depth.

Table 7: Cluster 2 Teacher-led PD as a Collaborative Professional Learning Environment

Variable	Mean	SD
-Provides a rich context for creating a professional learning community in the school	4.28	.711
-Promotes the sense of teachers’ professional accountability and responsibility	4.25	.729
-Creates a non-threatening PD environment for teachers to interact and problem solve	4.22	.733
-Is easily modified to address teachers’ urgent professional needs and issues	4.20	.742
-Builds a collegial professional environment among teachers	4.18	.730
Total Average of Cluster 2 Teacher-led PD as a Collaborative Professional Learning Environment	4.23	.612

Table 7 shows that the degrees of the perceptions of school leaders and teachers regarding a teacher-led professional development model were mostly very high in four sub-items of the category (*Cluster 2 Teacher-led PD as a Collaborative Professional Learning Environment*). All the answers supported the thought cluster of ‘the role of TLPD in creating a collaborative professional learning environment’. The highest two mean scores were the role of TLPD in ‘providing a rich context for creating a PLC in the school’, and ‘promoting the sense of teachers’ accountability’. On the other hand, the two lowest scores were ‘addressing teachers’ professional needs’ and ‘building a collegial professional environment among teachers’. The overall category was also very high (4.23), and the mean scores of the category ranged from 4.18 to 4.28, while average mean score of all the subcategory items was 4.23. This might indicate that some teachers are not fully in favor of receiving PD from their counterparts in the profession, since some of them feel that PD should be mostly given by an outside expert or a senior leader. This component was also added to the interview questions to gain a detailed understanding of the teachers’ perceptions regarding the role of TLPD in creating collegiality and professional collaboration.

Table 8: Cluster 3 Instructional Benefits of Teacher-led Professional Development

Variable	Mean	SD
Develops teachers' confidence and self-esteem	4.32	.757
Improves teachers' instructional practices and skills	4.28	.737
Helps leaders and heads of departments meet school's professional needs	4.25	.799
Provides teachers with opportunities to reflect on the PD strategies collaboratively	4.23	.782
Encourages teachers to enhance their teaching skills to become coaches in the future	4.22	.751
Total Average of <i>Cluster3 Instructional Benefits of Teacher-led PD.</i>	4.26	.658

In regard to thought cluster 3 (instructional benefits of TLPD), Table 8 shows that the degrees of the perceptions of school leaders and teachers regarding a teacher-led professional development model were mostly very high in five sub-items of the category. The overall category was also very high. The mean scores of the category ranged from 4.22 to 4.28, and the highest mean score was the one related to the sub-thought 'developing teachers' confidence and self-esteem', while the lowest mean score was related to 'encouraging teachers to enhance teaching skills and become coaches in the future'. The latter might indicate that teachers are not fully confident when it comes to their ability to become coaches in the future, which gives rationale to choosing this idea as one of the core thoughts to be explored in the semi-structured interview and in the document analysis. The average mean score of all the subcategory items was 4.26.

Table 9: Cluster 4 Teacher-led PD as a Tool for Continuous Professional Improvement

Variable	Mean	SD
-Provides teachers with strategies that can immediately be applied in the classroom	4.20	.767
-Allows teachers to peer observe each other to improve PD strategy applications	4.18	.795
-Helps teachers engage their students and keep them involved in learning	4.18	.821
- Establishes the relationship between all school stakeholders	4.17	.871
-Contributes to the overall professional growth in the school	4.15	.828
Total Average	4.18	.693

With reference to the role of TLPD in serving as a tool for continuous professional development, Table 9 shows that all of the questionnaire participants agreed that TLPD contributes to providing teachers with strategies that can be immediately applied; allowing teachers to peer observe each other to improve PD strategy application; helping teachers engage their students in the classroom; establishing relationship among stakeholders, and contributing to the overall professional growth in the school. The responses in Table 8 show that the degrees of the perceptions of school leaders and teachers regarding a teacher-led professional development model were high in four sub-items of the category (*Cluster 4 Teacher-led PD as a Tool for Continuous Professional Improvement*). The overall category was also high. The mean scores of the category ranged from 4.15 to 4.20, and the average mean score of all the sub-category items

was 4.17. The highest mean score was the one for ‘providing teachers with strategies that can be immediately applied in the classroom’ which provided a base of focus for the classroom observation; however, the lowest mean score was related to ‘contributing to the overall professional growth in the school’ which is an element that is related to strategic planning and whole school development. This reflects that not all teachers are certain that this model can contribute highly to school-wide growth.

Table 10: Cluster 5 Teaching Areas That Teacher-led PD Can Enhance

Variable	Mean	SD
-Helps teachers expand their professional skills in teaching strategies.	4.24	.722
-Helps teachers expand their professional skills in cooperative learning.	4.23	.725
-Helps teachers expand their professional skills in differentiation.	4.21	.775
-Helps teachers expand their professional skills in classroom management.	4.20	.728
-Helps teachers expand their professional skills in enhancing students’ critical thinking.	4.18	.770
- Helps teachers expand their professional skills in the interactive use of technology.	4.17	.744
Total Average	4.21	.656

Highlighting the degree of responses on thought cluster 5 (*Teaching Areas That TLPD can enhance*), Table 10 shows that the degrees of the perceptions of school leaders and teachers regarding a teacher-led professional development model were mostly very high, and high in four sub-items of the category. The overall category was also very high. The mean scores of the category ranged from 4.17 to 4.24, and the highest two mean scores were related to the ‘expanding professional skills in teaching strategies’ and ‘cooperative learning’. This can be linked closely to the familiarity of the teachers with the cooperative learning models and the teacher-led PD culture which were established in the schools that were investigated. On the other hand, the lowest mean scores were related to the sub-thoughts ‘enhancing critical thinking’ and ‘the use of interactive technology’; this can also be interpreted as the teachers’ interest in and possible apprehension of fully venturing into these categories and fully taking responsibility for implementing these professional agendas as they are integral components of the school’s strategic plan and development plan. The average mean score of all the subcategory items was 4.21.

It is important to mention that the ANOVA Sig value can indicate that there is a significant difference between some of the conditions; however, it cannot tell us which ones. Thus, conducting multiple comparison post-hoc tests are used when statistical significance is found between conditions, but when it is not known where the significant differences are. These tests are not used when the results of a one-way Between Subjects ANOVA test are not significant because there is no need. But when a statistically significant result is found (when the Sig. value is less than .05) we need to use these tests.

Table 11: ANOVA Analysis for Perception of Participants of Different Years of Teaching on the Teacher-led Professional Development Model

		Sum of Squares	df	Mean Square	F	Sig.
Cluster 1 Teacher-led PD and Leadership	Between Groups	.467	4	.117	.279	.904
	Within Groups	125.286	300	.418		
	Total	125.753	304			
Cluster 2 Teacher-led PD as a Collaborative Professional Learning Environment	Between Groups	.717	4	.179	.476	.753
	Within Groups	112.943	300	.376		
	Total	113.660	304			
Cluster 3 Instructional Benefits of Teacher-led Professional Development	Between Groups	1.996	4	.499	1.159	.329
	Within Groups					
	Total	129.165	300	.431		
		131.161	304			
Cluster 4 Teacher-led PD as a Tool for Continuous Professional Improvement	Between Groups	1.639	4	.410	.855	.491
	Within Groups	143.744	300	.479		
	Total	145.383	304			
Cluster 5 Teaching Areas That Teacher-led PD Can Enhance	Between Groups	1.755	4	.439	1.022	.396
	Within Groups	128.758	300	.429		
	Total	130.513	304			
Whole Survey	Between Groups	1.070	4	.267	.772	.544
	Within Groups	103.239	298	.346		
	Total	104.309	302			

A one-way ANOVA test was conducted to compare the effects of years of teaching for participants' perceptions on the teacher-led professional development model as a whole and its five clusters. First, no significant effect was found between the groups of years of teaching experience on Cluster 1: Teacher-led PD and Leadership at $P < .05$ for conditions $F(4,300) = .259$, $P = .904$. Second, there were no significant effects of years of teaching experience on Cluster 2: Teacher-led PD as a Collaborative Professional Learning Environment) at $P < .05$ for conditions $F(4,177) = .476$, $P = .753$. Third, there were no significant effects of years of teaching experience on Cluster 3: Instructional Benefits of Teacher-led Professional Development at $P < .05$ for the three conditions $F(4,300) = .1159$, $P = .329$. Fourth, there were no significant effects of years of teaching experience on Cluster 4: Teacher-led PD as a Tool for Continuous Professional Improvement at $P < .05$ for the three conditions $F(4,300) = .855$, $P = .491$. Fifth, there were no significant effects of years of teaching experience on Cluster 5: Teaching Areas that Teacher-led PD can Enhance at $P < .05$ for the three conditions $F(4,300) = .1002$, $P = .392$. Finally, there were no significant effects of years of teaching experience in the whole survey at $P < .05$ for conditions $F(4,300) = .763$, $P = .55$.

Table 12: Post-Hoc Test for the perceptions of the participants of different years of teaching on the teacher-led professional development Model

	Tukey HSD ^{a,b}		
	Years of Teaching	N	Subset for alpha = 0.05
			1
Cluster 1 Teacher-led PD and Leadership	6-10	69	4.22
	11-15	71	4.30
	more than 15	118	4.31
	1-2	16	4.33
	3-5	31	4.34
	Sig.		.930
Cluster 2 Teacher-led PD as a Collaborative Professional Learning Environment	1-2	16	4.16
	6-10	69	4.20
	more than 15	118	4.20
	3-5	31	4.22
	11-15	71	4.31
	Sig.		.824
Cluster3 Instructional Benefits of Teacher-led Professional Development	1-2	16	4.07
	6-10	69	4.21
	more than 15	118	4.23
	11-15	71	4.34
	3-5	31	4.41
	Sig.		.167
Cluster 4 Teacher-led PD as a Tool for Continuous Professional Improvement	more than 15	118	4.09
	1-2	16	4.10
	6-10	69	4.18
	11-15	71	4.20
	3-5	31	4.32

	Sig.		.573
Cluster 5 Teaching Areas that Teacher-led PD can Enhance	1-2	16	4.10
	more than 15	118	4.13
	11-15	71	4.24
	6-10	69	4.27
	3-5	31	4.34
	Sig.		.525
Whole Survey	1-2	16	4.1409
	more than 15	117	4.1818
	6-10	69	4.2298
	11-15	70	4.2968
	3-5	31	4.3380
	Sig.		.591

Table 11 and Table 12 show that there is no statistically significant difference between the five conditions that are being compared, 1-2, 3-5, 6-10, 11-15 and more than 15. It can be concluded that the differences between condition Means are likely due to chance and not likely due to the independent variables' manipulation.

All significance values in the five clusters and whole survey, .930, .824, .167, .573, .525, and .591, are greater than .05. These values correspond with the comparison between the years of teaching (1-2, 3-5, 6-10, 11-15 and more than 15). For this reason, it could be concluded that (1-2, 3-5, 6-10, 11-15 and more than 15) conditions are not significantly different in all the five clusters and the whole survey.

Table 13: ANOVA Analysis for Perceptions of Participants of Current school level on Teacher-led Professional Development Model

		Sum of Squares	df	Mean Square	F	Sig.
Cluster1 Teacher-led PD and Leadership	Between Groups	.124	2	.062	.149	.862
	Within Groups	125.629	302	.416		
	Total	125.753	304			
Cluster 2 Teacher-led PD as a Collaborative Professional Learning Environment	Between Groups	.439	2	.220	.586	.557
	Within Groups	113.220	302	.375		
	Total	113.660	304			
Cluster 3 Instructional Benefits of Teacher-led Professional Development	Between Groups	.569	2	.285	.658	.519
	Within Groups	130.592	302	.432		
	Total	131.161	304			
Cluster 4 Teacher-led PD as a Tool for Continuous Professional Improvement	Between Groups	1.990	2	.995	2.095	.125
	Within Groups	143.393	302	.475		
	Total	145.383	304			
Cluster 5 Teaching Areas That Teacher-led PD Can Enhance	Between Groups	2.526	2	1.263	2.980	.052
	Within Groups	127.987	302	.424		
	Total	130.513	304			
Whole Survey	Between Groups	1.059	2	.529	1.538	.217
	Within Groups	103.250	300	.344		
	Total	104.309	302			

A one-way ANOVA test was conducted to compare the effects of current school levels (Elementary, Middle & High) for participants' perception on the teacher-led professional development model as a whole and its five clusters. First, there was no significant effect of current school levels (Elementary, Middle & High) on Cluster 1: Teacher-led PD and Leadership at $P < .05$ for the three conditions $F(2,179) = .042$, $P = .959$. Second, there was no significant effect of current school levels (Elementary, Middle & High) on Cluster 2: Teacher-led PD as a Collaborative Professional Learning Environment at $P < .05$ for the three conditions $F(2,302) = .586$, $P = .557$. Third, there was no significant effect of current school levels (Elementary, Middle & High) on Cluster 3: Instructional Benefits of Teacher-led Professional Development at $P < .05$ for the three conditions $F(2,302) = .658$, $P = .519$. Fourth, there was no significant effect of current school levels (Elementary, Middle & High) on Cluster 4: Teacher-led PD as a Tool for Continuous Professional Improvement at $P < .05$ for the three conditions $F(2,302) = 2.095$, $P = .125$. Fifth, there was no significant effect of current school levels (Elementary, Middle & High) on Cluster 5: Teaching Areas that Teacher-led PD can Enhance at $P < .05$ for the three conditions $F(2,302) = 2.980$, $P = .052$. Finally, for the whole survey, there was no significant effect of current school levels (Elementary, Middle & High) on a teacher-led professional development model at $P < .05$ for the three conditions $F(2,302) = 1.187$, $P = .307$.

Table 14: Post-Hoc Test for the Perception of the Participants of Current School Level on the Teacher-led Professional Development Model

	Tukey HSD ^{a,b}		
	Current school	N	Subset for alpha = 0.05
			1
Cluster1 Teacher-led PD and Leadership	High	93	4.27
	Elementary	145	4.29
	Middle	67	4.33
	Sig.		.830
Cluster 2 Teacher-led PD as a Collaborative Professional Learning Environment	High	93	4.19
	Elementary	145	4.22
	Middle	67	4.29
	Sig.		.473
Cluster 3 Instructional Benefits of Teacher-led Professional Development	High	93	4.21
	Elementary	145	4.26
	Middle	67	4.33
	Sig.		.428
Cluster 4 Teacher-led PD as a ' for Continuous Professional Improvement	High	93	4.04
	Elementary	145	4.21
	Middle	67	4.22
	Sig.	157	.157
Cluster 5 Teaching Areas That Teacher-led PD Can Enhance	High	93	4.07
	Elementary	145	4.25
	Middle	67	4.29
	Sig.		.057
Whole Survey	High	93	4.1505
	Elementary	145	4.2521
	Middle	65	4.3088
	Sig.		.166

Table 13 and Table 14 show that there is no statistically significant difference between the three school levels conditions that are being compared (Elementary, Middle and High). We can conclude that the differences between conditions' means are likely due to chance and not likely due to the independent variables' manipulation.

All significance values in the five clusters and whole survey, .830, .473, .428, .15, .057, and .166, are greater than .05. These values correspond with the comparison between the current school levels (Elementary, Middle and High). For this reason, it could be concluded that (Elementary, Middle and High) conditions are not significantly different in all the five clusters and the whole survey.

Table 15: ANOVA Analysis for Perception of Participants of Current School Subjects on the Teacher-led Professional Development Model

Cluster		Sum of Squares	df	Mean Square	F	Sig.
1-Teacher-led PD and Leadership	Between Groups	3.254	5	.651	1.89	.096
	Within Groups	102.968	299	.344		
	Total	106.222	304			
2-Teacher-led PD as a Collaborative Professional Learning Environment	Between Groups	6.187	5	1.237	3.44	.005
	Within Groups	107.473	299	.359		
	Total	113.660	304			
3-Instructional Benefits of Teacher-led Professional Development	Between Groups	10.409	5	2.082	5.16	.000
	Within Groups	120.753	299	.404		
	Total	131.161	304			
I4-Teacher-led PD as a Tool for Continuous Professional Improvement	Between Groups	7.998	5	1.600	3.48	.004
	Within Groups	137.385	299	.459		
	Total	145.383	304			

5-Teaching Areas that Teacher-led PD can Enhance	Between Groups	9.139	5	1.828	4.50	.001
	Within Groups	121.374	299	.406		
	Total	130.513	304			
Total	Between Groups	6.639	5	1.328	4.55	.001
	Within Groups	87.273	299	.292		
	Total	93.911	304			

There were no significant effects for the perceptions of the participants of the school subjects on the cluster of Teacher –led PD and Leadership at the $p < .05$ level for the six conditions [$F(5, 299) = .189, p = 0.96$]. However, there was a significant effect for the perceptions of the participants of the school subjects on the cluster of Teacher-led PD as a Collaborative Professional Learning Environment, at the $p < .05$ level for the six conditions [$F(5, 299) = 3.44, p = .005$]. Also, there was a significant effect for the perceptions of the participants of the school subjects on the cluster of Teacher-led PD as a Tool for Continuous Professional Improvement at the $p < .05$ level for the six conditions [$F(2, 300) = .516, p = .000$]. Moreover, there was a significant effect for the perception of the participants of the school subjects on the cluster of Teacher-led PD as a Tool for Continuous Professional Improvement at the $p < .05$ level for the six conditions [$F(5, 299) = 3.48, p = .004$]. Additionally, there was a significant effect for the perception of the participants of the school subjects on the cluster of Teaching Areas that Teacher-led PD can Enhance at the $p < .05$ level for the five conditions [$F(5, 299) = 4.50, p = .001$]. Finally, there was a significant effect for the perception of the participants of the school subjects on the teacher-led professional development model as a whole at the $p < .05$ level for the five conditions [$F(5, 299) = 4.55, p = .001$].

The conducting of multiple comparison post-hoc tests are used when statistical significance between conditions is found. Since there were significant differences between the perceptions of the participants of the school subjects, post hoc tests were run and the results for each cluster and the whole survey are displayed as follows:

Table 16: Multiple Comparisons for Perception of Participants of School Subjects on Cluster 1: Teacher-led PD & Leadership

Multiple Comparisons							
Tukey HSD							
Dependent Variable	(I) Subject(s)	(J) Subject(s)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Cluster 1: Teacher-led PD & Leadership	Arabic	Science	-.104	.146	.981	-.52	.32
		Islamic	-.010	.158	1.000	-.46	.44
		Math	-.095	.153	.989	-.53	.34
		English	-.307	.131	.181	-.68	.07
		Others	-.159	.127	.812	-.52	.21
	Science	Arabic	.104	.146	.981	-.32	.52
		Islamic	.094	.145	.987	-.32	.51
		Math	.009	.139	1.000	-.39	.41
		English	-.203	.114	.481	-.53	.12
		Others	-.055	.110	.996	-.37	.26
	Islamic	Arabic	.010	.158	1.000	-.44	.46
		Science	-.094	.145	.987	-.51	.32
		Math	-.085	.152	.994	-.52	.35
		English	-.297	.129	.200	-.67	.07
		Others	-.149	.125	.844	-.51	.21

	Math	Arabic	.095	.153	.989	-.34	.53
		Science	-.009	.139	1.000	-.41	.39
		Islamic	.085	.152	.994	-.35	.52
		English	-.212	.123	.521	-.57	.14
		Others	-.064	.119	.995	-.41	.28
	English	Arabic	.307	.131	.181	-.07	.68
		Science	.203	.114	.481	-.12	.53
		Islamic	.297	.129	.200	-.07	.67
		Math	.212	.123	.521	-.14	.57
		Others	.148	.089	.553	-.11	.40
	Others	Arabic	.159	.127	.812	-.21	.52
		Science	.055	.110	.996	-.26	.37
		Islamic	.149	.125	.844	-.21	.51
		Math	.064	.119	.995	-.28	.41
		English	-.148	.089	.553	-.40	.11

As shown in Table 16, there were no significant effects for the perceptions of the participants of the school subjects on the cluster of Teacher-led PD and Leadership since all the sig were greater than .05 in all the six subjects (English, Arabic, Science, Islamic, Math and Others).

Table 17: Multiple Comparisons for Perception of Participants of school Subjects on Cluster 2 -Teacher-led PD as a Collaborative Professional Learning Environment

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Subject(s)	(J) Subject(s)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
2-Teacher-led PD as a Collaborative Professional Learning Environment	Arabic	Science	-.399	.149	.084	-.83	.03
		Islamic	-.147	.162	.945	-.61	.32
		Math	-.210	.157	.762	-.66	.24
		English	-.465*	.134	.008	-.85	-.08
		Others	-.378*	.130	.045	-.75	.00
	Science	Arabic	.399	.149	.084	-.03	.83
		Islamic	.252	.148	.528	-.17	.68
		Math	.189	.142	.770	-.22	.60
		English	-.067	.117	.993	-.40	.27
		Others	.021	.112	1.000	-.30	.34
	Islamic	Arabic	.147	.162	.945	-.32	.61
		Science	-.252	.148	.528	-.68	.17
		Math	-.063	.155	.999	-.51	.38
		English	-.319	.132	.155	-.70	.06
		Others	-.231	.128	.465	-.60	.14
	Math	Arabic	.210	.157	.762	-.24	.66
		Science	-.189	.142	.770	-.60	.22
		Islamic	.063	.155	.999	-.38	.51
		English	-.255	.126	.329	-.62	.11
		Others	-.168	.122	.740	-.52	.18

	English	Arabic	.465*	.134	.008	.08	.85
		Science	.067	.117	.993	-.27	.40
		Islamic	.319	.132	.155	-.06	.70
		Math	.255	.126	.329	-.11	.62
		Others	.088	.091	.928	-.17	.35
	Others	Arabic	.378*	.130	.045	.00	.75
		Science	-.021	.112	1.000	-.34	.30
		Islamic	.231	.128	.465	-.14	.60
		Math	.168	.122	.740	-.18	.52
		English	-.088	.091	.928	-.35	.17
*. The mean difference is significant at the 0.05 level.							

As shown in Table 17, there were significant effects for the perception of the participants of the subjects Arabic and English on the cluster of Teacher-led PD as a Collaborative Professional Learning Environment $p < .009$. Additionally, there were significant effects for the perception of the participants of the subjects, Arabic and others, on the cluster of Teacher-led PD as a Collaborative Professional Learning Environment $p < .045$.

Table 18 below indicates that there were significant effects for the perception of the participants of the subjects Islamic education and science $p < .016$; Islamic education and English $p < .000$; Islamic education and others $p < .002$ on the cluster of Teacher-led PD as a Collaborative Professional Learning Environment. However, no significant effects were found for the perception of the participants of other subjects.

Table 18: Multiple Comparisons for Perception of Participants of school Subjects on Cluster 3 Instructional Benefits of Teacher-led Professional Development

Multiple Comparisons							
Tukey HSD							
Dependent Variable	(I) Subject(s)	(J) Subject(s)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Cluster 3 Instructional Benefits of Teacher-led Professional Development	Arabic	Science	-.293	.158	.436	-.75	.16
		Islamic	.215	.171	.809	-.28	.71
		Math	-.122	.166	.978	-.60	.35
		English	-.398	.142	.059	-.81	.01
		Others	-.314	.138	.207	-.71	.08
	Science	Arabic	.293	.158	.436	-.16	.75
		Islamic	.508*	.157	.016	.06	.96
		Math	.171	.151	.866	-.26	.60
		English	-.106	.124	.957	-.46	.25
		Others	-.021	.119	1.000	-.36	.32
	Islamic	Arabic	-.215	.171	.809	-.71	.28
		Science	-.508*	.157	.016	-.96	-.06
		Math	-.337	.164	.318	-.81	.14
		English	-.613*	.140	.000	-1.01	-.21
		Others	-.529*	.136	.002	-.92	-.14
	Math	Arabic	.122	.166	.978	-.35	.60
		Science	-.171	.151	.866	-.60	.26
		Islamic	.337	.164	.318	-.14	.81
		English	-.277	.133	.304	-.66	.11
		Others	-.192	.129	.671	-.56	.18
	English	Arabic	.398	.142	.059	-.01	.81
		Science	.106	.124	.957	-.25	.46
		Islamic	.613*	.140	.000	.21	1.01
		Math	.277	.133	.304	-.11	.66
		Others	.085	.096	.951	-.19	.36
	Others	Arabic	.314	.138	.207	-.08	.71
		Science	.021	.119	1.000	-.32	.36
		Islamic	.529*	.136	.002	.14	.92
		Math	.192	.129	.671	-.18	.56
		English	-.085	.096	.951	-.36	.19

As shown in Table 19 below, there were significant effects for the perception of the participants of the subjects English and Arabic $p < .015$ in the cluster of Teacher-led PD as a Tool for Continuous Professional Improvement. However, no significant effects were found for the perception of the participants of other subjects.

Table 19: Multiple Comparisons of Perception based on Subjects in Cluster 4

Math	Arabic	.156	.177	.951	-.35	.66	
	Science	-.120	.161	.976	-.58	.34	
	Islamic	.064	.175	.999	-.44	.57	
	English	-.341	.142	.161	-.75	.07	
	Others	-.228	.138	.562	-.62	.17	
English	Arabic	.497*	.151	.015	.06	.93	
		Others	-.228	.138	.562	-.62	.17
	English	Arabic	.497*	.151	.015	.06	.93

Table 19: Multiple Comparisons for Perception of Participants of school Subjects on Cluster 4 Teacher-led PD as a Tool for Continuous Professional Improvement

Key HSD dependent variable	(I) Subject(s)	Multiple Comparisons			95% Confidence Interval	
		Mean	Std. Error	Sig	Lower	Upper
		(J) Subject(s)	Difference		Bound	Bound
		(I-J) Subject(s)	Mean Difference			

Math	Arabic	.156	.177	.951	-.35	.66	
	Science	-.120	.161	.976	-.58	.34	
	Islamic	.064	.175	.999	-.44	.57	
	English	-.341	.142	.161	-.75	.07	
	Others	-.228	.138	.562	-.62	.17	
English	Arabic	.497*	.151	.015	.06	.93	
		Others	-.228	.138	.562	-.62	.17
	English	Arabic	.497*	.151	.015	.06	.93
Islamic	Math	.171	.151	.866	-.26	.60	
	English	-.106	.124	.957	-.46	.25	
	Others	-.021	.119	1.000	-.36	.32	
	Arabic	-.215	.171	.809	-.71	.28	
	Science	-.508*	.157	.016	-.96	-.06	
	Math	-.337	.164	.318	-.81	.14	
	English	-.613*	.140	.000	-1.01	-.21	
Math	Others	-.529*	.136	.002	-.92	-.14	
	Arabic	.122	.166	.978	-.35	.60	
	Science	-.171	.151	.866	-.60	.26	
	Islamic	.337	.164	.318	-.14	.81	
	English	-.277	.133	.304	-.66	.11	
English	Others	-.192	.129	.671	-.56	.18	
	Arabic	.398	.142	.059	-.01	.81	
	Science	.106	.124	.957	-.25	.46	
	Islamic	.613*	.140	.000	.21	1.01	
	Math	.277	.133	.304	-.11	.66	
Others	Others	.085	.096	.951	-.19	.36	
	Arabic	.314	.138	.207	-.08	.71	
	Science	.021	.119	1.000	-.32	.36	
	Islamic	.529*	.136	.002	.14	.92	
	Math	.192	.129	.671	-.18	.56	
	English	-.085	.096	.951	-.36	.19	

Table 20: Multiple Comparisons for Perception of Participants of School Subjects in Cluster 5: Teaching Areas that Teacher-led PD can Enhance

Multiple Comparisons							
Tukey HSD							
Dependent Variable	(I) Subject	(J) Subject	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
TA	Arabic	Science	-.280	.159	.489	-.74	.17
		Islamic	.098	.172	.993	-.39	.59
		Math	-.257	.166	.635	-.73	.22
		English	-.463*	.142	.016	-.87	-.05
		Others	-.344	.138	.131	-.74	.05
	Science	Arabic	.280	.159	.489	-.17	.74
		Islamic	.379	.157	.156	-.07	.83
		Math	.023	.151	1.000	-.41	.46
		English	-.182	.124	.682	-.54	.17
		Others	-.063	.119	.995	-.41	.28
	Islamic	Arabic	-.098	.172	.993	-.59	.39
		Science	-.379	.157	.156	-.83	.07
		Math	-.356	.165	.261	-.83	.12
		English	-.561*	.140	.001	-.96	-.16
		Others	-.442*	.136	.016	-.83	-.05
	Math	Arabic	.257	.166	.635	-.22	.73
		Science	-.023	.151	1.000	-.46	.41
		Islamic	.356	.165	.261	-.12	.83
		English	-.205	.134	.641	-.59	.18
		Others	-.086	.129	.985	-.46	.28
	English	Arabic	.463*	.142	.016	.05	.87

		Science	.182	.124	.682	-.17	.54
		Islamic	.561*	.140	.001	.16	.96
		Math	.205	.134	.641	-.18	.59
		Others	.119	.096	.818	-.16	.40
	Others	Arabic	.344	.138	.131	-.05	.74
		Science	.063	.119	.995	-.28	.41
		Islamic	.442*	.136	.016	.05	.83
		Math	.086	.129	.985	-.28	.46
		English	-.119	.096	.818	-.40	.16
	*. The mean difference is significant at the 0.05 level.						

As shown in Table 20 above, there were significant effects for the perception of the participants of the subjects English and Arabic $p < .016$, Islamic education and English $p < .001$, and Islamic education and others $p < .016$ in Cluster 5: Teaching areas that teacher-led PD can enhance. However, no significant effects were found for the perception of the participants of other subjects.

Table 21: Multiple Comparisons for Perception of Participants of school Subjects in the whole survey.

Multiple Comparisons							
Tukey HSD							
Dependent Variable	(I) Subject(s)	(J) Subject	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Sum of all	Arabic	Science	-.26797	.14401	.429	-.6810	.1451
		Islamic	.04480	.15569	1.000	-.4018	.4914
		Math	-.15764	.15093	.902	-.5906	.2753
		English	-.41469*	.12946	.019	-.7860	-.0434
		Others	-.31393	.12584	.129	-.6749	.0470
	Science	Arabic	.26797	.14401	.429	-.1451	.6810
		Islamic	.31277	.14086	.231	-.0913	.7168
		Math	.11034	.13558	.965	-.2786	.4992
		English	-.14672	.11117	.774	-.4656	.1722
		Others	-.04596	.10695	.998	-.3527	.2608
	Islamic	Arabic	-.04480	.15569	1.000	-.4914	.4018
		Science	-.31277	.14086	.231	-.7168	.0913
		Math	-.20244	.14793	.746	-.6268	.2219
		English	-.45950*	.12594	.004	-.8207	-.0983
		Others	-.35874*	.12223	.042	-.7093	-.0081
	Math	Arabic	.15764	.15093	.902	-.2753	.5906
		Science	-.11034	.13558	.965	-.4992	.2786
		Islamic	.20244	.14793	.746	-.2219	.6268
		English	-.25706	.12001	.269	-.6013	.0872
		Others	-.15630	.11610	.759	-.4893	.1767
	English	Arabic	.41469*	.12946	.019	.0434	.7860

		Science	.14672	.11117	.774	-.1722	.4656
		Islamic	.45950*	.12594	.004	.0983	.8207
		Math	.25706	.12001	.269	-.0872	.6013
		Others	.10076	.08636	.852	-.1469	.3485
	Others	Arabic	.31393	.12584	.129	-.0470	.6749
		Science	.04596	.10695	.998	-.2608	.3527
		Islamic	.35874*	.12223	.042	.0081	.7093
		Math	.15630	.11610	.759	-.1767	.4893
		English	-.10076	.08636	.852	-.3485	.1469

*. The mean difference is significant at the 0.05 level.

As shown in Table 21, there were significant effects for the perception of the participants of the subjects; English and Arabic $p < .019$, Islamic education and English $p < .004$, and Islamic education and others $p < .042$. However, no significant effects were found for the perception of the participants of other subjects.

4.4.1 Summary of Quantitative Results of the Research Question 1

Based on the quantitative results examined from studying the tables and the mean scores related to each thought cluster, it can be discerned that the Summary of Results of Question 1 showed that the degrees of all the five thought clusters were very high and the mean score averages of the five clusters ranged from 4.18 to 4.28, as shown previously in Table 6. This shows that all participants viewed TLPD with high regard and that they considered it a professional learning medium that caters to creating leadership capacity, meeting school priorities, establishing a collaborative culture, and addressing a variety of key pedagogy areas pertinent to most schools' priorities and strategic plans.

4.5 Research Question 2

In response to the research question “What are the various perceptions that teachers of different genders, years of experience, and work cycles have about the teacher-led professional development model?”, an Independent Sample Test was calculated to measure the differences between gender that has two variables: male and female. One-way analysis of variance (ANOVA) was used to determine whether there were any statistically significant differences between the means of three or more independent groups: years of experience, and work cycles.

4.5.1 Effects of Gender on Teacher-Led Professional Development Model

The first part of the results will highlight the effects of the perception of participants' gender on the teacher-led professional development model.

An independent-samples t-test was conducted to compare the effect of gender for participants' perception on Teacher-led PD and Leadership. There was no significant difference in the mean scores for males ($M=4.30$, $SD=.508$) and females ($M=4.28$, $SD=.631$) conditions; $t(303) = .208$, $p = .835$. Similarly, in Cluster 2: Teacher-led PD as a Collaborative Professional Learning Environment, no significant difference of participants' perception was found between the mean scores for males ($M=4.27$, $SD=.444$) and females ($M=4.22$, $SD=.641$) conditions; $t(303) = .548$, $p = .584$. Likewise, in Cluster 3: Instructional Benefits of Teacher-led Professional Development, no significant difference of participants' perception was found between the mean scores for males ($M=4.25$, $SD=.534$) and females ($M=4.26$, $SD=.680$) conditions; $t(303) = -.101$, $p = .920$. Also, in Cluster 4: Teacher-led PD as a Tool for Continuous Professional Improvement, no significant difference of participants' perception was found between the mean scores for males ($M=4.11$, $SD=.606$) and females ($M=4.17$, $SD=.708$) conditions; $t(303) = -.576$, $p = .565$. In regard to Cluster 5: Teaching Areas that Teacher-led PD can Enhance, no significant

difference of participants' perception was found between the mean scores for males ($M=4.15$, $SD=.608$) and females ($M=4.22$, $SD=.455$) conditions; $t(303) = -.701$, $p = .484$. For the whole survey, no significant difference of participants' perception was found between the mean scores for males ($M=4.20$, $SD=.608$) and females ($M=4.22$, $SD=.574$) conditions; $t(303) = -.225$, $p = .822$.

Table 22 Independent Sample t-test of Participants' Gender towards Teacher-Led Professional Development Approach

Variable		gender	N	Mean	SD	t	df	Sig. (2-tailed)
Cluster 1: Teacher-led PD and Leadership	Male	52	4.30	.508	.208	303	.835	
	Female	253	4.28	.651				
Cluster 2: Teacher-led PD as a Collaborative Professional Learning Environment	Male	52	4.27	.444	.548	303	.584	
	Female	253	4.22	.641				
Cluster 3: Instructional Benefits of Teacher-led Professional Development	Male	52	4.25	.534	-.101	303	.920	
	Female	253	4.26	.680				
Cluster 4: Teacher-led PD as a Tool for Continuous Professional Improvement	Male	52	4.11	.606	-.576	303	.565	
	Female	253	4.17	.708				
Cluster 5: Teaching Areas that Teacher-led PD can Enhance	Male	52	4.15	.608	-.701	303	.484	
	Female	253	4.22	.665				
Total	Male	52	4.20	.455	-.225	303	.822	
	Female	253	4.22	.574				
Significance at .05								

To sum up, no significant difference was found between the mean scores for participating males and females regarding their perceptions towards the survey of the teacher-led professional development model as a whole and its five clusters. Additionally, the results suggest that the

participants' gender (males and females) really does not have an effect on the teacher-led professional development model as a whole and its five clusters.

4.5.2 Effects of Participants' Years of Teaching on Teacher-Led Professional Development Model

This part of the results will highlight the effect of the perception of participants' years of teaching experience on the teacher-led professional development model. ANOVA was used to determine whether there were any statistically significant differences between the means of independent groups' years of experience (1-2, 3-5, 6-10, 11-15 and more than 15).

Table 23: ANOVA Test about the Effect of Participants' Years of Teaching on Teacher-Led Professional Development Model

Variable		Sum of Squares	df	Mean Square	F	Sig.
Cluster 1: Teacher-led PD and Leadership	Between Groups	.413	4	.103	.259	.904
	Within Groups	70.630	300	.399		
	Total	71.044	304			
Cluster2: Teacher-led PD as a Collaborative Professional Learning Environment	Between Groups	.717	4	.179	.476	.753
	Within Groups	112.943	300	.376		
	Total	113.660	304			
Cluster 3: Instructional Benefits of Teacher-led Professional Development	Between Groups	1.996	4	.499	1.159	.329
	Within Groups	129.165	300	.431		
	Total	131.161	304			
Cluster 4: Teacher-led PD as a	Between Groups	1.639	4	.410	.855	.491

Tool for Continuous Professional Improvement	Within Groups	143.744	300	.479		
	Total	145.383	304			
Cluster 5: Teaching Areas that Teacher-led PD can Enhance	Between Groups	1.755	4	.439	1.022	.396
	Within Groups	128.758	300	.429		
	Total	130.513	304			
Total	Between Groups	.946	4	.237	.763	.550
	Within Groups	92.965	300	.310		
	Total	93.911	304			

Significance at .05

A one-way ANOVA test was conducted to compare the effects of years of teaching for participants' perception on the teacher-led professional development model as a whole and its five clusters. First, no significant effect was found between the groups of years of teaching experience on Cluster 1: Teacher-led PD and Leadership at $P < .05$ for conditions $F(4,300) = .259$, $P = .904$. Second, there were no significant effects of years of teaching experience on Cluster 2: Teacher-led PD as a Collaborative Professional Learning Environment) at $P < .05$ for conditions $F(4,177) = .476$, $P = .753$. Third, there were no significant effects of years of teaching experience on Cluster 3: Instructional Benefits of Teacher-led Professional Development at $P < .05$ for the three conditions $F(4,300) = 1.159$, $P = .329$. Fourth, there were no significant effects of years of teaching experience on Cluster 4: Teacher-led PD as a Tool for Continuous Professional Improvement at $P < .05$ for the three conditions $F(4,300) = .855$, $P = .491$. Fifth, there were no significant effects of years of teaching experience on Cluster 5: Teaching Areas that Teacher-led PD can Enhance) at $P < .05$ for the three conditions $F(4,300) = 1.002$, $P = .392$. Finally, there were

no significant effects of years of teaching experience the whole survey at $P < .05$ for conditions $F(4,300) = .763$, $P = .55$.

To sum up the results, it was shown clearly that there were no statistically significant differences between the five conditions (years of teaching) experience of teachers toward the teacher-led professional development model as a whole and its five clusters. To conclude, the differences between conditions means are likely due to chance and not likely due to the years of teaching.

4.5.3 Effects of Participants' Current School Levels on Teacher-Led Professional Development Model

This part of the results will highlight the effect of the perception of participants' current school levels (Elementary, Middle & High) on the teacher-led professional development model. An ANOVA test was used to determine whether there were any statistically significant differences between the means of independent groups' current school levels (Elementary, Middle & High).

Table 24: ANOVA Test about the Effect of Current School Levels Regarding Teachers' Perceptions Toward the Teacher-Led Professional Development Model

Variable		Sum of Squares	df	Mean Square	F	Sig.
Cluster 1: Teacher-led PD and Leadership	Between Groups	.033	2	.017	.042	.959
	Within Groups	71.010	179	.397		
	Total	71.044	181			

Cluster 2: Teacher-led PD as a Collaborative Professional Learning Environment	Between Groups	.439	2	.220	.586	.557
	Within Groups	113.220	302	.375		
	Total	113.660	304			
Cluster 3: Instructional Benefits of Teacher-led Professional Development	Between Groups	.569	2	.285	.658	.519
	Within Groups	130.592	302	.432		
	Total	131.161	304			
Cluster 4: Teacher-led PD as a Tool for Continuous Professional Improvement	Between Groups	1.990	2	.995	2.095	.125
	Within Groups	143.393	302	.475		
	Total	145.383	304			
Cluster 5: Teaching Areas that Teacher-led PD can Enhance	Between Groups	2.526	2	1.263	2.980	.052
	Within Groups	127.987	302	.424		
	Total	130.513	304			
total	Between Groups	.732	2	.366	1.187	.307
	Within Groups	93.179	302	.309		
	Total	93.911	304			

Significance at .05

A one-way ANOVA test was conducted to compare the effects of current school levels (Elementary, Middle & High) for participants' perception on the teacher-led professional development model as a whole and its five clusters. First, there was no significant effect of current school levels (Elementary, Middle & High) on Cluster 1: Teacher-led PD and Leadership at $P < .05$ for the three conditions $F(2,179) = .042$, $P = .959$. Second, there was no significant effect of current school levels (Elementary, Middle & High) on Cluster 2: Teacher-led PD as a Collaborative Professional Learning Environment at $P < .05$ for the three conditions $F(2,302) = .586$, $P = .557$. Third, there was no significant effect of current school levels (Elementary, Middle & High) on Cluster 3: Instructional Benefits of Teacher-led Professional Development at

$P < .05$ for the three conditions $F(2,302) = .658$, $P = .519$. Fourth, there was no significant effect of current school levels (Elementary, Middle & High) on Cluster4: Teacher-led PD as a Tool for Continuous Professional Improvement) at $P < .05$ for the three conditions $F(2,302) = 2.095$, $P = .125$. Fifth, there was no significant effect of current school levels (Elementary, Middle & High) on Cluster 5: Teaching Areas that Teacher-led PD can Enhance at $P < .05$ for the three conditions $F(2,302) = 2.980$, $P = .052$. Finally, for the whole survey, there was no significant effect of current school levels (Elementary, Middle & High) on a teacher-led professional development model at $P < .05$ for the three conditions $F(2,302) = 1.187$, $P = .307$.

To sum up the results, it was clearly shown that there were no statistically significant differences between the three conditions (current school levels: Elementary, Middle & High) of teachers' perception towards the teacher-led professional development model as a whole and its five clusters. To conclude, the differences between the three conditions' means are likely due to chance and not likely due to the three current school levels.

4.5.4 Effects of Participants' School Subjects on Teacher-Led Professional Development Model

This part of the results will highlight the effect of the perception of participants' school core subjects on the teacher-led professional development model. ANOVA was used to determine whether there were any statistically significant differences between the means of independent groups: current school levels (Elementary, Middle & High).

Table 25: ANOVA Test about the Effect of School Subjects Regarding Teachers' Perceptions toward the Teacher-Led Professional Development Model

Cluster		Sum of Squares	df	Mean Square	F	Sig.
1-Teacher-led PD and Leadership	Between Groups	3.254	5	.651	1.89	.096
	Within Groups	102.968	299	.344		
	Total	106.222	304			
2-Teacher-led PD as a Collaborative Professional Learning Environment	Between Groups	6.187	5	1.237	3.44	.005
	Within Groups	107.473	299	.359		
	Total	113.660	304			
3-Instructional Benefits of Teacher-led Professional Development	Between Groups	10.409	5	2.082	5.16	.000
	Within Groups	120.753	299	.404		
	Total	131.161	304			
4-Teacher-led PD as a Tool for Continuous Professional Improvement	Between Groups	7.998	5	1.600	3.48	.004
	Within Groups	137.385	299	.459		
	Total	145.383	304			
5-Teaching Areas that Teacher-led PD can Enhance	Between Groups	9.139	5	1.828	4.50	.001
	Within Groups	121.374	299	.406		
	Total	130.513	304			
Total	Between Groups	6.639	5	1.328	4.55	.001
	Within Groups	87.273	299	.292		
	Total	93.911	304			

Significance at .05

As shown in Table 25, there were no significant effects for the perception of the participants of the school subjects on the cluster of Teacher-led PD and Leadership at the $p < .05$ level for the six conditions [$F(5, 299) = .189, p = 0.96$]. However, there was a significant effect for the perception of the participants of the school subjects on the cluster of Teacher-led PD as a Collaborative Professional Learning Environment at the $p < .05$ level for the six conditions [$F(5, 299) = 3.44, p = .005$]. Also, there was a significant effect for the perception of the participants of the school subjects on the cluster of Teacher-led PD as a Tool for Continuous Professional Improvement at the $p < .05$ level for the six conditions [$F(2, 300) = .516, p = .000$]. Moreover, there was a significant effect for the perception of the participants of the school subjects on the cluster of Teacher-led PD as a Tool for Continuous Professional Improvement at the $p < .05$ level for the six conditions [$F(5, 299) = 3.48, p = .004$]. Additionally, there was a significant effect for the perception of the participants of the school subjects on the cluster of Teaching Areas that Teacher-led PD can Enhance at the $p < .05$ level for the five conditions [$F(5, 299) = 4.50, p = .001$]. Finally, there was a significant effect for the perception of the participants of the school subjects on the teacher-led professional development model as a whole at the $p < .05$ level for the five conditions [$F(5, 299) = 4.55, p = .001$].

To sum up the results, it was clearly shown that there were statistically significant differences between the six conditions (six subjects) of teachers' perception toward the teacher-led professional development model as a whole and its four clusters. Only in the perception of the participants of the school subjects on the cluster of Teacher-led PD and Leadership was no significant effect found.

To determine the significant effects for the perception of the participants of the school subjects on the teacher-led professional development model, a Post-Hoc test was conducted and the results are shown in Table 26.

Table 26: Post Hoc Test for the perceptions of the participants of the school subjects on the teacher-led professional development model

Multiple Comparisons							
Bonferroni							
DV	(I) Subject(s)	(J) Subject(s)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Cluster 1TL	Arabic	Science	-.104	.146	1.000	-.54	.33
		Islamic	-.010	.158	1.000	-.48	.46
		Math	-.095	.153	1.000	-.55	.36
		English	-.307	.131	.298	-.69	.08
		Others	-.159	.127	1.000	-.54	.22
	Science	Arabic	.104	.146	1.000	-.33	.54
		Islamic	.094	.145	1.000	-.33	.52
		Math	.009	.139	1.000	-.40	.42
		English	-.203	.114	1.000	-.54	.13
		Others	-.055	.110	1.000	-.38	.27
	Islamic	Arabic	.010	.158	1.000	-.46	.48
		Science	-.094	.145	1.000	-.52	.33
		Math	-.085	.152	1.000	-.53	.36
		English	-.297	.129	.338	-.68	.09
		Others	-.149	.125	1.000	-.52	.22
	Math	Arabic	.095	.153	1.000	-.36	.55
		Science	-.009	.139	1.000	-.42	.40

Cluster 2 TLC		Islamic	.085	.152	1.000	-.36	.53
		English	-.212	.123	1.000	-.58	.15
		Others	-.064	.119	1.000	-.42	.29
	English	Arabic	.307	.131	.298	-.08	.69
		Science	.203	.114	1.000	-.13	.54
		Islamic	.297	.129	.338	-.09	.68
		Math	.212	.123	1.000	-.15	.58
		Others	.148	.089	1.000	-.11	.41
	Others	Arabic	.159	.127	1.000	-.22	.54
		Science	.055	.110	1.000	-.27	.38
		Islamic	.149	.125	1.000	-.22	.52
		Math	.064	.119	1.000	-.29	.42
		English	-.148	.089	1.000	-.41	.11
	Arabic	Science	-.399	.149	.120	-.84	.04
		Islamic	-.147	.162	1.000	-.63	.33
		Math	-.210	.157	1.000	-.67	.25
		English	-.465*	.134	.009	-.86	-.07
		Others	-.378	.130	.059	-.76	.01
	Science	Arabic	.399	.149	.120	-.04	.84
		Islamic	.252	.148	1.000	-.18	.69
		Math	.189	.142	1.000	-.23	.61
		English	-.067	.117	1.000	-.41	.28
		Others	.021	.112	1.000	-.31	.35
	Islamic	Arabic	.147	.162	1.000	-.33	.63
		Science	-.252	.148	1.000	-.69	.18
		Math	-.063	.155	1.000	-.52	.40
		English	-.319	.132	.247	-.71	.07
		Others	-.231	.128	1.000	-.61	.15
	Math	Arabic	.210	.157	1.000	-.25	.67

		Science	-.189	.142	1.000	-.61	.23
		Islamic	.063	.155	1.000	-.40	.52
		English	-.255	.126	.651	-.63	.12
		Others	-.168	.122	1.000	-.53	.19
	English	Arabic	.465*	.134	.009	.07	.86
		Science	.067	.117	1.000	-.28	.41
		Islamic	.319	.132	.247	-.07	.71
		Math	.255	.126	.651	-.12	.63
		Others	.088	.091	1.000	-.18	.36
	Others	Arabic	.378	.130	.059	-.01	.76
		Science	-.021	.112	1.000	-.35	.31
		Islamic	.231	.128	1.000	-.15	.61
		Math	.168	.122	1.000	-.19	.53
		English	-.088	.091	1.000	-.36	.18
Cluster 3 IB	Arabic	Science	-.293	.158	.980	-.76	.18
		Islamic	.215	.171	1.000	-.29	.72
		Math	-.122	.166	1.000	-.61	.37
		English	-.398	.142	.080	-.82	.02
		Others	-.314	.138	.353	-.72	.09
	Science	Arabic	.293	.158	.980	-.18	.76
		Islamic	.508*	.157	.020	.04	.97
		Math	.171	.151	1.000	-.27	.62
		English	-.106	.124	1.000	-.47	.26
		Others	-.021	.119	1.000	-.37	.33
	Islamic	Arabic	-.215	.171	1.000	-.72	.29
		Science	-.508*	.157	.020	-.97	-.04
		Math	-.337	.164	.623	-.82	.15
		English	-.613*	.140	.000	-1.03	-.20
		Others	-.529*	.136	.002	-.93	-.13

Cluster 4 CPI	Math	Arabic	.122	.166	1.000	-.37	.61
		Science	-.171	.151	1.000	-.62	.27
		Islamic	.337	.164	.623	-.15	.82
		English	-.277	.133	.583	-.67	.12
		Others	-.192	.129	1.000	-.57	.19
	English	Arabic	.398	.142	.080	-.02	.82
		Science	.106	.124	1.000	-.26	.47
		Islamic	.613*	.140	.000	.20	1.03
		Math	.277	.133	.583	-.12	.67
		Others	.085	.096	1.000	-.20	.37
	Others	Arabic	.314	.138	.353	-.09	.72
		Science	.021	.119	1.000	-.33	.37
		Islamic	.529*	.136	.002	.13	.93
		Math	.192	.129	1.000	-.19	.57
		English	-.085	.096	1.000	-.37	.20
	Arabic	Science	-.276	.169	1.000	-.78	.22
		Islamic	-.091	.183	1.000	-.63	.45
		Math	-.156	.177	1.000	-.68	.37
		English	-.497*	.151	.017	-.94	-.05
		Others	-.384	.147	.143	-.82	.05
	Science	Arabic	.276	.169	1.000	-.22	.78
		Islamic	.184	.167	1.000	-.31	.68
		Math	.120	.161	1.000	-.36	.60
		English	-.221	.132	1.000	-.61	.17
		Others	-.108	.127	1.000	-.48	.27
	Islamic	Arabic	.091	.183	1.000	-.45	.63
		Science	-.184	.167	1.000	-.68	.31
		Math	-.064	.175	1.000	-.58	.45
		English	-.405	.149	.105	-.85	.04

Cluster 5 TA	Math	Others	-.292	.145	.669	-.72	.14
		Arabic	.156	.177	1.000	-.37	.68
		Science	-.120	.161	1.000	-.60	.36
		Islamic	.064	.175	1.000	-.45	.58
		English	-.341	.142	.257	-.76	.08
		Others	-.228	.138	1.000	-.64	.18
	English	Arabic	.497*	.151	.017	.05	.94
		Science	.221	.132	1.000	-.17	.61
		Islamic	.405	.149	.105	-.04	.85
		Math	.341	.142	.257	-.08	.76
		Others	.113	.102	1.000	-.19	.42
	Others	Arabic	.384	.147	.143	-.05	.82
		Science	.108	.127	1.000	-.27	.48
		Islamic	.292	.145	.669	-.14	.72
		Math	.228	.138	1.000	-.18	.64
		English	-.113	.102	1.000	-.42	.19
	Arabic	Science	-.280	.159	1.000	-.75	.19
		Islamic	.098	.172	1.000	-.41	.61
		Math	-.257	.166	1.000	-.75	.24
		English	-.463*	.142	.019	-.88	-.04
		Others	-.344	.138	.202	-.75	.07
	Science	Arabic	.280	.159	1.000	-.19	.75
		Islamic	.379	.157	.247	-.09	.84
		Math	.023	.151	1.000	-.42	.47
		English	-.182	.124	1.000	-.55	.18
		Others	-.063	.119	1.000	-.42	.29
	Islamic	Arabic	-.098	.172	1.000	-.61	.41
		Science	-.379	.157	.247	-.84	.09
		Math	-.356	.165	.477	-.84	.13

		English	-.561*	.140	.001	-.98	-.15
		Others	-.442*	.136	.020	-.84	-.04
	Math	Arabic	.257	.166	1.000	-.24	.75
		Science	-.023	.151	1.000	-.47	.42
		Islamic	.356	.165	.477	-.13	.84
		English	-.205	.134	1.000	-.60	.19
		Others	-.086	.129	1.000	-.47	.30
	English	Arabic	.463*	.142	.019	.04	.88
		Science	.182	.124	1.000	-.18	.55
		Islamic	.561*	.140	.001	.15	.98
		Math	.205	.134	1.000	-.19	.60
		Others	.119	.096	1.000	-.17	.40
	Others	Arabic	.344	.138	.202	-.07	.75
		Science	.063	.119	1.000	-.29	.42
		Islamic	.442*	.136	.020	.04	.84
		Math	.086	.129	1.000	-.30	.47
		English	-.119	.096	1.000	-.40	.17
Total	Arabic	Science	-.27023	.13456	.683	-.6684	.1279
		Islamic	.01305	.14572	1.000	-.4181	.4442
		Math	-.16790	.14118	1.000	-.5856	.2498
		English	-.42594*	.12063	.007	-.7829	-.0690
		Others	-.31550	.11717	.112	-.6622	.0312
	Science	Arabic	.27023	.13456	.683	-.1279	.6684
		Islamic	.28329	.13312	.512	-.1106	.6772
		Math	.10233	.12813	1.000	-.2768	.4815
		English	-.15570	.10507	1.000	-.4666	.1552
		Others	-.04527	.10107	1.000	-.3443	.2538
	Islamic	Arabic	-.01305	.14572	1.000	-.4442	.4181
		Science	-.28329	.13312	.512	-.6772	.1106

		Math	-.18095	.13981	1.000	-.5946	.2327
		English	-.43899*	.11902	.004	-.7912	-.0868
		Others	-.32855	.11551	.071	-.6704	.0132
	Math	Arabic	.16790	.14118	1.000	-.2498	.5856
		Science	-.10233	.12813	1.000	-.4815	.2768
		Islamic	.18095	.13981	1.000	-.2327	.5946
		English	-.25803	.11342	.354	-.5936	.0776
		Others	-.14760	.10973	1.000	-.4723	.1771
	English	Arabic	.42594*	.12063	.007	.0690	.7829
		Science	.15570	.10507	1.000	-.1552	.4666
		Islamic	.43899*	.11902	.004	.0868	.7912
		Math	.25803	.11342	.354	-.0776	.5936
		Others	.11043	.08161	1.000	-.1311	.3519
	Others	Arabic	.31550	.11717	.112	-.0312	.6622
		Science	.04527	.10107	1.000	-.2538	.3443
		Islamic	.32855	.11551	.071	-.0132	.6704
		Math	.14760	.10973	1.000	-.1771	.4723
		English	-.11043	.08161	1.000	-.3519	.1311
*. The mean difference is significant at the 0.05 level.							

As shown in Table 26, there were no significant effects for the perception of the participants of the six subjects on the cluster of Teacher-led PD and Leadership. However, there were significant effects for the perception of the participants of the subjects Arabic and English on the cluster of Teacher-led PD as a Collaborative Professional Learning Environment $p < .009$. Also, there were significant effects for the perception of the participants of the subjects Islamic and English ($p < .000$), Islamic and others ($p < .002$) and Islamic and science ($p < .020$) on the cluster of Teacher-led PD as a Tool for Continuous Professional Improvement. Then, there were

significant effects for the perception of the participants of the subjects Arabic and English on the cluster of Teacher-led PD as a Tool for Continuous Professional Improvement $p < .017$. Next, there was a significant effect for the perception of the participants of the school subjects English and Arabic ($p < .019$), English and Islamic ($p < .001$) and Islamic and others ($p < .001$) on the cluster of Teaching Areas that Teacher-led PD can Enhance. Finally, there was a significant effect for the perception of the participants of the school subjects English and Arabic ($p < .007$) and English and Islamic ($p < .004$) on the teacher-led professional development model as a whole.

4.4.6 Summary of Quantitative Analysis Results (Question 2)

The analysis of question 2 shows that no significant difference was found between the mean scores for participating males and females regarding their perceptions on TLPD as a whole and its five clusters. Also, the results indicate that the participants' gender (males and females) really does not have an effect on the teacher-led professional development model as a whole and its five clusters. Apart from the aforementioned, there were no statistically significant differences between the five conditions regarding years of teaching experience towards the teacher-led professional development model as a whole and its five clusters. To conclude, the differences between conditions' means are likely due to chance and not likely due to the years of teaching. As for the 'years of experience' variable, the results evidently show that there were no statistically significant differences between the three conditions (current school levels: Elementary, Middle & High) of teachers' perceptions towards the teacher-led professional development as a whole and its five clusters. To conclude, the differences between conditions means are likely due to chance and not likely due to the three current school levels.

Regarding the subjects, the results show clearly that there were statistically significant differences between the six conditions (six subjects) of teachers' perception toward the teacher-led professional development model as a whole and its four clusters. Only in the perception of the participants of the school subjects on the cluster of Teacher-led PD and Leadership was no significant effect found.

4.6 Classroom Observations

The data gleaned from classroom observations 'Learning Walks' provided the researcher with insight into the impact of the strategies used on students' engagement, teachers' command over the lesson activities, and the effective measuring of students' progress. The observations were recorded using the online observation platform iAspire. The 'Learning Walk' form provides a checklist of priorities that the observer looked for in the lessons such as the use of critical thinking, reasoning, engagement, linking learning to authentic experience, differentiation, and cooperative learning. Fifteen teachers were observed after attending the focused teacher-led professional development and each observation lasted between 15 and 25 minutes. The main observation of the strategies implemented reflected evident student engagement shown in their body language, involvement in the lesson, and responsibility for their learning. Additionally, the teacher was also observed in terms of confidence, fluidity of performance, enthusiasm and organization. The researcher adopted Geertz's (1973) Thick Description model to observation according to which human behavior is observed in depth along with the context in which it takes place. It uses the details that result from this behavior which all contribute to drawing a holistic image about it, eventually giving a more comprehensive view on the lesson or the activity subject of observation. Based on the foregoing, the researcher employed both tools (iAspire) and Thick Description to conduct the observations.

The classroom environment in 12 lessons of the 15 observed featured the following contextual details. The learning environment was vibrant with literacy-rich bulletin boards and wall posters and student projects. The walls also had key words of content-specific topics and themes. The seating plan followed a uniform school-wide heterogeneous seating system whereby the main four levels of learners are present in one group of four. The classrooms also had a teacher's desk supplied with a desktop computer linked to a smartboard and a projector. In every lesson observed, the teacher verbally shared the guidelines for the strategy implemented and used slides projected on the smartboard. In seven of the classes, the teachers encouraged some students to read the instructions out loud from a power point slide, while 7 teachers modelled the strategy with a group of students that they had arranged the modeling part with beforehand. This modelling was effective in easing the implementation part. Nevertheless, all teachers in the 15 observed lessons explained the strategy and self-modeled it before applying it. Although the peer observer used the 'Peer Takeaway' form to take notes and the teacher coach was also there to quality log in the details of the lessons, both were part of the teaching and learning process, providing help to students and assisting the main teacher in the implementation of the strategy, distribution of learning tools, and monitoring work progress and completion. Students' products mirrored their engagement and their responsiveness to the strategies implemented despite the fact that some of these strategies were introduced for the very first time to students (See Appendix IX).

The overall learning environment was conducive to active learning and collaboration. However, in 3 of the classes observed, the learning engagement and strategy implementation were not as effective or as responsive as the rest of the lessons. One factor that could have contributed to this could be the inaccuracy of the strategy's implementation and the nervousness

of the teacher. This inaccuracy of the implementation instigated immediate yet friendly intervention by the teacher coach. In a follow up debriefing with the coach, the incidents cited served as a learning curve for all participants in the peer observation process as they enabled the coach to tactfully intervene, enabled the peer observer to see two models of implementation, and also served as a learning curve for the teacher herself in correcting any misconception she had in the implementation of the strategy.

In terms of the documentation, the priorities looked for and the communication, iAspire provided an effective means of sharing the insights and instantly sharing the feedback with teacher via email. As for the ‘Thick Description’, the research used the model as a perspective from which the teacher perceives the lesson and bases her comments on. (Refer to Appendix IV for the Sample of Classroom Observation combining the two tools.) In this regard, the researcher observed students’ engagement, interaction, production in notebooks, Chrome books, cooperative learning, verbal and non-verbal expressions and also their overall contribution to the lesson progress. Out of 15 teachers observed, 12 showed clear energy and positive readiness to teach a new strategy and to work on making it succeed and develop further. Some common notes that appeared in the observation logs related to “clear involvement”, “engaged learners”, “enthusiastic provision”, and “vibrant learning environment”. The expressions suggest clear engagement in the lesson and mutual harmony between the learners and the teachers. The resources observed in the lessons, such as the Placemat Consensus completed graphic organizers, the mind maps, instant sentences, and digital Kagan Structures gave clear evidence of how the activities were taken on board and activated effectively in the classroom to constructively impact teaching and learning. The researcher also attended peer observation sessions that showed the collaborative model in relation to the implementation of the teacher-led strategies. The peer

observation form was titled ‘Peer Takeway Form’ which suggests that teachers visited each other to benefit from the strategies rather than identifying mistakes and flaws, which contributed to making it a stress-free experience (see sample in Appendix VI). The students’ work collected during observation session shows the immediacy of application and student involvement in the activities, which links into points made on features of effective workshops (see Appendix IX for a sample of activities).

4.7 Results of the Semi-structured Interviews

The researcher conducted semi-structured interviews with 26 respondents. The semi-structured form of interview was chosen to allow more elaboration, expression, and refinement of responses. Prior to commencing the interview, the participants were given the consent form to read and sign, and some interviews were conducted digitally through the use of Google Forms using the long answer option and with respondents able to sign their names. The researcher used a variety of ways in capturing the responses, such as digital recording, note-taking, as well as automatic Google Forms response saving, which were all used to preserve the and refer to the responses for the coding and subsequent analysis. The researcher used Microsoft Word and Google Documents to keep track of the answers, highlight them and tabulate them, and for a visually stimulating layout of analysis, the researcher used the colorful highlighting facility (see example of Interview Transcript and Coding in Appendix VIII) Digital shapes and flow charts were also employed to provide graphic representation of the themes and the sub-themes that emerged from them. The researcher eventually assembled all themes in a table that featured the quotes that revolve around the emerging themes.

Based on the interview analysis, nineteen themes emerged. They included topics pertinent to the core of the research study and were differentiated model of PD, teacher empowerment, responsibility and accountability, enhancement and sharing of instructional practices, building leadership capacity, promoting a distributed leadership model, building PLCs and professional collaboration, creating a reflective learning culture, structuring a stress-free PD experience, building a coaching culture, fostering innovation and creative problem-solving, promoting a bottom-up model, unveiling factors for a successful teacher-led PD, meeting various school cycles' needs, enhancing intrinsic motivation, instilling self-worth, refining cultural and social engagement, promoting risk-taking and professional growth, establishing 21st-century skills, and strategic development.

4.7.1 Interview Question One: What are the key benefits that teachers can get from joining a teacher-led professional development program? In response to this question, teachers elaborated on a range of advantages of this PD model. The teachers' responses resulted in the following themes: differentiated professional model, teacher empowerment, teacher accountability, sharing instructional practices.

Theme One: Providing a Differentiated Professional Development Model

The teachers elucidated the feature of accommodating various teachers' professional needs as one of the crucial merits of a teacher-led PD. Respondent 1 earnestly mentioned that TLDP provides a learning experience that meets "teachers' needs and interests"; she also stated that the element of choice plays a vital role in encouraging teachers to target their own professional flaws and be involved in addressing them. Similarly, Respondent 2 asserted the

same point, adding that through TLPD, school leaders can rectify different teachers' professional needs through a model that is "built with teachers for the teachers". Additionally, Respondent 13 maintained that this model enables teachers to serve their needs in a relevant and authentic way. Respondent 21 affirmed that the main benefit of this kind of PD is that it "is prepared based on teachers' needs and interests". Supporting the same notion, Respondent 23 explained that "when teachers lead PD, they can select content they consider most appropriate and timely for their specific classrooms and communities". Respondent 24 also stressed that this PD model places direct emphasis "on teachers' individual needs". Other teachers supported the aforementioned notions clarifying that when the school advocates an in-house model, teachers become more eager and open to developing relevant skills and practices, as the practice of self-improvement and targeted error rectification becomes a common culture and a usual practice that educators in this institution are accustomed to and comfortable with. When we consider this, we can see that the element of choice mirrors a direct accommodation of interest and preference, as the educators tend to be selective with what benefits them the most.

Theme Two: Teacher Empowerment

In discussing the varied range of advantages of TLPD, several teachers pointed out that the feeling of empowerment and contribution were feelings they from organizing and contributing to such PD structures. Respondent 1 stated that "teachers get the feeling of empowerment and actualization from joining this kind of professional learning experience, especially when they are asked by school leaders to run part of it or assume a vital role in it". Other teachers mentioned that the experience of TLPD paves the way for teachers' enhancing each other's practices in a constructive way; in this regard, Respondent 22 stated,

“Through teacher leadership, capacity, and empowerment, teaching and learning improve. Also, continuous learning occurs, and teachers become more reflective in their practice. Other beneficial outcomes include building a positive relationship between teachers and leaders and enabling leaders to communicate and meet priorities.”

Touching on the same idea, Respondent 6 asserted that “teacher-led professional development restores professional judgment and voice. All are essential components of teacher empowerment.” Strengthening this statement, Respondent 11 mentioned that “involving teachers in building the PD resources and the implementation of the practices can greatly enhance empowerment and feeling of contribution and professional independence”. Respondent 13 claimed, “the fact that teachers are collaborating is essentially in itself the source of empowerment”. Respondent 13 attributed the sense of contribution to “the collaborative practice of many teachers that meet to discuss strategies, plan learning, and weed out teaching and learning flaws and pitfalls”. Contemplating the educators’ perceptions on the role of TLPD in empowering teachers, it can be seen that this is a practice that shifts the attention from school leaders to school teachers as contributors to the overall picture of leadership by being vital builders of the PD experience in the school.

Theme Three: Promoting Teacher Responsibility and Accountability

One of the themes that was significant in the respondents’ responses to question one on the multifarious benefits of TLPD, was the promoting of accountability and responsibility. The teachers indicated that engaging teachers in this model would optimize their sense of responsibility towards their professional learning. Respondent 1 passionately acknowledged that the model enhances “the feeling of responsibility”. She based her opinion on reflecting on the

model that was applied in her school; she claimed with confidence that teachers “showed responsibility by supporting their colleagues to have good implementation of the strategies shared”. Highlighting the concept of accountability, Respondent 3 stated that TLPD would hold teachers accountable because when a teacher leads the PD, “he or she are responsible for delivering sound PD to other teachers”. Respondent 4 reported that TLPD places “a great sense of responsibility” on teachers in empowering them to lead and contribute to the implementation and the success of the PD experience. In the same vein, Respondent 21 clarified how the sense of responsibility is gradually built by linking it to the freedom to share practices and to be given the chance to lead, which eventually results in enhanced accountability. The teachers explained with calm confidence; in this sense, respondent 21 stated:

“When the teachers have a chance to share an idea or a strategy with other teachers, their sense of responsibility is increased, thus, the motivation and the self-worth is enhanced. In addition, it will motivate other teachers to share their ideas also during the coming PD.

Other teachers further concurred with these ideas, attributing the reason for the increased responsibility to the fact that teachers have more access to decision-making in terms of choice, implementation, and even quality assurance, which are all factors that deepen responsibility and accountability for the teacher.

Respondent 26 held a view that was intriguingly different from the former views, in the sense of how responsibility continues beyond the PD session. He concluded:

“Giving teachers the power to lead, contribute, build, and assess strategies and ensure their practicality and applicability in the classroom develops a feeling of intense responsibility that manifests itself in the teachers’ commitment to the model, in making it work, making it pay off and prove useful and constructive.”

Despite the uniqueness of the response above, it surely ties in with the former opinion in confirming the enhanced sense of responsibility for teachers that take part in this kind of PD. Respondent 26 also noted that teachers “would be motivated to bridge gaps and rectify errors and overcome obstacles. It is their task, their realm.” The deeper we consider the former quote, the more we get the sense of how the feeling of responsibility is interwoven with the feeling of success and the need for accomplishment; thus, responsibility in this context becomes synonymous with actualization, success, and application.

Theme Four: Enhancement of and Sharing Instructional Practices

All respondents but three reported the enhancement of instructional practices as a principal benefit of TLPD. It is important to note, however, that even the ones that did not explicitly mention this theme alluded to it through the other details that they mentioned. The interviewees explained zealously how they usually benefit from experienced teachers more than they do from external experts and trainers.

Respondent 1 articulately and passionately affirmed that the mode can “cultivate teachers’ skills and expertise”. Respondent 2 stated with evident positivity that it is “an opportunity to increase our knowledge as educators”. Respondent 3 contended that “this professional development will be fruitful and will give the audience [teachers] solutions, ideas, and new pedagogy to apply with students to improve the learning process”. Other

respondents reported that apart from enhancing instructional practices, TLPD gives veteran and experienced teachers the chance to share their practices and benefit the teaching community in their school. Respondent 3 emphasized this point asserting, “The teacher-led PD will help more in spreading the best practices among teachers”. One of the respondents, although quiet and who might be mistaken for seemingly being unenthusiastic about the model, stated with solid confidence in the TLPD, that:

“It provides a chance for educators leading those professional development programs to show what they know through their experiences and what have effectively worked in their classrooms. It will enhance leadership skills. On the other hand, the attendees will get the opportunity to improve their teaching strategies and widen their knowledge in the content areas.”

At that stage of the conversation, the respondent continued her explanation about the model with noticeable enthusiasm, reporting that “it enhances teachers’ pedagogical skills”. Mirroring a rather vibrant attitude towards the model, Respondent 1 underscored the key benefit of the program in her view: “The program is an opportunity to increase our knowledge and helps teachers to constantly learn new skills.” The rest of the teachers built on the same idea, stressing the dual benefit of sharing and acquiring skills and refining them.

Respondent 21 elaborated on the varied range of benefits of TLPD, mentioning the multiplicity of positive outcomes of this model owing to the reason that, “Teachers improve teachers’ instructional practices and skills, expand the use of technology and skills in classroom management”; “It helps teachers to develop new teaching strategies and their implementation”; “It helps the teachers develop their professional skills in all aspects of education system namely

effective teaching strategies, classroom management.” Some participants quoted “shared best strategies”; “shared the best practices from someone who is still in a classroom”. They mentioned sharing knowledge and experiences that are practical and to the point in order to improve teaching and learning, since these are relevant to the context and needs of the students, subjects and teachers as well.

Other participants shared an array of responses that revolved around the same notion of expanding practices and gaining experience, as quoted from one of the participants’ elaboration on that:

“A teacher-led professional development can increase sharing ideas and experiences; it allows peer observation and exchange of ideas. Teachers will share their practices and their creative ideas as well as the difficulties and ambiguities they might have; it enables teachers from shared planning, shared documents and shared experience to be for the benefit of the educational process as a whole. Exchanging expertise, sharing successful learning strategies; they can address common issues, shared goals or initiatives for the school, by accepting ideas on different culture and learning them and also through communication. By sharing the ideas in every area like classroom management, differentiation and teaching strategies, the sharing of strategies and ideas between teachers can enhance the collaboration strategies which will be reflected in their students.”

Based on these findings, the consolidation and the enrichment of the pedagogical practices are some of the fundamental professional advantages of TLPD.

4.7.2 Interview Question Two: In what ways can teacher-led professional development build capacity for leadership opportunities in the school? In response to this, participants gave answers that reflected the following themes: building capacity and leadership opportunities and promoting a distributed leadership model.

Theme Five: Promoting a Distributed Leadership Model

Respondents illustrated an interwoven combination of the myriad ways with which this model helps teachers build the leaders within them by being advocates of change and leaders of improvement in their schools. Discussing the aspect of facilitation of leadership for change, Respondent 1 stated with remarkable confidence, “teachers have a great opportunity to practice their leadership skills. They will be in charge of running the PD and support other teachers to ensure the right implementation.” Capitalizing on the same notion and adding to its other details of accountability and responsibility, Respondent 3 underscored the following

“I think that teacher-led professional development will enhance leadership opportunities as the teacher who is leading the professional development will get the skills of good leadership as she/he will hold the responsibility of leading the other teachers to understand the new ideas in the session and ensuring that they apply the new technique or idea correctly in their classes.”

Summarizing the essence of the value of TLPD in advancing pedagogy and learning, Respondent 5 added, “Through teacher leadership, capacity and empowerment, teaching and learning improves.” Other respondents linked the leadership feature that TLPD adds to the teachers’ experience of being leaders of creativity and innovation; in this regard, respondent 6 pointed out, “This view of teacher leadership may include teachers as leaders of innovation or

change within and beyond their classrooms as part of professional practice.” Some respondents linked leadership capacity with the way that PD primarily relies on teachers to be the source of training and eventually “building teacher capacity and leading more collaboration”. One of the participants, a humble, yet experienced coach, mentioned in reference to her research background that “Teacher-led professional development can positively impact teachers’ success. When teachers hold themselves accountable as advocates for student success, they become integral and important players in the creation of the curriculum that seeks success.” Some respondents elaborated on the role of this PD culture in allowing teachers to make influential decisions, stating that this PD “helps in building the teacher leadership and gives teachers capacity to make important decisions around teaching and learning”. Respondent 24 touched on how PD opportunities can “improve skills in leadership and will engage teachers in leading instructional development at the school”. Respondent 22 discussed the leadership facets that TLPD provides, explaining that

“It helps by building capacity that refers to any effort being made to improve the abilities, skills, and expertise of educators, and most importantly the leadership skills. So, teacher-led professional development is a wide path to strengthen these skills and a great opportunity to take a risk and try new strategies in the organization.”

Some respondents linked leadership to coaching and training, asserting that “Teachers presenting and leading PD sessions can improve their leadership skills. This can be further enhanced via coaching, peer observation and giving constructive feedback to partners.”

Apart from the aforementioned, Respondent 15 elaborated on the leadership element by comprehensively elucidating the improvement and growth process that TLPD offers:

“A teacher-led professional development will improve and enhance leadership skills; it will create leadership opportunities for teachers in the future; it can bring out leaders from the existing teachers; it could lead to mentor roles, advisory positions or trainers in specific areas; teachers will be ready to take the leadership; empowerment to develop the necessary skills required in leadership; it helps teachers become better leaders which will enable them to move to leading positions; teachers that may not wish to go into management positions still have a chance to show leadership in classroom-specific areas such as pedagogy or behavior management; it encourages the teacher to go for leadership if opportunities arise; it will improve the leadership abilities and expand the opportunity; it will help the teacher to enhance their leadership skills; they will tend to lead and the school will find out the capacity and capability and will see the potential of the teacher to be a leader.”

With this, we can see that teachers strongly link TLPD to a wide array of leadership opportunities, ranging from training and accountability to decision-making and leading change and innovation.

A young participant, clearly proud of her achievement as a coach in a TLPD, outlined several situations in which she actualized her role as a leader teacher. As a vice principal, the researcher is aware of the stages to which this participant had added her expertise in adjusting the content of PD to the group that she was going to coach, the piloting of some strategies beforehand to get early formative feedback to tailor coaching strategies, and ways with which she problem-solved situations that required instant intervention. She explained the following:

“Talking from a coach point of view, I believe that joining a teacher-led PD enhances many of my skills. Personally, when I had the chance to participate as a coach, it enhanced my public speaking skills, my social skills, my interpersonal skills and my leadership skills. The experience exposed me to planning and organizing activities for another age group, other than the age group I am usually exposed to.”

Many of the educators interviewed showed passion and interest in the model, envisioning themselves in the position of decision-making, contribution, coaching, and enhancement of attributes that pave the way for them to become effective leaders in the field of teaching and learning. Of all the participants, one respondent (25) explicitly spoke about distributed leadership as one of the fruitful outcomes that can be reaped from TLPD, stating that “it distributes the leadership among different members of the school. It also gives the chance to many participants to check, enhance and evaluate their own leadership skills.” Respondent 3 discussed the attributes of distributed leadership that are provided through TLPD by stating them without explicitly discussing them. Respondent 3 mentioned:

“TLPD enables leaders to divide tasks that are related to various tasks and priorities that need to be addressed across the school. It works as a collaborative tool for providing leadership chances to different individuals that are capable and passionate about leading change and improvement in the school, which will affect the whole school leadership model in the school; it, in a way, build a whole network of professionals that are driven by the school vision.”

Reflecting on her role as a coach in the TLPD, Respondent 8 spoke about the myriad ways with which leaders can use the model to delegate tasks effectively in a way that provides different

groups with different areas of responsibility. She maintained that “TLDP gives HoDs and educational leaders the chance to involve teachers in the shared school priorities and development objectives, so they can become facilitators of implementation and improvement”. One of the novice respondents mirrored evident confidence in the various opportunities of leadership delegation that the model provides:

“This model makes every contributing teacher to the program valued and impactful. It gives them the motivation to make things work and to overcome professional difficulties to make the application process successful and efficient. Therefore, every teacher trainer can be a leader of a certain area or topic and lead on it, as it stems from the area of experience this teacher is skillful at and capable. It is simply like catering to your own child to make it grow and become healthy.”

The metaphor of the child was surprisingly not the only symbolic representation of the TLPD; Respondent 16 emphasized, “wise leaders assign effective teachers to make instruction accessible and effective because they treat the model as their own baby”. The former image carries a lot of care, responsibility and commitment that is mingled with the act of leadership. It is a model of the servant leader who is keen on leading by being at the forefront of service and selflessness (Sendjaya, 2002). With this, some participants have given this PD model attributes that serve middle and senior leaders in meeting school-wide objectives and targets.

4.7.3 Interview Question Three. How can a teacher-led professional development create a collaborative culture in the school? All respondents gave insights on how effective TLPD can be in solidifying the sense of professional collaboration and collaborative professional

enhancement. Their responses gave rise to two themes, that are building PLCs and professional collaboration, creating a reflective learning culture.

Theme Six: Building PLCs and Professional Collaboration

The responses obtained from this question revolved around the feature of enhanced collaboration that resulted from the meetings, discussions, and reflections that take place. Underscoring the facility of collaboration by explaining its process is expressed by Respondent 1: “This kind of PD brings teachers together to plan the PD. They support each other to deliver a good one. Besides this, they work collaboratively to have the right implementation of the skills or strategies shared via peer-observations.” Respondent 2 reported the same benefit by explaining how the model helps in “developing a sense of community through helping members gain mutual respect and establishing shared values that can unify the group, therefore creating a collaborative culture in school.” Respondent 4 stated with audible excitement and affirmation that this kind of PD “develops teamwork and collaboration among teachers.” She also added that the process of professional collaboration takes place through “grade level team meetings, peer observation, book discussions”. Respondent 5 made a clear link to professional learning communities by saying that it shows how “with time, teachers can develop collaborative communities in which they address common issues, shared goals and advance their skills, knowledge. Teachers are able to learn from other teachers.” Another expression of views included the following:

“Teacher-led professional development creates a collaborative environment among teachers”; “With time, teachers develop authentic collaborative communities in which they address common issues, shared goals or school-wide initiatives.”; “as teachers have to prepare for what they will deliver collaboratively, then through conducting

peers' observations visits to learn from one another, it encourages people to work collaboratively.”

Respondent 10 linked collaboration to shared school goals and shared issues and initiatives, while Respondent 11 depicted professional collaboration as a haven for leadership opportunities, stating that

“having regular collaboration in schools like PD programs, a sense of community is born, grown and enhanced. Thus, working collaboratively will give the chance to almost every single teacher to practice, empower and build any possibility of leadership capacity. Building leadership comes as an obligatory bonus with any successful PD programs.”

Linking TLPD to collaborative planning, discussion and peer observations, Respondent 22 highlighted the resulted outcome of creating PLCs through teacher-led discussions, meetings, and collaborative problem-solving. Other educators captured TLPD as a factor that has a rather paradoxical effect: creating autonomy and yet enhancing collaboration. Her statements detailed her perception that intriguingly manifested the meaning of professional collaboration:

“Teacher-led professional development creates opportunities to enhance professional autonomy; it also emphasizes professional judgment and provides room for validating teachers' voices. This professional development is a rich opportunity to collaborate, share experiences, and develop common practices to figure out how those pedagogical practices improve students' learning.”

Theme Seven: Creating a Reflective Learning Culture

Integrally linked to the idea of collaborative cooperation is the idea of empowering the skill of collaborative reflection. Respondent 21 stressed that “teachers become more reflective in their practice” when they are given the chance to be part of the PD culture. Respondent 4 agreed with the above point of view describing the TLPD as “continuous learning that helps educators become more reflective in their practices”. Respondent 13 reflected on the collaborative practice and culture that TLPD creates, explaining that “rather than reinforcing teaching as an isolated activity, teacher-led professional development can enhance teacher collaboration, encourage self-reflection on one’s own students, and empower teachers to work collectively to improve their practice”.

Respondent 6 mentioned emphatically that “using this methodology offers several shared features of collaboration, modeling, professional reflection, and follow-up focused action; it also offers coaching and support, feedback and reflection.” Other teachers shared views on various reflective opportunities that the TLPD provides to teachers as well as leaders. Respondents 4, 6, 11, 13 and 20 shared opinions that reflected the aforementioned foci:

“TLPD has several secured opportunities for reflective learning”; “It is a model that mainly relies on trainers and trainees’ reflections”; “the peer observation is an effective chance for reflective practice, especially when the focus is learning what is beneficial rather than focusing on what needs rectification”; “reflective practice is definitely one key factor that the PLCs in TLPD encourage, practice, and call for”.

As can be discerned from the foregoing, TLPD was depicted by the participants as a constructive method of PD as it offers collaboration, reflective practice and thinking, targeted discussions, modeling, problems solving, and decision making, which are all fruitful outcomes of that TLPD.

4.7.4 Interview Question Four: In what way is teacher-led PD a more teacher-friendly mentoring method compared to conventional top-down professional development? Owing to the nature of the question, it received zealous responses by the participants. The responses gave rise to two themes: structuring a stress-free PD experience and building a coaching culture.

Theme Eight: Structuring a Stress-free PD Experience

Many respondents agreed on the friendly and non-intimidating learning experience that the TLPD provides; they generally contended that this model provides a spontaneous context for learning, a context where mistakes are opportunities for change and refinement. Respondent 1 explained in this respect that, “Working together creates a friendly atmosphere where mistakes are allowed. Teachers are the ones who create and deliver it, so they assist each other.” Another respondent added that “Since the teacher-led professional development is more encouraging and cooperative with teachers this creates a better relationship between teachers and the led professionals making them more teacher-friendly.” Some respondents indicated the psychological factors that play a part in making this context friendly and personal, attributing this to the fact that teachers feel that when they contribute to the change process as colleagues they accept notions and work on them more effectively, than when they receive the remarks from a superior. One mentioned,

“Teacher-led PD is more teacher-friendly because the audience (teachers) will accept from the teacher (presenter) rather than an external leader who is not teaching in their school. I think usually teachers can accept more from a colleague rather than from a stranger to them because they feel that despite that the presenter holds certificates and has years of experience in the field, they won't take his/her points and ideas seriously because they believe that this presenter [is not the teacher presenter].”

The psychological safety that the respondents expressed as a factor that eases learning and makes it less burdensome and stressful is a paramount element of professional learning. This is why most respondents asserted the same notion about how this model provides multiple opportunities for collaborative discussion, support, decision-making and problem-solving which will result in a stronger bond that is anxiety-free, “as teachers feel more comfortable with their colleagues than someone else who is not close to them”. Some respondents discussed how the friendly atmosphere of learning and collaboration result in a healthy professional learning experience:

“In a teacher-led professional development program, teachers have the opportunity to casually meet, discuss experiences in classrooms and ideas for development, develop new strategies and even add on to current ones, work collaboratively and finally apply knowledge they acquire from PD programs to come back and share, discuss, rectify (if needed) and apply again in classroom, to attain the goals of the PD programs. The whole previous process will definitely create a healthy collaborative culture in the school in which teachers work as counterparts within a friendly professional learning

environment that is characterized by positivity and enthusiasm rather than anxiety and restriction.”

The aforementioned quote draws parallels between the increased sense of collaboration and the resulting sense of trust and friendliness that enables teachers to hold responsibility with no stress and anxiety. They become passionate about sharing practices and sparking interest in what they do and how they do it, “encouraging positive relationships and a collaboration community in the school will develop accountable leaders. Teacher leaders have the capacity to spark passion to share their knowledge and to inspire an environment of trust and learning.” As a result, an environment of accepting challenge and facing professional impediments is built into the school culture.

Theme Nine: Building a Coaching Culture

This is in response to question 4, the theme of building a coaching atmosphere where teachers become trainers and facilitators of PD in a way that instills a sense of responsibility and sense of contribution to overall school improvement. Explaining this, Respondent 4 explained:

“Teacher-led PD is more teacher-friendly because it is based on the idea of coaching through peer-to-peer discussions that provides the person being coached with objective feedback on their strengths and weaknesses. It also gives the recipient a say; unlike monitoring, as the coach doesn't evaluate, judge, or set targets.”

Respondent 6 affirmed that the model provides vast opportunities for “coaching and expert support”. Respondent 12 expressed her opinion on the feature of creating opportunities for coaching, stating that the TLPD “facilitated opportunities for professional learning and coaching”. Respondent 14 agreed with this, stressing that this model of PD provides coaching

and mentoring chances: “Teacher-led professional development enables coaching and professional support and involves the sharing of expertise about content and evidence-based practices, focused directly on teachers’ individual needs; these experiences are enhanced further through peer observation, peer feedback and mentoring discussions.” Similar responses were given by the rest of the respondents who showed passion and interest in becoming coaches after attending teacher-led professional development.

What can be clearly observed from the above-mentioned responses is that the factors sometimes interlock with and enhance each other, making each factor more powerful and influential. The fact that there is a collaborative culture promotes transparency and candid feedback; this in turn promotes mutual support and embedded coaching and mentoring, which makes the school a supportive context of continuous learning.

4.7.5 Interview Question Five: To what extent do you find teacher-led professional development an innovative model of professional development and teacher leadership? The respondents spoke about the room for creativity this model provides , and the discussions resulted in two themes: fostering innovation and creative problem-solving, and promoting a bottom-up model

Theme Ten: Fostering Innovation and Creative Problem-Solving

There was clear consensus on the effectiveness of the TLPD in promoting an unconventional model to professional development that is contrary to what has been the norm for a long time in many private schools. This relates to where external consultants have been the only source of knowledge and professional practice, which gradually gave educational leaders

the notion that PD cannot be launched or developed internally through teachers. Respondent 1 stated,

“It’s a new and different way of delivering PDs. Usually, teachers are the ones who attend the PD, but now they are the ones who present it [too]. Based on their experience, they try to find innovative ways to present it differently and make it more enjoyable and engaging.”

Some respondents spoke about the teachers’ readiness to run workshops for parents and for other colleagues to promote a creative way of delivering priorities that the school intends to disseminate to the outer community and to teachers: “Teacher can create workshops for parents and colleagues, which often helps teachers understand different perspectives within the educational system.” Some respondents perceived the element of innovation in the sense that teachers are learning leadership skills in an unconventional manner stating that teachers develop their “leadership skills authentically” by being part of this model. Respondent 4 claimed, “Teacher-led professional development is a great model of innovation and leadership, where it transforms teaching practices from being narrow and limited to become extrinsic.” Respondent 6 discussed the possibility of teachers becoming more interactive with the outer educational community by being facilitators of change and improvement and leaders of transforming teaching and learning:

“Teacher leadership may involve transforming pedagogy and students’ learning in and beyond the classroom to affect and influence the wider school and community. This view of teacher leadership may include teachers as leaders of innovation or change within and beyond their classrooms as part of professional practice.”

Other respondents linked TLPD to innovation through the fact that it encourages teachers to “gather, unpack the barriers and share and create solutions.”; “it is innovative as it creates that environment where everybody shares his/her best practices or ideas”. Respondent 10 argued that empowering teachers is actually one form of innovation in which teachers take the lead in making the change visible and fruitful in their classes; he explained that “when teachers are given the chance to lead, they think critically together to come to conclusions, discuss challenges, and find solutions”. Respondent 13 emphatically stated that “the collaboration of teacher leaders results in collaborative thinking, collaborative problem solving, and collaborative reasoning and as well as action”. This very notion of collaboration that results in action and critical thinking is also a creative way of thinking about TLPD as a form of innovative reform. The above quote advocates teachers’ extending their expertise to involve the whole school community of educators to be an essential characteristic of innovation, as it encompasses interaction with different stakeholders and players to change the educational scene to a more vibrant and responsive one.

Theme Eleven: Promoting a Bottom-up PD Model

Although many respondents were not aware of the term ‘bottom-up’ or ‘top-down’, some of them did mention that part of the innovative ways of tackling professional needs in the school is adopting a “bottom-up structure”. Respondent 14 explained the model in a way that combined calmness and conciseness: “The bottom-up structure of PD shifts the focus from receiving theoretical knowledge from external experts to empowering teachers to become the authentic source of knowledge; it is, thus, innovative since it promotes teachers’ voice and action in contexts that usually overlook teachers’ say”. Respondent 5 stated that “In contrast to a traditional top-down PD, a bottom-up models encourages teachers to make decisions, select

topics, and design workshops, which are part of the daily struggles they have as teachers”. Another educator stated with visible conviction,

“It is an innovative model for helping teachers integrate the modern ideas and set academic expectations about what works for students. Also, it strengthens the teacher leadership and promotes educational reform by increasing the collaboration and maintaining focus on professional learning.”

The respondents shared the notion that innovation in PD in this model springs strongly from the fact that teachers are contributing to the school’s overall improvement and to their own leadership and professional skills. They alleged that this model provides a multiplicity of benefits that can be considered innovative, as they “hit more than one bird with one stone”. Based on the respondents, the myriad facets of innovation in TLPD included

“empowering teachers in a culture that usually enforces PD structures on them”, “making teachers leaders of innovation”; “teachers in this structure provide opportunities for teachers to be participants in the change process and in actualizing school vision”, “Professional development in this model begins from the actual makers of innovative learning who are teachers”, “This PD starts with teachers, and it’s for teachers; this is why it is the heart of innovative learning”.

From these responses it can be seen that teachers view TLPD as a professional learning model that offers an array benefits that, make it a promising model with unconventional processes, factors, and contributors, which is why most respondents perceived it a manifestation of the educational organization’s adoption of innovative approaches to educational change.

4.7.6 Interview Question Six: What are the key factors for making teacher-led professional development successful and effective? The respondents gave several reasons and elements in describing these factors and spoke elaboratively on which ones related to the following central theme, which is ‘factors for a successful teacher-led PD’. This theme will be further broken down into four sub-themes, which are ‘authentic relevance’, ‘passion and commitment’, ‘reflection and consolidation; and ‘positivity and acceptance of challenges’.

Theme Twelve: Factors for a Successful Teacher-led PD

This theme outlines a multiplicity of factors that emerged in the course of discussions with teachers on what makes professional development successful, especially in a model like TLPD.

Authentic Relevance and Practicality

One prominent factor that emerged from the interview was the strong and authentic connection of the PD content to the teaching obstacles and needs. Respondent 3 reported that “when the program is integrally linked to the teachers’ needs and when it speaks directly to their difficulties and concerns, then it is definitely effective”. She added that

“Teachers can benefit a lot from that program as the presenter will be a teacher who knows the field and the obstacles that face teachers while they teach in reality. This professional development will be fruitful and will give the audience (teachers) solutions, ideas, and new pedagogy to apply with students to improve the learning process.”

Additional comments by the respondents related to this authentic connection with the field and revealed how “the model allows participants to engage in a neutral space and therefore address issues in an authentic manner with a diverse team of educators and teachers.”

Respondent 5 elaborated on that connection, stating that teachers as trainers “related closely to their colleagues’ pressures and needs and can visualize conflicts and obstacles they face every day; therefore, they can structure effective solutions that can work effectively.”

In her detailed explanation of how authenticity and relation to the field contribute to the success of the TLPD, Respondent 23 explained that “as teacher leaders, teachers are empowered to help other teachers through their experience with the content and the strategies, rather than an educational consultant who possesses no practical knowledge of the educational context of the school, its teachers or their students”. Several teachers maintained that the most effective PDs they had were the ones that teachers shared and delivered, due to the practical relevance these teacher-led PD had to the rest of the teachers’ needs, interests, and challenges.

“What we can categorize under the authentic relevance is the applicability of the strategies that are being taught. When they are integrally relevant to the teachers’ skills and needs, they can take it easily into the classroom and make them work, evolve, and advance.”

As Respondent 7 stated,

“the PD that gives the teacher what can be applied in the classroom the very next day is what teachers look for; they are fed up with theoretical dispositions and hard-to-

apply notions in workshops; they want authenticity, relevance, practicality of application, and this is what we found available in models run by teachers.”

From reading the responses, they provide clarity regarding the importance of the factors of relevance, authentic application, and partiality in driving the success and effectiveness of a PD due to the fact that teachers feel involved in it and responsible for making it work and make progress in teaching and learning experience.

Passion and Commitment

Around 20 respondents of the 26 mentioned enthusiasm and commitment as pivotal factors to the success of the PD. Respondent 1 stated, “When the teachers who deliver the PD are enthusiastic and supportive and when they are committed to preparing the required resources and using time wisely, then the PD will surely succeed.” Respondents also spoke extensively about using the benefit of modelling practice and readiness to provide help and support in making the PD effective. Respondent 21 reported, “The passionate and enthusiastic modeling and application of the strategies was one of the principal reasons for making the TLPD a successful one.” Another respondent confirmed, “We were all involved because we felt strongly for what we were doing and we felt that it was necessary to make it succeed even if it faces difficulties.” Respondent 1 mentioned that “commitment was a feature that brought us together in this PD; we were committed to collaboration, to discussion, to problem-solving and eventually to making the PD effective and practical.” Respondent 16 discussed the beneficial outcomes of being committed to the PD process by stating that:

“if the teachers are committed and highly passionate about the PD, they would do anything to make the PD work out and result in constructive outcomes. This will

include all stages of the PD, such as the preparation, implementation and follow-up stages.”

Respondents reported when the teacher leaders are integrally engaged and involved in the planning of the material, the collaboration with other coaches, the process of the PD deliver, and then the implementation and the problems and insights that go with it, they provide a rich environment for an effectively structured PD.

Reflection and Consolidation

As with any learning experience, TLPD needs time for reflection, and the refinement of practices based on that reflection. Highlighting this point, Respondent 22 stated, “Having reflective meetings that give time for reviewing the PD progress and allowing peer discussion and problem-solving will complement the professional learning experience” Many participants mentioned that “the peer visits or ‘Peer Takeaways’” were an essential part, and “an opportunity for the consolidation and reflection process as it provides a modeling example of the strategies”. In support of the foregoing, Respondent 25 stated “The practical sessions are much better than the theoretical ones for peer observations and the follow-up process after the training sessions.” The respondent added,

“Teachers can make use of the PD if it provides a chance for self-assessment against clear criteria; teachers can then check progress, see the strategy modeled by an experienced colleague, meet with other colleagues to discuss common challenges and then discuss solutions and opportunities for improving application.”

Respondent 4 mentioned the role that “the reflective meetings have on consolidation of practices”, stating that “TLPD offers a chance for all teachers to meet based on the centers they joined and applied to, which helps them to discuss common problems they faced and successful solutions they followed to rectify the issues that emerged during the process of implementation and application”

The need for refining practice, as expressed by the respondents, indicates a need for mastery and effectiveness of pedagogy. Teachers in this sense are in dire need of what helps them make learning real and practical rather than distant and theoretical.

Positive Attitude and Acceptance of Challenges

Most of the respondents attributed the success of the TLPD to the positive readiness of both the teachers and trainers in dealing with the PD experience. Some of them spoke about the trainees’ responsibility of showing positivity and how it can greatly impact the success of the PD. Clarifying this notion, Respondent 1 stated that positivity “can be a dual factor for both trainers and trainees as it is the factor that can determine the success of both of them”. She also added that a positive attitude towards the PD experience equips the mind with the ability to face challenges and deal with them in an effective and timely manner. In contrast, a negative attitude can be detrimental to both parties in the learning experience, as Respondent 21 stated,

“The positive willingness to be part of the PD experience brings a wealth of benefits since both the coach and the trainee are capable of being responsive to each other and to act upon each other’s actions and needs. Hence, the process because a complementary one.”

Other respondents discussed that positive thinking is an essential factor that comes with every stage of the PD. It begins from the thought, then to the plan, the delivery, the follow-up and the reflection. If positivity is removed from any stage of the PD process, it would create a flaw and a gap that is hard to rectify.

4.7.7 Interview Question Seven: In your view, are the benefits that teachers can get from a teacher-led professional development restricted to specific school cycles? Why? Give examples. The interview question instigated discussion that gave rise to the following themes : meeting various school cycles’ needs.

Theme Thirteen: Meeting Various Cycles’ Needs

Nearly 80% of the respondents supported the notion that the benefits of TLPD are not restricted to a specific educational cycle as the strategies are adaptable, practical and responsive. Highlighting this point, Respondent 1 stated, “the knowledge teachers get from teacher-led professional development are vital in the development of the whole school community and not a specific cycle”. Respondent 3, who was a middle school teacher, spoke about the applicability of the TLPD to all cycles, referring to the other colleagues who were with her in the same professional learning centre and how the peer observation showed that clearly. She mentioned:

“It's not restricted to specific school cycles because in the PDs usually we learn new pedagogy that can be implemented to all cycles with little modifications regarding the grade level. When we were introduced to a new strategy, ‘Placemat Consensus’, all the teachers applied this instruction regardless of the grade level they teach, or subject. Also, during the training for Google certificate, the IT teachers who gave us the PDs

developed great PDs that all the teachers benefited from. In addition, the colleagues that shared with me the same center showed mastery of the strategies that we learnt in the center. In my peer visit on some KG and cycle 1 classes, I saw a different way of applying the same strategy that I initially thought would only suit the middle and high school stage.”

Respondent 7 also supported the view that the impact is not restricted to a specific grade level: “In my opinion, TLPD advantages are not bound to a particular cycle in a school because teachers from different grade level share their practices, and it can be applied by the same grade level teachers.” Other respondents stressed the fact that “reflective meetings bring teachers from different cycles together where they discuss implementation, present sample products, discuss pictorial evidence, and share ways of overcoming some hurdles faced during implementation.” Respondent 8 supported the same opinion, “The benefits that teachers get are not restricted to specific school cycles. They are skills and strategies needed for all cycles. Some examples are multiple intelligence, learning styles, thinking skills, classroom management and collaborative learning.” Respondent 4, who was a primary school teacher, reported, “The benefits of this practice are not restricted to specific schools cycles because knowledge is endless. As educators, we need to develop the knowledge and skills we need to address students' learning challenges.”

The rest of the supporting respondents expressed agreement through the below expressions:

“Absolutely not! The benefits of teacher-led professional development are infinite and beneficial to all cycles.” “Great minds and innovation are not restricted to one age, gender, or to one specific school cycle; innovative minds are all ages and cycles.”

“It is not restricted to a school cycle. It can be implemented on all grade levels. PD can be done according to teachers needs and struggles.

“Teacher-led professional development not restricted to specific school cycles as it works towards developing a collaborative approach to teaching and sequencing the learning outcomes and linking with the elements and outcomes. Example open-ended questions strategy and the implementation over different cycles.”

“No, I think it is a great idea that can be implemented in any cycle because cycles depend on the students’ ages not the teachers’ knowledge and skills. All teachers can benefit from the teacher-led professional development in many ways regardless of the grade level that they are teaching. This was showing clearly in the reflective meetings that followed the implementation process as we saw teachers from different cycle discuss and report their findings from the application. Also, the peer observations showed us the same thing.”

“No, because teacher-led PD can be a source of efficacy and confidence for teachers, and can result in widespread improvement within and beyond the school level because it does not depend on the students’ level but teacher knowledge and ability to adjust content to suit the grade level the teacher is teaching.”

On the other hand, a few teachers argued that some strategies were more applicable for a certain cycle than another. Respondent 5, a high school teacher, stated, “In my view, yes, through my experience at high and middle school I noticed that some activities are in line with high school like (digital cooperative learning)”. Similarly, Respondent 6, who was a primary teacher, mentioned, “I think these PDs should be restricted to the same school cycle

that the teacher teaches because he has more experience in the students' level and their outcomes.”

There were two respondents that stated that they thought that suitability is linked to several factors that have to do with the extent to which the strategies can be implemented and the students' readiness. Respondent 10 mentioned,

“No, they are not restricted to a specific grade level, but some designated PD programs address certain cycles' teachers. For example, certain strategies and skills a KG teacher needs are different from strategies and skills a high school teacher needs and vice versa; however, there are some general notions and skills needed for every teacher and all cycles' teachers can learn.”

Respondent 20 expressed a similar view,

“That depends on the PD topics; the more general the topics are the more cycles will have benefits. Topics like differentiation for instance can help the entire school regardless of the cycle, other topics may be more attached to some cycles and subjects.”

Based on the aforementioned, the participants view the TLPD as growth opportunities that are not restricted to a specific grade or cycle, as strategies can be modified and adapted to suit any grade level and can be tailored to suit students' needs.

4.7.8 Interview Question Eight: What is the impact of a teacher-led professional development on enhancing teachers' self-worth and motivation? The participants mirrored several insights in discussing the impact of TLPD on their social, emotional, and professional states. The discussion

gave rise to the following themes: enhancing intrinsic motivation, instilling self-worth, refining cultural and social engagement, and promoting positive risk-taking and professional growth.

Theme Fourteen: Enhancing Intrinsic Motivation

The numerous positive characteristics of the TLPD bring with them emotions that boost the performance of teachers and get boosted by the performance of teachers. Thus, teachers begin to feel more confident and more in control of their role as makers of change. Respondent 1 discussed the aspect of intrinsic motivation clarifying that through the participation in TLPD “teachers became more enthusiastic and motivated to learn more through teaching others”. Respondent 2 mentioned that “teachers feel self-motivated to teach and make a change”. Respondent 3 linked the motivation to the feeling of contribution, “This model has a great impact on teachers for its gives them a say by sharing their input, they feel valuable and it will encourage them to be more innovative. Teachers will develop a trusting environment with their peers.” Respondent 16 reported that teachers’ taking part in this model of PD encourages them and it can “strengthen intrinsic motivation”. Respondent 12 mentioned that “teacher leaders have the capacity to spark passion to share their knowledge and to inspire an environment of trust and learning”. Respondent 21 explained the process of acquiring these positive emotions including self-confidence and efficacy; she reported,

“When the teachers have a chance to share an idea or a strategy with other teachers, their sense of responsibility increased, thus, the motivation and the self-worth are enhanced. In addition, it will motivate other teachers to share their ideas also during the coming PD.”

The above quote links intrinsic motivation to self-confidence as synonymous emotions that can be interchangeably used. However, they need to be discussed in isolation as they do not necessarily overlap.

Theme Fifteen: Instilling Self-worth and Confidence

Most respondents discussed the resulting self-confidence from participating in TLPD due to the same reason that ignited motivation in the previous discussion, which is the feeling of contribution. Respondent 1 reported, “Teachers will gain self-confidence from joining this model”. Respondent 2 reported ‘self-worth’ as one of the gains of the TLPD. Respondent 3 noted that “teacher-led PD can enhance teachers' self-worth and motivation as they will be motivated to lead future PDs as they can see authentic evidence (teacher-led) from a normal person like them who achieved that success.” Respondent 5 added, “Improving and encouraging teacher confidence in out-of-classroom learning.”

Respondent 7 elucidated the way that TLPD enhances self-worth as a result of mastering a strategy, “Teachers feel confident in applying and learning a new teaching strategy. It keeps them equipped with the latest teaching techniques, and it enhances students' learning.” Other respondents also stated the same idea linking the confidence to contribution and enhanced pedagogy: “Teachers feel motivated and confident of their work”. Respondent 9 emphasized the following:

“In my opinion, this gives teachers the chance to believe in what they are doing, instead of pushing new ideas without practicing them first and see how effective they are. One more thing is that it helps in increasing the level of confidence to implement such new ideas.”

Other respondents attributed the feeling of confidence to the teachers feeling that they are the core factor for driving instruction in the classroom. One of the respondents stated, “Teachers feels that the knowledge and practices they receive will benefit the others, thus, they will have self-confidence”. Respondent 12 linked the feeling of confidence to the teachers’ presentation of their strengths; she contended that

“when teachers lead PD, they are presenting and teaching to their strengths. They are comfortable and confident in their element. It provides a chance for teachers to show what they know through their experiences and what works in their classrooms.”

Respondent 16 connected the teachers’ increased leadership skills to confidence, stating that “having the chance of leading professional development will improve confidence and the ability to address the audience with skills of a leader gained one day after another”.

As can be seen, respondents showed full agreement with the role of TLPD in instilling self-confidence and worth in teachers as “it enhances their performance in all aspects of their school work and helps them become goal-oriented. It will lead to enhance self-efficacy among teachers.” Also, “it helps teachers with shy personalities to grow more confidence and leadership traits”.

Respondent 20 summed up the factors that contribute to self-efficacy, mentioning that

“it has a great impact as it reflects a sign of appreciation from the school administration to the concerned teachers, which means that should be used wisely. It can also improve teachers’ self-esteem and faithfulness to their school as it proves to make them part of its development process, not only receivers.”

In light of the aforementioned, TLPD instigates feelings of self-confidence and empowerment with the myriad forms of contribution it allows teachers to exhibit and provide.

Theme Sixteen: Promoting Positive Risk-taking and Professional Growth

The feelings of contribution, excitement, and confidence that were reported by the respondents instill a feeling of readiness to embark on additional initiatives and opportunities for professional growth. Respondent 1 said,

“A teacher-led professional development program helps teachers feel that they are less threatened when growth is led by colleagues; teachers should feel able to admit when they are struggling without worrying about negative perceptions. It helps and supports leading to a collaborative and supportive school culture; teachers would engage more easily with their colleagues than senior leadership; teachers would feel that a peer can relate more to the classroom environment needs. It makes all teachers feel that they can all share their success stories or best practices; teachers feel that they can interact and collaborate more with peers; it helps in addressing teachers' urgent issues in a more open and interactive manner.”

Respondent 8 contended that the model gives teachers the liberty to complement the educational process. She maintained,

“Teachers feel comfortable with each other and easily discuss the matters; teachers can engage in tasks and activities suited for their respective area of development, under the guidance of fellow teachers; if the program is set up well, with student well-being at the

core of the PD rather than competition between teachers, this kind of PD should foster trust and openness between staff.”

The discussion demonstrates the various constructive emotions that result from the interaction, collaboration, combined planning, and cooperative problem-solving. All this can empower teachers and make them able to face further challenges with less stress and concerns.

Theme Seventeen: Cultivating Cultural and Social Engagement and Interaction

The fact that the teachers come from various contexts and cultures adds tolerance and cultural responsiveness which provide other factors that strengthen TLPD in private schools. Respondents spoke about enhanced collaboration and discussion bringing different voices, preferences and cultures together. Respondents 1, 5, and 8 discussed the cultural understanding that they gained from their participation in the TLPD. Respondent 6 discussed the process of cultural enrichment, stating,

“A teacher-led professional development spreads the culture of collegiality and team work; teachers would engage easily with their colleagues than with senior leadership; teachers would feel that a peer can relate more to the classroom environment needs; it makes all teachers feel that they can all share their success stories or best practices; teachers feel that they can interact and collaborate more with peers; continuous interaction brings people together as well their diverse cultures.”

Respondent 19 also elaborated on the notion that collaboration creates social understanding, clarifying that “it helps in addressing teachers' urgent issues in a more open and interactive manner; accepting everyone; enhancing the communication by continuous dialogue

and conversations among the staff; creating a collaborative and cooperative culture instead of a competitive one”. Respondent 22 mentioned, “Teachers feel that they complement each other in their strengths and weaknesses, creating an environment that respects and nurtures diverse multiculturalism and being tolerant to different cultures”. She added that

“when teachers participate in teacher-led professional development, they will interact with other teachers and share ideas on a specific topic; therefore, that will create a collaborative culture; create a truly shared vision and goals; the level of ownership they feel in the process influences how much teachers actually invest in collaborative work, and develop a sense of community; by accepting ideas from different cultures and learning them and also through communication; through work with teams, pairs or interactions with staff during training.”

The active participation mentioned creates a context where social and cultural understanding becomes a spontaneous result that is nurtured by the TLPD, which in turn can contribute to the other points of strength that the model offers.

4.7.9 Interview Question Nine: To what extent can a teacher-led professional development enhance the 21st-century skills and competencies in a school? Respondents discussed several characteristics that stem from TLPD as an environment and an experience that promotes 21st-century skills such as digital competencies, critical thinking, and collaboration.

Theme Eighteen: Fostering 21st-Century Skills

The TLPD provided an array of opportunities for enhancing several skills. The interviews holistically and individually elicited several skills that are integrally linked to the 21st-century

skills and competencies. Respondents 1 and 2 focused on the enhancement of communication skills and critical thinking as two key skills related to the 21st-century skills; Respondent 1 stated, “This kind of PD reflects 21st-century skills and competencies by enhancing the feeling of commitment, strengthening the communications, developing critical thinking strategies and cultivating personal experiences.” Some respondents touched on skills that belong to other themes but mentioned them as part of the 21st-century skills. For example as Respondent 4 that mentioned, “a teacher-led professional development greatly enhances the 21st-century skills by promoting a great sense of responsibility and collaboration among educators. It also enhances the self and global awareness as well as creativity and innovation.” Respondent 5 mentioned that teachers in this model collaborate to come up with creative ideas and “devising novel solutions”. Respondent 6 explained that teachers in this model usually prepare students for future demands, which in a way is accommodating the 21st-century skills. However, this point is moot as preparing the students for the future does not necessarily mean that they are being taught 21st-century skills. The respondent seemed limited in her perception of what the 21st-century skills comprise.

Linking the TLPD to digital competencies, many respondents mentioned that the emphasis on using technology paves a way for more effective mastery of some of the most prominent 21st-century skills. Respondent 10 discussed the role of enhancing student autonomy as an essential preparatory skill for the 21st century’s eminent skills; she stated, “Teachers have 21st-century mindsets, to be life-long learners. A greater need to develop meaningful professional relationships with students to gain knowledge to help them become good learners who could lead their own learning.” As can be seen, leading learning and owning the experience is one key aspect that respondents cited as a preparation for students to

become leaders of learning. Respondent 12 elaborated on the various skills that TLPD provides listing some of the ones that are directly linked to building 21st-century competencies:

“Critical thinking, problem-solving, reasoning, analysis, interpretation, synthesizing information, research skills and practices, interrogative questioning, creativity, artistry, curiosity, imagination, innovation, personal expression, perseverance, self-direction, planning, self-discipline, adaptability, initiative, oral and written communication, public speaking and presenting, and listening.”

Other respondents emphasized “digital literacy” as one of the main 21st-century skills that the model strengthens, stating that “digital cooperative learning, interactive technology, the use of Google suite to run lessons, and enabling advanced processes of feedback and feedforward are key ways of embracing 21st-century skills and actively paving the way for them”.

One of the most profound answers to this question was given by Respondent 19 who stated with evident confidence that perhaps sprang from her active involvement in e-learning strategies. She contended,

“Development of 21st-century skills is a key components for all (teachers and students) in a school; the delivery of PD by teachers help to foster an environment where the staff develop their creativity, artistry, curiosity, imagination, innovation, personal expression, perseverance, self-direction, planning, self-discipline, adaptability, initiative, oral and written communication, public speaking and presenting, listening, leadership, teamwork, collaboration, cooperation, and facility in using virtual workspaces.”

Respondent 21 spoke about the four Cs that the model promotes, stating that “the teacher-led PD enhances the most popular and essential 21st century learning skills : Critical thinking: Finding solutions to problems; Creativity: Thinking outside the box; Collaboration: Working with others; Communication: Talking to others.”

Although the respondents had a noticeable fluency of ideas, when it came to the several spheres of thought raised in the interviews, many of them did not elaborate in their discussion about the 21st-century skills, which is a point that will be addressed in the recommendations of this study.

4.7.10 Interview Question 10: How does teacher-led professional development enable HoDs and school leaders meet school development priorities? In the respondents’ answers to the final question, they shared a variety of ideas and recommendations that share one common stand-alone theme: Strategic Development and Strategic Planning. The parts below will comprehensively capture this and cite meaningfully relevant quotes that support the analysis.

Theme Nineteen: Strategic Planning and Strategic Development

The answers to the question stirred recommendations and contemplation. They ignited a heightened sense of projected thinking and planning, with educators summing up the interview sessions with insightful ideas that focused on strategies planning and strategic development in essence. Respondent 1 explained that educational leaders can use the facility of TLPD to both know more about their teachers and address their interests and needs. The respondent stated, “As this kind of PDs is from the teachers and to the teachers, the school leaders will be fully aware of what the teachers want to improve. This will help them have a

clear vision of the school's needs and interests." Respondent 2 asserted that through encouraging TLPD, leaders can address individual teachers' targets by giving "professional feedback and feed forward". Respondent 5 mentioned shades of professional benefits that TLPD provides to any school in which it is effectively applied; she stated that leaders can "create collaborative, inclusive learning environments, and have a Vision and a Plan. They empower teachers and cultivate leadership skills." The respondents touched on ideas related to creating a coaching community in the school that provides professional help and assistance by creating a distributed model of leadership, where professional collaboration is advocated and activated. Respondent 20 mentioned that,

"Teacher-led professional development will help HoDs and school leaders continue to make a meaningful contribution to their team. They become more effective in the workplace. This assists them to advance in their career and move into new positions where they can lead, manage, influence, coach and mentor others."

Other respondents discussed the necessity of sharing the school development plan and school priorities with all teachers to enable them to compare their skills against the school targets. Respondent 11 explained,

"HoDs and school leaders can highlight the priorities and non-negotiable concepts and the PD needs so that they can be addressed through the TLPD so that the coaches can deliver these priorities to the participants along with other skills and strategies, taking into consideration to highlight the priorities for the participants."

Respondent 12 discussed a plethora of ways in which the school leadership can employ TLPD as a catalyst for educational change. She explained various components that link to strategic planning and distributive leadership:

“The leadership that makes a difference is both position-based (principal) and distributive (administrative team and teachers) but both are only indirectly related to student outcomes. A collective teacher efficacy is the important intervening variable between leadership and teacher work and then student outcomes; leadership contributes to OL, which in turn influences what happens in the core business of the school - the teaching and learning. It influences the way students perceive teachers organize and conduct their instruction, and their educational interactions with, and expectations for, their students; pupils’ positive perceptions of teachers’ work directly promote participation in school, academic self-concept and engagement with school; and, pupil participation is directly and pupil engagement indirectly (through retention) related to academic achievement.”

Respondent 19 also emphasized highlighting the school vision and priorities and sharing them openly with the teachers, to help them “take ownership of the priorities and be involved in the implementation”.

Respondent 23 strongly defended the model as a practical tool for school leaders to actualize change and meet priorities regardless of how many there are. She alleged that,

“by giving a chance for all teachers to led PD sessions, HoDs and leaders will build a better relationship between teachers. Also, they will be able to build the knowledge and the skills capacity of teachers indirectly. HoDs will have the chance to work in a

collaborative way with teachers to develop their leadership skills and their 21st-century skills.”

Drawing on her background in curriculum and instruction, Respondent 26, who is a master’s degree holder, spoke about the importance of the element of consistency in PD culture and choosing the right teacher leaders in tackling various issues that might arise. She touched on teaching, learning, and effective construction of capacity,

“If this PD culture is applied regularly, and the right teachers are chosen for the purpose, school leaders shouldn't worry about the consistency and efficiency of applying teaching methods, proper instructions and curriculum coverage. Whether this is their priority or not, they can focus their efforts on fixing minor issues in different fields.”

Although the respondents discussed a varied range of areas and recommendation, the majority of them targeted the necessity of school leaders to strategically plan for TLPD opportunities in the school by making school needs explicit and clear to all teachers, and by planning regular, focused, and data-driven PD that can become job-embedded and deepen professional interaction, collaborative planning, and shared accountability. This area then brings us again to one powerful concept that drives various forms of educational change, which is Professional Learning Communities for teachers to understand the new ideas in a session, and ensure that they apply the new techniques or ideas correctly in their classes.

4.8 Results of the Document Analysis

After studying the professional development tentative meetings, illustrations, graphic organizers, drafts of curriculum until its finalization, in addition to the slide shows that featured

the proposal and the development of the idea until its actualization, the researcher identified the following themes after comparing the ideas with the questionnaire results: teacher empowerment, building professional learning communities, and addressing school priorities.

4.9 Spotlight on the Teacher-led Professional Development Program

The TLPD was initiated and inspired by the researcher's doctoral studies on assessment and learning in addition to her passion for professional development. The researcher thought about a coaching model that would engage teachers in professional learning community activities whereby they exploit opportunities for the structured sharing of practices. The idea of the programme sprang from the idea of building a coaching culture in the school and investing in the expertise that teachers have in addition to their need for contribution and involvement in the educational process. The idea rested on the premise of forming a coaching team from teachers that are rated as very good and outstanding and become leaders of professional learning centres to which they contribute, following a model that consists of the following:

- Conducting an initial needs' assessment
- Referring to observation comments and evaluations
- Forming thematic professional learning centres (three centres in every cycle)
- Every centre will focus on three strategies
- The content of the PD will be quality assured before approval for dissemination and distribution to coaching groups
- The HoDs will collect preferences and needs of teachers to join relevant centres

- Coaches choose the centres they prefer and can adjust, add to, and personalize centres as needed
- When the day of the professional development comes, teachers join the centre they have chosen
- After the PD, peer visits are organized to provide teachers with the opportunity to see correct modelling of activities
- After two weeks, a reflective meeting is organized to discuss the feedback on implementation, successes and challenges and then exchange ideas on how to problem-solve obstacles.

After thorough reflective meetings with the school consultant, different slide shows, proposal drafts, and briefing forms were shared. These drafts solidified the process of refining the professional development model.

4.10 Document Analysis Themes

The purpose of using document analysis was to help the researcher provide a broad and comprehensive understanding of the various stages of the pre, during, and post implementation of the TLPD. She also used it to recognize the common patterns, trends and consistency of themes, objectives, and ideas. The intent was also to unfold consistency between the main principles of TLPD and the objectives, layout, and explanation provided in the PD document, the PD proposal document and the induction manual. This was done to supplement the data collected from the TLPD, the classroom observations, and the semi-structured interviews (Bogdan & Biklen, 2007).

The researcher reviewed the reflective meeting notes that preceded the composition, the PD program and policy, the TLPD proposal document and then the induction period manual. In the process of analyzing the documents (see example in Appendix VII), the researcher used the criteria provided by Bowen (2009) which included 1) establishing the meaning of the document and its relevance to the research problem and study; 2) ascertaining the link between the documents and the conceptual framework of the study; 3) ensuring the authenticity and credibility of the documents used; 4) identifying the original purpose that drove the creation of the document and the target audience it was created for; 5) determining whether the documents were written as a result of a firsthand experience or from secondary resources (Webb, Campbell, Schwartz, & Sechrest, 1966, as cited in Hodder, 2000, p. 704), and 6) maintaining that documents should be evaluated against other sources of information.

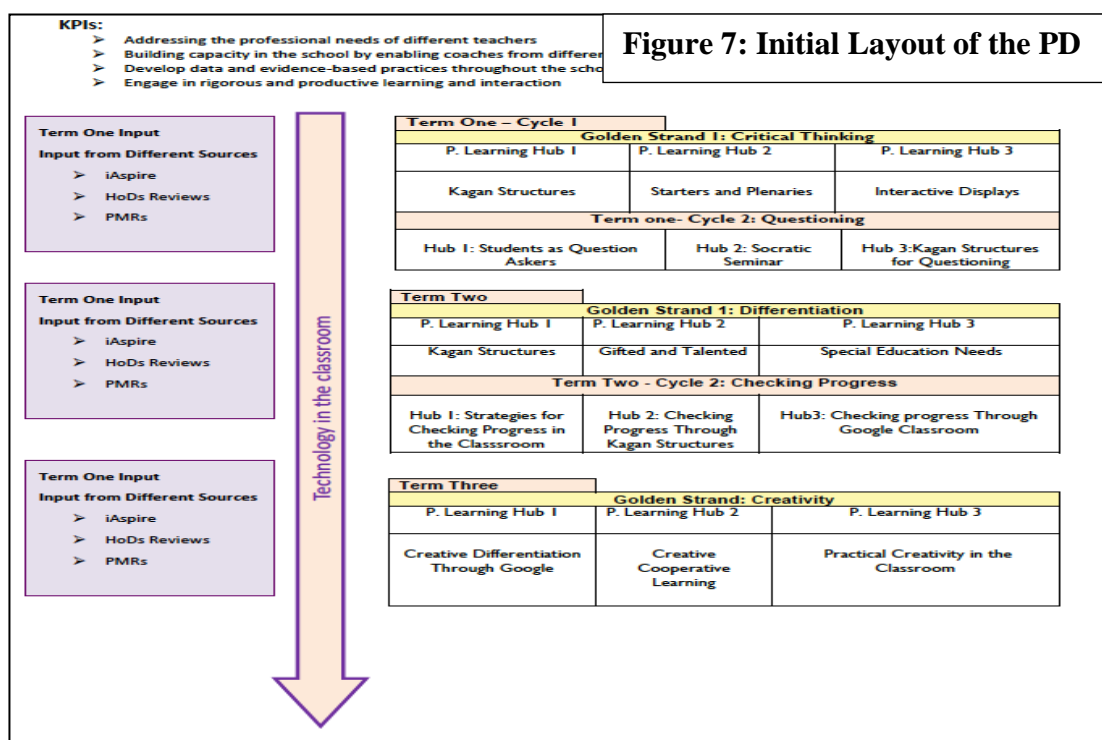
relation to the previous guidelines and following the Grounded Theory of reading, analyzing, deciphering meaning, identifying themes, and categorizing the clusters, the researcher was able to choose the sources and then start analyzing them for the purpose of depicting meaning that complemented the picture and context of the TLPD. Based on this the researcher performed document analysis as a form of triangulation of the qualitative data (Porter, 2019) by tracing the early thinking procedures and meetings with the reflective dialogues, graphic organizers, notes, proposals and then the complete draft of the PD program document.

Document analysis provides a systematic method for reviewing documents whether printed or digitized to obtain clearer understanding of the experience and to be able to form empirical knowledge (Corbin & Strauss, 2008; see also Rapley, 2007). Bowen (2009) illustrated that the document analysis complements the triangulation of data. The researcher used Bowen's Grounded theory and the constructivist's lens to identify, code and analyse the documents,

minutes of meetings, Google Classrooms, and reflective debriefings that led to the construction of the TLPD. Then, using Bowen's grounded theory, the researcher annotated the documents, and broke down all the common themes and sub-themes. The analysis occurred in four steps. Firstly, the researcher conducted extensive close reading of the documents. Initially this included the emails that supported the proposal meetings, the draft outlines created, and the reflective notes kept in an agenda notebook as well as in a MacBook notepad. The researcher then filtered the central four resources to be focused on and chose the PD program and policy document, the pre-proposal reflective meetings notes, the proposal document and the school induction manual. The researcher used Google Documents and Word as the medium, visually annotating and highlighting the common themes. Subsequently, the results were compared with those of the other tools to find the common points and themes.

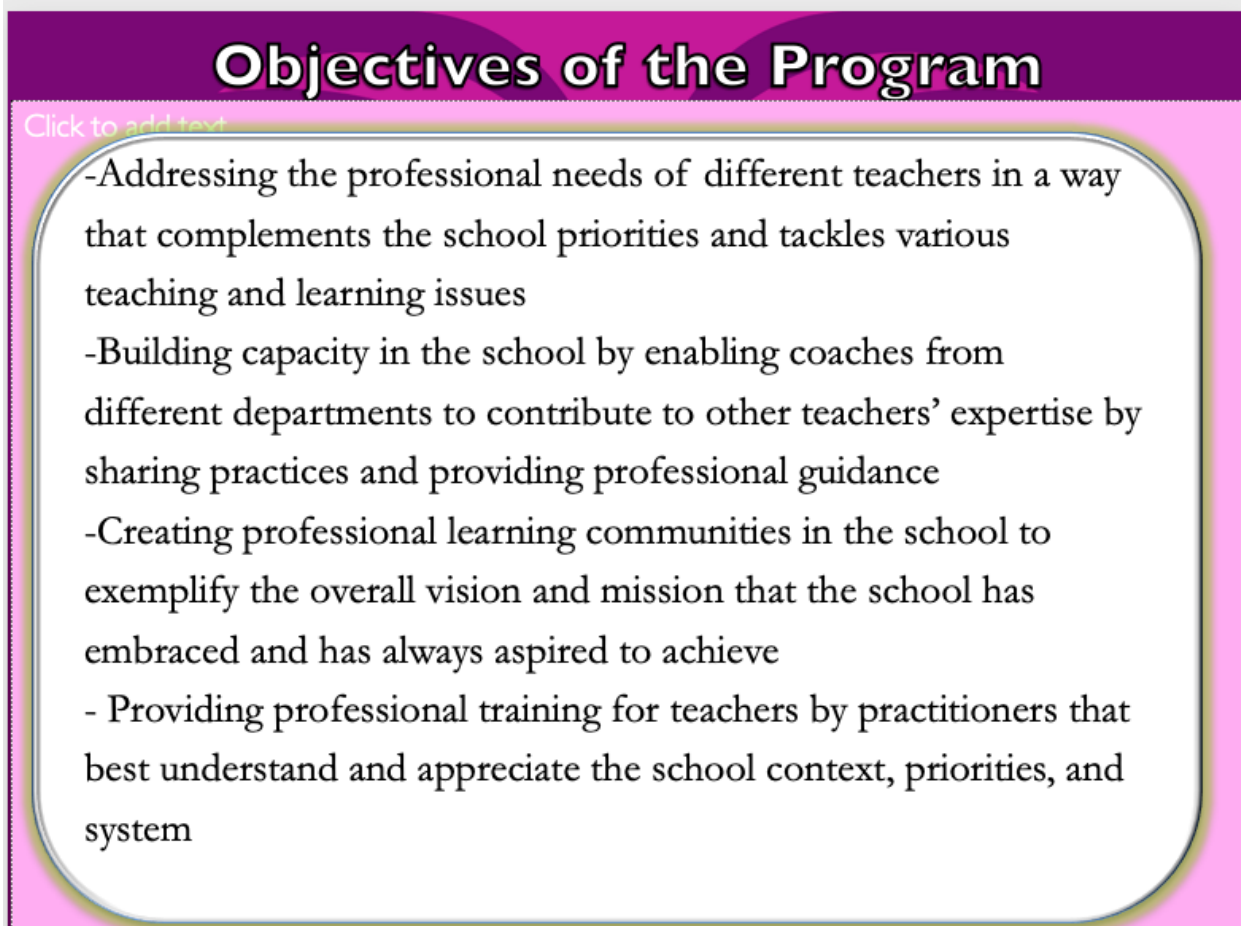
4.10.1 Theme One: Teacher Empowerment and Building Capacity

The initial drafts of the teacher-led professional development model indicated a central focus on empowering teachers and building capacity through a variety of references. This was shown in the key performance indicators shown below, as well as the initial PD layout.



Another reference to building capacity was explicitly reflected in the formal proposal presentation delivered by the researcher to the school principal and senior leadership team. The snapshot below shows the slide on the objectives of the formal proposal meeting and presentation.

Figure 8: Objectives of the Teacher-led PD



Furthermore, the same reference to 'building capacity' was reflected in the PD curriculum objectives. The document introduction stated the following:

As a professional learning community, the school aims to broaden its teachers' practices and pedagogy since this is the focal point that can create a meaningful learning experience for our students. In this regard, the Coaching Program was taken from theory to practice through a research study that investigated the role of teacher-led coaching in

enhancing teachers' instructional practices and in fostering their self-efficacy. The study results indicated that coaching has favorable effects on teachers' expertise and their self-confidence. Based on this study, the idea of the Learning Hubs emerged to form a basis for a positive learning environment that provides practical and relevant professional help for all teachers in all subjects in a way that is friendly, constructive, non-threatening, and responsive to teachers' and students' needs.

In addition to the introduction, the PD objectives referred to building capacity and empowering teachers as some of the other objectives had. The following excerpt shows the reference to the aforementioned:

- *Addressing the professional needs of different teachers in a way that complements the school priority and that addresses various teaching and learning issues*
- *Building capacity in the school by enabling coaches from different departments to contribute to other teachers' expertise by sharing practices and providing professional guidance*
- *Creating professional learning communities in the school to exemplify the overall vision and mission that the school has embraced and has always aspired to achieve*
- *Providing professional development that is led by teachers as practitioners that best understand and appreciate the school context, priorities, and systems.*

4.10.2 Theme Two: Building Professional Learning Communities

Apart from the explicit reference to the professional learning communities in the school PD program and policy and objectives (see Figure 9), the professional learning communities'

culture was conveyed through a diagram that portrayed the PD structure as viewed by the researcher at the rudimentary stage of forming the teacher-led professional development model (see Figure 10).

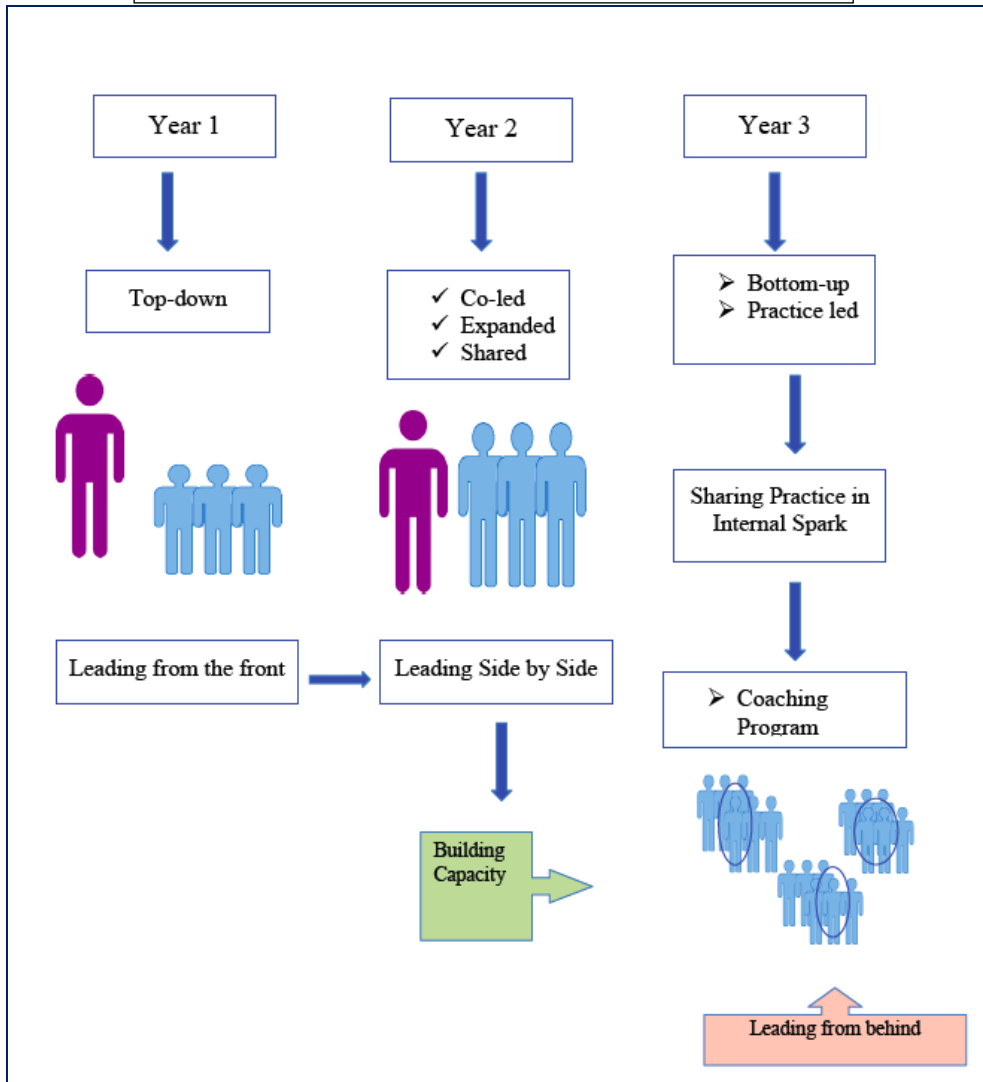
The diagram clearly indicates the evolution of the PD structure in the school from a top-down to a bottom-up approach that was then transformed into learning communities of teachers leading professional change hand in hand and side by side.

Another reference to building a professional learning community was stated in the proposal presentation. The researcher discussed several benefits of teacher-led PD and the collegiality it creates. The image below indicates the range of merits TLPD provides:

Figure 9: Projected Benefits of TLPD



Figure 10: The PD Curriculum Initial Overview



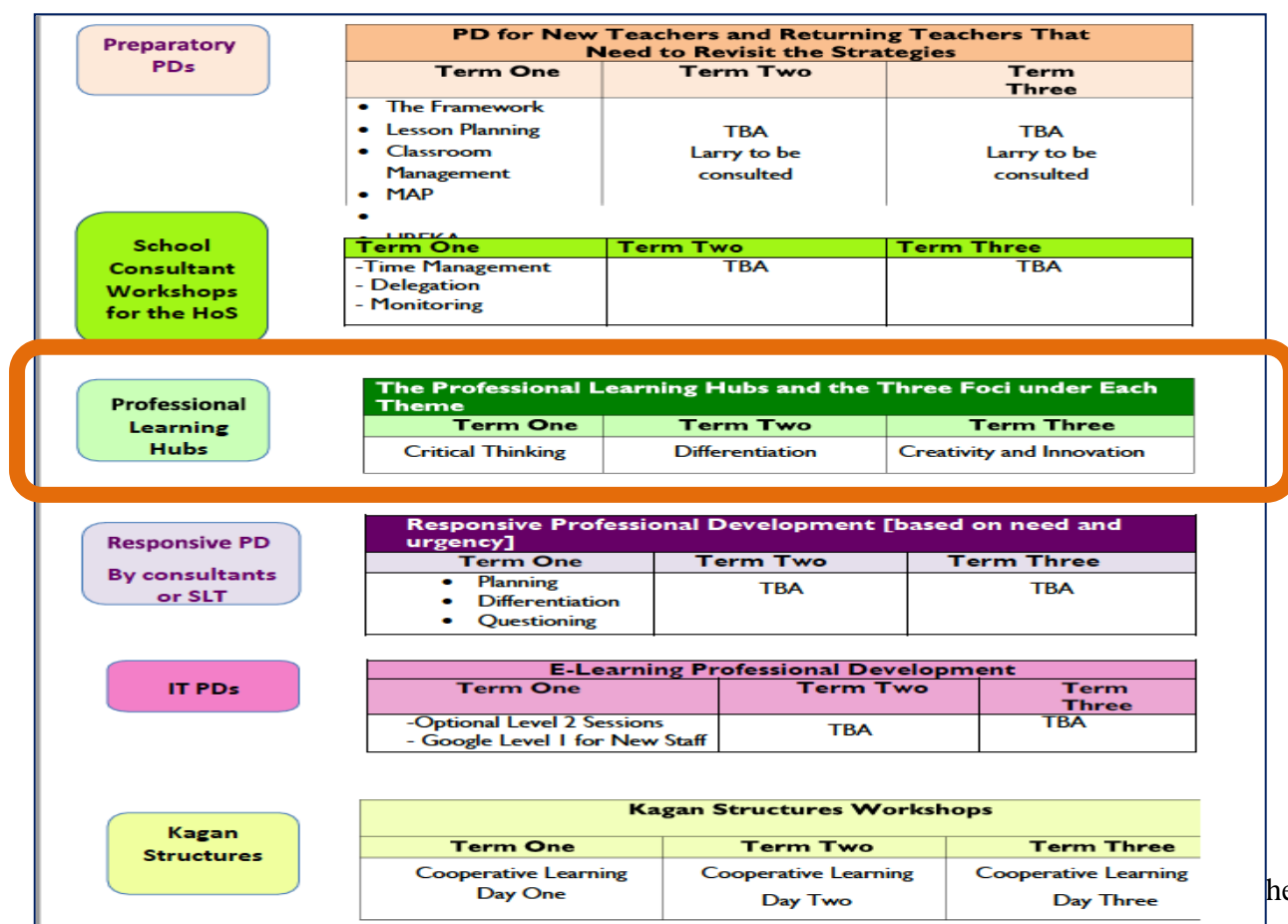
4.10.3 Theme Three: Addressing Whole School Professional Priorities

The range of documents that were examined showed the focus on whole school priorities through a variety of references. One was mentioned in the PD proposal draft as shown below:

The professional learning hubs are data-driven professional development centers whose foci are derived from the school development plan and the whole school priorities. The hub sessions contain a small number of teachers attend a focused and short professional learning session that is led by experienced teachers. The session is followed by peer observation, application, and a reflective meeting.

The PD overview document (shown below with the TLPD circle with an orange box) was introduced and presented during the initial induction week and featured the overall structure illustration, with a clear explanation of the professional learning hub as the centre for the foci that were elicited from the school development plan.

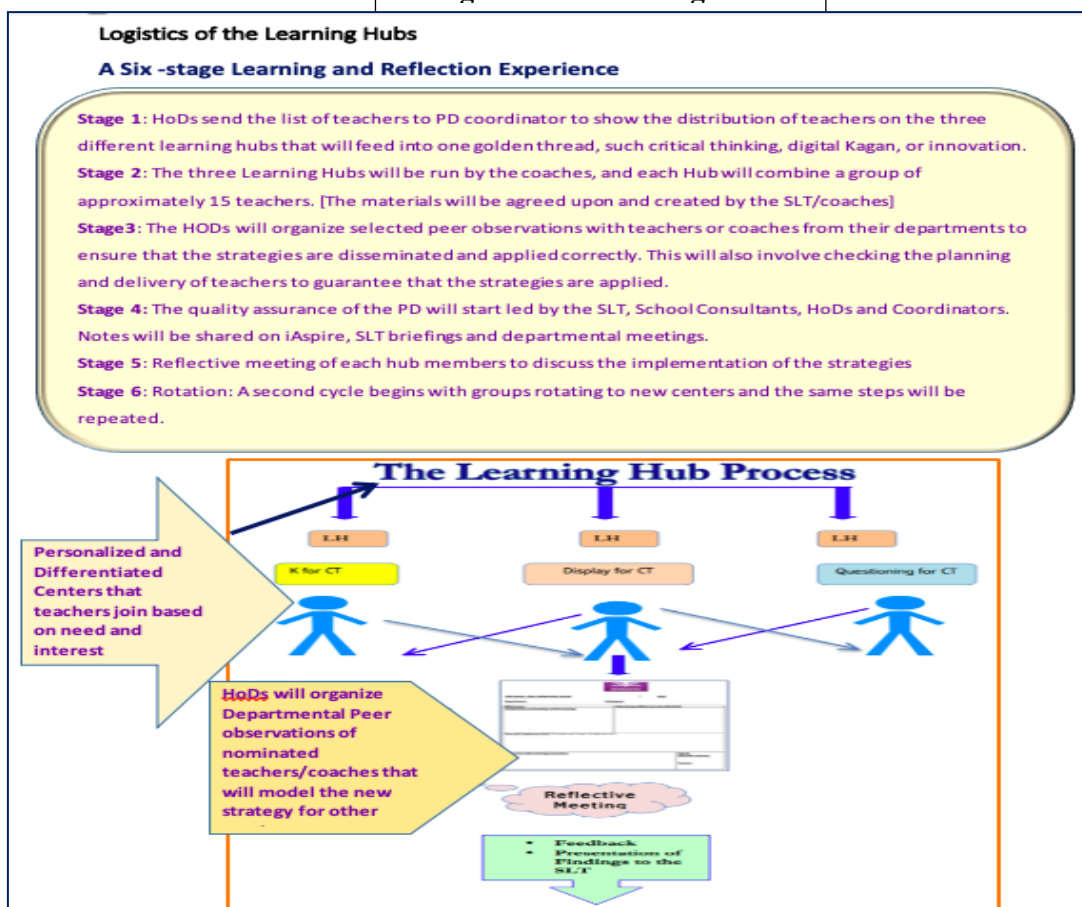
Figure 11: The Structure of the TLPD with the Whole School PD Plan



TLPD operates with an intricate set of relationships that involves middle and senior leaders and teachers that work together to deliver the PD, followed by peer observations, then is concluded with a reflective meeting. The diagram below is taken from the PD document clarifying the structure and the professional skills it addresses.

In summary, the document analysis complemented the overall flow of ideas, themes, findings drawn from the study and its various stages, as it focuses on principal tenets that call for teacher empowerment, establishing the culture of collaboration and professional learning communities in addition to creating a PD context. that is capable of addressing whole school initiative and priorities in a way that reflects practicality, reflection, and innovation.

Figure 12: TLPD Logistics



9

4.11 Summary of Qualitative Results (Research Questions 3)

To sum up, the qualitative results provided a detailed explanation of the quantitative results. The classroom observations exemplified ideas that the teachers expressed in their questionnaire responses on the role of TLPD in enhancing instructional practices and providing a

means for immediate application. The semi-structured interviews focused on the teachers' notions on the teacher-led professional development. They elaborated on various ideas of the role of TLPD in providing opportunities for building leadership opportunities. Teachers also stressed the chances of collaboration and reflection that TLPD provides. The participating teacher leaders mentioned the way TLPD facilitates meeting differentiated needs, assisting leaders in meeting school priorities and building a stress-free professional learning environment. Furthermore, the document analysis stressed themes of building professional learning communities, meeting priorities, and building capacity.

4.12 Triangulation

Triangulation is the utilization of multiple methods or research instruments to form a comprehensive and thorough understanding of phenomena (Patton, 1999). Gaskell and Bauer (2010) contended that triangulation serves as an institutionalization of theoretical lenses and methods for the purpose of reducing the contradictions of research and it gives a trustworthy overall picture of the research study (Patton, 2014). In this respect, Jick (1979) asserted that triangulation is a strategy of “convergent validation” both of multifarious methods and numerous instruments to collecting data. Triangulation also has been viewed as a qualitative research strategy to test validity through the convergence of information from different sources. Researchers as Denzin (1978) and Patton (1999) outlined four different types of triangulation: (a) Triangulation of method; (b) triangulation of investigator; (c) triangulation of theory; and (d) triangulation of data. Apart from the four, Guion (2002) also emphasized what is called environmental triangulation. Two types of triangulation were used in this study: Method Triangulation and Data Source Triangulation.

Method Triangulation

In the current study design of sequential explanatory mixed methods, the triangulation of methods used is defined as the use of more than one method to answer the research questions and explore the same phenomenon (Polit and Beck, 2010). This was done through the combination of the quantitative and the qualitative methods to provide deeper understanding and establish solid validation for the research approach.

Data Source Triangulation

The researcher used this method of triangulation by using multiple instruments to collect data about the TLPD (Abdullah et al., 2018). The instruments used in the qualitative method were the semi-structured interviews that were conducted to explore the respondents' views and experience on the TLPD and its contribution to their growth as coaches, teachers, and leaders. To validate the findings from each qualitative research instrument, the researcher varied the instruments and did not limit the qualitative part to semi-structured interviews but also included the classroom observations and the document analysis. Based on the aforementioned, the triangulation actualized the consistency of the results of the TLPD as a tool that brought about pedagogical, leadership, and professional advantages that will be thoroughly discussed in chapter 5.

Chapter 5: Discussion, Conclusion, Recommendations and Limitations

5.1 Introduction

This chapter presents the discussion, conclusion, recommendations and limitations of the study. The components of the chapter examine, elucidate and elaborate on the plethora of findings related to each research question. It features an interlocked interpretation of the findings that are also compared with former studies to support or refute them. The researcher will include the key findings and will share recommendations with policy makers, educational leaders, middle leaders, and teachers. The final part of the chapter will involve underscoring the study limitations and the suggestions for future research implications that can address the extrapolated limitations.

5.2. Discussion of the Findings

The study's purpose was to investigate educators' perceptions and notions on the impact of teacher-led professional development. The researcher utilized an explanatory sequential mixed methods approach to answer the following three research questions:

- What perceptions do Abu-Dhabi private school educators have regarding a teacher-led professional development model?
- What are the various perceptions that teachers of different genders, years of experience, and work cycles have about the teacher-led professional development model?
- To what extent do Abu-Dhabi private school educators consider teacher-led professional an impactful model on teachers' instructional practices?

The data compiled during the mixed-method research approach were obtained quantitatively from the questionnaire completed by 305 educators, and qualitatively from the classroom observations, the document analysis and the semi-structured interviews.

5.2.1. Discussion of the Results of Research Question 1

1. What perceptions do Abu-Dhabi private school educators have regarding a teacher-led professional development model?

Question 1 related to the various perceptions that private school educators in Abu Dhabi have on teacher-led professional development. To this, the researcher administered the Teacher-led Professional Development Questionnaire to 305 participants to collect multifarious perceptions various educators have regarding teacher-led professional development.

The researcher tabulated the mean scores and standard deviations of the whole survey thought clusters in Table 6 in chapter 4. The results clearly indicate that educators are in favour of Teacher-led Professional Development as a tool for a multiplicity of benefits for teachers, leaders, and school culture. The tabulated results show that the three highest mean scores were the role of TLPD in creating leadership capacity under the thought clusters ‘Teacher-Led PD and Leadership’, ‘Instructional Benefits of Teacher-led Professional Development’, and if TLPD can foster a collaborative professional learning environment.

The results integrally tie in with several other studies that highlighted similar attributes of TLPD. For example, Davis (2014) who linked TLPD to teacher empowerment and the activation of their leadership roles and the enhancement of their efficacy and contribution. Similarly, Masekoameng and Zengele (2015) stipulated the two-way benefit of empowering teachers

through a distributed leadership model that not only enables the educational leader to obtain a firmer grip over the school priorities, but also enhance teachers' capacity to hold responsibilities and reflect contributions through collaborative professional learning. The cluster of collaboration also fully agrees with Putnam and Borko (2000), and Liu, Hallinger, and Feng (2016), who considered teacher collaboration in an in-school exchange of instructional practices that contributed to school improvement and teacher empowerment, which partially resonates with the quantitative results of this thought cluster, and fully aligns with other studies (Darling-Hammond & Richardson, 2009; Opfer & Pedder, 2011; Putnam & Borko, 2000) which affirmed that teachers' professional learning occurs when collegial and collaborative processes are embedded in the work routine and the school culture. The results also partially align with Woody's (2019) study that drew on Vygotsky's (1978) social development theory and revealed that teachers' needs for collaborative professional learning practices and opportunities.

The results also resonate with the specific studies explained in the literature review that capitalized on the sense of collaboration and leadership capacity that TLPD offers, whether directly or indirectly. In this regard, Wicks (2017), Moretting et al. (2018), and Garcia Torres (2019) confirmed these strong links between teacher empowerment through a distributed leadership model, and the effectiveness of leadership opportunities and performances that take place within a collaborative educational context that embraces teacher empowerment. The collaboration thought cluster results also concur with studies conducted by Dagnew and Engida (2015), Ustuk and Comoglu (2019), Desimone (2019), Bostancioglu (2018), and Fraunfelter (2019) that asserted the strong connection between TLPD and the creation of an interconnected, interactive, and collaborative atmosphere of professional learning.

On the other hand, the study results contradict some studies that regard TLPD as an approach that does not consistently yield positive outcomes and that these outcomes are often described as ‘mixed’ (Binkhorst, Handelzalts, Poortman, & van Joolingen, 2015; Binkhorst et al., 2017; Huizinga, Handelzalts, Nieveen, & Voogt, 2014) and that collaboration is often a challenging aspect to achieve in the workplace and among teachers (Brouwer, 2011; Horn & Little, 2010). However, building on research that examined and scrutinized TLPD, it can be argued that TLPD as self-regulated teams are driven by the pillars of PLC that create a context conducive to teacher collaboration, and this collaboration is often activated by teachers themselves when they are given the empowerment and the opportunity to reflect professional responsibility and collaborative construction of professional experience (Handelzalts, 2009). For this reason, teacher coaches are expected to take part in decision-making, problem-solving and creative collaborative planning (Binkhorst et al., 2017; Bouwmans, Runhaar, Wesselink, & Mulder, 2017) and they need to organize these roles within a context of organization, planning, and reflective meetings (Becuwe et al., 2016; Huizinga et al., 2013; McKenney et al., 2016) which in turn supports the thought branch ‘Provides teachers with opportunities to reflect on the PD strategies collaboratively’ and ‘enhancing coaching opportunities’.

The thought cluster ‘Instructional Benefits of Teacher-led Professional Development’ is one that respondents rated highly, and it encompasses areas pertinent to improving teachers’ self-esteem, which scored the highest mean. Teachers strongly believe that TLPD strengthens the positive feelings of self-worth and value, which is consistent with studies that focused on the role of TLPD in instilling self-confidence and positive self-perception (Anthony 2009; McPherson-Bester, 2019; Pais, 2019; and Rodriguez, 2019). The results that are related to the expansion of instructional practices through TLPD evidently agree with the study conducted by Kilinc (2014)

who reported the daily and ongoing construction of practical experience that TLPD provides and how this has a direct impact of transforming teachers' attitudes towards professional learning. This was also comprehensively discussed by Vernon-Doston & Floyd (2012) in their study on how TLPD transforms teachers into professional contributors of knowledge and expertise>. This also is supported by Brown and Poortman's (2018) book on the impact of teacher involvement in ongoing professional development and how it helps educational leaders to meet strategic priorities and targets. It is worth mentioning that the aspect of meeting whole-school priorities through TLPD is embedded in studies of Green (2015), McPherson-Bester (2019), and Kim and Lee (2019).

Although the thought cluster 'TLPD as a Tool for Continuous Professional Development' was rated as lower than the previous clusters, it clearly showed teachers' positive perceptions of TLPD as a model that 'provides teachers with strategies that can be directly applied in the classroom'; 'allows teachers to peer observe each other to improve PD Strategy applications'; 'helps teachers engage their students and keep them involved in learning'; 'establishes the relationship between all school stakeholders'; and 'contributes to the overall professional growth in the school'. The respondents scored highly the first sub-thought under the cluster, 'Provides teachers with strategies that can immediately be applied in the classroom', which touches on the practicality of the model and the immediacy of its effect. The second highest sub-thought is 'Allows teachers to peer observe each other to improve PD Strategy application', which underscores the elements of collaborative learning, collective reflection, and embedded as well as continuous opportunities for learning and developing teachers' pedagogy. These ideas are supported by a study by Dos Santos (2017) while contradicting Martin (2016), who raised some doubts on the superficiality of some of the peer observation models in schools which tend to be a

task to be completed rather than a process that needs to be incorporated, refined, and built upon. Nevertheless, the peer observation model the researcher calls for is based on the exchange of instructional practices for a specific part which is related to the time of the strategy implementation, which is practical, focused, and provides immediate benefit. Although this model is friendly and does not stir apprehension that formal observations usually trigger, this is also conjectured by Buchanan and Khamis (1999), Hammersley-Fletcher and Orsmond, (2005, p. 213), Bournes-Hayes (2010), Hendry and Olive (2012, p. 1), and Staley, (2019) who all advocated peer observations as powerful means of transforming instruction and refining pedagogy.

The fact that respondents rated the aforementioned thought clusters as the lowest, relatively contradicts several studies that cited substantial evidence on the benefits of TLPD of enhancing instructional coaching, enriching pedagogy, and fostering instructional gains (Crandall, 2011; Denton & Hasbrouck, 2009; DuFour, 2004; Fullan, 2011; Hargreaves & Fullan, 2013; Lewis, Perry & Hurd, 2004; Rodgers & Rodgers, 2007; Saphier & West, 2010; and Sato & McLaughlin, 1992). This brings to mind the necessity of prolonging the instructional coaching period in order to yield the expected results (Howard, 2019). Nevertheless, it is noteworthy to indicate that although these two clusters had the lowest mean scores, they are still high enough to reflect the general advantage of TLPD in providing a varied range of benefits as discussed above.

The last thought cluster, which focuses on the plethora of areas the TLPD can enrich and solidify, was rated high by the respondents; however, the highest two mean scores were ‘expanding professional skills in teaching strategies’ and ‘cooperative learning’. From a contextual point of view, teachers’ high rating for the cooperative learning can be linked closely

to the familiarity of the teachers with the cooperative learning models and the teacher-led PD culture which were already established in the schools that were investigated. The middle ground between the highest and the lowest mean of the statements were the ones related to differentiated instruction and classroom management. This can be attributed to factors pertinent to the general perception that some areas of professional development need to be addressed by external expertise rather than in-house experience. This is a misconception that is often common in private schools, that consider pedagogical issues related to differentiation and classroom discipline to be areas in which collegial help from teachers is not sufficient.

However, the lowest mean scores were related to critical thinking and digital technology which are two areas that are fervently advocated in the UAE National Agenda (Agenda, 2018) and all UAE school districts. At the same time this relatively low score can be supported by the idea that educators in the UAE in general often find it challenging to embed technology into practice before internalizing plans and pedagogical techniques that provide a clear road map (Salinas 2006; Somyürek et al. 2009); especially given that any new technological initiative requires studied mediation by the educator (Warwick et al., 2010)

The theoretical framework of the study, which is deeply rooted in constructivism, capitalized on the tenets that fostered collaboration, constructing experience, interaction, validation, and refinement. These principles aid the quantitative findings from the questionnaires by clarifying the role of distributed leadership to forge leadership opportunities that help educational leaders to meet whole school priorities and initiatives. Additionally, it assists in building a culture of collaboration, reflection, and coaching as elements underlying the professional learning communities activated by the TLPD.

The theories play a dual role in detailing the overall picture of the study and also in contextualizing the intricate and internal set of relationships in relation to the principles that these theories rest on and fortify, such as collaboration, shared targets, and vision such as the PLCs that depict the context of ongoing professional cooperation supported with the unified and common objectives that bring various parties together. The concept of teacher empowerment also supports the questionnaire findings in picturing TLPD as a vital tool for creating leadership opportunities and facilitating educational leadership roles. The conceptual discussion also underscored the various opportunities for offering leadership capacity by adopting distributed leadership and by embracing the focal pillars of PLCs, as well as the innovative and collaborative skills of the 21st century when they are interwoven with critical thinking, novelty and creativity, in addition to the practical instructional positive outcomes of instructional coaching as building blocks for shaping the study and giving it rationale.

In the same vein, the theoretical framework shaped the overall findings that the quantitative data gave rise to through the focal theory ‘constructivism’ with its essence of construction of knowledge and building experience and meaning towering over the other branches of theories that formed a base of teacher empowerment, teacher efficacy and involvement in the change process. The quantitative findings are also congruent with the evidence-based management that touch on the wise alteration of the flow of events based on research or empirical evidence. Role Theory, with its emphasis on the influence of interactive roles in actualizing actions and events, likewise strongly ties in with the mosaic of roles and interactions that took place in the TLPD experience. Furthermore, the findings align with interactionism and namely Ervin Goffman’s (1972) ‘control in interaction’ which lends itself to distributed leadership in the sense that the findings bring to light how structured collaboration

and actualization of leadership roles in teachers' roles as coaches and exchangers of knowledge are some of the prominent gains of teacher-led professional development.

5.2.2. Discussion of the Results of Research Question 2

What are the various notions that teachers of different genders, years of experience, and work cycles have about the teacher-led professional development model?

To answer the second research question about the various notions that teachers of different genders, years of experience, and work cycles have about the teacher-led professional development model, quantitative demographic data were elicited from the TLPD Questionnaire and further analysed and tabulated. An independent sample t-test was run to gauge the difference between the gender variables. A one-way analysis of variance (ANOVA) was used to discern if there were any differences that were statistically significant between independent groups of 'years of experience', 'school cycles', and 'school subjects'.

Focusing on the first variable which is the participants' gender, based on the one-way ANOVA analysis of variance and the independent t-test that was conducted to closely compare the differences of perceptions based on the gender of the participants, it was found that there was no significant difference in the mean scores for males and females with regard to thought cluster 1 on the TLPD and leadership. Likewise, thought cluster 2, 'Teacher-led PD as a Collaborative Professional Learning Environment' showed no significant difference in participants' perceptions between the mean scores for males and females; similarly, the other clusters of thought showed no significant differences.

In fact, no significant difference was found between the mean scores for participating

male and female teachers regarding their perception towards the survey of the teacher-led professional development model as a whole and its five clusters. Additionally, the results suggest that the participants' gender (males and females) does really not have an effect on the teacher-led professional development model as a whole and its five clusters. It can therefore be interpreted that both male teachers and female teachers share the same views and opinions since UAE society is multicultural and ADEK is enhancing diversity in instruction. According to my experience as a private education educator, there has been a uniform set of professional development experiences made available for teachers regardless of their gender. Additionally, both male and female teachers receive the same professional development programs, which may contribute to unifying their points of view and creating the same context and culture. In all the five clusters (Cluster 1: Teacher-led PD and Leadership; Cluster 2: Teacher-led PD as a Collaborative Professional Learning Environment; Cluster 3: Instructional Benefits of Teacher-led Professional Development; Cluster 4: Teacher-led PD as a Tool for Continuous Professional Improvement; Cluster 5: Teaching Areas that Teacher-led PD can Enhance), the responses of male and female teachers are nearly the same, with high or even very high degrees. It is clearly noticed that they are very supportive and in favor of this type of professional development model since it may be convenient for them and less intrusive to their daily schedules and work settings. It could be argued that both male and female teachers might be exaggerating or even be biased. Thus, further research studies are suggested and recommended to explore the opinions of academic advisors regarding the Teacher-led Professional Development model. Moreover, other research studies are also recommended to find out the impact of the TLPD model on students' attainment and performance. Consequently, the real effectiveness of any professional development program can be measured by its results and impact on both students' attainment and

teachers' performance enhancement.

However, this very notion of a lack of difference between male and female teachers in their perceptions towards TLPD is challenged by some former and recent studies, such as Howser's (1989) study that reported that 75% of male participants were classified as unwilling to embrace change and improvement. By contrast, 88% of females were keen on expanding professional skills and boundaries. In a study conducted in Canada in 1993 by Storey and Zellinsky, the results showed that women were predominant participants and steerers of professional development. Another study by Dobbs (2005) also highlighted a significant difference in gender inclination towards using professional development technologies. On the other hand, Hannam (1995) showed that there was no measurable difference between the readiness of males and females in their enthusiasm and willingness to undergo professional development. This was also asserted by Gorter (2018). Therefore, it can be seen that research, educators of both genders shared common perceptions about teacher-led professional development as a means for activating leadership opportunities.

As for the second variable in the second question about the amalgam of views of teachers on teachers-led professional development based on their years of teaching experience, it was detected that no significant statistical difference was found between the groups of years of teaching, which indicates that the TLPD model could assist all teachers regardless of their teaching experience and repertoire of skills.

Highlighting the third variable in question 2 which is the perceptions of teachers on TLPD based on their school cycles, the results indicate that there was no statistically significant difference, which also affirms that all participants had common perceptions on the experience of

TLPD.

Regarding the school levels, no statistically significant differences were found between the three conditions (current school levels, Elementary, Middle & High) of teachers' perceptions toward the TLPD model as a whole and its five clusters. Additionally, the results suggest that the participants' current school levels do not have effects on the TLPD model as a whole and its five clusters. Thus, it can be interpreted that nearly all private schools have the three school levels and remote public schools also have the same three levels, as well as some public schools in the city that have more than one cycle. Such contexts enable teachers participating in the study to share the same perceptions as they are experiencing the same experience and circumstances. According to my experience as a private education leader, there has been uniform professional development opportunities for teachers regardless of their school levels. Additionally, all teachers in the three school levels receive the same training on various platforms and programs, which logically alleviates the chances of differences in their points of view and creates the same context and culture.

In all the five clusters (Cluster 1: Teacher-led PD and Leadership; Cluster2: Teacher -led PD as a Collaborative Professional Learning Environment; Cluster 3: Instructional Benefits of Teacher-led Professional Development; Cluster 4: Teacher-led PD as a Tool for Continuous Professional Improvement; Cluster 5: Teaching Areas that Teacher-led PD can Enhance, the responses of teachers in all school levels are nearly the same with high or even very high degrees), responses are the same since participants are in the same school and experiencing the same culture and context. It is clearly noticed that they are very supportive of this type of professional development model since, according to their perceptions, it may be convenient and comfortable to them. Like the discussion of the two gender-related perceptions, teachers in all

the three levels might be exaggerating or even biased. Thus, further research studies are suggested and recommended to explore the opinions of academic advisors and principals about the Teacher-led Professional Development model and its impact on students' achievement and teachers' performance.

Using Post-Hoc Test for the perception of participants on TLPD based on the subjects they taught, it was found that analysis of the responses regarding the fourth variable, which is the view of teachers on TLPD based on the subjects they taught, did not show any significant statistical difference for the first cluster of thought, 'Teacher-led PD and Leadership'. On the other hand, there were significant differences between the perceptions of Arabic and English subject teachers on the thought cluster of 'Teacher-led PD as a Collaborative Professional Learning Environment' ($p < .009$). Similarly, there were some significant differences in the perceptions of Islamic and English teachers ($p < .000$), Islamic and other ($p < .002$) and Islamic and sciences ($p < .020$) on the cluster of 'Teacher-led PD as a tool for Continuous Professional Improvement'. Other clusters that showed significant statistical difference were 'Teaching Areas that TLPD can Enhance' and on the teacher-led professional development as a whole'.

Regarding the school subjects, five subjects were considered, and others were classified under the category of others. It is important to report that this category is the only one that had significant differences in four clusters regarding the perceptions of the participants of the six subjects. Like others, there were no significant effects in the perceptions of the participants of the six subjects on the first cluster of 'Teacher-led PD and Leadership'. However, there were significant effects in the perceptions of the participants of the subjects Arabic and English on the cluster of 'Teacher-led PD as a Collaborative Professional Learning Environment'. Also, there were significant effects in the perceptions of the participants of the subjects Islamic and English;

Islamic and others; and Islamic and science, in the cluster of ‘Teacher-led PD as a Tool for Continuous Professional Improvement’. Additionally, there were significant effects in the perceptions of the participants of the subjects Arabic and English on the cluster of ‘Teacher-led PD as a Tool for Continuous Professional Improvement’. Next, there was a significant effect in the perceptions of the participants of the school subjects; English and Arabic; English and Islamic; and Islamic and others in the cluster of ‘Teaching Areas that Teacher-led PD can Enhance’. Finally, there was a significant effect in the perceptions of the participants of the school subjects English and Arabic; and English and Islamic, in the teacher-led professional development model as a whole.

It could be inferred that no significant differences were found in all clusters and the survey as a whole except for the first cluster that has significant differences were found between teachers’ perception toward the teacher-led professional development model as a whole and its five clusters. Additionally, it is important to mention that the teachers participating in the research, comprised of 28 nationalities, have demographic diversity . Thus, their diverse culture, ethnicity, background and context may be reflected in their perception and opinions towards the TLPD model that might mismatch with their previous knowledge, experience and expertise. It is also noticed that differences appear with the English language that is taught by native speakers or non-native speakers whose backgrounds are different from other teachers.

With reference to the years of experience, it was clearly shown that there were no statistically significant differences between the five conditions (years of teaching experience) of teachers towards the TLPD model as a whole and its five clusters. Therefore, the results suggest that the participants’ years of teaching really do not have an effect on the teacher-led professional development model as a whole and its five clusters. |It can then be interpreted that

teachers with different teaching experiences share the same perceptions. According to my experience of private education leaders, such results can be relate to strict rules by the Ministry of Education and ADEK to hire teachers who are qualified and have a diploma of teaching. Additionally, an induction program and CPD programs are required by ADEK to ensure that the teachers are qualified to do their job effectively. Such a context enables teachers regardless of their teaching experience to receive the same professional development programs that may help in unifying their points of view and creating the same context and culture. In all the five clusters (Cluster 1: Teacher--led PD and Leadership; Cluster 2: Teacher-led PD as a Collaborative Professional Learning Environment; Cluster 3: Instructional Benefits of Teacher-led Professional Development; Cluster 4: Teacher-led PD as a Tool for Continuous Professional Improvement; Cluster 5: Teaching Areas that Teacher-led PD can Enhance), the responses of teachers, regardless of their teaching experience, are nearly the same with high or even very high degrees. This is due to the context and the practices as clarified formerly.

It seems that teachers regardless of their years of teaching share the same perceptions about the teacher-led professional development model as a whole and its five clusters, since it may be convenient and comfortable for them according to their perceptive. It could also be argued that teachers might be exaggerating or even biased. Nevertheless, another argument that can be offered and that is more logical and relevant is that since those teachers have experienced a journey of professional development evolution in their school, and they have had similar contexts, obstacles, successes, opportunities, and learning curves, they have had similar views and insights on the TLPD model regardless of their different genders, school levels, years of teaching and subjects. This agrees with Dobbs (2005) and Gorter (2018) in the way that there were no significant differences in the perceptions.

The results of the current study partially agree with the results of the study carried by Acheson and Gall (2003) who suggested that the process can be linked to teachers' personal growth, as the observing teacher can record data that teachers who are delivering the lesson would not be able to record on their own. Additionally, peer coaching provides the framework for professional dialogue especially during the post-observation phase so that the teachers can provide and receive feedback related to the observed lesson. This professional dialogue would also encourage teachers to generate solutions to the problems they face in the classrooms (Galbraith & Anstrom, 1995) which may enhance those teachers' self-efficacy. The benefits of peer coaching can extend to include the observing teachers. A plethora of research (e.g. Dantonio, 2001; Joyce & Showers, 2002) has stated the benefits of peer coaching on the observing teachers and how observing colleagues' classrooms may help teachers reflect on teaching practices, analyse their own behaviors, and learn new teaching strategies.

The results of the current study also agreed with the results of other studies. For example, it is in line with the studies that stated that different bodies of literature define teacher leaders as educators that work collaboratively with colleagues and school leaders to optimize and improve students' learning experiences (Fullan, 2001; Lambert, 2003a; York-Barr & Duke, 2004). Building on the same concept and perhaps extending it is a definition shared by Whitsett and Riley (2003), who stressed the element of influence on an individual or a group activity that is directed by a certain goal or direction to be a focal part of teacher leadership.

Similar to the results of this study, teacher leaders are educators that forge learning contexts and experiences in order to advance the instructional practices of their colleagues. This is asserted by Katzenmeyer and Moller's (2001) explanation of the same term comprising teachers who actually lead inside and beyond the boundaries of a classroom as they influence

pedagogy and contribute to the school community (p. 6). Additionally, the teacher leader is the reference to them as catalysts for school improvement practices and initiatives (Durant & Frost, 2003; Leithwood & Riehl, 2003; Pugalee, Frykholm & Shaka, 2001; York-Barr & Duke, 2004). Another interesting depiction of the role of teacher leaders was given by Silva, Gimbert, and Nolan (2000) when they described teachers in the position of leadership as sliding doors that are open to unfold opportunities to influence teachers and students through continuous collaboration, reflection, and discussion.

The following results are in line with the results of the current study in one way or another. When it comes to the active administration of roles on the whole school level, then teacher leadership that is assigned formally as a position can yield better results and can evidently enhance students' achievement (Barth, 2001; DuFour & Eaker, 1998; Lieberman & Walker, 2007; Muchmore, Cooley & Crowell, 2004) as teachers within this role can facilitate school-wide projects and plans, such as professional development. So far, Katzenmeyer and Moller's (2001) study along with York-Barr and Duke's (2004) meta-analysis of an extended 20-year period of research review of teacher leadership, sum up the definition of teacher leaders as passionate professionals that have deep knowledge of their function and their roles that comes from their formal work and goes beyond their job descriptions to contribute to the educational fabric in which they exist and of which they make an important part.

In contrast, the current study's results contradict those of Lu (2007) who suggested that many teachers have negative perceptions towards peer coaching because some of their colleagues tend to become critical and evaluative. Furthermore, there is a rapidly growing body of literature on the factors that can be detrimental to any coaching program. The results of the

current study that rated TLPD highly are not in line with other studies whose results call for the importance of avoiding personal and supervisory comments between the coach and the coachee (Gottesman, 2009; Lu, 2007; Richards & Lockhart, 1994). These result in the idea that teachers can be reluctant to take part in peer coaching activities if these activities are carried out as part of their evaluation (Richards & Lockhart, 1994).

In summary, there was no significant difference between the different groups of respondents in showing their support for the TLPD despite their various age groups, years of experience, subject foci, and school cycle, which strengthens the study's findings and adds to its value.

5.2.3. Discussion of the Results of Research Question 3

To what extent do Abu-Dhabi private school educators consider teacher-led professional development an impactful model on teachers' instructional practices?

To answer to Research Question 3 on the extent to which Abu-Dhabi private school educators consider teacher-led professional development to be an impactful model on teachers' instructional practices, qualitative data were gathered from classroom observations, document analysis and semi-structured interviews. Results from the interview transcripts, classroom observations as well as document analysis demonstrate the positive impact of TLPD as a means for teacher empowerment, activation of professional learning communities and professional collaboration; fostering innovation and creative problem-solving in addition to addressing whole-school priorities and initiatives.

Findings from the Classroom Observations

Considering the fact that the researcher used Geertz's (1973) Thick Description to scrutinize and delve into intricate details of the classroom observations, the researcher paid attention to an amalgam of cues that stood out as authentic and lively pieces of evidence of the benefits of TLPD coming to life with hands-on practice. The Thick Description exemplified through the observation of teacher's attitudes; confidence and passion in introducing the new strategy; the positive implementation of the strategy; students' responsiveness to the strategies, and the readiness of both teachers and students to pleasantly combat difficulties associated with the implementation; all indicated very clearly the teachers' consolidation and improvement of their own instructional practices. This was backed up with the peer observations that complemented the TLPD and gave it a further dimension of professional collaboration and exchange of instructional knowledge and experiences, as contended by

Dos Santos (2017) (see Appendix VI for an example.) This is also echoed by Vincent (2018) who found in his phenomenological study that peer observation served as a catalyst for professional development, especially when these observations are designed as an exchange of knowledge rather than a means of criticism. This aligns strongly with the approach the researcher generalized in the school for peer observations which is 'Peer Takeways', referring to peer observations as a friendly exchange of practices. In contrast, some other studies did not find peer observations as powerful tools for professional development and reported the benefits of peer observations as inconsistent, as in the study conducted by Martin (2016) who depicted peer observation as "ticking a box". However, more research studies have documented the varied benefits of peer observation as essential contributing factors to building teachers' expertise, such as one conducted by Koonce (2018).

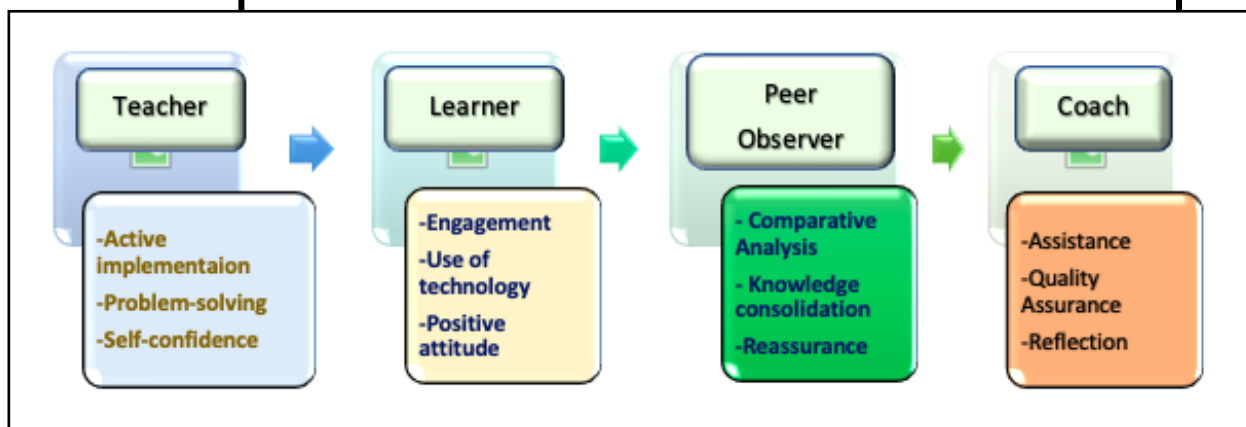
Figure 13: iAspire Learning Walk Criteria

Time out:	<input type="text"/>
LW#	<input type="text"/>
Lesson:	<input type="text"/>
Your lesson contained the following key elements...	
<input type="checkbox"/> Higher order Questioning	
<input type="checkbox"/> Effective use of technology	
<input type="checkbox"/> Modeling (I Do, We Do, You Do)	
<input type="checkbox"/> Critical thinking opportunities	
<input type="checkbox"/> Differentiation and well-supported learning	
<input type="checkbox"/> Behavior Management	
<input type="checkbox"/> Student Engagement/Hands on Learning	
<input type="checkbox"/> Group work	
<input type="checkbox"/> Opportunities for Independent learning/research/problem solving	
<input type="checkbox"/> Utilizing AAS (Additional Adult Support)	
These great things caught my eye	
<input type="text"/>	
Some ideas for the future	
<input type="text"/>	

As shown in Figure 13 above, the iAspire ‘learning walk’ criteria show the learning components that observers focus on while conducting a learning walk. The criteria are related to tenets of cooperative learning, critical thinking, student engagement and behavior management. However, looking at the elements in details will show that the aforementioned umbrellas focus on higher order questioning, the constructive use of technology, the reflection of modeling, the inclusion of differentiated practice, student engagement and hands-on activities, cooperative learning, autonomous learning, and providing additional adult support for all types of students. The learning walk conducted in this regard focused on the implementation of the new strategies and the way the students responded to them. The new strategies focused on components of cooperative learning, use of technology, and critical thinking. These three components give rise to the rest of the components when broken down further and analysed. Thus, these learning

walks focused on capturing the instructor's as well as the pupils' engagement during the lesson slots in which the new strategies were implemented and peer observed. The observations collected through iAspire provided data on five different levels: the teacher, the student, the teacher, the peer observers, and the coach. These several levels provided a broader scope of the realistic results of the TLPD. Figure 14 gives a graphic representation of the different points noted during the learning walks.

Figure 14: Key Observations from the Learning Walks



The first cluster of notes were related to the teacher as the launcher of the new learning experience. The teachers observed in the TLPD learning walks showed clear zeal and active implementation of the new strategies as well as the tendency to problem-solve when confronted with issues related to the new application, even with the presence of a peer observers, a coach or a member of the SLT. This is consistent with the quantitative findings on the role of TLPD in enhancing pedagogy and instructional practices.

The second point of observation is related to the learners' responsiveness to the strategies implemented. The observations showed students' engagement and readiness to create products

that reflect understanding of the content (see Appendix IX for sample activities). The observation also showed students' active use of technology to construct and reflect learning. The general learning environment was conducive to learning and was clearly anxiety-free. Hence, it promoted cooperative learning, discussion, interaction, peer assessment, and reflection.

The third component of observation was the 'Peer Observer'. The peer observers showed clear keenness to learn and to consolidate prior knowledge gained from the observation. Their attentiveness, notetaking, and reflective notes indicated clear involvement in this professional process and evident interest in consolidating knowledge and getting more exposure and experience from peers. The fourth component in the observation was related to the coach or the teacher leader that observed the peer observation and the implementation to obtain a clear understanding of the several circumstances, issues, strengths, and areas for improvement, or even needs for intervention.

5.2.4 Findings from the Semi-Structured Interviews

The findings that were derived from classroom observations were complemented by the interview transcripts that gave rise to nineteen themes after the process of coding, classification and then in-depth semantic analysis. The themes included ideas that primarily revolved around creating a personalized professional learning experience; instilling sense of teacher accountability; exchange of instructional practices and experiences; constructing leadership opportunities; building professional learning communities; establishing reflective learning opportunities, promoting a friendly learning environment; empowering teachers, highlighting effective PD features, meeting various school phases' needs; building inner motivation, instilling self-confidence; refining cultural and social interaction, fostering creativity, promoting risk

taking, highlighting 21st-century skills, and facilitating the meeting of whole-school priorities. To bring the themes to a narrower focus and linking the interview to the classroom observation, respondents expanded on the role of peer observation in advancing their pedagogical practices. In this regard, Respondent 22 stated, “The peer observations allowed us to witness practice come to life and allowed us to see it from the perspective of a teacher and a coach at the same time”. Respondent 8 affirmed,

“the learning walks along with peer observation feedback we received on the application of the strategies helped us to share insights and notions during the reflective meetings; they provided clear evidence of how the practice was teacher-friendly and productive, unlike the more formal approaches that sometime hinder direct improvement due to their rigidity”.

Other respondents’ insights echoed the same consensus on the TLPD being a context for collaboration, professional learning, reflection, problem-solving, and risk-taking. In support of this, Respondent 14 made a very vibrant analogy to depict the model’s benefits, stating that

“TLPD to use seemed like a guiding lamppost in the middle of the different educational requirements and expectations. It gave us the chance to find practical solutions to address urgent and non-negotiable requirements. We would simply attend these focused workshops led by our colleagues and emerge from each one of them armed with three new strategies ready to implement in the classroom. This built in us anticipation, excitement to share what’s new, confidence in giving our opinion in peer observation, and readiness to share our struggles and solutions in the reflective meetings.”

Based on the interview responses, it was found that the TLPD was perceived as a platform that offers a varied range of instructional benefits for the school leadership, the school community, and the teaching personnel, and to the overall learning experience.

Figure 15: Key Themes



Figure 15 displays the themes elicited from the semi-structured interviews and shows the themes that brought about the findings come from every main area of benefit. The responses that shed light on the instructional benefits of TLPD involved components of teacher empowerment, personalized professional development, the enhancement of the sense of responsibility, self-motivation, improved pedagogy and embracing risk-taking. As for the second component which is leadership, the findings support constructing leadership capacity, promoting distributed leadership opportunities, enhancing strategic development and the meeting of school priorities. The third area of improvement is pertinent to the school community, as TLPD creates various opportunities for creating professional learning communities, establishing a coaching culture, strengthening social and cultural engagement as well as instilling 21st-century skills. The fourth

sphere is related to the ultimate wealth of advantages of TLPD for students' learning experiences.

5.2.5 Findings from the Document Analysis

The document analysis included a thorough review and break down of the content of various written artifacts related to the professional development curriculum, tentative overviews, and proposal scripts and presentations, and showed the tenets of collective professional collaboration that the model rests on. The results gleaned from the document analysis integrally tie in with the theoretical framework, namely constructivism as the umbrella under which fall the initial stages of initiating the TLPD as a seed of thought that sprang from the interest of the researcher to expand her knowledge and readings on TLPD in her PhD courses; and how this got translated into a paper, then the sharing of findings, then the application to reality, then refining and proposing a program. The initial documents that were studied and analysed were related to the initial stages of reading about TLPD and the coaching program that was based on the PhD course task. The reading stage and all the notes that it yielded formed the first part of the crystallization of the idea of TLPD, and the beginning of the project as a concept based on research and empirical recommendations.

The presentation of the first proposal referred to TLPD only as a recommendation derived from a simple research study with a group of new English teachers that benefited from coaching as a form of professional development. The meetings with the holding company chief consultant resulted in a sketching of the PD structure based on the reflective dialogue that took place between the researcher and the consultant. These dialogues capitalized on bottom-up approaches, teacher empowerment, building capacity, and innovative problem-solving. The

emails also show the processes of refinement and polishing the final proposal. The conversations resembled Socratic seminars that delved into the depth of thinking through reflective questioning that instigated further thinking, reflection, and projection. The themes that were identified from the document analysis showed a logical cascade of the TLPD development in the form of themes related to teacher empowerment, to a broader theme which is building professional learning communities, and then concluding with the theme of meeting whole-school priorities. In this way, it shows the development of a process from its rudimentary stage to its full potential. Linking the aforementioned to the theoretical framework, it can be seen that constructivism embodies the perspective that the process underwent and the program's stages of construction of experience, knowledge, and utilization of expertise. The document analysis themes are also supported by evidence-based management which aligns with the stages of initiating the program, and how the decision of launching it began from research and empirical evidence (Fischer et al., 2016; Lilienfeld et al., 2013; Spring, 2007).

The overall results from the observations, interviews, and document analysis are linked harmoniously with interactionism in the interlocked and interwoven relationships and interactions that took place during the TLPD; the realization and recognition of their roles and the social involvement and engagement these roles require and dictate. The social fabric that is created through the collaborative TLPD builds a context that fosters the growth of the various emotional, personal, and environmental factors that pertain to the theory and play essential roles in structuring the components of the study. Alongside this, Role Theory details the myriad roles that are shaped by the study and that influence it at the same time, such as the role of the researcher, the participants, the school community, the school senior and middle leadership as well as the school consultants and quality assurance bodies.

The study's results strongly advocate the investment of internal school capacity which follows a bottom-up approach instead of relying on external entities, which agrees with an increasing number of socio-critical studies that rebut the common top-down approaches (Cumming, Kimber & Wyatt-Smith, 2011; Cumming-Potvin & Sanford, 2015; Ditchburn, 2012). In addition, the study results also revolved around building the coaching capacity in teachers, such as in studies conducted by Darling-Hammond (2017), Desimone (2009), Kragler, Martin and Sylvester (2014), and Gutierrez, (2017). The results also point out the positive impact of empowering teachers to lead change and enhance pedagogical practices which aligns with several eminent former and recent studies (Beachum & Dentith, 2004; Hunzicker, 2012; Larkin, Seyforth, & Lasky, 2009; Margolis & Deuel, 2009; York-Barr & Duke, 2004; Wirth, 2018).

5.3 Theoretical and Empirical Findings and the Study Contribution

TLPD as an experience that is led by teachers to actualize learning and professional interaction, paralleled the various ideas and principles that were expressed and analysed in the theoretical framework. The main umbrella of thought and theory is constructivism and its direct link to the essence of the experience, from when it began as an idea, to the phases it witnessed (deliberation, discussion, reflective meetings, proposal presentations), to finish with the formation of the coaching team and crowning all of this with the implementation of the TLPD.

Also, one of the main ideas that could be drawn is the interactive roles that the teachers, middle and senior leaders share in the context of a TLPD experience. The interlocked roles create different actions that result in various behaviors and assist with the contributions of the stakeholders to the overall professional learning experience. Furthermore, interactionism was exemplified not only in the interactive nature of TLPD but also in the vibrant interaction

witnessed in the classroom observations that revealed an interactive and zealous context of learning, where teachers, coaches, middle, senior leaders and most importantly students come together and respond to one another to make the learning experience authentic, livable and lively. The classroom observation, the document analysis and the semi-structured interviews coincided with Social Cognitive Theory in the aspects of the gained understanding and knowledge that are established through measures of interaction. The document analysis served as a vital link to the evidence-based management theory in the way it drew on research, thorough examination of professional development documents, meeting notes, reflective discussions, and proposal formal presentations.

Regarding the empirical findings, the discussions of the former studies examined the various instructional, emotional, contextual, leadership, professional, and practical gains of the TLPD. There were key ideas that are integrally linked to the empirical part of research such as the discussion of Darling-Hammond & McGaughlin (2011) of the five eminent characteristics of a successful PD which all existed in the current study, being relevance, interaction, sustainability, data driven, and having the support of the senior leadership team. Also, the studies on the distributed leadership, PLCs, and coaching served as direct empirical discussions that were aligned with the findings.

What is also intriguing is the way the empirical and theoretical findings interact with each other to provide a full picture of TLPD. To illustrate, firstly, constructivism is the dome of thought that hovers over the TLPD process; with it and in parallel to it is the distributed leadership approach to TLPD from leadership. Another point of comparison is Role Theory and interactionism in relation to the coaching, and PLCS and TLPD implementation whereby

different roles came together to achieve one shared goal. In addition, Social Cognitive Theory, along with the evidence-based management, gave meaning to and complemented the empirical findings in terms of the rationale the study was based on, from the state it was initiated from to the stages in which the data were collected, analysed and confirmed to establish understanding and evidence to support further initiatives and research studies. Hence, both the theoretical findings with their foci of interaction, empowerment, construction of knowledge, enacting impact and establishing evidence, along with the empirical findings that drew on the self-actualization, interaction, collaboration, reflection, meeting whole-school priorities, all come together to provide a solid final understanding of the study and its value in the field of research.

Through the intrinsic and also impartial objective of the study and the way it combined multifarious sources of knowledge, theories, practices, and individuals, the study contributes to the field as a practical method to enhance professional development and build a collaborative culture. The study also contributes to educational leadership practice in terms of how it provides a model for educational leaders, teachers and coaches to meet school development plan objectives and organizational key performance indicators. Moreover, the study contributes to the research field by giving insight into an authentic and practical way of applying TLPD. Also, the theoretical framework that underpinned the study provided a meaningful and harmonious framework within which various understandings, individuals, experience, conditions, and pieces of evidence come into play to form a base and constructive environment for applying teacher-led professional development. The way the five theories interact and interlock and become embedded in different stages of the study, the different instruments used, and different findings reached, indicate that the choice of theories is meaningful, authentic, and relevant.

5.3.1 Integrated Findings

Apart from the distinct combination of quantitative and qualitative findings addressed separately, the results from both the quantitative phase and the qualitative phase were integrated to elucidate how the qualitative data drawn from classroom observations, semi-structured interviews and document analysis contributed to completing the picture by elaborating upon and explaining the data elicited from the initial quantitative part of the study. The quantitative part of the study helped the researcher decide on points that needed further exploration and analysis by studying the professional development curriculum, reflective meeting minutes, tentative proposal documents, and TLPD student products and coaches and trainees' feedback. In this respect, the quantitative data allowed for the creation of the semi-structured interview questions. In addition, the qualitative results supported the quantitative data through the detailed discussions with the respondents in several parts of the questionnaire, but that were then elaborated and further evidenced by the qualitative results.

It was undoubtedly worthwhile to discern whether there were differences between the quantitative data and the qualitative data. Both strands of research complemented each other and stressed the same clusters of thought. However, it is paramount to indicate that the qualitative part helped the researcher gain deeper insight into some areas that lacked sufficient elaboration in the questionnaire, such as 'consolidation of the 21st-century skills', 'the link between TLPD and innovation' and 'the creation of leadership opportunities'. Delving into more depth in the qualitative part, the classroom observations also gave rise to specific areas to be revisited and elaborated such as 'the TLPD professional benefits', 'the creation of a collaborative culture', and 'meeting school-wide professional priorities' which also helped the researcher combine

these clusters in the interview questions to obtain an overarching understanding of the aforementioned areas. The value of the qualitative analysis also clarified some of the non-significant differences in the quantitative data. For example, in reference to the gender differences, although there was no significant difference in the quantitative scores, the qualitative responses revealed that female respondents showed more passion, involvement and enthusiasm than some of the male respondents. However, the teachers of various teaching experiences expressed interest in TLPD which concurs with the quantitative part in Research Question 2.

5.4 Limitations

Although the study contributed to the literature on teacher-led professional development that the research gap indicated in the world in general and the United Arab Emirates in particular, it had some limitations that could not be controlled and might have had some impact on the results, as asserted by Gay et al., (2011). Thus, they need to be taken into consideration before generalizing the findings. The first limitation is the sample size which was 305, which can be considered small considering that we need to generalize the results in the UAE. Further research studies are suggested and recommended to explore the opinions of teachers about a Teacher-led Professional Development model in other Emirates by expanding the sample size.

The second limitation is that the TLPD Questionnaire statements were rated high and very high by the various respondents that took part in the study. This might indicate that they are strongly in favor of this model, or that they are biased towards it as it represents a new approach to PD in which teachers are given the opportunity to lead constructive whole-school changes. Further research studies are suggested and recommended to explore the opinions of academic advisors about the TLPD model. Moreover, other research studies are also recommended to find

out the impact of a TLPD model on students' attainment and performance. Consequently, the real effectiveness of any professional development program is measured by its results and impact on both students' attainment and teachers' performance enhancement.

A third limitation is the relatively short time period of the application of the TLPD due to the fact that it was a new initiative. In order to glean stronger results, more time needs to be invested in this PD model. Further research studies are also suggested and recommended to explore the opinions of teachers about Teacher-led Professional Development model in other Emirates by carrying out the research in other years.

A fourth limitation lies in the sampling method which was purposive and convenient which also affects the generalization of results. Ideally, the sample should be chosen randomly for the results to be unbiased and more reliable. Further research studies are suggested and recommended to explore the opinions of teachers about a Teacher-led Professional Development model by randomizing the sample.

5.5 Recommendations and Implications

After analysing the quantitative and qualitative data, and discussing and underscoring the results, some recommendations emerged to inform future research and action for educational researchers and educators, and implications for the educational field.

5.5.1. Future Research Recommendations

First of all, since the qualitative part of the current study relied primarily on the implementation of the study in a specific school context, it is advisable to implement the TLPD in several schools to obtain a broader scope, as that would enable comparing and contrasting the findings and identifying key factors pertinent to private schools in the UAE. Another research recommendation is to have a larger sample that encompasses all the Emirates so that the results can be generalized easily and relevantly. Apart from the aforementioned, the study can be replicated in the public sector of education to find key factors that would facilitate or impede TLPD. Researchers can also conduct longitudinal studies to reach more solid qualitative findings to back up the TLPD and come to conclusions on how to improve it and refine it. Another recommendation involves including student leadership bodies as part of the school-wide professional development evaluation bodies by encouraging them to voice their preferences, their observations, and their learning benefits. Furthermore, the study can be done from the perspective of the teacher leader in an action research context, for this can help teachers reflect on this model in a more detailed manner. As well as these ideas, the educational authorities in the UAE can also pilot the model in several schools to align school priorities to the National Agenda and the country-wide educational foci. A final recommendation for researchers is to conduct a quasi-experimental study on TLPD by conducting pre- and post-tests on students to track their achievement progress before and after implementation of the TLPD. Additionally, qualitative research is recommended to explore how TLPD impacts teachers' performance by conducting observations on teachers both pre- and post-TLPD.

5.5.2 Implications for Educators and Policy Makers

One of the key implications for educators and policy makers is embracing the professional learning communities as a systematic school initiative that encourages professional collaboration and collective planning and reflection. Not only is there a need for creating a TLPD initiative in school districts, but there also should be a research body in every school to report on and improve this model for the overall benefit that it would yield. In addition, educational leaders can work on empowering teachers to lead change by initiating coaching groups and expanding them. Furthermore, it would be beneficial to encourage heads of faculties and heads of cycles to embed TLPD as part of a continuous professional development model in schools. The Ministry of Education, along with ADEK (Abu Dhabi Department of Education and Knowledge) and other educational bodies in the UAE can encourage schools to build a coaching culture led by veteran and experienced teachers to apply innovative teacher-led professional development practices that promote collaboration and reflection. This can also be expanded by conducting pilot studies with different schools to provide opportunities for implementation and refinement of the model. Thus, building on the fact that educators are also life-long learners, motivating teachers to venture into innovative collaborative professional development would encourage high-quality TLPD to be built, delivered and refined. This is supported by Vygotsky's (1931) cognitive and creative development theory which contends that all forms of learners possess the potential to be creative and innovative (Moran & John-Steiner, 2003). To conclude, policy makers can establish country-wide TLPD initiatives that focus on teacher empowerment and in-school improvement culture.

Since the Teacher-Led Professional Development Model has been highly rated by teachers and is supported by them, it is recommended to generalize this model at a country level

with two conditions. First, making sure that the TLPD model will impact the students' achievement positively. Second, we need to ensure that the TLPD model will impact the teachers' performance positively as well. It is also recommended to carry out a professional development program that enhances teachers' training skills at all the levels and enhances their skill in initiating training materials, training tools and workshops that are appropriate to teachers' needs, subjects' needs and school context needs. Moreover, enhancing teachers' abilities and skills for needs analysis and planning to carry out professional development programs that enhance teachers' and students' performance as well.

5.5.3 Implications to the Educational Field

Some of the main implications for the educational field are in preparing training programs that build empirical and theoretical knowledge onto school-embedded professional development, and provide practical opportunities for knowledge application for student teachers, new teachers and veteran teachers to explore coaching opportunities on under-graduate as well as post-graduate study paths.

5.6 Conclusion

In this research study, the researcher investigated Abu Dhabi educators' perceptions and notions on the impact of teacher-led professional development. The study's findings reflected that Abu-Dhabi educators perceive TLPD to be a rich opportunity for leaders and teachers alike in creating a collaborative culture for meeting school priorities, constructing professional learning communities, and empowering teachers by building capacity. These align with prominent concepts, such as the instructional coaching, professional learning communities, and teacher leadership, which also concurred with theories that included constructivism as a holistic

major source from which other relevant theories branched out, including evidence-based management, interactionism, Social Cognitive Theory, and Role Theory. These concepts and theories shaped the study and provided a basis for its various statements and for the studies that the study referenced, such as those that advocate teacher empowerment, especially from the perspective of distributed leadership that is increasingly moving away from focused individualization to practical professional collaboration that gives teachers the role they should fulfil in the educational process as activators and steerers of the leadership (Diamond & Spillane, 2016; Gronn, 2000, 2002, 2016; Harris & DeFlaminis, 2016; Spillane, 2006, 2005; Spillane, Harris, Jones, & Mertz, 2015; Tian, Risku, & Collin, 2016; Woods, 2016).

Creating leadership capacity was the highest-rated thought cluster in the TLPD while the instructional benefits of Teacher-led Professional Development came second, with fostering the creation of a collaborative professional learning environment the third highest-rated thought cluster. The classroom observations, semi-structured interviews and document analysis highlighted the vital role of TLPD in empowering teachers, creating a culture of collaboration, and thereby enabling school leaders to meet key priorities.

The findings of the study proved that teacher-led professional development facilitates teacher empowerment, and the enhancement of the culture of collaboration in the learning context, as well as enabling educational leaders to meet paramount priorities. This is due to the role TLPD plays in providing an individualized model for teacher support; empowering teachers and instilling a sense of professional accountability; building leadership capacity by promoting an effective distributed leadership model; sharing of instructional practice and pedagogical strategies; constructing professional learning communities; fostering professional collaboration; establishing a coaching culture; embracing innovation and creative problem-solving; promoting a

bottom-up model; meeting various school cycles' needs; enhancing intrinsic motivation and self-worth; promoting risk-taking and professional growth; promoting the various 21st century skills of collaboration, innovation, and critical thinking; and encouraging reflective learning and reflective reasoning. All thereby enabling educational leaders to meet educational priorities.

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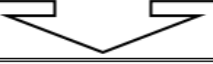
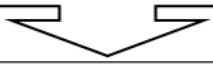
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Appendix I: TLPD Questionnaire

Please select the number that best reflects your opinion.		Strongly Agree (5)	Agree (4)	Disagree (3)	Strongly Disagree (2)
Teacher-led professional development is an experience that					
<div style="text-align: center;">  </div>					
Teacher-led PD and Leadership					
There is a school collaborative culture	5	4	3	2	
There is an interactive school professional learning environment	5	4	3	2	
School leaders create leadership opportunities for teachers	5	4	3	2	
Teachers have leadership skills	5	4	3	2	
School leaders disseminate school professional priorities to all the teachers	5	4	3	2	
Teacher-led PD as a Collaborative Professional Learning Environment					
There is a rich context for creating a professional learning community in the school	5	4	3	2	
There is a sense of teachers' professional accountability and responsibility	5	4	3	2	
There is a non-threatening PD environment for teachers to interact and problem solve	5	4	3	2	
PD is modified to address teachers' urgent professional needs and issues	5	4	3	2	
There is a collegial professional environment among teachers	5	4	3	2	
Perceived Benefits of Teacher-led Professional Development					
Teachers' instructional practices and skills have improved	5	4	3	2	
Teachers' confidence and self-esteem have improved	5	4	3	2	
School leaders and heads of departments meet school's professional needs	5	4	3	2	
Teachers have opportunities to reflect on the PD strategies collaboratively	5	4	3	2	
PD has helped teachers to enhance their teaching skills to become coaches in the future	5	4	3	2	
Please select the number that best reflects your opinion.					
Teacher-led professional development is an experience that					
<div style="text-align: center;">  </div>					
Teacher-led PD and Leadership					
There is a school collaborative culture	5	4	3	2	
There is an interactive school professional learning environment	5	4	3	2	
School leaders create leadership opportunities for teachers	5	4	3	2	
Teachers have leadership skills	5	4	3	2	
School leaders disseminate school professional priorities to all the teachers	5	4	3	2	
Teacher-led PD as a Collaborative Professional Learning Environment					
There is a rich context for creating a professional learning community in the school	5	4	3	2	
There is a sense of teachers' professional accountability and responsibility	5	4	3	2	
There is a non-threatening PD environment for teachers to interact and problem solve	5	4	3	2	
PD is modified to address teachers' urgent professional needs and issues	5	4	3	2	
There is a collegial professional environment among teachers	5	4	3	2	
Perceived Benefits of Teacher-led Professional Development					
Teachers' instructional practices and skills have improved	5	4	3	2	
Teachers' confidence and self-esteem have improved	5	4	3	2	
School leaders and heads of departments meet school's professional needs	5	4	3	2	
Teachers have opportunities to reflect on the PD strategies collaboratively	5	4	3	2	

Continuation of Appendix I

<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <i>Please circle the number that best reflects your opinion.</i> </div> <div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> I think that teacher-led professional development is an experience that </div>		Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
Theme1	Teacher –led PD and Leadership					
1.	Enhances a school collaborative culture	5	4	3	2	1
2.	Creates an interactive school professional learning environment	5	4	3	2	1
3	Enables school leaders to create leadership opportunities for teachers	5	4	3	2	1
4.	Improves leadership skills	5	4	3	2	1
5.	Helps leaders disseminate school professional priorities to all the teachers	5	4	3	2	1
Theme 2	Teacher –led PD as a Collaborative Professional Learning Environment					
6.	Provides a rich context for creating a professional learning community in the school	5	4	3	2	1
7.	Promotes the sense of teachers' professional accountability and responsibility	5	4	3	2	1
8.	Creates a non-threatening PD environment for teachers to interact and problem solve	5	4	3	2	1
9.	Is easily modified to address teachers' urgent professional needs and issues	5	4	3	2	1
10.	Builds a collegial professional environment among teachers	5	4	3	2	1
Theme 3	Instructional Benefits of Teacher-led Professional Development					
11.	Improves teachers' instructional practices and skills	5	4	3	2	1
12.	Develops teachers' confidence and self-esteem	5	4	3	2	1
13.	Helps leaders and heads of departments meet school's professional needs	5	4	3	2	1
14.	provides teachers with opportunities to reflect on the PD strategies collaboratively	5	4	3	2	1

<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <i>Please circle the number that best reflects your opinion.</i> </div> <div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> I think that teacher-led professional development is an experience that </div>		Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
Theme1	Teacher –led PD and Leadership					
1.	Enhances a school collaborative culture	5	4	3	2	1
2.	Creates an interactive school professional learning environment	5	4	3	2	1
3	Enables school leaders to create leadership opportunities for teachers	5	4	3	2	1
4.	Improves leadership skills	5	4	3	2	1
5.	Helps leaders disseminate school professional priorities to all the teachers	5	4	3	2	1
Theme 2	Teacher –led PD as a Collaborative Professional Learning Environment					
6.	Provides a rich context for creating a professional learning community in the school	5	4	3	2	1
7.	Promotes the sense of teachers' professional accountability and responsibility	5	4	3	2	1
8.	Creates a non-threatening PD environment for teachers to interact and problem solve	5	4	3	2	1
9.	Is easily modified to address teachers' urgent professional needs and issues	5	4	3	2	1
10.	Builds a collegial professional environment among teachers	5	4	3	2	1
Theme 3	Instructional Benefits of Teacher-led Professional Development					
11.	Improves teachers' instructional practices and skills	5	4	3	2	1
12.	Develops teachers' confidence and self-esteem	5	4	3	2	1
13.	Helps leaders and heads of departments meet school's professional needs	5	4	3	2	1
14.	provides teachers with opportunities to reflect on the PD strategies collaboratively	5	4	3	2	1
15.	Encourages teachers to enhance their teaching skills to become coaches in the future	5	4	3	2	1



Research Research Ethics Form (Low Risk Research)

To be completed by the researcher and submitted to the Dean's nominated faculty representative
on the Research Ethics Committee

i. Applicants/Researcher's information:

Name of Researcher /student	Khayal Al Allaq
Contact telephone No.	0503385758
Email address	2016121041@student.buid.ac.ae
Date	14 th February 2019

ii. Summary of Proposed Research:

<p>BRIEF OUTLINE OF PROJECT (100-250 words; this may be attached separately. You may prefer to use the abstract from the original bid):</p>	<p>The proposed paper has a two-fold purpose: 1) it aims to investigate teachers' and leaders' perceptions about the effectiveness of a teacher-led professional development model, and 2) it intends to explore teachers' and leaders' views and practices about the impact of the teacher-led professional development. This will be done within a frame of 21st century, distributed leadership approach that empowers teachers and assists them in creating a teacher – led professional development culture in some private schools in the UAE in order to enhance students' learning and teachers' expertise. To achieve this, the researcher to use a 5-Likert scale questionnaire in the first phase of the of the study. After the analysis of the quantitative data, the researcher will construct the semi-structured interview questions.</p> <p>Outline:</p> <p>The Quantitative Phase: conducting the Teacher-led Questionnaire</p> <p>Phase Two: Analysis of the Quantitative Data</p> <p>Phase Three: Constructing the Interview Questions</p>
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	<p>and analyzed to reach solid conclusions. In the meanwhile, document analysis will take place to study the PD curriculum, the different developmental drafts of the PD structure and its accompanying graphic organizers. This approach helps in building on the quantitative results to probe into more details through the subsequent use of qualitative instruments to form a full picture. Apart from that, the mixed method approach has been favored to the sole reliance on either qualitative or quantitative methods, the researcher also aims to study the experience more extensively and authentically.</p> <p>Study Sample and Method of Sampling The study sample will include around 300 participants [Total 300Teacher Leaders ($n=40$) +Teachers ($n=250$) + Middles Leaders ($n=6$) + Senior Leaders($n=4$)]</p> <p>The researcher will resort to convenient sampling for the quantitative data collection for the purpose of ease of accessibility. On the other hand, in dealing with the qualitative data, more familiarity and experience is needed from the respondents' side. Based on Merriams's (1998) discussion of qualities of an effective respondent as a person who is meaningfully acquainted with the study culture and details and due to the nature of the study and the model it advocates, purposeful sampling is more appropriate for the qualitative part of the study it is more suitable for eliciting evolving themes that are responsive to and are a result of the specific context and its. Based on this, the researcher will exclude the participants that haven't applied the teacher-led PD model, the fact that leaves one particular group of participants who are the ones that will experience the model and can reflect on it. Accordingly, purposive sampling would be in this case more meaningful as it targets a specific criterion.</p> <p>Data Collection:</p> <p>The researcher will collect the data via the following instruments:</p>
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	<p>Quantitative Data will be collected from</p> <p>-Teacher Led Professional Development Questionnaire (TLPDQ)</p> <p>The Qualitative Data will be collected from the following</p> <p>-Teacher Led Professional Development Semi-structured Interview with the same</p> <p>-Document Analysis of the PD curriculum, PD proposal and tenets, and the accompanying documents in the PD process.</p> <p>-Lesson Observations that highlight the impact of the PD on teaching and learning</p> <p>Analysis and Reporting of Data</p> <p>Adopting the Grounded Theory premises, the researcher will thoroughly examine the interview notes. This will be followed by using Microsoft Word to type in answers, highlight recurrent words and phrases and then color coding each group of words under a certain theme for easy reference in the future. Then the themes will be thoroughly discussed and reported in separate, however, interlocked and cohesive parts.</p> <p>The quantitative data will be analyzed using descriptive statistics in the Statistical Package of Social Sciences (SPSS) in order to identify the mean and the standard deviation. This will be done in steps that will include collecting the data from the questionnaire, coding the questionnaire items into numbers, and the numbers that will be converted will be transferred to SPSS. After that, the group of tables that will be produced from performed analysis will be employed to complement the research sections and support the methodological part of the research.</p> <p>Main Stages of the Study</p> <p>Obtaining Approval From the Schools in Which the Study will be Conducted: The researcher will conduct the study in her own school holding which consists of</p>
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Appendix II: Continuation 3

	<p>three schools in different districts. Getting the approval will begin with a formal meeting with the director of the school and the chairman of the Board of Trustees. This will be followed with official emails and description of the study purpose, research questions, and focus. Subsequently, the official approval form will be signed and stamped by the school.</p> <p>-The informed consent form will be shared with the participants. To ensure thorough clarification, the researcher will explain the content and will request the thorough reading of the consent before agreeing or disagreeing with it in preparation for signing it in case of approval.</p> <p>The Quantitative Phase: conducting the Teacher-led Questionnaire</p> <p>Phase Two: Analysis of the Quantitative Data</p> <p>Phase Three: Constructing the Interview Questions</p> <p>Phase Four: Conducting the Interviews</p> <p>Phase Five: The Coding and Analysis of Qualitative Data</p>
<p>MAIN ETHICAL CONSIDERATION(S) OF THE PROJECT</p> <p>(e.g. working with vulnerable adults; children with disabilities; photographs of participants; material that could give offence etc...):</p>	<p>The study targets a population of teachers, teacher leaders (coaches), middle leaders, and school educational consultants in a particular private K-12 American-curriculum school in Al Ain and one of its branches. The accessed population the proposed study intends to target is 200 teachers, 8 middle leaders, 40 teacher leaders (coaches), and 6 senior leaders.</p> <p>The researcher will print out hard copies of the questionnaire and will distribute them manually to the targeted schools.</p>

Appendix II: Continuation 3

	<p>In addition, a soft copy will be generated as a Google Forms questionnaire and will be sent to some participants to ensure complete participation.</p> <p>-As for the semi-structured interviews, they will be recorded using the iPhone recorder. Then the audio will be scripted, coded, annotated and analyzed.</p> <p>-To ensure anonymity, the questionnaire will not require the names of the participants and the interviews will be reported using numbers instead of names. In this regard, the reference will be to every single teacher as Teacher 1, or Teacher 2 ..etc. No name or identify information will be insinuated or implied in any way. In the process of the coding, the above method of coding will be used in addition to color coding. In the tabulated information about the sample, the information will be referred to also in a general sense not drawing attention to any particular group that can be easily recognized or identified. The only information that will be documented will be demographic details that will not violate the anonymity of the participants.</p> <p>-The materials will be secured in a private place in a locked office room and the envelopes will be sealed.</p> <p>-After the study is completed, the remaining evidence of any identity will be discarded.</p>
<p>DURATION OF PROPOSED PROJECT (please provide dates as month/year):</p>	<p>From August 2019 – November 2019</p>

Appendix II: Continuation 4

Date you wish to start Data Collection:	August – November, 2019
Date for issue of consent forms:	August, 2019

iii. Declaration by the Researcher:

I have read the University's policies for Research and the information contained herein, to the best of my knowledge and belief, accurate.

I am satisfied that I have attempted to identify all risks related to the research that may arise in conducting this research and acknowledge my obligations as researcher and the rights of participants. I am satisfied that members of staff (including myself) working on the project have the appropriate qualifications, experience and facilities to conduct the research set out in the attached document and that I, as researcher take full responsibility for the ethical conduct of the research in accordance with subject-specific and University Research Policy (9.3 Policies and Procedures Manual), as well as any other condition laid down by the BUiD Ethics Committee. I am fully aware of the timelines and content for participant's information and consent.

Print name: Khayal Al Allaq



Signature: _____ Date: 14th February 2019

If the research is confirmed as not medium or high risk, it is endorsed HERE by the Faculty's Research Ethics Committee member (following discussion and clarification of any issues or concerns).....and forwarded to the Research Office to be recorded.*

I confirm that this project fits within the University's Research Policy (9.3 Policies and Procedures Manual) and I approve the proposal on behalf of BUiD's Research Ethics Committee.

Name and signature of nominated Faculty Representative: _____

Signature: _____ Date: _____

Name and signature of Dean of Research: _____

Signature: _____ Date: _____



Doctoral Study Informed Consent

Please read carefully before signing the Consent Form!

Title: Investigating the Impact of a Teacher- led PD Model in Enhancing Teachers' Professional Development Experience in Private Schools

-You will be asked to provide or deny consent after reading this form.

You have been invited to take part in a study that aims at investigating teachers' and leaders' perceptions about the effectiveness of a teacher-led professional development model, and it intends to explore teachers' and leaders' views and practices about the impact of the teacher-led professional development. This study will be conducted by Khayal Al Allaq, who is the principal investigator. Khayal Al Allaq is a PD student in the field of Education Management Leadership and Policy. She can be reached by telephone at +971 503385758 or by email at 2016121041@student.buid.ac.ae. Please feel free to contact Khayal Al Allaq any stage of this research study.

Kindly note the following points:

- ✓ The study will take place at [Participant's location] located at [Participant's physical address].
- ✓ Your participation in our research will take approximately 35 to 45 minutes. We will spend the first 10 minutes explaining the research project to you and go through the research questions we would like to ask you.
- ✓ The interview will be conducted in an office where you work. We will take notes while the conversation is taking place. We prefer to digitally record the conversation in order to ensure the accuracy of the information.
- ✓ With your consent, we would like to digitally record this conversation in order to accurately transcribe the discussion. We would be happy to share with you the transcribed interview. Please note all the information that you provide will not be attributed to you.

Your participation will greatly assist the research community, students, teachers and your ministry/council of education in understanding the impact of teacher-led professional development in teaching, learning, and leadership. There has been very little research in this area in the UAE and your contribution will help ensure that more knowledge in this area is gained for the benefit of our children's education and development.

The information you share with us will remain confidential. Any printed information will be kept in a locked cabinet. The information you provide will remain private. Your name will not be revealed and will be coded, as will all the names of the participants in this study. Evidence will be kept for the duration of the research study after which it will be shredded to preserve anonymity of the research respondents

You can withdraw at any time from the research without any penalties or minimum level of risk to you. Please contact Khayal Al Allaq for further information.

Please feel free to contact Khayal Al Allaq if you would have any questions about the research study.

Contact information of Researcher

Khayal Al Allaq

British University in Dubai [BUID]

PhD Program

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Email: 2016121041@student.buid.ac.ae

Contact information of Director of Studies

Professor Sufian A. Forawi

British University in Dubai [BUID]

Office Telephone: 04/2791439

Email: sufian.forawi@buid.ac.ae

tion] located at [Participant's

proximately 35 to 45 minutes.
the research project to you and
like to ask you.

where you work. We will take
We prefer to digitally record the
of the information.

record this conversation in
We would be happy to share
ote all the information that you

community, students, teachers
nding the impact of teacher-led
leadership. There has been very
tribution will help ensure that
of our children's education and

Email: 2016121041@student.buid.ac.ae

Contact information of Director of Studies

Professor Sufian A. Forawi

British University in Dubai [BUID]

Office Telephone: 04/2791439

Email: sufian.forawi@buid.ac.ae

Appendix IV: Interview Questions

Dear Respondent,

Kindy take some time to answer the following interview questions.

- 1.** What are the key benefits that teachers can get from joining a teacher-led professional development program?
- 2.** In what ways can a teacher-led professional development build capacity for leadership opportunities in the school?
- 3.** How can a teacher-led professional development create a collaborative culture in the school?
- 4.** In what way is teacher-led PD a more teacher -friendly mentoring method compared to conventional top-down professional development?
- 5.** To what extent do you find a teacher-led professional development an innovative model of professional development and teacher leadership?
- 6.** What are the key factors for making a teacher-led professional development successful and effective?
- 7.** In your view, are the benefits that teachers can get from a teacher-led professional development restricted to specific school cycles? Why? Give examples.
- 8.** What is the impact of a teacher-led professional development on enhancing teachers' self-worth and motivation?
- 9.** To what extent can a teacher-led professional development enhance the twenty-first century skills and competencies in a school?
- 10.** How does teacher-led professional development enable HoDs and school leaders meet school development priorities?

Appendix V: iAspire Digital Observation Tool, Rubric, and Checklists

Your students deserve teachers who are always growing



iAspire Education is teacher evaluation and professional development software for educators who want real results and don't have any time to waste

1.3.1 Students' engagement in, and responsibility for, their own

Level of Performance					
Outstanding	Very Good	Good	Acceptable	Weak	Very Weak
Outstanding - Students are enthusiastic and take responsibility for their own learning in sustained ways. They focus well and reflect on their learning to evaluate their strengths and weaknesses accurately. They take targeted actions to improve	Very Good - Students are keen to learn and take responsibility for their own learning. They know their strengths and weaknesses and act purposefully to improve.	Good - Students enjoy learning and take increasing responsibility for their own learning. They know their strengths and weaknesses and take steps to improve.	Acceptable - Students have positive attitudes toward learning and can work for short periods without their teachers' intervention. They may be passive learners, but they know what they have learned and how to improve their work in general terms	Weak - Students are easily distracted and work only with their teachers' direction. Students rarely reflect on the quality of their learning and consequently they are unsure how to improve their work	Very Weak - Students are very easily distracted and work only with constant teacher direction. They do not show interest in learning. They do not evaluate the quality of their learning and consequently they do not know how to improve their work

1.3.2 Students' interactions, collaboration and communication skills

Level of Performance					
Outstanding	Very Good	Good	Acceptable	Weak	Very Weak
Outstanding - Students interact and collaborate very effectively in a wide range of learning situations to achieve agreed goals. They communicate their learning very clearly	Very Good - Students interact and collaborate purposefully and productively in a range of learning situations to achieve common goals. They communicate their learning effectively	Good - Students interact and collaborate well in a range of learning situations. They communicate their learning clearly	Acceptable - Students can work productively in groups although the quality of their interactions is varied and collaboration is limited. They communicate their learning adequately.	Weak - Students work together only with teacher supervision. They find it difficult to interact and to discuss and communicate their learning	Very Weak - Only a few students can interact and work together at an acceptable level and communicate their learning

1.3.3 Application of learning to the world and making connections between areas of

Level of Performance					
Outstanding	Very Good	Good	Acceptable	Weak	Very Weak
Outstanding - Students consistently make meaningful connections between areas of learning and use these to deepen their understanding of the world.	Very Good - Students regularly make meaningful connections between areas of learning and relate these well to their understanding of the world	Good - Students make clear connections between areas of learning and relate these to their understanding of the world	Acceptable - Students make a few connections between areas of learning and relate these in simple ways to their understanding of the world	Weak - Students find it difficult to make connections between areas of learning and to relate knowledge to their understanding of the world	Very Weak - Only a few students are able to make connections between areas of learning and relate knowledge to their understanding of the world

1.1.3 Knowledge, skills and understanding, especially in the key subjects

Level of Performance					
Outstanding	Very Good	Good	Acceptable	Weak	Very Weak
Outstanding - In lessons and in their recent work, most students demonstrate levels of knowledge, skills and understanding that are above curriculum standards	Very Good - In lessons and in their recent work, a large majority of students demonstrate levels of knowledge, skills and understanding that are above curriculum standards.	Good - In lessons and in their recent work, the majority of students demonstrate levels of knowledge, skills and understanding that are above curriculum standards	Acceptable - In lessons and in their recent work, most students demonstrate levels of knowledge, skills and understanding that are in line with curriculum standards	Weak - In lessons and in their recent work, less than three-quarters of students demonstrate levels of knowledge, skills and understanding that are at least in line with curriculum standards.	Very Weak - In lessons and in their recent work, only a few students demonstrate levels of knowledge, skills and understanding that are in line with curriculum standards. There are significant gaps in students' knowledge and weaknesses in their skills and understanding

1.2.2 Progress in lessons

Level of Performance					
Outstanding	Very Good	Good	Acceptable	Weak	Very Weak
Outstanding - In lessons, most students make better than expected progress in relation to appropriate learning objectives aligned with the expected curriculum standards	Very Good - In lessons, a large majority of students make better than expected progress in relation to appropriate learning objectives aligned with the expected curriculum standards	Good - In lessons, the majority of students make better than expected progress in relation to appropriate learning objectives aligned with the expected curriculum standards	Acceptable - In lessons, most students make expected progress in relation to appropriate learning objectives aligned with the expected curriculum standards and a few make better progress	Weak - In lessons, only a majority of students make expected progress in relation to appropriate learning objectives aligned with the expected curriculum standards	Very Weak - In lessons, only a few students make expected progress in relation to appropriate learning objectives aligned with the expected curriculum standards

1.2.3 Progress of different groups of students

Level of Performance					
Outstanding	Very Good	Good	Acceptable	Weak	Very Weak
Outstanding - All groups* of students make better than expected progress	Very Good - Most groups* of students make better than expected progress	Good - The majority of groups* of students make better than expected progress	Acceptable - All groups* make at least expected progress, although there may be some unevenness in progress between groups	Weak - At least one significant group* of students does not make the expected progress	Very Weak - There is significant disparity in progress rates between the different groups of students

Learning Walk Record Sheet

Date and Time: 1/9/2020 10:10 AM
School: Liwa International Schoo▼
Observer: Khayal Al-Allaq
Teacher: [REDACTED]
Grade: 11th Grade▼
Subject: English▼
Time out:
LW# 15
Lesson: 4

Your lesson contained the following key elements...

- ☒ Higher order Questioning
- ☒ Effective use of technology
- ☐ Modeling (I Do, We Do, You Do)
- ☒ Critical thinking opportunities
- ☐ Differentiation and well-supported learning
- ☒ Behavior Management
- ☒ Student Engagement/Hands on Learning
- ☒ Group work
- ☒ Opportunities for Independent learning/research/problem solving
- ☐ Utilizing AAS (Additional Adult Support)

These great things caught my eye

- Differentiation was a powerful element in the lesson; teacher differentiated the starter and the core activity effectively and confidently.
- Students showed remarkable engagement and exemplified positive readiness to think critically and to respond independently to teacher's questioning.
- The flow of the lesson was smooth and the steps were very organized.

Some ideas for the future

- The extension question in the starter can be higher in cognitive ability.
- The learning outcomes of the 'most' and the high achievers need to be deeper in the level of challenge.
- The peer reading was a missed opportunity for differentiation. Teacher could have simply written a question on the board or posed it orally to instigate further thinking while reading.

Key Strengths

[Comments on the Peer Observation]

- Teacher applied a critical thinking starter successfully as part of the PD strategy demo in the peer observation process that followed cycle 2 of the Learning Hub PD. The steps were accurate, the presentation facilitated the implementation, and the teacher reflected preparedness and enthusiasm.
- The students were engaged and actively working on the questions.
- The activity was implemented smoothly.

Key Areas of Improvement

- There were few students that were not sure about what they were supposed to do; hence, the teacher that was part of the peer observation had to assist those students and provide clarification.

Key Strengths

- Students were clearly engaged in a highly interactive Kagan activity 'Place mat Consensus' by relating it to critical viewing of pictures related to the story covered. Students were able to make links and to think critically about the pictures.
- Students were able to respond to teachers questions.
- Teacher made a correct intervention in doing PLACEMAT in the core not in the starter.
- Differentiation was embedded throughout the lesson.

Key Areas for Improvement

- The time was prolonged in relating the pictures to the story. One picture could have been sufficient considering the time constraints.
- Placemat Consensus was indicated as a starter activity. It is usually effective for a core activity.
- Time could be managed more effectively by balancing the activities applied.
- Some students were not involved in the activities which is a missed opportunity for their academic benefit.

Key Strengths

- Teacher used new strategies innovatively. She used Talk for Writing, Placemat Consensus, and attempted to use Pairs Compare.
- The majority of the students made better than expected progress with reference to the learning objective.

Key Areas for Improvement

- The core writing activity wasn't productive and beneficial enough because it was a group activity. To ensure effectiveness of activity, students should work in pairs not as a group. Many were not taking the activity seriously and some were merely fiddling with their stationery.
- Some students were left out and were not following and were engaged in side talks.
- The activity 'Pairs Compare' is not supposed to be applied between two groups. If you want to apply it as groups compare, then don't give it the title Pairs Compare as this structure has different rules.

Appendix VI: Peer Takeaway Forms & Coach QA Form

Take Aways - Peer collaboration record:

Department: English

Colleagues: [Redacted]

What I saw:

Exceptional/ outstanding/ worth knowing:

In the class, the teacher does a strategy that let the students to pay attention with her.

The strategy is "she says class class, and the students answer here by yes yes.

There is also a strategy when she uses the show and tell strategies

When the students use the white board " she tell them that " 1, 2, 3 boards up "

Take-Aways: (What can I do with this?)

I took the both strategies and I tried to implement it when I ever want the student's attention, and it worked with the students, and they were familiar with it, it wasn't a new for them.

When I ever ask them to write their answer in their white boards, I tell them 1, 2, 3 but instead of saying boards up, I told them show me your boards .

How will I implement this? (Small groups/ target class/groups etc.)

The class class yes yes strategy I use it when ever I want the student's attention

1,2,3 show your boards, usually as a small group

Notes from HOD meeting/ Evaluation:

Signed:
HOD/PM reviewer:

Teacher: [Redacted]

Coaches Observation Form

Peer Visit Quality Assurance Record

Name of Coach: [Redacted]

Name of Learning Hub: starters and

plenaries _____

Select Your Choice: Teacher Observation/Peer Observation

Name of Teacher(s) _Miss :Katia (Grade 2 yellow)

Department (s) _English_____

Title of Activity: pop topics _____

Learning Hub Cycle 1

Points of Strength :

- Teacher gave thinking time to students
- Teacher encouraged students to guess meaning of vocabulary words and use them in sentences.
- Very good classroom management.

Points for Improvement

- Students should be divided into groups for a wider discussion better than a paired work discussion.

Steps for Moving Forward:

- Teacher should give a chance to all groups to share ideas.

Select Your Choice: Teacher Observation/Peer Observation

Name of Teacher(s) _Miss: _Iman (grade 1 Red)

Department (s) _English_____

Title of Activity: word cloud _____

Learning Hub Cycle 1

Points of Strength :

- Teacher clearly showed the vocabulary words on board.

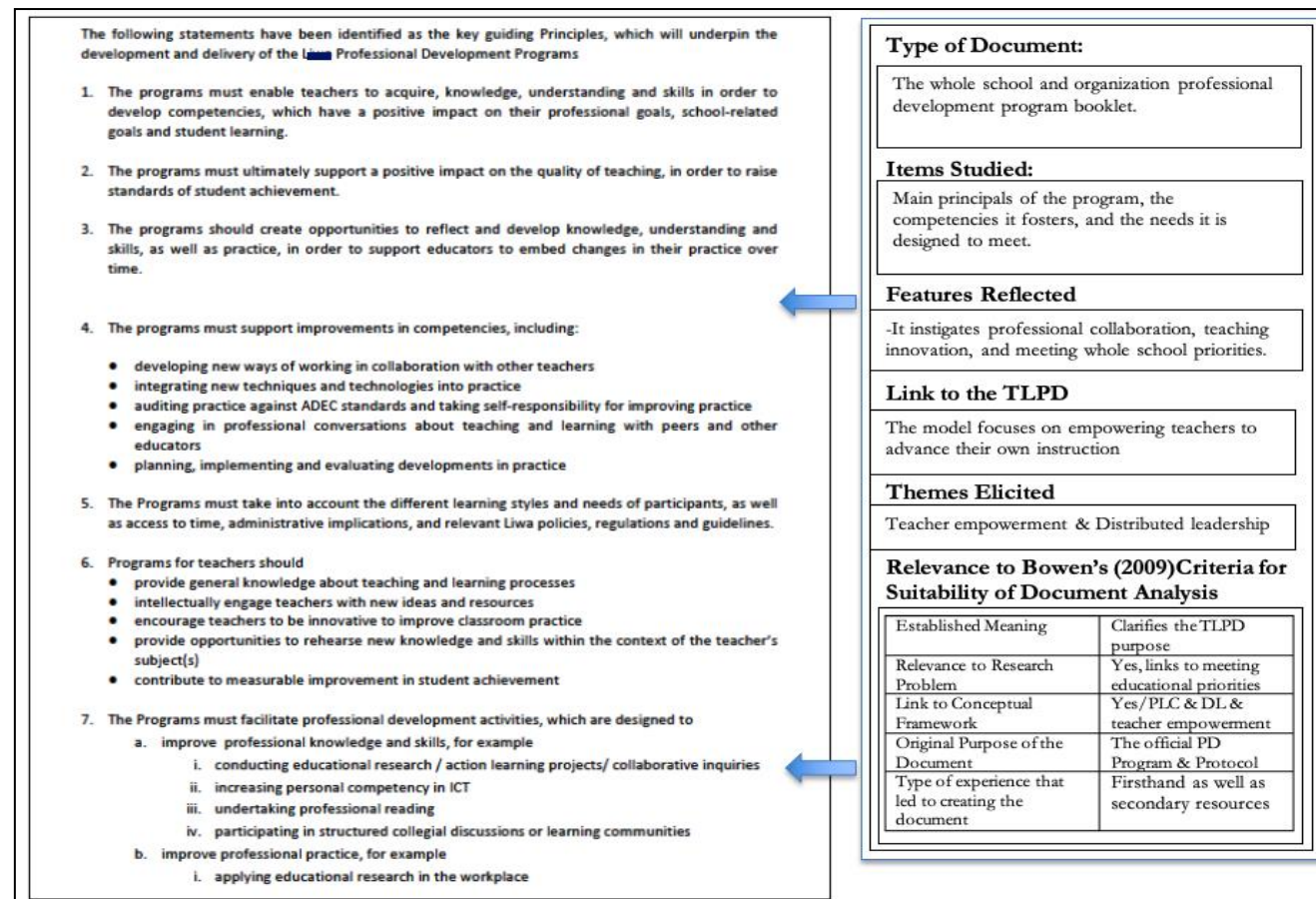
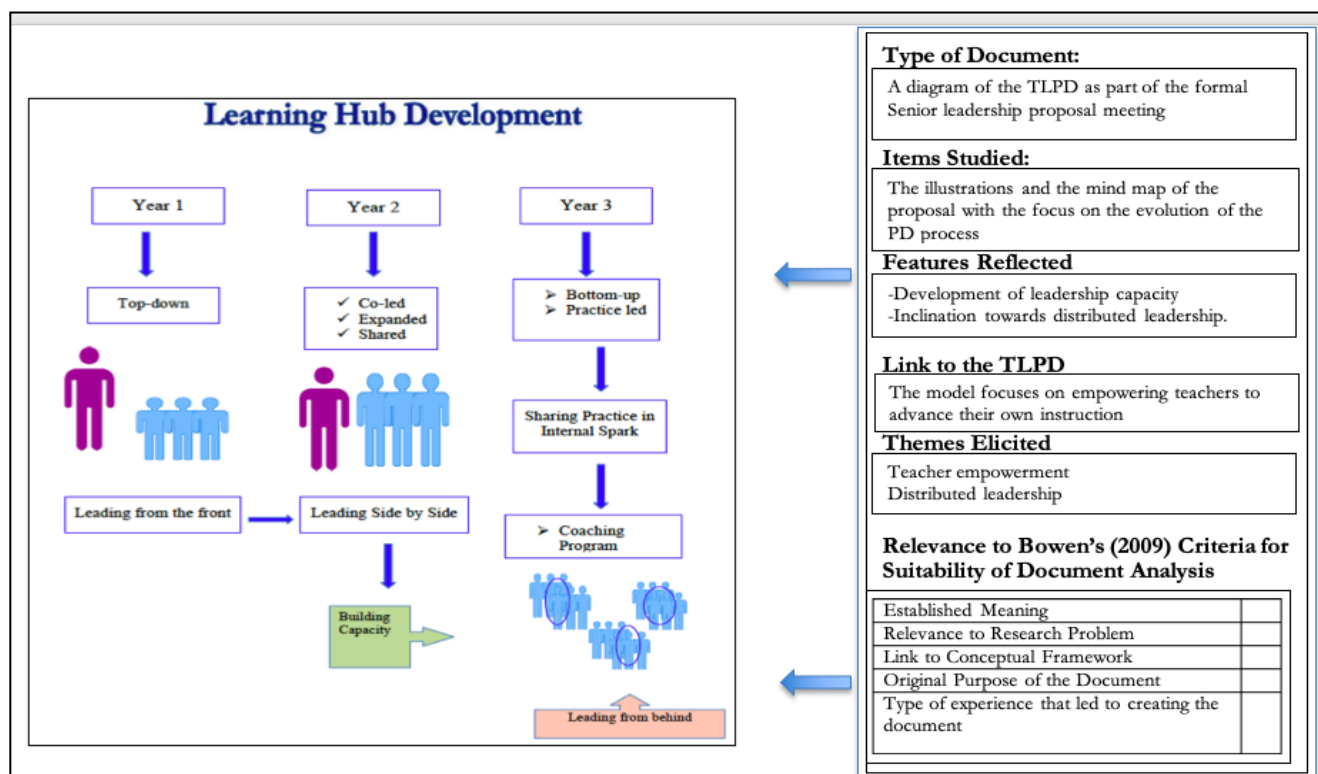
Points for Improvement

- Teacher should clarify the task more for students to be able to complete it.
- Teacher should make sure that group members are sharing ideas within their group to ensure everybody is engaged on task.

Steps for Moving Forward:

- Teacher can try using the strategy with a more familiar topic so that students will feel confident to share their ideas.

Appendix VII: Sample Document Analysis and Bowen's (2009) Checklist Used



Appendix VIII: Interview Transcript and Coding

Address School Priorities	Sense of responsibility	Skills and expertise
Passion and commitment to PD	Professional collaboration	Self-confidence/stress free/friends
Student Engagement	Benefiting all Cycles	Differentiated
Leadership Skills	21 st Century skills C.T & Common	Mutual support
Authentic Relevance to Teaching Reality	Reflective Skills	Innovative way of PD

Respondent 1

Teacher-led Professional Development Interview Questions

1. What are the key benefits that teachers can get from joining a teacher-led professional development program? *

Teachers will gain self-confidence, will enhance the feeling of responsibility and will cultivate their skills. Such kind of PDs focuses on teachers' needs and interests.

2. In what ways can a teacher-led professional development build capacity for leadership opportunities in the school? *

In such kind of PDs, teachers have a great opportunity to practice their leadership skills. They will be in charge of running the PD and support other teachers to ensure the right implementation.

3. How can a teacher-led professional development create a collaborative culture in the school? *

This kind of PD brings teachers together to plan the PD. They support each other to deliver a good one. Besides, they work collaboratively to have the right implementation of the skills or strategies shared via peer-observations.

4. In what way is teacher-led PD a more teacher -friendly mentoring method compared to conventional top-down professional development? *

Working together creates a friendly atmosphere where mistakes are allowed. Teachers are the ones who create and deliver it, so they assist each other.

5. To what extent do you find a teacher-led professional development an innovative model of professional development and teacher leadership? *

It's a new and different way of delivering PDs. Usually, teachers are the ones who attend the PD, but now they are the ones who present it. Based on their experience, they try to find innovative ways to present it differently and make it more enjoyable and engaging.

6. What are the key factors for making a teacher-led professional development successful and effective? *

Bottom-up / vs top down

1. What are the key benefits that teachers can get from joining a teacher-led professional development program? *

Teachers can benefit a lot from that program as the presenter will be a teacher who knows the field and the obstacles that face teachers while they teach in reality. This professional development will be fruitful and will give the audience (teachers) solutions, ideas, and new pedagogy to apply with students to improve the learning process.

2. In what ways can a teacher-led professional development build capacity for leadership opportunities in the school? *

I think that teacher-led professional development will enhance leadership opportunities as the teacher who is leading the professional development will get the skills of good leadership as she/he will hold the responsibility of leading the other teachers to understand the new ideas in the session and ensuring that they apply the new technique or idea correctly in their classes.

3. How can a teacher-led professional development create a collaborative culture in the school? *

I'm sorry, I don't know

4. In what way is teacher-led PD a more teacher -friendly mentoring method compared to conventional top-down professional development? *

Teacher-led PD is more teacher-friendly because the audience (teachers) will accept from the teacher (presenter) rather than an external leader who is not teaching in their school. I think usually teachers can accept more from a colleague rather than from a stranger to them because they feel that however that presenter holds certificates and has years of experience in the field, they won't take his/her points and ideas seriously because they believe that this presenter (not the teacher presenter) lacks the experience as she/he is not teaching and facing the same problems that they face with the students.

5. To what extent do you find a teacher-led professional development an innovative model of professional development and teacher leadership? *

Authentic Relevance to Teaching Reality

Passion and commitment to PD	Sense of responsibility	Skills and expertise
Student Engagement	Professional collaboration	Self-confidence/stress free/friends
Leadership Skills	Benefiting all Cycles	Differentiated
Authentic Relevance to Teaching Reality	21 st Century skills C.T & Common	Mutual support
	Reflective Skills	Innovative way of PD

1. What are the key benefits that teachers can get from joining a teacher-led professional development program? *

Teachers can benefit a lot from that program as the presenter will be a teacher who knows the field and the obstacles that face teachers while they teach in reality. This professional development will be fruitful and will give the audience (teachers) solutions, ideas, and new pedagogy to apply with students to improve the learning process.

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5. To what extent do you find a teacher-led professional development an innovative model of professional development and teacher leadership? *

Authentic Relevance to Teaching Reality

Passion and commitment to PD	Sense of responsibility	Skills and expertise
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In such kind of PDs, teachers have a great opportunity to practice their leadership skills. They will be in charge of running the PD and support other teachers to ensure the right implementation.

3. How can a teacher-led professional development create a collaborative culture in the school? *

This kind of PD brings teachers together to plan the PD. They support each other to deliver a good one. Besides, they work collaboratively to have the right implementation of the skills or strategies shared via peer-observations.

4. In what way is teacher-led PD a more teacher -friendly mentoring method compared to conventional top-down professional development? *

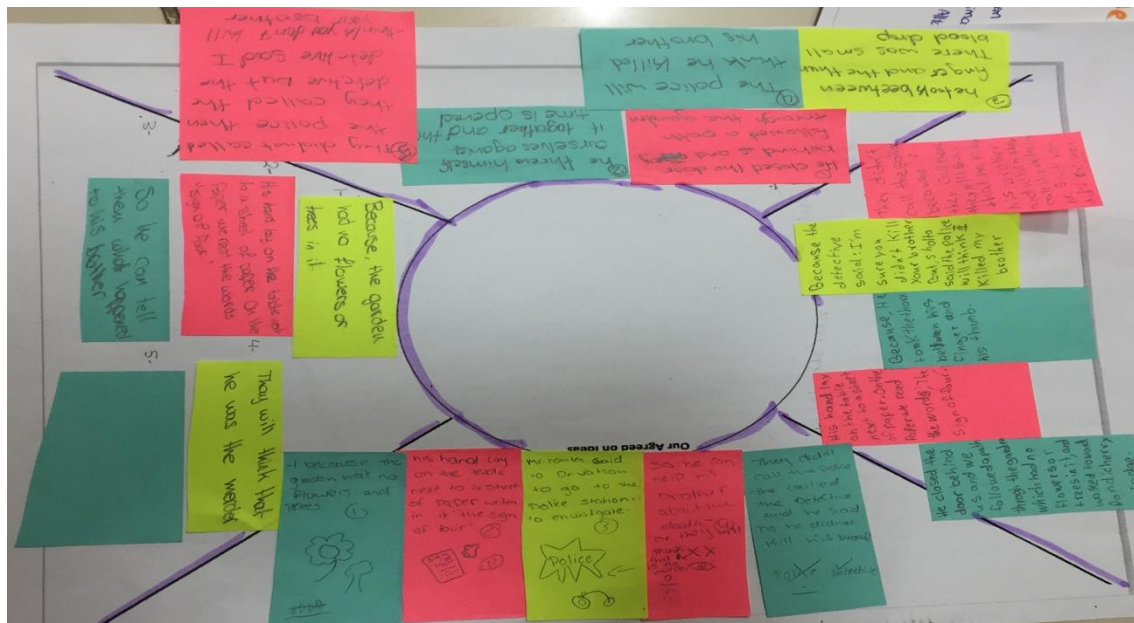
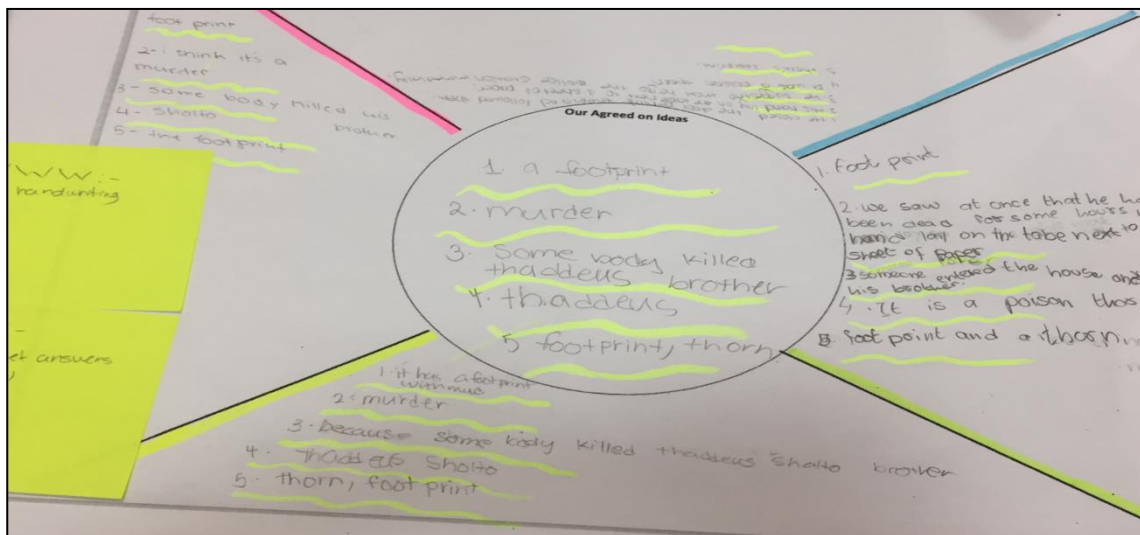
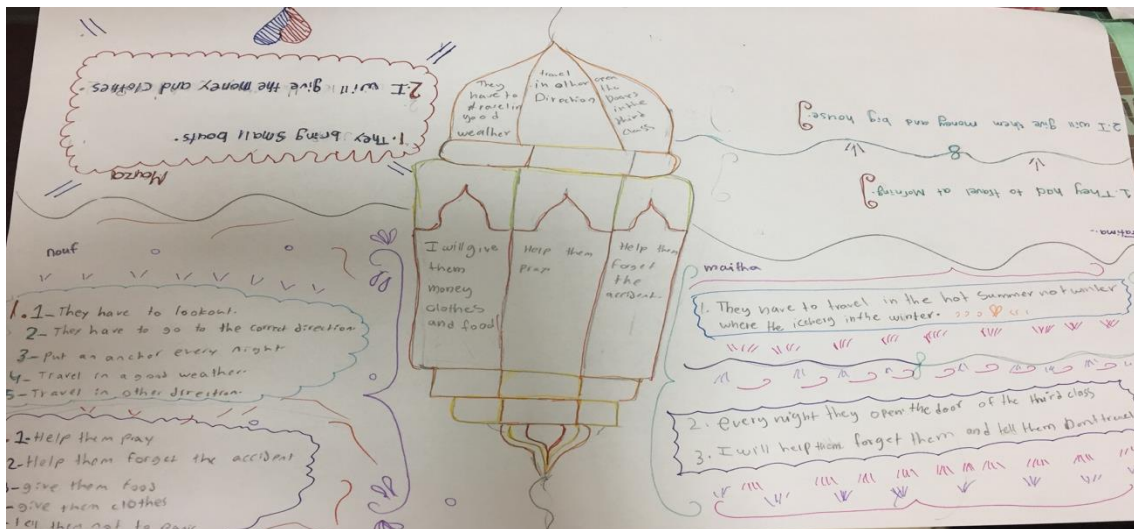
Working together creates a friendly atmosphere where mistakes are allowed. Teachers are the ones who create and deliver it, so they assist each other.

5. To what extent do you find a teacher-led professional development an innovative model of professional development and teacher leadership? *

It's a new and different way of delivering PDs. Usually, teachers are the ones who attend the PD, but now they are the ones who present it. Based on their experience, they try to find innovative ways to present it differently and make it more enjoyable and engaging.

6. What are the key factors for making a teacher-led professional development successful and effective? *

Appendix IX: Students' Work from Classroom Observation



Teacher- led PD Model Questionnaire

The purpose of this questionnaire is to collect information about your perceptions on the role of teacher- led professional development in building leadership qualities, enhancing teaching skills and creating a collaborative culture in the school. **A teacher-led PD is defined as a professional development program that is designed based on a needs' assessment but is driven by experienced teachers that coach their colleagues on different strategies and techniques. The sessions are followed by peer observation and then a reflective meeting.** This study is conducted in partial fulfillment of the requirements for my Doctoral degree in Leadership, Management and Policy in the College of Education in the British University in Dubai. Your opinion is highly valued, as it will help me gain insight into your view on teacher-led PD, and it will further extend my knowledge on how to structure a PD culture that would benefit teachers, students, and leaders. The information that will be collected will remain confidential and will not be used for any other purposes.

General Demographic Information

<i>Item</i>	<i>Information to Be Filled out</i>
<i>Age</i>	under <u>25</u> , <u>25-30</u> , <u>31-39</u> , <u>41-50</u> , <u>51-60</u> , <u>Over 60</u>
<i>Gender</i>	Gender: <u>Male</u> <u>Female</u>
<i>Years of Teaching</i>	Years of Teaching: <u>1-2</u> , <u>3-5</u> , <u>6-10</u> , <u>11-15</u> , <u>More than 15</u>
<i>Current School level you are teaching</i>	<u>Elementary</u> <u>Middle</u> <u>High</u>
<i>Subject (s) Taught</i>	
<i>How often do you attend professional development sessions?</i>	<u>Regularly</u> <u>Rarely</u> <u>Sometimes</u>
<i>Nationality</i>	
<i>Highest Qualification</i>	<u>B.S.</u> <u>M.A.</u> <u>PhD</u> <u>Others</u>
<i>Email Address (for follow up Interview –Optional)</i>	

Please circle the number that best reflects your opinion.

I think that teacher-led professional development is an experience that

Strongly Agree (5)

Agree (4)

Neutral (3)

Disagree (2)

Strongly Disagree (1)

Theme1	Teacher –led PD and Leadership					
1.	Enhances a school collaborative culture	5	4	3	2	1
2.	Creates an interactive school professional learning environment	5	4	3	2	1
3	Enables school leaders to create leadership opportunities for teachers	5	4	3	2	1
4.	Improves leadership skills	5	4	3	2	1
5.	Helps leaders disseminate school professional priorities to all the teachers	5	4	3	2	1
Theme 2	Teacher –led PD as a Collaborative Professional Learning Environment					
6.	Provides a rich context for creating a professional learning community in the school	5	4	3	2	1
7.	Promotes the sense of teachers' professional accountability and responsibility	5	4	3	2	1
8.	Creates a non-threatening PD environment for teachers to interact and problem solve	5	4	3	2	1
9.	Is easily modified to address teachers' urgent professional needs and issues	5	4	3	2	1
10.	Builds a collegial professional environment among teachers	5	4	3	2	1
Theme 3	Instructional Benefits of Teacher-led Professional Development					
11.	Improves teachers' instructional practices and skills	5	4	3	2	1
12.	Develops teachers' confidence and self-esteem	5	4	3	2	1
13.	Helps leaders and heads of departments meet school's professional needs	5	4	3	2	1
14.	provides teachers with opportunities to reflect on the PD strategies collaboratively	5	4	3	2	1
15.	Encourages teachers to enhance their teaching skills to become coaches in the future	5	4	3	2	1

Please circle the number that best reflects your opinion.

I think that teacher-led professional development is an experience that

Strongly Agree (5)

Agree (4)

Neutral (3)

Disagree (2)

Strongly Disagree (1)

Theme1	Teacher –led PD and Leadership					
1.	Enhances a school collaborative culture	5	4	3	2	1
2.	Creates an interactive school professional learning environment	5	4	3	2	1
3	Enables school leaders to create leadership opportunities for teachers	5	4	3	2	1
4.	Improves leadership skills	5	4	3	2	1
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Theme 2	Teacher –led PD as a Collaborative Professional Learning Environment					
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7.	Promotes the sense of teachers' professional accountability and responsibility	5	4	3	2	1
8.	Creates a non-threatening PD environment for teachers to interact and problem solve	5	4	3	2	1
9.	Is easily modified to address teachers' urgent professional needs and issues	5	4	3	2	1
10.	Builds a collegial professional environment among teachers	5	4	3	2	1
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11.	Improves teachers' instructional practices and skills	5	4	3	2	1
12.	Develops teachers' confidence and self-esteem	5	4	3	2	1
13.	Helps leaders and heads of departments meet school's professional needs	5	4	3	2	1
14.	provides teachers with opportunities to reflect on the PD strategies collaboratively	5	4	3	2	1

Teacher-led Professional Development Model Questionnaire

The purpose of this questionnaire is to collect information about your perceptions on the role of teacher-led professional development in building leadership qualities, enhancing teaching skills and creating a collaborative culture in the school. A teacher-led PD is defined as a professional development program that is designed based on a needs' assessment but is driven by experienced teachers that coach their colleagues on different strategies and techniques. The sessions are followed by peer observation and then a reflective meeting. This study is conducted in partial fulfillment of the requirements for my Doctoral degree in Leadership, Management and Policy in the College of Education in the British University in Dubai. Your opinion is highly valued, as it will help me gain insight into your views on teacher-led PD, and it will further extend my knowledge on how to structure a PD culture that would benefit teachers, students, and leaders. The information that will be collected will remain confidential and will not be used for any other purposes.

General Demographic Information

Age *

- ☐ Under 25
☐ 25-30
☐ 30-39
☐ 41-50
☒ 51-60
☐ Over 60

Gender *

Female

Years of Teaching *

- ☐ 1-2
☐ 3-5
☐ 6-10
☐ 11-15
☒ More than 15

Current school level you are teaching *

- ☐ Elementary
☐ Middle
☒ High

Subject(s) you teach *

English

How often do you attend professional development sessions? *

- ☐ Regularly
☐ Rarely
☒ Sometimes

Nationality *

US

Highest Qualification *

Master degree

Email Address for Follow up (Interview- Optional)

Please choose the answer that best reflects your opinion.

[Strongly Agree] [Agree] [Neutral] [Disagree] [Strongly Disagree]

Theme One: Teacher-led PD and Leadership

I think that teacher-led professional development is an experience that

1. Enhances a school collaborative culture *

- ☒ Strongly Agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly Disagree

2. Creates an interactive school professional learning environment *

- ☒ Strongly agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly Disagree

3. Enables school leaders to create leadership opportunities for teachers *

- ☒ Strongly agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly Disagree

<p>4. Improves leadership skills *</p> <p><input checked="" type="radio"/> Strongly agree</p> <p><input type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>	<p>11. Improves teachers' instructional practices and skills *</p> <p><input type="radio"/> Strongly agree</p> <p><input checked="" type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>
<p>5. Helps leaders disseminate school professional priorities to all the teachers *</p> <p><input checked="" type="radio"/> Strongly agree</p> <p><input type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>	<p>12. Develops teachers' confidence and self-esteem *</p> <p><input type="radio"/> Strongly Agree</p> <p><input checked="" type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>
<p>6. Provides a rich context for creating a professional learning community in the school *</p> <p><input checked="" type="radio"/> Strongly agree</p> <p><input type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>	<p>13. Helps leaders and heads of departments meet school's professional needs *</p> <p><input checked="" type="radio"/> Strongly agree</p> <p><input type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>
<p>7. Promotes the sense of teachers' professional accountability and responsibility *</p> <p><input checked="" type="radio"/> Strongly agree</p> <p><input type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>	<p>14. provides teachers with opportunities to reflect on the PD strategies collaboratively *</p> <p><input checked="" type="radio"/> Strongly Agree</p> <p><input type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>
<p>8. Creates a non-threatening PD environment for teachers to interact and problem solve *</p> <p><input checked="" type="radio"/> Strongly Agree</p> <p><input type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>	<p>15. Encourages teachers to enhance their teaching skills to become instructional coaches in the future *</p> <p><input type="radio"/> Strongly agree</p> <p><input checked="" type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>
<p>9. Is easily modified to address teachers' urgent professional needs and issues *</p> <p><input type="radio"/> Strongly agree</p> <p><input checked="" type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>	<p>16. Allows teachers to peer observe each other to improve PD strategy applications *</p> <p><input type="radio"/> Strongly agree</p> <p><input checked="" type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>
<p>10. Builds a collegial professional environment among teachers *</p> <p><input type="radio"/> Strongly agree</p> <p><input checked="" type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>	<p>17. Provides teachers with strategies that can immediately be applied in the classroom *</p> <p><input type="radio"/> Strongly Agree</p> <p><input checked="" type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>
	<p>18. Helps teachers engage their students and keep them involved in learning *</p> <p><input checked="" type="radio"/> Strongly agree</p> <p><input type="radio"/> Agree</p> <p><input type="radio"/> Neutral</p> <p><input type="radio"/> Disagree</p> <p><input type="radio"/> Strongly Disagree</p>

19. Establishes the relationship between all school stakeholders. *

- ☐ Strongly agree
- ☒ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly Disagree

20. contributes to the overall professional growth in the school. *

- ☐ Strongly agree
- ☒ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly Disagree

24. Helps teachers expand their professional skills in classroom management. *

- ☐ Strongly agree
- ☒ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly Disagree

25. Helps teachers expand their professional skills in the interactive use of technology. *

- ☐ Strongly agree
- ☒ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly Disagree

26. Helps teachers expand their professional skills in enhancing students' critical thinking. *

- ☐ Strongly agree
- ☒ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly Disagree

21. Helps teachers expand their professional skills in cooperative learning. *

- ☐ Strongly agree
- ☒ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly Disagree

22. Helps teachers expand their professional skills in teaching strategies. *

- ☐ Strongly agree
- ☒ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly Disagree

23. Helps teachers expand their professional skills in differentiation. *

- ☐ Strongly agree
- ☒ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly Disagree

27. What are the key benefits that teachers can get from joining a teacher-led professional development program? *

peer collaboration, shared best strategies, team building, professional growth

28. In what ways can a teacher-led professional development build capacity for leadership opportunities in a school? *

Often teachers who serve in PLC leadership roles begin to see a glimpse into leadership and that initial start is what may lead them to further leadership opportunities.

29. How can a teacher-led professional development create a collaborative culture in a school? *

Teachers are less threatened when growth is led by colleagues.

30. To what extent can a teacher-led professional development enhance the twenty-first century skills and competencies in a school? *

The extent greatly is determined by how often the PLC meets, how effective teacher and admin leadership is, and how focused and monitored the learning is. Practices often do not become embedded unless they are teacher driven and monitored.