

**The Effectiveness of Instructional Supervisors in Promoting  
Personalized Professional Learning at Four Private Schools  
in Abu Dhabi**

فعالية دور المشرفين التربويين في تعزيز التعلم المهني المخصص في أربع  
مدارس خاصة في أبوظبي

by

**SALIM GHALEB EL MAMLOUK**

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

Personalized professional learning (PPL) is conceptualized as a targeted set of instructional supervisory practices designed to address teachers' diverse growth needs and relevant interests. Research across a wide range of contexts shows that some schools that implement the PPL are led from the side by instructional supervisors who have challenged the traditional top-down paradigm of professional learning and redesigned its core practices to facilitate offering a personalized set of bottom-up professional learning strategies. These strategies involve teachers collaborating individually in a personalized focus with their instructional supervisors or collectively with other teachers. The PPL is practiced in the UAE, yet there is no transparent and clear investigation to show whether it is promoted effectively. Thus, this study investigated the effectiveness of instructional supervisors in promoting PPL at four private schools in Abu Dhabi, United Arab Emirates. A mixed research method was employed as a methodological triangulation design to guide the investigation using a model for PPL and an integrated theoretical framework that merges various theories and models related to leadership and learning. Both quantitative and qualitative data were collected using data collection instruments that included self-administered questionnaires, semi-structured and focus group interviews, and document analysis. The study's findings revealed that the professional learning provided impacted teachers' performance based on the perceptions of instructional supervisors. However, teachers perceived that instructional supervisors were still relying on top-down professional learning practices that limited their choice, restricted their voice, and barely tailored professional learning content to their growth needs or interests. Teachers were restrained by top-down decisions that limited their freedom to choose or design their PPL activities. The study concluded with implications and recommendations for policy and practice to better foster a profound PPL experience.

These recommendations include adopting more personalized and job-embedded strategies from the bottom-up professional learning model. Also, using digital platforms adaptive to assess, track and manage teachers' needs, granting them a space to exchange experiences and share best practices, along with offering more ongoing learning opportunities to teachers everywhere at any time. For policymakers, upgrading the professional learning policy and the school inspection framework with guiding statements that provide more detailed descriptions of personalized professional learning would be valuable.

## ملخص

يُتصوّر مفهوم التعلم المهني المخصص على أنه يمثل مجموعةً مستهدفةً من الممارسات الإشرافية التربوية المصممة لتلبية احتياجات النمو المتنوعة لدى المعلمين والاهتمامات ذات الصلة. وتُثبت الأبحاث عبر مجموعة واسعة من السياقات أن بعض المدارس التي تُنفذ مفهوم التعلم المهني المخصص تخضع، من أحد الجوانب، لقيادة مشرفين تربويين واجهوا تحديات النموذج التقليدي التنازلي للتعلم المهني وأعادوا تصميم ممارساته الأساسية لتسهيل تقديم مجموعة مخصصة من استراتيجيات التعلم المهني التصاعدي. وتتضمن هذه الاستراتيجيات تعاون المعلمين بصفة فردية في أحد محاور التركيز المخصصة مع المشرفين التربويين لديهم أو بصفة جماعية مع غيرهم من المعلمين. ويُمارس التعلم المهني المخصص في دولة الإمارات العربية المتحدة، ولكن، لا توجد عملية تحقيق شفافة وواضحة لإثبات ما إذا كان يتم تعزيز هذا المفهوم بفعالية. وذلك، فقد بحثت هذه الدراسة في فعالية دور المشرفين التربويين في تعزيز التعلم المهني المخصص في أربع مدارس خاصة في أبوظبي بالإمارات العربية المتحدة، واتبعت هذه الدراسة أسلوب البحث المختلط كتصميم منهجي بطريقة التثليث للاسترشاد في البحث باتباع نموذج للتعلم المهني المخصص وإطار نظري متكامل يُدمج نظريات ونماذج مختلفة مرتبطة بالقيادة والتعلم. وقد جُمع كلُّ من البيانات الكمية والنوعية باستخدام أدوات جمع البيانات، بما في ذلك استبيانات ذاتية إدارة ومقابلات شبه منظمة ومقابلات مع مجموعات التركيز وتحليل الوثائق. كشفت نتائج الدراسة أن التعلم المهني المتاح قد أثر على أداء المعلمين استنادًا إلى تصورات مشرفين تربويين. ومع ذلك، تصور المعلمون أن المشرفين التربويين ما زالوا يعتمدون على ممارسات التعلم المهني التنازلية التي قيّدت اختياراتهم وآرائهم، كما صممت هذه الممارسات محتوى للتعلم المهني لتلبية احتياجات تنميتهم أو تلبية اهتماماتهم بأثر لا يكاد يُذكر. وخضع المعلمون للتقييد بموجب قرارات من المستويات العليا إلى المستويات الدنيا تسببت في تقييد حريتهم في اختيار أنشطة التعلم المهني المخصصة أو تصميمها. وتوصلت الدراسة إلى آثار السياسة والممارسات وقدمت توصياتٍ لدعم توفير تجربة قوية للتعلم المهني المخصص على نحوٍ أفضل. وتتضمن هذه التوصيات تطبيق استراتيجيات أكثر تخصيصًا ومضمنة في المهام باتباع نموذج التعلم المهني التصاعدي، كما أوصت الدراسة باستخدام منصات رقمية قابلة للتكيف لتقدير احتياجات المعلمين وتتبعها وإدارتها، ومنح المعلمين مساحة لتبادل الخبرات ومشاركة أفضل الممارسات، إلى جانب تقديم المزيد من فرص التعلم المستمر للمعلمين في كل مكان وفي أي وقت. وفيما يتعلق بوضعي السياسات، سيكون من المفيد تطوير سياسة التعلم المهني وإطار التفتيش المدرسي من خلال بيانات إرشادية توفر أوصافًا أكثر تفصيلًا لمفهوم التعلم المهني المخصص.

## DEDICATION

*In the name of Allah, the Most Gracious, the Most Merciful, I dedicate my work to my parents and wife, who supported me in fulfilling my dream and culminating my educational journey with patience and encouragement that one day will come to see that you have finished. This work is also dedicated to Celia and Verna, who wished me to be around when I couldn't because I had to complete writing this thesis dissertation. I dedicate this work to every educator and researcher who truly believes learning is effective when it is personalized.*



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## **ACRONYMS**

ADEK: Abu Dhabi Department of Education and Knowledge

AERA: American Educational Research Association

AR: Action Research

CFGs: Critical Friends Groups

COVID-19: Coronavirus Disease 2019

IS: Instructional Supervisor

MoE: Ministry of Education

OECD: Organization for Economic Cooperation and Development

OPL: Online Professional Learning

PIMRS: Principal Instructional Management Rating Scale

PL: Professional Learning

PLC: Professional Learning Community

PLNs: Personal Learning Networks

PPL: Personalized Professional Learning

SDL: Self-Directed Learning

SPSS: Statistical Package for the Social Sciences

TALIS: Teaching and Learning International Survey

UAE: United Arab Emirates

ZPD: Zone of Proximal Development

# CHAPTER ONE: INTRODUCTION

## 1.1 Background

Guiding learners to growth is a privilege that every educator knows what it means and how it feels when positive changes start taking place in any learning environment. Teachers are considerably praised when they are well aware of their students' differences and recognized once they master their content areas well. They are flexible and ready to identify students' diverse needs as skillfully as possible to ensure equitable learning is happening to everyone in their classes (Doubet & Hockett 2017; Tomlinson 2014; Zhang, Basham & Yang 2020). Similarly, guiding teachers to growth is also a prestigious experience for instructional supervisors from principals, vice-principals, heads of departments, coordinators or lead teachers, and whoever is in charge of giving instructional and professional support to teachers at any given school. However, the learning experiences of teachers and students are incongruent (Strickland 2009). Unlike students, teachers are still sitting in rows waiting for a presenter to lecture on a topic dismissing their individual learning needs, interests, and instructional challenges, leaving them wondering whether the offerings will seriously extend their professional learning (Darling-Hammond et al. 2017). Surprisingly enough, such divergence in the learning experience is manifested in times when almost all the teachers' evaluation frameworks (ADEK 2018; Danielson 2013; Marzano et al. 2013) measure teachers' abilities to personalize learning for students and differentiate their instructions while their professional learning is still a one-shot presentation (Fullan 2015; Rodman 2019; Strickland 2009). If personalized learning is critical (Kallick & Zmuda 2017; Tomlinson 2014), why is there little personalization in professional learning (Rodman 2019; Strickland 2009)? In other words, once teachers personalize learning for students, instructional supervisors should do no less and personalize learning for teachers.

Myriad forms of professional learning have surfaced over the past twenty years, all claiming to offer the ultimate solution to professional learning problems—for example, training sessions, workshops, presentations, and many others. However, instead of unleashing teachers’ learning potentials, the offerings tend to be disconnected and unfocused one-size-fits-all model, leader-influenced approaches with top-down decision-making where teachers are dismissed from having a choice or voice in the design and implementation of its process, and ineffective trails of unsustained proximity to teachers’ professional learning (Baird & Clark 2018; Darling-Hammond et al. 2009; Maggioli 2004; Reeves 2010; Zepeda & Ponticell 2018).

Thus, it is worth questioning at first what is effectiveness or what does ‘effective’ mean? And what should effective professional learning look like? According to the *Cambridge Dictionary* (2023), the term ‘effective’ refers to “producing the intended results, or (of a person) skilled or able to do something well.” However, the “what works well” discourse surrounding the use of this term is widely contested in the literature as Oghojafor, Muo and Aduloju (2012) asserted that “while we all seek and demand effectiveness, its meaning is contentious and how it is measured is even more problematic” (p. 82). Professional learning literature thoroughly discusses the term’s debatable nature, yet identifying its measures seems inconsistent and multifaceted. Numerous researchers have outlined and enlisted various features of effective professional learning and the principles that should serve in its foundation (Darling-Hammond et al. 2009; Desimone et al. 2002; Garet et al. 2001; Pritchard & Marshall 2002; Reitzug 2002; Sims & Fletcher-Wood 2021; Sparks 2002). However, Guskey (2003), for instance, was skeptical that a specific list of characteristics could define effectiveness in professional learning due to its highly complex nature and the absence of unified criteria for defining it and providing a clear description of its critical contextual factors. Others also questioned what truly constituted effectiveness in professional learning and suggested



that the real problem lies in the absence of a holistic approach that reviews all the components of the process of professional learning (Sancar, Atal & Deryakulu 2021). Among the other potential conflicts and disagreements of this debatable issue of effectiveness is deciding who sets the purpose and focus of professional learning and the nature of the relationship between teachers and instructional supervisors regarding evaluation. For instance, a conflict arises when one perceives that professional learning objectives are placed by instructional supervisors to be used for teachers' evaluation. At the same time, another perspective calls for professional learning practices to be embedded and integrated into the daily process of an effective school without a heavy load on evaluation. Thus, whatever perspective one holds, the active pursuit of effective professional learning will likely spark debate about its relationship to teacher evaluation, eventually raising the possibility of hindering its effectiveness. Another debatable issue related to the discourse surrounding the effectiveness of professional learning is the conflicting issue of whether teachers should be able to choose what to participate in professional learning at their schools (Elmore 2002). In other words, should teachers be fully involved in a systemwide instructional improvement process for determining which professional learning activities should be present in their schools, or should there be an old-fashioned top-down process that limits teachers' professional learning opportunities?

As it is clear, there are two fundamental models at work here: the first supports instructional supervisors' exclusiveness of choice and voice in professional learning where top-downness in decisions prevails, thus limiting the teacher's decision, voice, choice, and autonomy. The second suggests that teachers should play a significant role in establishing professional learning focus for themselves and systemwide improvement.

To benefit from some acknowledgment of these broad debatable issues and assess how effective instructional supervisors can be in promoting teachers' PPL practices, the researcher depends on the convergence of opinions to investigate the current instructional supervisory practices, policies, school documents, contextual factors, teachers' and instructional supervisors' perceptions, roles, and responsibilities in the context of Abu Dhabi. —considering what the substantial body of literature has a consensus on concerning the effective practices and characteristics of teachers' professional learning (Cordingley et al. 2015; Campbell et al. 2017; Darling-Hammond et al. 2017; Jensen et al. 2016; Richardson & Maggioli 2018; Timperley 2008).

Despite the exerted efforts in the professional literature to identify the most effective approach to professional learning, there is a clear consensus that professional learning impacts schools' effectiveness, teachers' effectiveness, and students' achievements (Aseltine, Faryniarz & Rigazio-DiGilio 2006; Borko 2004; Darling-Hammond et al. 2017; Louis & Marks 1998; Yoon et al. 2007). However, professional learning can not be offered with little support or supervision, especially when instructional supervision is considered a cardinal tool to evaluate teachers and promote their professional learning (Danielson & McGreal 2000). According to Danielson (2011), there are two purposes for a teachers' evaluation system. The first purpose is to ensure teachers' teaching quality based on the instructional supervisors' credibility. They are credited with defining good teaching at their schools and creating or adopting a unified framework to measure teachers' performance by targeting every teaching component. Also, instructional supervisors have the authority to create a common language across the system and specify beneficial practices to ensure effectiveness. Instructional supervisors possess certain qualities that permit them to maintain quality assurance. They are fair, reliable, skilled, and supportive evaluators who only engage in productive conversations. The second purpose of teachers' evaluation is to promote professional learning. In

schools, any valuable professional conversations between teachers themselves or between teachers and instructional supervisors that might lead to improved performance and learning are essential and vital (Danielson 2011). From the above, it is apparent that it is the significant role of instructional supervisors to bring such effectiveness into the reality of the school. However, does this mean teachers' professional learning should be exclusively approached with top-downness?

In the face of the complex global challenges that educators are experiencing and the constant changes in determining what defines schools' effectiveness, the salient role of instructional supervisors is getting serious attention in the literature to demonstrate through daily practices teachers' improvements that can result in schools' effectiveness. For Hoy, Miskel and Tarter (2012), a school's effectiveness is a complex multidimensional concept that should be treated as a moving target due to its changeable features and diverse components. Through a proposed social-system model for schools to improve effectiveness, the authors have regarded instructional supervisors as accountable for coping and responding coherently to the changes to create schools' effectiveness. They believe that schools' effectiveness increases by balancing elements of the internal system that the school produces from teaching and learning, school culture and structure, and motivation to reach the quantity and quality of performance outcomes, so the more significant the harmony between the school elements, the greater its effectiveness. In this sense, effective instructional supervisors maximize the school's effectiveness when collaborating with teachers, extending their instructional potential, and developing a motivational school culture that promotes success.

Similarly, DiPaola and Wagner (2018) proposed a model of instructional supervision based on the role of instructional supervisors in creating congruence between the teacher, the student, the classroom community, and pedagogy to ensure school effectiveness. For the components related

to classroom performance, six vital elements with their critical questions should guide instructional supervisors to match and mismatch to reach the desired outcomes; for instance, the instructional supervisor should measure to what extent the needs of teachers are in congruence with the needs of the students, and how consistently teachers' needs are being met. The more consistency between the four critical components of the system, the greater the effectiveness in instructional supervision and, eventually, in the school (DiPaola & Wagner 2018). Thus, it is unquestionable that a school's effectiveness is not accidental but interrelated with the effectiveness of instructional supervisors in responding effectively to practitioners and emerging issues at their schools and in exerting efforts to balance all the key components and elements of the school's system.

Additionally, researchers who examined teachers' effectiveness have suggested several variables linked to it and concluded that instructional supervisors directly impact teachers' effectiveness which is part of a school's effectiveness (Camphire 2001; Darling-Hammond 2000; Reynolds 1992; Stronge 2007; Wenglinsky 2000). Variables like content knowledge positively impact teachers' effectiveness and students' achievements (Darling-Hammond 2000; Stronge 2007); for example, teachers with a significant or minor competency in content knowledge tend to be likely to join professional learning relevant to their subjects (Wenglinsky 2000). Knowledge of teaching and learning too has a significant positive impact on teachers' effectiveness as it impacts students' learning and achievements (Camphire 2001); therefore, teachers who do not renew their professional knowledge can not renew themselves and typically will not perform better than those who do (Darling-Hammond 2000; Stronge 2007; Wenglinsky 2000). The teaching experience is another variable affecting teachers' effectiveness, especially in reflecting on their practices (Reynolds 1992; Wenglinsky 2000). Thus, it is clear that teachers' effectiveness impacts teaching practices and students' achievements. However, teachers will not reach such effectiveness unless

instructional supervisors offer them professional learning opportunities related to their content knowledge, teaching and learning, and experience.

The literature on the influence of instructional supervisors has witnessed two related lines of investigation. The first one focuses on what leads to school effectiveness. The second line of research focuses on the involvement of instructional supervisors in instructional programs that lead to leadership attributes and behaviors linked to instructions. From the initial period, research has evolved to answer what defines effective instructional supervisors and whether the instructional supervisors' influences on students' learning and achievement are direct or indirect. Subsequent research has asserted a robust positive relationship between instructional supervisors' behaviors and students' accomplishments (Cotton 2003).

Nevertheless, others believe that instructional supervisors do not directly influence students' achievements (Hallinger & Bickman 1996) since teachers mediate such impact during professional learning encounters (DiPaola & Wagner 2018). Therefore, effective instructional supervisors should know that improving students' outcomes can barely exist if they do not focus on teachers' professional learning. Similarly, Bamberg and Andrews (1991) found that highly successful schools are marked by effective instructional supervisors who focus on classroom instructions to engage teachers in professional learning. Cotton (2003) further revealed that much of the instructional supervisors' success is attributed to effective teachers' professional knowledge.

One of the most critical findings of how learning happens in recent years was that teachers are adult learners with a propensity to be self-directed in a learning environment that shows deep respect for their individual differences, which increase with age (Knowles 1990). Using the concept of andragogy, the science of teaching adults, Knowles (1984) distinguishes adult learning from child education based on the learners' different characteristics. According to the theory of

adult learning, adults have an independent and self-directed self-concept that allows them to perceive their learning goals in relevance to the richness of their experiences, contrasted to children's stringent conditions and limited perceptions and experiences. In this sense, self-directed learning is a process where adults own or take control of their learning and are empowered through independent strategies facilitated by experts (Knowles, Holton & Swanson 2005). Adult learners can identify their needs and skills during this process and take responsibility for planning and evaluating their learning (Merriam & Bierema 2013).

For almost a century, the research on adult learning still emphasizes the importance of self-directedness as a primary component of the adult learning process (Knowles, Holton & Swanson 2005). Therefore, professional learning providers should go beyond the limited pedagogical settings that prevail over the traditional professional learning models to better enhance teachers' professional learning (Anderson & Boutelier 2021; Maggioli 2004). Indeed, that does not mean that instructional supervisors should no longer focus on pedagogical practices. They can no longer use them in andragogical settings to design teachers' professional learning. It also means that they should be designing professional learning environments where teachers as adult learners can apply their experiences (Anderson & Boutelier 2021).

Another recent instructional learning model is personalization. Learning is believed to be personal as it costs personal effort and energy, and it becomes personalized when the learners respond to a significant challenge relevant to them (Clarke 2013). Accordingly, personalized learning is a broad term where many teaching methods and strategies fit into it to target each learner and improve the learning experience by customizing instructions to match the individualized needs, skills, and interests toward a common learning target (Kallick & Zmuda 2017).

Globally, educational systems are initiating calls for personalized learning, for its premise has provided quality and equity among learners (Peterson 2016). The extant literature on personalized learning positively reveals that it has transformed the teaching-learning process from a teacher-centered approach where many students' needs are left unattended to a more personalized and student-centered learning mode (Zhang, Basham & Yang 2020). Again if personalized learning works well for students, why is it so little in teachers' professional learning?

Like teachers who design personalized paths for all students because they are nonuniform in their abilities, learning preferences, learning styles, and even cultural backgrounds (Clarke 2013; Ferguson, Ralph & Ralph 2001), instructional supervisors should design learning opportunities that help teachers get in touch with who they are, allow their voices to be heard and elevated, and engage them in professional learning. In return, teachers should learn and feel responsible and independent in creating their own professional learning paths that are adaptive to their needs, interests, and skills if the goal is to have effective and successful professional learning.

From the above, personalized professional learning (PPL) is based on personalizing teachers' professional learning that is widely applicable to students' personalized learning. This type of personalization in adult learning settings is crucial as their professional learning experience will have a better chance to be more independent, relevant, and purposeful. This professional learning model contrasts with the traditional model of top-down professional learning that determines importance by hierarchy and not by relevancy. Its design is oriented toward imposing decisions from the top through teachers' simple inculcation of general skills, which usually proves its ineffectiveness due to its limitation and disconnected nature (Murray 2013; Wake & Mills 2018). Though the top-down approach is still the norm widely, many researchers have started to call for a paradigm shift or to flip the current system toward bottom-up approaches that are embedded in

teachers' daily practices and led by them (Evers & Kneyber 2015; Hall 2016; Priestley, Biesta & Robinson 2015). Moreover, decades of professional learning research in the literature has reached that its best-featured approaches are the one that is ongoing, collaborative, systematic, supportive, transformative, teacher-centered, and personalized (Alawani & Singh 2017; Clark, Schoepf & Hatch 2018; Darling-Hammond et al. 2009; Fullan 2015; Hall & Trespalacios 2019; Karami-Akkary 2019; Ma, Xin & Du 2018; Maggioli 2004; Phan 2017; Tesfaw & Hofman 2014; Guskey 2000).

The study into professional learning has arisen from two personal experiences, an in-class one-shot observation followed by an irrelevant professional learning offering, to raise questions about the effectiveness of instructional supervisors who once overwhelmed their teachers with observations to inspect whether they were applying differentiated instructions in their lessons or not. Their outmoded supervision was not guided by previous directions or scaffolded with further instructions. The second disappointing experience was a series of generic and replicated 'sit and get' workshops. Then the great interest in the concept of PPL sparks in the researcher's head after being introduced to a new guiding statement of the learner's autonomy, where students can have a voice and choice when teachers personalize their learning based on assessments that reveal their learning preferences, styles, and needs. The concept challenges the researcher's observation and experience within the same physical setting and maybe in the next room, where there is an inescapable irony stating that while instructional supervisors call for students to be autonomous and independent life-long learners, teachers' professional learning still lacks any self-directedness and personalization.



### **1.1.1 The UAE Context**

Tremendous efforts from the Ministry of Education (MoE) in the United Arab Emirates (UAE) were initiated to develop education quality and ensure teachers' effectiveness across public and private schools. In addition to the teachers' licensing system and the regular school inspections operated by the Abu Dhabi Department of Education and Knowledge (ADEK), educational policymakers have also responded to different local and global demands and initiatives. For instance, they have answered the UAE Vision 2021, which seeks excellence in education and teaching, and the global Act of Race to the Top initiative in 2012, which pursues one of its key areas to offer support and improve teachers' effectiveness by aligning the legislative policies with local considerations and international performance standards.

Pertinent to the study, ADEK's educational policy 28 under 'continuous professional development and performance management,' states that schools must offer educators free of cost professional learning opportunities, a minimum of 25 hours for every teacher, to participate in suitable and relevant activities with an aim "to support teachers in addressing their own areas for development" (2015, p. 78). At the individual level, "each staff member shall set individual performance objectives for the following academic year and identify relevant professional development needs that may be required to achieve the performance objectives set" (2015, p. 81). The Higher Educational Institutes and the MoE have devised another strategy to push the quality of leadership and teaching in the country by establishing teachers' and leaders' performance standards. The Teacher Standards in the UAE were developed to guarantee that teachers at various career levels exhibit professional knowledge that aligns with the local visionary ambitions and global best practices. The document embraces in its fourth element a standard related to teacher's professional growth that indicates that a teacher should "take responsibility for own professional growth by

reflecting on performance, identifying development needs, planning and engaging in professional development, and evaluating the impact on teaching and learning” (TLS 2018). Similarly, the Educational Leadership Standards in the UAE emphasize that:

The system recognizes the value of evidence-based, job-embedded learning, sharing promising practices and a distributed leadership model. The ultimate goal is putting together a professional learning team committed to developing and delivering leading edge, responsive learning for individuals who seek actionable and practical strategies to advance school and system leadership. It is a priority to develop, provide and support a variety of relevant, accessible and locally customized professional learning opportunities, based on diverse community needs, feedback and demands (TLS 2020).

In the UAE, and particularly across Abu Dhabi, schools’ effectiveness undergoes a school evaluation process that starts with school leaders providing ADEK with a school self-evaluation (SSE) report, Irtiqaa, followed by an inspection visit to determine evidently how effectively schools and teachers are performing and track compliance to the written policies. Based on these two primary tools, informed feedback reports and recommendations are written for future school improvements. With that in mind, it is worth noting that ADEK has precisely addressed personalized professional learning in the UAE School Inspection Framework under the performance standard of leadership and management to indicate outstanding/very good rating on a scale of six descriptors only if “the staff member suitably benefits from extensive/regular personalised professional learning” (ADEK 2018, p. 109).

However, the literature on professional learning has a different perspective in the Emirati context. It was found that professional learning misses contextual relevancy to teacher’s specific content (Alhassan 2021; Alneyadi 2021), ignores teachers’ needs (Al Hassani 2012), lacks value for its little impact on teachers’ performance (El Mansouri 2018), neglects how an adult learns, and not job-embedded (El Afi 2019). Thus, it is seemingly possible that the push strategies in the context of Abu Dhabi to implement professional learning do not yet meet the expectations in getting a

beneficial impact on teachers' perceptions due to how instructional supervisors use the behind teachers' backs approach to meet their professional learning.

From the researcher's experience in the field, the offered professional learning opportunities vary in their approaches and models, yet all are synonymous with what is known as top-down models. Recently and especially during the global pandemic of COVID-19, instructional supervisors have started shifting their practices toward offering a different professional learning model. This shift in the paradigm happens to be more job-embedded, teacher-led/centered and personalized as it trusts the teacher's voice, choice, and decision in its process.

## **1.2 Research Problem**

The study addresses a research problem that has two facets reiterated in the literature on teachers' voices who perceived observational practices as summative and judgemental and professional learning as unfocused and irrelevant (Clark et al. 2018; Danielson 2011; Darling-Hammond et al. 2017; Hirsch et al. 2018; Rodman 2019; Tomlinson 2018).

A plethora of academic papers approached instructional supervision and professional learning in terms of their effectiveness in students' achievements and teachers' community growth and learning (Marzano & Toth 2013; Tesfaw & Hofman 2014; Timperley 2010; Zepeda 2013). Others looked extensively into the systematic components of instructional supervision and professional learning and the nature of the interrelationship between them in practice (Fullan 2015; Maggioli 2020; Tesfaw & Hofman 2014), and they recommended professional learning to be ongoing, collaborative, and practice-based (Ayubayeva 2018; Billett 2010; Enright et al. 2022; Muschla et al. 2010; Noben et al. 2022). In the same vein, others implied that whoever considers no variations in needs, interests, and challenges of teachers' evaluation practices leaves many behind (Danielson 2011; Elliott, Isaacs & Chugani 2010; Fullan, Hill & Crévola 2006). Even Hill, Beisiegel and Jacob

(2013) went one step further to highlight that the research on professional learning had reached a crossroads, and its paradigm needs to be re-designed to meet teachers' needs. However, from an international and regional perspective, only scant researchers have looked into the relevance, purposefulness, and personalization of professional learning (Alawani & Singh 2017; Clark, Schoepf & Hatch 2018; Hall & Trespalacios 2019; Karami-Akkary 2019) and the gap in their reported findings is that they overlooked the effectiveness of instructional supervisors in promoting the PPL to reach the needs of their individual teachers. Thus, the study arguably states that in times when a large body of literature almost has a consensus agreement on the impact of addressing students' diverse needs and interests in learning and assessments through creating personalized plans and differentiated paths to follow (Alamria et al. 2020; Fullan, Hill & Crévola 2006; Strickland 2009; Tomlinson 2014; Ward 2020). Many school leaders and professional learning developers still rely on the 'one size fits all' to address teachers' professional learning. Such a conventional learning model never considers teachers' differentiated growth needs, motivations, challenges, and interests or even mirrors their personalized teaching practices; on the contrary, it ignores the basic deep need to be self-directed and overlooks what is already evident in the literature that adult learning is a naturally personalized experience (Brookfield 1986; Knowles 1984; Knowles, Holton & Swanson 2005). It is no wonder why many teachers are disengaged in the 'sit and get' models of workshops and still perceive what is offered to them as meaningless and unsatisfactory learning opportunities (Rodman 2019).

In the Emirati context, too, a few researchers have pointed to the widespread traditional practices that usually overwhelm teachers with workshops and instructions after a few 'hit or miss' lesson observations when almost none of these ideas and ideals seem to stick on their walls (Alneyadi 2021; Azaza, Litz & Hourani 2022; Badri et al. 2016; El Afi 2019; Hourani & Litz 2019).

However, none till this moment in the UAE investigates personalization in professional learning except a suggested conceptual framework for mobile learning that alleviates teachers' professional learning challenges, including personalization (Alawani & Singh 2017). Therefore, personal experience and observation in teaching and professional learning show a growing need to investigate how professional learning can extensively be personalized and effectively promoted at schools to override the traditional ones. In this sense, the study responds to the regional need to fill a research gap in local literature by investigating what is radically needed for the UAE teachers' professional learning.

### **1.3 Purpose of the Study**

The study aims to investigate the effectiveness of instructional supervisors in promoting personalized professional learning at four private schools in Abu Dhabi using a mixed-research method. More specifically, it intends to investigate the effectiveness of the existing instructional supervisors' practices as perceived by teachers and instructional supervisors and their impact on teachers' performance; then, it explores the contextual factors that foster or impede the effective implementation of the personalized professional learning model by different providers across the country.

### **1.4 Research Questions**

The study aims to investigate the following:

RQ1. From teachers' perceptions, how effective are instructional supervisors' practices in promoting personalized professional learning at four private schools in Abu Dhabi?

RQ2. From instructional supervisors' perceptions, how does the personalized professional learning model impact teachers' performance?

RQ3. Do teachers and instructional supervisors of different gender, experience, grade level, and subjects taught or supervised significantly differ in their investigated perceptions?

RQ4. From teachers' and instructional supervisors' perceptions, what contextual school factors might enhance or hinder the effectiveness of teachers' personalized professional learning experience?

### **1.5 Significance of the Study**

In schools, instructional supervisors, a selected senior leadership team, are responsible for designing curriculum, developing instructions, supervising teachers, and offering them professional learning (Hoy, Miskel & Tarter 2012). Fullan, Hill and Crévola (2006) believe that through personalization and precision in instructional supervision, which is a synonym for differentiation yet with a further depth in attention (Ginburg 2012), instructional supervisors can be more skillful in craving what is needed to maximize teachers' instructions with students in classrooms.

The literature is filled with studies that approach teachers' professional learning (Darling-Hammond et al. 2009; Fullan 2015; Tesfaw & Hofman 2014); however, this study answers Desimone's call that "more research needs to be done on the effective delivery of assistance" (2002, p.442). It contributes to the existing literature by shedding light on how instructional supervisors can effectively empower teachers' self-directedness in professional learning. It addresses a need for what was gaped in the body of research by shifting focus in professional learning from the previous traditional 'one size fits all' model, within its current paradigm, only partial gains were provided, into a more precise system where instructional supervisors can tailor teachers' growth needs to foster a profound PPL experience (Bubb & Earley 2013; Rodman 2019).

More importantly, the study is valuable because it gives policymakers and practitioners insights to upgrade its professional learning policies and inspection framework with standards and criteria that provide more detailed descriptions and support for job-embedded practices as in the bottom-up model. Eventually, this will develop the traditional professional learning programs that still dismiss the essential need for self-directedness in adult learning. Also, the study is essential to teachers' instructional and learning performance as the results can provide more motivation and engagement in acquiring and enhancing relevant concepts and customized skills needed for their professional experience. Additionally, it provides an opportunity to refine and refocus instructional supervisors' performance to foster more aligned and personalized professional growth for their teachers based on data-driven decisions. Finally, the study is significant to all Emirati schools as the findings can provide a PPL model to be followed or an opportunity to refine schools' current practices.

## **1.6 Thesis Structure**

The study investigates the effectiveness of instructional supervisors' practices in promoting personalized professional learning at four schools in Abu Dhabi based on the relevant perceptions of teachers and instructional supervisors to determine what effective practices can lead to promoting the PPL. The thesis is divided into five chapters that describe how the study proceeds.

The first and foremost is the 'introduction' chapter that signals the beginning of the study and stipulates a contextual background into the critical role of instructional supervisors in promoting professional learning, what practices can lead to effectiveness in PPL, and how the unilateral top-down models are ineffective in the context of Abu Dhabi. The chapter also recounts what interests have driven the researcher to investigate the topic, and it describes the problem statement, the purpose of the study, the research questions, and the significance of the study.

The second chapter features the literature review of the core concepts and definitions related to the research problem and highlights the relationship between the concepts to develop a proposed conceptual framework to guide the study. The second section of the chapter overviews the main theoretical underpinnings of leadership and learning to provide a theoretical umbrella under which the investigation of the effectiveness of instructional supervisors in promoting PPL can be more comprehensive. Last but not least, the chapter synthesizes the previous and significant international and local studies published in the pertinent literature to highlight the distinctive features of an effective bottom-up professional learning model in contrast to the old traditional top-down one.

Chapter three presents the philosophy and methodology employed in the study. It details why the mixed methods in its concurrent approach are adopted and what instruments are used to collect the data and answer the research questions. Also, the chapter addresses the population, the sampling procedures, the sites, and the methods of analysis with clear guidelines on the used ethical considerations.

Chapter four is dedicated to presenting and summarizing the key findings from the research. The quantitative data are analyzed and presented as descriptive statistics and inferential results of the different groups. The qualitative results are also presented as themes and subthemes deduced from the individual semi-structured interviews and the focus group interviews with teachers and instructional supervisors. Also, school documents from instructional supervisors and teachers are qualitatively analyzed to shed more light on the practices offered at the designated schools. The chapter, in the end, triangulates findings from the three study methods to deepen the understanding of the effectiveness of instructional supervisors in promoting the PPL in four private schools' contexts.



Chapter Five discusses the highlights of the findings from the analysis to answer the study's research questions, considering the relevant literature and theoretical foundations. It sums up the contribution of the research and the implications for practice and policy. The chapter presents the study's strengths and limitations. It also offers valuable recommendations on the current state of teachers' professional learning and what impacts the effectiveness of instructional supervisor's practices in promoting the PPL model across the UAE context to end up with a final thought and proposals for future studies.

### **1.7 Chapter Summary**

This chapter introduces the thesis and gives the reader a general statement of the contextual background of the study and the primary motivation and interest in the study within the UAE context. It poses the principal purpose and rationale behind the study and highlights the severity of the research problem with evidence from the literature. It also emphasizes the significance of the study and declares the four research questions that formed the center of the investigation. The chapter ends by drawing the reader's attention to the outlined structure of the thesis.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter aims to identify and review the previous studies published on professional learning in the international and local related literature. The chapter begins with an overview of the conceptual and theoretical foundations under the significant and valuable tenets in the relevant literature. Different landmark theories and conceptual models from leadership and learning are consulted to form the basis for investigating the effectiveness of instructional supervisors in promoting personalized professional learning. Additionally, the chapter reviews a substantial portion of prominent and empirical studies on recent literature to offer a new and fresh dimensional depth to what went missing in the tradition of instructional supervision and professional learning. The main focus of the first section of the literature review is to systematically survey all the relevant literature and analytically examine related terms, constructs, and practices associated with effective instructional supervision. The second and the long part of the literature review substantially consult the international and local literature to understand the current state of professional learning and interweave the cumulative features into effective professional learning synthetically. The last section in the literature review differentiates between the two main umbrella trends of professional learning, i.e., traditional top-down professional learning in opposition to bottom-up professional learning. After presenting, analyzing, and critically examining the existing body of literature, a comprehensive conclusion is offered to summarize the findings and situate the current study in the empirical and theoretical literature.

### **2.2 Conceptual Framework**

The key interchangeable terminology between writers is deciphered in this section, allowing related terms and concepts that have emerged and evolved in literature to frame the conceptual

foundation of the current study. The discussion ends with a proposed conceptual framework based on the related concepts that have complemented each other to trace a path for the effectiveness of instructional supervisors to PPL.

The start is with the term ‘practice’ defined as a coherent and generally quite complex set of tasks and activities that develop cooperatively and collectively over time. It is present in the community of its actual practitioners (insiders/ internal goods) and will stay standing only as long as they commit to developing and extending it skillfully or sometimes through dramatic and even deviant changes and transitions. At the core of any practice resides the standards of excellence, which evolve and improve due to practitioners’ responsiveness. This relation to standards of excellence can be examined in the specific activities and tasks of a ‘practice’ where any discipline is defined (Dunne 2021). What makes a ‘practice’ educational within the Deweyan discourse is its fundamental nature which plays a critical key in all educational inquiry, with the educational practitioners as significant players in its practice. Educational practice is the data source of problems and challenges that conveys the necessary information and content to form the first stage in the inquiry process (the existence of a problem). Paradoxically, it is also the ultimate test of the worth and value of any conclusions (Biesta & Burbules 2003). Also, educational practice is inclusive in its range of implementation and, in essence, does not distinguish between cognitive and practical domains. What develops any educational practice is its insiders’ smooth and genuine engagement with the characteristic tasks of practice in the context of practice. This usually encompasses principles that challenge one intrinsically as they are beyond one and leads to the development not only of external goods or rewards but also of internal goods, as in moral qualities and competencies specific to that practice (Dunne 2021).

To Dewey, the educational practitioner is central to educational practice as it is fundamental to inquiry. Educational practices develop through the inquiry process, which has several stages following the changes in the situation or surrounding conditions and in connection to time and place, as in (i) the existence of a unique problem/experience; (ii) its characteristics; (iii) the presence of a problem-solving suggestion, hypothesis; (iv) reasoning; (v) experimental investigation. The findings of educational inquiry can influence educators and their practices in several ways. First, it makes them more intelligent as it gives educational practitioners a broader new, more resourceful perspective and offers a range of options to choose from and judge when addressing the peculiarities of specific situations. Secondly, educators become "investigators" within this Deweyan viewpoint, and in this sense, effective educational practice is only possible when educators investigate their own educational practices experimentally and critically. The last crucial inference is that educational problems are always unique, and as such, they require unique solutions tailored as closely as possible to the uniqueness of the situation (Biesta & Burbules 2003). Based on this, what might work and be an effective educational practice in one situation or context might look different in a different situation and context. Also, this indicates that good practice evolves collaboratively and cooperatively by its insiders (practitioners) incrementally over time and in context.

It is worth highlighting here that the literature route of instructional supervision into professional learning evolved from defined 'practices' in instructional supervision to specify a process later, then used as a tool to be finally formulated as a model of professional learning. Thus, instruction was in its birth, for instance, used in schools as a term to describe teachers' interactions with their students on the subject taught (Cohen, Raudenbush & Ball 2003), while supervision was historically associated with inspections which had a prime purpose of judging rather than

developing teachers (Nolan & Hoover 2005). The two terms initially merged to refer to the relationship between the inspector and the inspected based on rigid observations and instructional superiority (Burke & Krey 2005). Though the term evolved in its definition to combine the two functions of instruction and supervision, its role stayed limited to the principal, who was considered exclusively responsible for observing and instructing teachers for the school's effectiveness (Gumus et al. 2018). With the birth of Marks and Printy's shared instructional leadership theory (2003), instructional supervision became an ongoing process distributed across selected professionals (Hoy, Miskel & Tarter 2012). At this point in the literature, instructional supervisory practices were linked to quality teaching and professional growth (Danielson 2011). Reeves (2010) went further in research to acknowledge the relationship between instructional supervision and teachers' professional learning, linking them to students' learning and achievements. Functions in instructional supervision included monitoring, evaluating, and directing teachers by offering professional learning opportunities (DiPaola & Hoy 2015). Later, Chen (2018) defined it "as a teaching and learning improvement strategy should be a continuous assessment tool that allows teachers to continually expand their capacity to learn and to help others" (p.54). From the above, it is clear that the term instructional supervision has evolved from rigid practices involving inspection and observation into a cardinal tool to enhance teachers' professional learning (Danielson & McGreal 2000). This link paves the way for researchers to investigate what models and practices can enhance teachers' professional learning at schools. The study adopts instructional supervision as defined and explicated by Tesfaw and Hofman (2014), who stated:

Instructional supervision is a type of school-based (in-school) supervision carried out by the school staff (principals, department heads, senior teachers, and assigned supervisors) aimed at providing

guidance, support, and continuous assessment to teachers for their professional development and improvement in the teaching-learning process (p.83).

Having defined what instructional supervision means, the coming discussion focuses on professional learning that is usually used interchangeably with professional development (Maggioli 2004). Nevertheless, the study intentionally uses the term 'professional learning' as the term 'professional development' signals teachers' traditional training (Stewart 2014); in contrast, the broader scope of 'professional learning' reflects how teacher learning is contextually situated (Opfer & Pedder 2013). By stating the term 'professional development,' researchers limit the meaning to improvements as the word connotes that more is enough or sufficient. In contrast, reality proves the opposite, as professional learning includes activities that should engage teachers in an active learning process where teachers might need to entirely and independently change in response to what they are doing; in this sense, adding more/developing is not better or enough (Easton 2008). Similarly, Paez (2003) has stipulated that the process of professional learning should be ongoing to expand teachers' capabilities by acquiring what is essential for students learning, while Darling-Hammond et al. (2009) have also stressed that its effectiveness lies in a design that continually invites teachers to connect knowledge to practice in their academic content. Therefore, the researcher adopts the concept of professional learning to guide the study apart from the conventional definitions of professional development that limit teachers' choices to formal training or workshop in a sense to agree with what defines professional learning as a collaborative constructivist process to improving teaching practices directed toward teachers' growth and students' achievement (Alhashmi & Inaty 2021; McDonald 2014).

Turning to the basic concept of personalized learning, the researcher highlights different meanings associated with its definition. Wolf (2010) defined it as an approach encompassing differentiation,

individualization, flexibility, and matching relevant needs, skills, interests, and prior experience. Personalization is arguably similar to individualization as both target individuals' learning needs and styles (Ginsburg 2012). For Fullan, Hill and Crévola (2006), personalization is another version of individualization, with a better emphasis on equity and more support from learning theories. However, Watkins (2012) debatably asserted that personalized learning goes beyond the narrow scope of individualization to a personalized classroom community where interactions and interdependence are preserved within the personalization framework. Similarly, Mincu (2012) defined personalization as an upgraded version of individualized learning with more socialization. Chiosso (2012) went further to state that personalization has nothing to do with individualization as it is “primarily based on the requirement that teachers and educators must interpret the educational needs of their students and value their expectations” (p. 52). Courcier (2012) reviewed the theoretical aspects of what was written in policy documents and conducted an empirical study to investigate what personalized learning means to teachers in England. From the English perspective, the conceptual meaning of personalization in learning involves including five components enlisted by the Department for Education and Skills (DfES). (1) Assessment for learning, (2) effective teaching and learning strategies, (3) curriculum entitlement and choice, (4) school organization, and (5) strong partnership beyond the school. The first component explains how teachers can plan students' individual learning targets and styles. This involves making effective use of students' data. In the second component, the teacher maintains effective teaching and learning by using diverse strategies to keep students engaged and collaboratively participating in groups or independently. In curriculum entitlement and choice, teachers have to offer equal opportunities to learn for every student and support them with a voice and choice in making their

own decisions. In the last two components, the school has to offer appropriate measures and collaborate with parents and the community to better support all students (DfES 2004).

The current study distinguishes between personalized, independent, and individualized learning to state that although they share similarities in their aims and core objectives, they differ in their styles and approaches. For instance, personalized learning considers teachers and students responsible for the learning process; in contrast, independent and individualized learning entirely depends on a one-to-one approach to learning and relies on the responsibility of teachers to look after each student (Courcier 2012). In this sense, the latter approach only implies teaching without telling how the student learns, as only teaching skills are relevant and a priority to its process; in opposition, personalized learning implies both teaching and learning.

From the empirical data of his study, Courcier (2012) concluded that teachers in England who adopted various segregated practices in personalized learning do not show any consistency due to the absence of any theoretical framework. Nevertheless, two main approaches still prevail under the effective umbrella term of personalization: accelerated learning and differentiation. Also, these latter approaches overlap with some elements of personalized learning and differ in others. For instance, both personalized learning and differentiation offer students equal opportunities to learn independently and in groups and realize students' different potentials and needs; however, a critical difference between the two is that differentiation is only limited to whatever activities are offered in the classroom while the boundaries of personalization extend beyond classrooms. Campbell et al. (2007) suggested that personalization in educational settings means shaping learning around students' needs and framing teaching around how students learn. In this sense, personalized learning becomes a system-wide achievement that provides a unified framework that enables students, with the support of their teachers, to develop their learning collectively.



From the personalization of learning for students, the concept of PPL emerges in the literature under what involves ensuring learning for all educators and supporting them with a new, more meaningful, and potent process than traditional professional learning (Geurkink-coats 2019). The PPL, in its essence, is a job-embedded pathway to creating a personalized learning opportunity to address each teacher's relevant learning needs and meet their diverse growth skills (Rodman 2018). Accordingly, teachers learn and progress at a variant pace and stage of skills mastery (Aseltine, Faryniarz & Rigazio-DiGilio 2006) in personalized plans to proactively sustain their professional learning (Hall & Trespalacios 2019). It is worth noting that the term job-embedded comes into existence with the latest federal educational regulations in the USA to refer to day-to-day learning practices that teachers intentionally seek to understand in an attempt to improve their knowledge and performance (Croft et al. 2010). Geurkink-coats (2019) labeled PPL as a learning opportunity that intends to guide teachers learning to a new level beyond the limited mode or timing of learning into a space where teachers are responsible for determining their level of learning and designing it in harmony with their personal needs and interests. Similarly, DeNisco (2016) appointed that PPL is a highly engaging and personalized pathway for teachers to acquire learning at their own pace.

From the above, the researcher embraces personalized professional learning (PPL) as a job-embedded professional learning approach that stands for a set of adaptive bottom-up strategies designed to precisely address teachers' personalized learning needs and relevant growth interests in a supportive and flexible adult learning context. Table (2.1) summarizes definitions for terms used in the study.

<b>Summary of the Key Concepts and the Working Definitions Adopted by this Research</b>		
<b>Key Terms</b>	<b>Definitions</b>	<b>References</b>
<b>Instructional Supervision</b>	It is a type of school-based supervision carried out by principals, department heads, senior teachers, and assigned academic supervisors to provide guidance, support, and continuous assessment to teachers for their professional learning.	Tesfaw and Hofman (2014)
<b>Instructional supervisor (IS)</b>	In schools, instructional supervisors are a selected senior leadership team responsible for designing curricula, developing instructions, supervising teachers, and offering them professional learning.	Hoy, Miskel and Tarter (2012)
<b>Professional Learning (PL)</b>	Apart from the conventional definitions of professional development that limit teachers' choices to formal training or workshop, PL is a collaborative constructivist process for improving teaching practices toward teachers' growth and students' achievement.	McDonald (2014). Alhashmi & Inaty (2021)
<b>Personalized Professional Learning (PPL)</b>	It is a job-embedded professional learning approach for a set of adaptive bottom-up strategies designed to address teachers' personalized learning needs and relevant growth interests in a supportive and flexible adult learning context.	Rodman (2019). Geurkink-coats (2019)

**Table 2.1: Summary of key Concepts and their Definitions Adopted by the Study**

To connect all the concepts, the researcher proposes a conceptual model (Figure 2.1) to process the path to the effectiveness of instructional supervisors in promoting the PPL. However, before explaining this model of change, it is critical to mention that there is no final model for PPL up to this moment and highlight why it is more beneficial for practitioners than the traditional top-down model in professional learning.

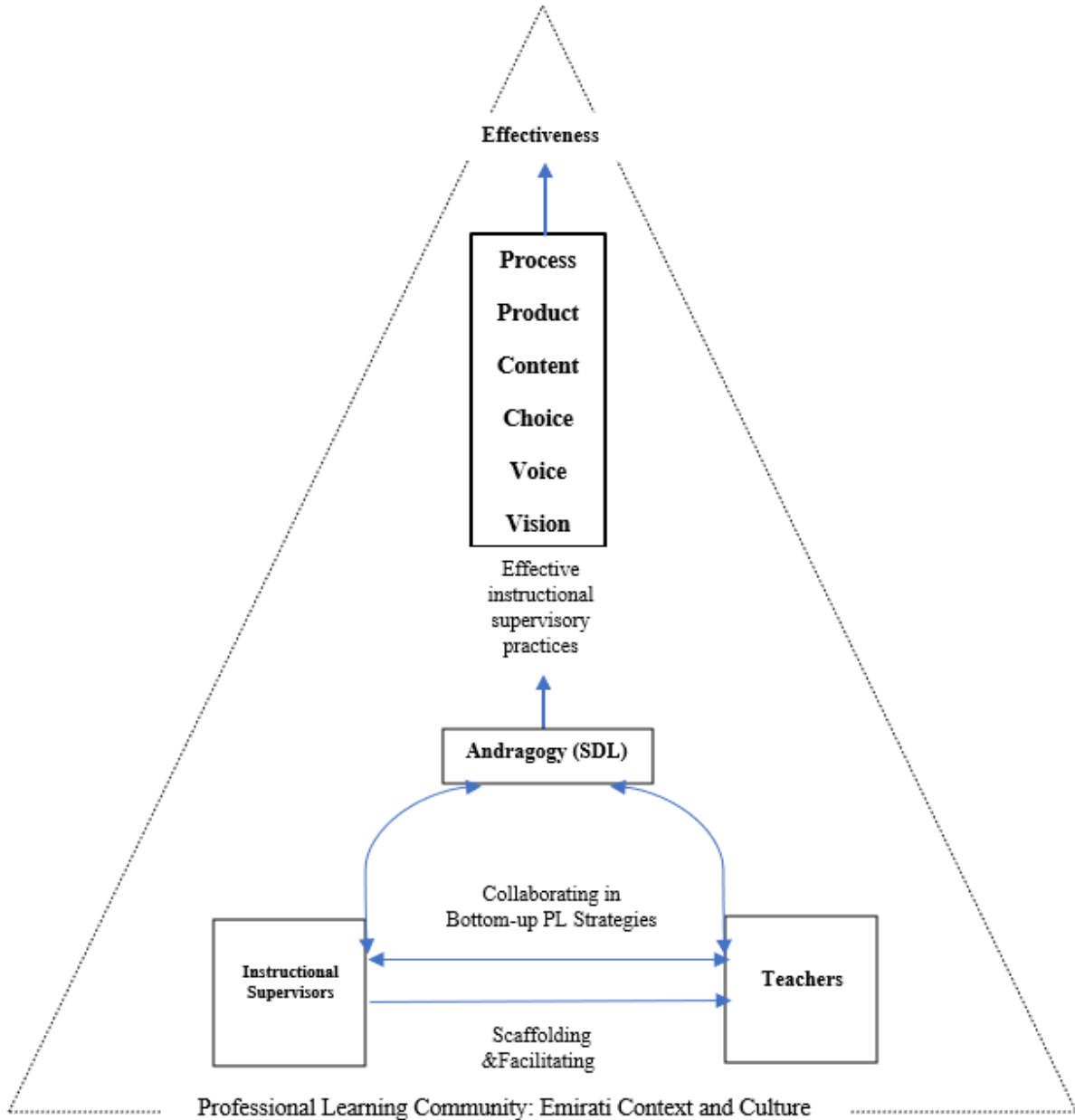
In the beginning, it is worth restating that effectiveness does not mean uniformity and that good practices can look different in different contexts, as the patterns created in a unique situation in the past are never to be proper for solving problems that might occur in another situation in the future (Biesta & Burbules 2003). This pragmatist position goes beyond offering researchers and

practitioners a recipe to follow or a solution to a problem; it is more an intelligent prescription that offers openness and flexibility to find new possibilities. In light of this Deweyan perspective, the virtue of this model of change lies in its practicality and flexibility, which offers teachers opportunities to act as investigators and approach their educational practices critically and experimentally. It is more pragmatic in its aim and process as teachers' professional learning is the product of their interaction with the context or envioning conditions and is consistent with their everyday experiences. Unlike the top-down approach that works by telling others what to do, the proposed model to PPL is more bottom-up, more job-embedded, more practice-focused, and more relevant to practitioners as it starts from the ground up with 'problems' encountered by teachers in their educational practices and goes all the way up toward finding a unified solution. It is contextually sensitive and adaptive to every type of learner as it offers teachers choice and voice in designing their professional learning strategies for their growth needs, interests, and preferences. Such a ground-up approach releases practitioners from the classical concentrated top-downness in decisions for professional learning. It replaces it with a need for collaboration and support from instructional supervisors to deal with the problems (challenges) together by facilitating, scaffolding, and leading teachers' professional learning forward from the inside through a practice-focused and practitioner-research attitude. For instance, Action Research (AR) can be a practical and valuable bottom-up professional learning strategy to address teachers' growth needs and approach their educational practices in an investigative way to actively participate in solving a problem. Teachers become investigators (practitioner-research) by proposing a hypothesis and collecting and analyzing data while testing relevant problems in practice. Then they can decide what makes far more impact and implement changes in practice based on significant evidence. With the help of these distinctive concepts, instructional supervisors can promote effective PPL

that allows insider practitioners to contribute to improving educational practice from the ground up.

To describe the model in detail, the professional learning community is at the bottom of the model, which resembles the Emirati context and cultural considerations that might influence the PPL model's implementation. The main two squares in the model indicate the critical players in PPL, i.e., teachers and instructional supervisors. Above that comes andragogy, self-directed learning (SDL) approach toward adult learning (Knowles, Holton & Swanson 2005). It is adopted because it shapes the medium and context where teachers naturally learn and acquire what can be owned in a self-directed way that differs from the dependency on pedagogical approaches used in a child's learning. It is the umbrella under which every learning and growth opportunity becomes possible and practical. Within andragogy, four arrows are drawn to represent the nature of the relationship in the process of PPL between teachers and instructional supervisors. In light of the Vygotskian theory, the interaction between teachers and instructional supervisors is not top-down as in the old models of professional learning but more like a collective collaboration using bottom-up professional learning strategies (Action Research and other seven highly effective strategies centered around the best-recommended features of professional learning in the literature) where the instructional supervisor, 'the more knowledgeable other,' acts as a facilitator by scaffolding learning and leading from the side within the medium of andragogy. In this regard, the PPL process requires a unique collaboration between instructional supervisors and teachers or between teachers who share the same learning objectives, needs, and preferences to precisely tailor learning to teachers' personalized learning needs and then scaffold their practices to reach the best-desired outcomes. Above andragogy lies the effective instructional supervisory practices representing the instructional supervisors' best inputs in collaboration with teachers. The PPL model favors six

proposed drivers (vision, voice, choice, content, product, and process) to reach effectiveness. These drivers are concluded from the literature on personalized learning, the effective features of professional learning, and the adult learning model (Campbell et al. 2017; Kallick & Zmuda 2017; Knowles, Holton & Swanson 2005; Tomlinson 2014; Zmuda, Curtis & Ullman 2015). In the first driver, vision is embodied in the teachers, who need to be guided by the why, what, and how to self-direct their learning, as in the adult learner model. In voice, the teachers need to take ownership and show leadership control and agency toward their learning; be resourceful and ready to be actively engaged in the learning opportunities. The product is the outcome of growth that reverses the teacher, students, and school community. The teachers are oriented well to the process's structure, format, and professional learning plan.



**Figure 2. 1: A Proposed Conceptual Model**

### **2.3 Theoretical Framework**

The theoretical framework is the philosophical navigation of any research. It draws the path that should be followed to reach the desired destination. With the right choice of theories, the researcher can guide the research structure in its epistemology and methodology to make substantial

contributions (Adom, Hussein &Adu-Agyem 2018). The study's theoretical framework is grounded on the merged theories of leadership and learning to serve its purpose and refine its scope.

### **2.3.1 Leadership Theories**

The instructional leadership theory in its shared model, as proposed by Marks and Printy (2003), and the transformational leadership theory in Bass's model (1997) are initially adopted to guide the leadership path of the investigation.

#### **2.3.1.1 Instructional Leadership Theory**

The instructional leadership theory is grounded in educational research, and its essence lies in the efforts to improve the instructional practices entirely offered by principals through mere directions in the schools (Gumus et al. 2018).

The theory is relevant to inform the theoretical framework of this research because it primarily focuses on teaching and learning and other instructional supervisory practices. Its measures involve improving teachers' instructional performance, articulating a shared vision of improving student learning through more effective teaching and other practices that requires instructional supervisors to facilitate them and dedicate their time and efforts to support their teachers.

In its early start, the theory defined instructional leadership according to its purpose, where the principal, with exclusive traits, performs instructional tasks to enhance teaching through observations (Neumerski 2013). The prevailing instructional behaviors were top-down and expanded to form essential supervisory tasks that enabled the appearance of instructional models. The prominent instructional leadership model was established in 1985 by Hallinger and Murphy. They formulated three concrete functions that were principally driven: framing the school vision

and goals, managing the instructions within the curriculum's scope and students' outcomes, and promoting professional learning. Later in 1990, Murphy added one more pillar to the model related to supporting teamwork. Afterward, in 1993, Patterson developed different tasks like articulating a shared vision, monitoring instructions, and providing constructive feedback for teachers, whereas, in 1996, Weber added the assessments for instructions (cited in DiPaola & Wagner 2018). The last update was in 2008, when Hallinger extended the model to reach ten functions performed by the principal, who still has the most significant role in school reforms. Based on Hallinger's model, an explanatory tool, the PIMRS, became widely used in the literature to measure leadership effectiveness. Standards were created to measure the expected tasks considered critical to instructional leadership excellence (CCSSO 2008, cited in Neumerski 2013). Below is a summary (Table 2.2) showing the evolving functions in the theory of instructional leadership.



<i>Hallinger &amp; Murphy (1985)</i>	<i>Murphy (1990)</i>	<i>Patterson (1993)</i>	<i>Weber (1996)</i>
*Defining the school mission-framing and communicating goals.	*Developing mission and goals.	*Articulating a shared vision of improving student learning through more effective teaching.	*Defining the school's mission.
*Managing the instructional program.	*Promoting quality instruction and monitoring student progress.	*Engaging in participatory management- empowering others by involving them.	*Managing curriculum and instruction.
*Promoting a positive school climate.	*Creating an academic learning.	*Supporting instruction- Recognizing-instruction as the key to learning.	*Promoting a positive learning climate.
	*Developing a supportive work environment.	*Monitoring instruction- knowing what is happening in the classroom and providing feedback.	*Observing and improving instruction.
		*Facilitating achievement of learning goals.	*Assessing the instructional program.

**Table 2. 2: Major Functions of Instructional Leadership Models** (DiPaola & Wagner 2018, p. 6).

### **Shared Instructional Leadership Model**

In contrast to any other field, leadership in learning is an intentional process that aims to enhance learning with more focus on making influence than on gaining authority, and what is noticeable from all the latter models is that the instructional supervisory functions have depended on a single source and decision-maker, the principal. Soon enough, the principalship's heroism faded because influence is more effective if exercised by a group, not an individual (Bush & Glover 2014). Researchers have reached that leadership effectiveness is beyond a single expert man or woman, thus, leading to a change in the conventional spectrum of leadership from total bureaucracy to shared democracy (Gumus et al. 2018). In this regard, the shared instructional leadership model

emerges, and its real value lies in its collaborative nature, where the leadership structure has been reshaped from a top-down hierarchy to more shared decision-making. Leadership roles and responsibilities have started to be shared across school professionals, i.e., instructional supervisors (Marks & Printy 2003).

The study adopts the shared instructional leadership model in the instructional leadership theory that is released from the classical concentrated conception of instructional leadership to provide a perspective into the research problem because no other model in the literature has an equivalent underpinning position that influences teachers' pedagogical practices, decisions, professional learning as that in the shared instructional leadership model (Marks & Louis 1997; Marks & Nance 2007; Marks & Printy 2003). However, one should not deny that the theory has its limitations. One of the concerning weaknesses lies in the fact that the whole theory lacks any inspirational and cultural components that might motivate the leadership team to follow, and this is the main reason that leads the researcher to adopt the transformational leadership theory that can complement this weakness and empower the theoretical stance of the study.

### **2.3.1.2 Transformational Leadership Theory**

The study's primary concern is investigating the effectiveness of instructional supervisors in promoting PPL. For this aim, the researcher has employed the transformational leadership theory for its fundamental role of inspiration in motivating teachers toward organizational goals and stimulating them toward something more significant than their self-interests (Marks & Printy 2003). In its concise meaning, the theory can be defined as transforming people, entirely associated with evaluating their motives, meeting their needs, and treating followers to influence them to accomplish more than expected (Northouse 2016). The theory has three central concepts centered around the organizational mission, performance, and culture. However, unlike the instructional

theory emphasizing the principal's pivotal exclusiveness in the school's effectiveness, the transformational model has extended its boundaries to include teachers as partners in leadership effectiveness. As Bass declared in 1985, the theory's significant contribution lies in the transformational nature of its process, represented in how leaders can inspire followers to put the organization's interest above every other interest (cited in Northouse 2016).

Bass (1997) proposed a model that stands against opponents in multiple delineated components. The four factors of transformational leadership include idealized influence, inspirational motivation, intellectual stimulation, and individual consideration. In its first component, the model highlights how leaders as role models can influence their followers to identify and believe in their offered shared vision and mission; secondly, through inspiration, leaders can motivate followers with high expectations to show more commitment and perform better. In the third component, leaders can provoke their followers' innovation and stimulate them to solve their problems independently. In the model's last component, transformational leaders individually listen to followers' growth needs and address them accordingly. For instance, coaching or mentoring might benefit a group of followers, while delegation will be more suitable for others. The bottom line is that followers (teachers) need to be fully motivated and engaged in the process for the sake of the organization (Northouse 2016).

In this sense, the transformational leadership theory in Bass's model rewards the proposed study from two perspectives. From a broad one, the model can enhance the school's performance, mission, and culture beyond what is expected, and from a limited scope, it can boost relationships between leaders and teachers since they are continuously motivated and inspired to develop themselves. However, Bass's model lacks what the instructional leadership models offer in their wide range of functions (Day, Gu & Sammons 2016). Therefore, many researchers have arguably

recommended that integrating shared instructional leadership into the transformational leadership model certainly impacts the effectiveness of the whole instructional supervision process (Day, Gu & Sammons 2016; Neumerski 2013; Marks & Printy 2003).

Together, these leadership theories have formed the first route of the theoretical framework, and the rationale relies on the following justifications. First and foremost, the instructional leadership theory has, in its essence, all the needed practices and behaviors that address teaching and learning in schools (Liu, Bellibas & Gumus 2020), while the transformational leadership theory has focused more on motivationally communicating a solid vision that transcends the limited interests of the individuals and inspires acting toward the purposeful change in the organization (Pinto et al. 1998). The integration between the two theories eventually offers a leadership blend where instructional supervisors are expected to land their instructional supervisory content in a long-term visionary frame. Secondly, these theories have long been frequently used in school effectiveness research (Blase & Blase 2000; Coad et al. 1998; Koh et al. 1995). Lastly, studies related to the interrelation between such theories are evidenced in the literature (Day, Gu & Sammons 2016; Marks & Printy 2003; Neumerski 2013).

### **2.3.2 Learning Theories**

Among the numerous learning theories that sought to understand how learning happens, none relates to the research problem as the two underpinned ones, i.e., the Socio-Cultural Constructivist and Adult Learning theories. The researcher has purposefully adopted these theories as he believes that teachers' professional learning can entirely be refined and perfected in the light of Knowles' self-directedness that puts adult learners (teachers) at the center more than anything else along with the Vygotskian zone of proximal development (ZPD), in its guided instructional support (scaffolding). These two learning theories have formed the second direction of the theoretical

framework that agrees with investigating the effectiveness of instructional supervisors in promoting the PPL more than any other existing theoretical perspectives.

### **2.3.2.1 Vygotsky's Theory of Learning**

Amid the constructivist learning perspectives, the socio-cultural constructivism theory is the most powerful stance among its peers. It stresses the learner's prior experience and is mediated by the social and cultural aspects that shape the individual's learning experience (Steiner & Mahn 1996).

In 1978, Lev Vygotsky formulated the learning theory based on the belief that learning occurs when social interaction happens between the teacher and the student. It has many principles that impact the learning process, among which come (a) culture and social interaction, (b) the zone of proximal development (ZPD), (c) the more knowledgeable other, and (d) scaffolding. The theorist has made a distinctive variation between learners who bring with them to the learning context all their diverse background knowledge and needs (Irby 2013). Vygotsky's breakthrough observations have led to understanding of how learners cognitively construct knowledge in their brains through a developmental process. The theory states that learning happens in the distance between two developmental levels, the actual and the proximal development zone. The ZPD distinguishes between what is learned individually and what is being developed under guided support from more able individuals. Vygotsky has noted the differences among learners in their different proximal developmental sizes and individual dynamic potentials within any specific context (cited in Jarvis, Holford & Griffin 2003).

The theorist also has focused on the potentials of the individual learner rather than on achievements, and what individuals might do under supportive guidance from a more knowledgeable 'other' can better indicate their cognitive abilities than what they can do alone. From this perspective, scaffolding becomes an assistive developmental system to promote more

learning than the actual developed cycle (Irby 2013). This no-one-zone-fits-all concept found many adoptions in the relevant literature, such as Fullan, Hill and Crévola (2006), who noticed that learning increases when more knowing ‘others’ structure and scaffold its activities within the different needs of the individual learner.

There are several reasons for including this learning theory rather than others to inform the theoretical framework of this research. Initially, Vygotsky’s ZPD into learning informs the researcher to adopt and apply the principles of his theory to professional learning. If proximity to learning and assessment depends on the learner’s developmental level and differs in the same individual, it ultimately differs with diverse learners due to the differently sized ‘zones of potential.’ Likewise, in teachers’ PPL, this distinction is critical as it foreshadows the distinctiveness in purpose and pace of professional learning that should fit every teacher according to his/her potential and readiness rather than achievements. Equally important is the theorist’s assumption that a support system can improve learning, especially when the instructions are relevant to different learners’ needs and scaffolded by a ‘more knowledgeable other.’ Thus, this paper benefits from such concepts to investigate how instructional supervisors can more effectively reach teachers beyond the zone of traditional professional learning.

### **2.3.2.2 Adult Learning Theory: From Pedagogy to Andragogy**

Although Vygotsky’s followers considered that the process of constructing knowledge in the adult cognitive system is similar to that in the child by stating that both learners can cognitively develop knowledge once linked what already experienced to new concepts or situations with extra support (Bransford, Brown & Cocking 1999), this section relies on another leading theory in learning that proves otherwise.

The study embraces Malcolm Knowles' theoretical outlook on learning as he entirely shifted theorists' perspectives from what already was offered in pedagogy (the science of teaching children) to what was later known as andragogy (the science of teaching adults). Arguably to the study, andragogy is more relevant to teachers' professional learning than anything else. The theory states that adult learning differs from children's due to discrepancies in the developmental stages (Irby 2013). To explain the dissimilarity between andragogy and pedagogy, Knowles (1984) argued that adult learning includes conditions different from what is known in child education as in "the learners perceive the goals of a learner's experience as their goals. The learning process is relevant to and makes use of the experiences of the learner" (pp. 70-72). Building on Knowles' conditions, adult perceptions toward their learning are purposeful, active, serious, responsible, and, more importantly, relevant and personalized, where the learner's self-concept is attached to learning in opposition to children's limited learning conditions. Thus, the theory underlines that andragogical instructional approaches are to be used with adult learners (Irby 2013). It is worth noting that Brookfield (1986) also ascertained that it is challenging to use pedagogical instructions in adult learning settings. Therefore, educators who design and provide learning experiences and programs for adult learners should consider these conditions to promote learning effectiveness.

### **The Adult learner Model**

The study adopts Knowles' model of adult learning (Figure 2.2) as the basis for the proposed PPL model (Figure 2.1). In the first principle, the adult learner should know what, how, and why learning must be sought. The outcome picture of just knowing why adults learn what they need to learn will lead to collaboration in designing/ planning their learning and self-directedness/ control over strategies (Knowles, Holton & Swanson 2005). It is worth recalling that this principle is employed in alignment with the first driver, vision, in the proposed PPL model.

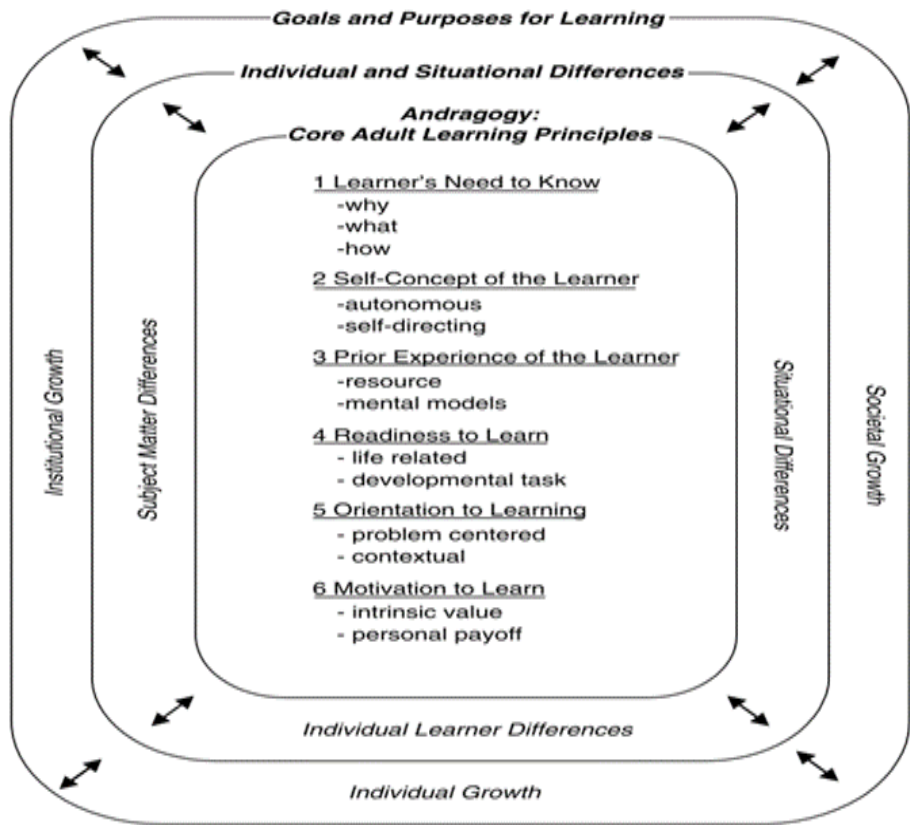
Self-directedness is the second principle, yet the primary one. It refers to adults taking control of their learning through independent strategies structured by experts in self-learning situations. Balance is pivotal since learners vary according to their readiness and needs (Knowles, Holton & Swanson 2005). Knowles' skillful shift in counting instructors as facilitators to adult learners (Connolly 2008) asserted that adult learning is a personalized experience and considered self-directedness a new form of self-actualization that allows learners to have agency over their learning. (Irby 2012; Jarvis, Holford & Griffin 2003). Also, it is worth noticing that this self-directed learning (SDL) principle guides the conceptual model proposed for the study.

The third principle emphasizes the importance of a reservoir of adults' prior experience in shaping their new learning. In 'readiness to learn,' adults are regarded as ready to learn when 'the need to learn' shows up. The principle refers to how life situations can influence learning readiness, so the real challenge for effective educators is to identify such differences in learners' readiness to better design the learning offerings and support them during the process. In orientation to learning, Knowles contrasted this principle and adults' prior experience stressing the former's role in how the current experience impacts adults' needs to learn. It is argued that adult learners prefer a problem-solving approach to real-life contexts more than content-related learning. In motivation to learn, Knowles explained the significant role of internal and external motivators in driving adults to learn with more emphasis on internal motivation as it either satisfies their internal needs, as in self-esteem, or helps them solve problems that are essential in their lives (Knowles, Holton & Swanson 2005). These principles define the second driver, voice, in the proposed PPL model.

In the outer ring of the model, the principles are separated from the developmental outcomes. Three main categories influence the goals of adult learning that shape their experience. The individual developmental goals include improving the adult learner's personal experience. In



institutional growth, adult learning enhances individual growth and the whole organization as the latter embraces the former in its setting. In societal growth, Knowles explained how raising awareness while transforming personal knowledge into practices can accumulate to orient societal growth. In the middle ring of the model, Knowles distinguished between adult learning in three variables: subject matter, situations, and individuals. The first variable refers to differentiating learning styles and strategies with different contents for SDL. In the second variable, the situation could influence SDL. In this sense, different situations might need different learning strategies due to certain situational factors. Knowles uncovered how individual differences in cognition, personality, and prior knowledge could influence the SDL process in the third variable (Knowles, Holton & Swanson 2005).



**Figure 2. 2: The Adult Learner Model** (Knowles, Holton & Swanson 2005, p.149).

From the above, the rationale for including the adult learning theory in the theoretical framework of this study is due to its emphasis on the characteristics of adult learners or teachers as relevancy-oriented learners who should be allowed to be involved in the process of owning and directing their learning experiences by identifying their learning needs and assessing their own development. In the same vein, the researcher adopts Knowles' model as part of the theoretical framework due to its robustness and flexibility to be applied in several andragogical settings with different adult learners, i.e., teachers' professional learning. Its principles closely follow the proposed PPL model, where andragogy formed its basis. It invites teachers to take ownership and responsibility to enhance themselves independently and invites instructional supervisors to understand the distinctive characteristics of adult learners to tailor them effectively. The model, therefore, goes beyond traditional learning methods to offer more individuality and agency/autonomy to the adult learner (teacher) by choosing the best relevant learning approach and examining any preferred instructional practice.

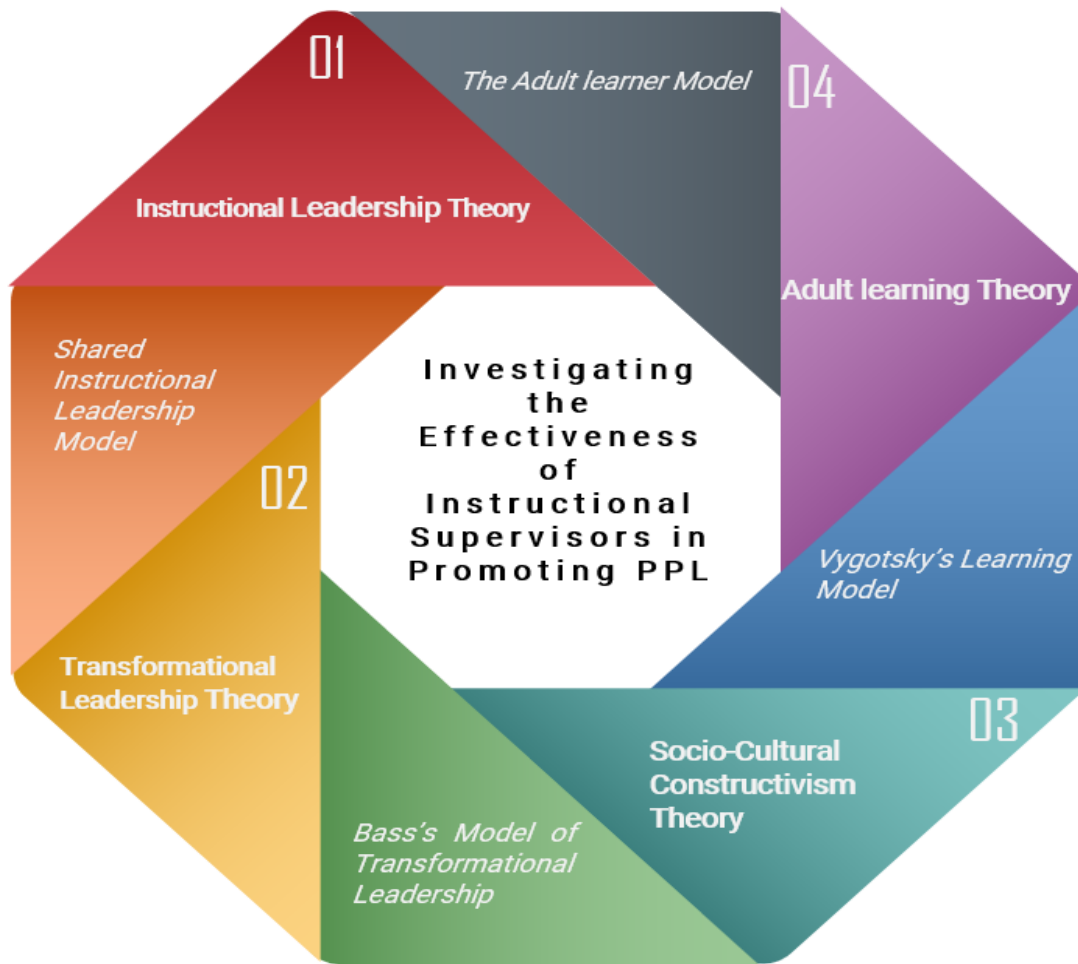
To conclude the section, the paper embraces two schools of thought that complete each other. Unlike Vygotsky, who has focused on the different developmental stages of a child's cognition as a tenet for learning, Knowles has differentiated between two learning models, i.e., pedagogy and andragogy, where primacy is given to the latter in terms of self-directedness. Nevertheless, the two theorists put their hands together on many aspects (a) why learners should own the learning process, (b) how different potentials can be guided, (c) the role of the 'more able' facilitator to learners, (d) the role of prior experience and problem-solving in shaping learning (Jarvis, Holford & Griffin 2003; Knowles, Holton & Swanson 2005). Alongside the strengthening of self-directedness and engagement of scaffolded learning opportunities in adult learning settings, adult learners should take ownership of their learning by setting their own learning goals and outcome

targets, showing more awareness and dedication toward their learning, and taking more responsibility toward their development (Kong 2022).

### **2.3.3 Summary**

Four leadership and learning theories have resonated in the relevant literature and are adopted in the study to guide its theoretical framework. From leadership, the instructional leadership theory in its shared reconceptualization, as proposed by Marks and Printy (2003), is combined with the transformational leadership theory in its insightful model, as proposed by Bass (1997), to form a comprehensive understanding of what accentuates adequate instructional supervision and what practices can ensure an effective promotion for professional learning. These two theories, on the one hand, are integrated with two seminal theories in learning: Vygotsky's theory of learning and Knowles' SDL, which explains how learning can be scaffolded with 'more able' assistance or naturally own it through self-directedness to produce a theoretical blend that paves the path for the paper to follow in its investigation.

In a visual illustration, figure (2.3) is a theoretical framework proposed to inform the philosophical lens into investigating the effectiveness of instructional supervision in promoting PPL at private schools in Abu Dhabi. In the circle, the center of the figure lies the narrowed purpose of the study, shuttered by eight colored theoretical perspectives in their key constructs and exponents to test the PPL model cooperatively. The eight-sided pieces embody the four adopted theories and their applicable models, resembling the groundwork where the background theoretical assumptions coexist.



**Figure 2. 3: Proposed Theoretical Framework**

## **2.4 Related Literature Review**

This section highlights the prominent perspectives that directly relate to the focus of the proposed study. The researcher has consulted various studies in the relevant literature to understand the best practices that might lead instructional supervisors to promote effectiveness in teachers' professional learning. The reviewed literature from the rich international and local educational experiences presented in the research has been analyzed and synthesized in two main parts. The first part covers the current state of professional learning in its most effective features and characteristics. The second part evaluates the emerging trends in professional learning in its two

major approaches: top-down professional learning and bottom-up PL. It is worth mentioning that there is a commonality between the highly effective professional learning strategies presented in this section and the effective characteristics of professional learning reviewed from the literature consistent with what has been previously conceptualized about personalized professional learning.

#### **2.4.1 The Current State of Professional Learning**

In the professional learning literature, the instructional supervisory path is complex and diverse (Campbell et al. 2017). It cannot be limited to a particular function or activity but to a set of interrelated practices and features wherein instructional supervision, evaluation, leadership, and professional learning are all blended and integrated (Darling-Hammond et al. 2017; Richardson & Maggioli 2018). It is also a complicated process affected by the context in which it is used (Zepeda 2004). Given the intricate nature of teacher learning, impactful instructional supervisors- regardless of their leadership model- should initially understand what constitutes an effective teacher's professional learning before offering it.

There is an interminable international debate in professional learning literature concerning its prevalent state and what ensures its effectiveness; however, the available thinking in the local research reveals shortness and limited scope to understand the current state of professional learning. Thus, it was critical to dive into the international literature considering its impact on the national education agenda and content policies. Based on the relevant literature, this section reviews and presents a meta-analysis and synthesis of the prominent findings for the main drivers of the existing professional learning activities and approaches. The reviewed literature has highlighted a few characteristics that define effectiveness in professional learning. The identified characteristics can be classified under three main drivers: (1) content-driven, (2) process-driven, and (3) leadership support and enabling conditions. Each driver has its characteristics or features,

as shown in figure (2.4). The rationale for using this classification in this study is that it makes the highlights from the findings relatively focused and easy for readers and other researchers to retrieve the main features needed to design an effective professional learning experience. Also, this classification is consistent with the conceptual framework provided in the previous section, where the identified components of the proposed PPL model are in harmony with some of the features identified from a large body of studies and several existing major reviews and syntheses in the teacher's professional learning literature (Cordingley et al. 2015; Campbell et al. 2017; Darling-Hammond et al. 2009; Jensen et al. 2016; Richardson & Maggioli 2018; Timperley 2008).



**Figure 2.4: Reviewed Characteristics of an Effective Professional Learning.**

### **2.4.1.1 The Main Characteristics of an Effective Professional Learning**

There are three main drivers identified from the reviewed literature on professional learning. These drivers are classified according to their common characteristics, which seek particular practices to define effectiveness in any professional learning model or approach. The three drivers are content-driven, process-driven, and leadership support and enabling conditions.

#### **2.4.1.1.1 Content-Driven Features**

The first driver that the researcher has identified is related to content. It is considered an essential feature of effective professional learning and growth. Three main characteristics are connected to how content is imperative to practical professional learning approaches. These characteristics involve professional learning content that is based on evidence or practice-based evidence, the other characteristic of effective professional learning is based on students' outcomes or student-driven content, and the last effective professional learning content is based on elevating teachers' voice and choice in the professional learning content or self-directed content.

##### **1. Practice-Based Evidence**

Many researchers in the literature have used different terms that reveal their interest in evidence as evidence-informed practice, research-based, and evidence-informed. However, the term practice-based evidence comes into existence in opposition to the term evidence-based practice. Bryk (2015) argued that educational practitioners' successful and relevant practices could be counted on to support professional learning and student outcomes. Similarly, the researcher has adopted the term practice-based evidence as it reflects the importance of content informed by data or evidence and emerged from educators' and students' practices and outcomes. Another reason is that the term practice-based evidence reveals the researcher's view that evidence or data is one of

the sources that inform professional learning decisions or should be rather than be driven by only personal judgment or expertise.

In the educational communities, collecting and managing evidence or data to make informed decisions started with the 2001 initiative Act of No Child Left Behind. It called for a change in schools to close the achievement gap by analyzing their performance data to determine which schools deserved more funding. Thus, to produce high-quality teaching and leading, schools had to start following the same path (Pete & Duncan 2004). They also witnessed a shift toward adopting an evidence-based model to drive changes and results. At that point, data became better emphasized in monitoring and evaluating performance and developed into an essential tool for achieving common goals, not endpoints.

Using data in educational settings has many benefits and takes diverse forms. It can provide evidence and omit emotion when making decisions allowing the schools to communicate more meaningfully through solid substance for their progress and improvement (Schmoker 2001). It can also measure students' progress, assess the program and instructional effectiveness, maintain learning focus promote resources wisely, and, most importantly, inform the setting of professional learning goals (Pete & Duncan 2007). Various data types can be used to inform effectiveness in professional learning, such as student achievement data, observational data, formative assessments, and other data types. Schmoker (2001) illustrated how successful schools reach a high level of achievement and refine their teachers' instructional practices when they use data for professional improvement and focus on their professional learning discussions on the performance data. He adds that most successful schools are not fulfilled with the collected data until it becomes meaningful and inviting for every teacher to engage in a productive and focused reality. Thus, data



is supportive, and the most effective professional learning approaches are the one that involves data in teachers' outcomes.

Making a clear connection between relevant professional learning and focused content through a daily teachers' discussion of student advancement and data analysis is a central theme that has emerged from all the reviewed literature on effective professional learning (Cordingley et al. 2015; Darling-Hammond et al. 2009; Desimone et al. 2002). Marzano (2003) significantly emphasized the role of data in the new school reform and change and stressed the role of professional learning as a critical school-level factor that impacts student achievement. Also, he considered that the degree of effectiveness in professional learning strategies depends on targeting content for particular teaching techniques in a specific subject area. It is worth considering that the evidence underpinning effective professional learning is not limited to subject-specific content but also pedagogical knowledge (Marzano, 2003). Darling-Hammond (2000) reached the same conclusion about the incredible impact of pedagogical knowledge and skills in boosting or blocking teacher performance once it intersects with subject knowledge. Therefore, effective professional learning features and data-driven content relate to pedagogical practices and teachers' subject knowledge because what might work in teaching practices can be equally insightful to teachers' knowledge about their subject area.

## **2. Student-Driven Content**

The second characteristic of effective professional learning is student-driven content which identifies data that focuses on student outcomes. According to Darling-Hammond et al. (2009), professional learning helps teachers clarify which skills and abilities they want their students to master and identify the content that might sound problematic for students, improving their practices and outcomes. In their report, Cordingley et al. (2015) found that well-aligned

professional learning with a strong emphasis on student results considerably influences student success. Similarly, Timperley (2008) emphasized that practical professional learning opportunities that connect specific instructional activities and desired student results usually lead to favorable outcomes.

### **3. Self-Directed Content**

The third professional learning feature related to content quality is based on developing a professional learning vision that empowers the teacher's voice and choice. The literature on teachers' autonomous ability to choose their learning and exercise their voice is not new. Self-directed learning has been practiced for over 50 years (Houle 1961; Knowles 1975, cited in Merriam & Bierema 2014, p.252). In their report about the state of professional learning in the United Kingdom, Cordingley et al. (2015) highlighted from their analysis of the reviewed literature that leaders can be supportive by developing a vision for teachers in their professional learning that includes congruency in a sense that they understand the importance and relevance of their professional learning about more significant concerns. Likewise, a synthesis of reviewed literature on professional learning has identified the teacher-owned component as a critical characteristic of learner-centered professional learning. This involves teachers directing their 'hands-on' learning activities by selecting the content of their professional learning (Polly & Hannafin 2010). Berry et al. (2013) warned against restricting teachers' voices to the extent that individuals are dismissed from making significant decisions about their student's instructional and evaluation practices, thus limiting how they see themselves. In the same vein, Bayar (2014) argued that teachers' voices should be elevated and involved in decision-making to determine effective professional learning. Equally, Cameli (2020) accentuated including the teacher's voice and choice in professional learning so talents grow and leadership becomes shared. In their exponential literature review for professional learning in Canada, Campbell et al. (2017) found that an appropriate balance is needed

between the teacher's voice and choice in their professional learning while simultaneously promoting coherence to the country's and school's instructional priorities. However, they asserted that this emphasis on system balance should not be understood as necessitating top-down professional learning models. Many researchers say professional learning can be more effective when its content aligns with the school system's needs (Darling- Hammond et al. 2009; Richardson & Maggioni 2018). Therefore, The concept of voice and choice has grown to include teacher leadership, where teachers' independent judgment or self-directedness guides their professional learning.

### **Prominent Findings Related to the First Driver**

Timperley (2010) expounded on using evidence to inform teachers' professional learning. The evidence-informed inquiry should not be limited to monitoring students' progress and evaluating their outcomes but rather informing teachers about guiding and directing their pedagogical knowledge to promote successful learning experiences. She added that teaching practices could be refined once the collected evidence is invested in three ways. The first is when the teachers examine the link between their teaching practices and how students respond to them. The second is when teachers analyze the developed knowledge to build up implications on what can be helpful for students. The third way comes in response to the synthesized evidence where multiple professional learning opportunities are provided for teachers to learn how to teach in different and new ways that can promote effective teaching practices. The paper concludes that the impact is significant once teachers are provided with opportunities to use and interpret evidence.

Furthermore, Darling-Hammond (2000), who believes that any investment in teacher professional learning impacts students' performance, conducted mixed-method research using surveys, case studies, and policies to examine how teachers' professional learning was linked to student

outcomes. She found a significant correlation between teachers' preparedness and students' achievements in math and reading. Also, Ramsteck et al. (2015) used case studies from a sample of nineteen schools in Germany to explore how using achievement data can enhance teacher performance. Results revealed that principals clearly understand the power of using achievement data to improve instructions and have an informed direction for professional learning.

Similarly, in their case study, Hirsch et al. (2018) argued that employing data collected directly and indirectly from different sources to address teachers' needs would promote effective professional learning. Informed by research and the school reform movements, the study aimed to explore how schools can use data to target the content of teachers' professional learning. What is original about the approach of this case study is that it depends on comparing data from teachers' self-assessments via surveys on practices related to classroom management along with data from direct classroom observations to target the needs of teachers in professional learning. The researchers found that purposeful professional learning experiences are the ones that feature data-driven approaches where teachers' needs are well-targeted.

Hayes and Robnolt (2006) also examined the effectiveness of a professional learning plan based on a data-driven initiative to improve literacy within two academic years at an elementary school in the USA. KG and Grade 1 teachers' professional learning was informed by the data collected from students' achievements and teachers' survey data to reveal a need to improve phonics and spelling. In contrast, grade 2 to 4 teachers' professional learning focused on instructional practices related to fluency and comprehension. T-tests were conducted to examine teachers' professional growth, and the results showed significant improvements in six of the seven areas tested. Findings also revealed that data-driven professional learning experiences could support instructional leaders

in providing valuable professional learning opportunities and enhancing teachers' instructional practices as long as it targets their needs.

Another research study that relates how the use of focused content in professional learning impacts students' achievement was conducted by Minor et al. (2013), who assessed how integrating teacher technology in a professional learning model can increase middle school students' pre-algebra test scores. Using a single group pretest and post-test research design, the researchers collected data from 4 teachers and 240 students using stand tests and surveys to develop a few findings. Among the most pertinent was that students' collaboration and personal autonomy improved, their mathematical scores increased, and even teachers' proficiency in using technology developed. Thus, it is recommended that teachers receive similar professional learning experiences to facilitate meaningful learning.

Also, Ingvarson, Meiers and Beavis (2005) examined the impact of professional learning on teachers' knowledge, practice, efficacy, and, most relevantly to the discussion here, students' outcomes. The researchers developed a model that aims to measure the four latter outcomes. The total number of participants in the four studies conducted between 2002 and 2003 was 3250 teachers. The total number of professional learning activities included in the studies was 80, where teachers were examined using self-reported surveys after three months of receiving their professional learning. The activities ranged from action research, conferences, seminars, coaching, and award programs delivered in-person and online. The findings revealed that process features of professional learning significantly impact outcome measures; for instance, content focus, active learning, and follow-up significantly impact teachers' knowledge and the professional learning community. Also, it was concluded that teachers' efficacy was directly linked to how they believe their practices have improved, consequently leading to improved student outcomes.

In her paper, Lieberman (1995) reviewed the traditional professional learning practices that need change because they are fragmented and incapable of supporting teacher learning. She believes that schools should transform into learning organizations, and to reach that, change is a critical component of the reform. Teachers' professional learning is another vital component of this vision, as it is integral to the school's reform. Teachers must be given a voice and choice to discuss, consider, test, and refine their new practices. This entails moving from direct lecturing into 'in-school learning' by adopting new roles, establishing new structures, tackling new tasks, and cultivating an inquiry culture congruent to the one offered to the students.

In their case study, Wild et al. (2018) investigated the effectiveness of teachers' agency at the collective level and the individual on a group of IB Physics teachers who eschewed the autonomous norm and established, in contrast, a lock-step. The lock-step norm offers teachers choice-based decisions toward their professional learning, and it depends on using online tools and assessments while simultaneously delivering roughly the same lessons. This enabled them to exercise collective agency. The researchers used qualitative data from interviews and classroom observations to conclude that teachers' agency, having a voice, and choice, in professional learning, significantly impact them. Specifically, the researchers found that the developed collective agency impacts teachers' professional learning in sharing information and experience while keeping the individual agency. Findings also revealed that teachers might work as change agents when developing agencies to impact and support other teachers beyond classrooms. Among its different findings, Carl's mixed-method research study (2005) concluded that the teacher's voice plays a critical role in the school and should be heard as it fosters positive professional growth needs. If teachers' voice is not fully supported and heard by instructional leaders, their professional learning is jeopardized. Accordingly, the researcher recommended developing

purposeful strategies to effectively combine teacher participation and professional growth. These strategies should consider teachers’ needs to participate outside of the classroom.

Muijs and Harris (2003) argued in their literature review that teacher leadership is intrinsically tied to teacher learning and provides an effective style of professional learning. Their findings showed that teacher leadership promotes collaboration, involves teachers in professional decision-making and learning, and positively impacts school effectiveness. Additionally, Harris (2005) demonstrated that the evidence from the review studies on teacher leadership indicates that teachers’ professional learning should focus on developing teachers’ abilities and content knowledge and on features particular to their leadership skills.

### Examples of Content-Driven Characteristics

Process-Driven Features	Resources	Prominent Findings
<b>Practice-Based Evidence</b>	Timperley (2010)	Teaching practices can be refined once the collected evidence is synthesized to come up with implications on what can be helpful for students.
	Hirsch et al. (2018)	Effective PL experiences are the ones that feature data-informed approaches where every teacher’s needs are well-targeted.
	Hayes and Robnolt (2006)	PL experiences driven by practice-based evidence support instructional leaders and enhance teachers’ instructional practices as long as it targets their needs.
<b>Student-Driven Content</b>	Darling-Hammond (2000)	Teacher professional learning impacts students’ performance. There is a significant correlation between teachers’ preparedness and achievements in Math and reading.
	Minor et al. (2013)	Using focused content in PL has improved students’ collaboration and personal autonomy. Even students’ mathematical scores have increased,

		and teachers' proficiency in using technology has developed.
	Ingvarson, Meiers, and Beavis (2005)	Features of the PL process significantly impact teachers' and students' outcome measures.
<b>Self-Directed Content</b>	Lieberman (1995)	Schools should be cultivating an inquiry culture for teachers congruent to the one offered to the students
	Wild et al. (2018)	Teachers' agency or having a voice and choice in PL significantly impacts teachers. Teachers' collective agency influences teachers' professional learning by sharing information and experience while keeping their agency.
	Carl (2015)	If teachers' voices are not fully supported and heard by instructional leaders, their professional learning is jeopardized.
	Muijs and Harris (2003)	Teacher leadership promotes collaboration, involves teachers in professional decision-making and learning, and fosters a beneficial impact on school effectiveness
	Harris (2005)	Teachers' PL should focus on developing teachers' abilities, content knowledge, and features relevant to their leadership skills.

**Table 2. 3: Key Findings from the Content-Driven Characteristics for Effective Professional Learning.**

#### **2.4.1.1.2 Process-Driven Features**

Recently, considerable literature has grown around another featured driver equally crucial to defining effectiveness in professional learning, yet detached in its essence from content and more focused on the professional learning process. From the reviewed literature, the researcher has identified three main characteristics related to the effective implementation of the professional learning process: multiple learning opportunities, collaborative professional offerings, and job-embedded professional learning experiences.



## **1. Multiple Learning Opportunities**

In an implementation, transferring professional learning to meet teachers' learning needs and goals genuinely matters as much as its content, requiring careful and strategic planning. Planning how teachers should participate in the professional learning process is one of the most critical components of effective professional learning, as it includes designing multiple learning choices or opportunities for teachers to participate and grow professionally.

Most of the reviewed literature identifying the most meaningful and efficient way teachers can participate in professional learning can be categorized under three main features: long-term engagement, ongoing participation, and active learning opportunities. Many scholars have dedicated their efforts to understanding how duration influences the effectiveness of professional learning. For instance, Timperley (2008) argued that offering teachers multiple learning experiences can deepen their knowledge. This requires being engaged and active in the learning process more than just volunteering in their participation. At the same time, Darling-Hammond et al. (2009) explained that compelling professional learning experiences are ongoing and sustainably connected to teachers' practices. Likewise, Cordingley et al. (2015) stressed the importance of providing continuous and frequent chances for teachers to respond to, reflect and analyze the new methods and associated practices. However, they recommended that the frequency of professional learning activities should rely on the degree of change needed in teachers' practices. In comparison, Jensen et al. (2016) refused effective professional learning to be shortened with a short one-afternoon or Friday shot implementation but instead built it into teachers' daily routines. Maggioli (2020) further emphasized that impactful professional learning is needs-based and empowers teachers by responding to teachers' unique needs. Also, Campbell et al. (2017) highlighted that teachers should be exposed to varied and differentiated professional learning

experiences to become lifelong learners. Without a wide range of ongoing active learning opportunities, professional learning experiences will diminish their quality, as teachers will no longer be responsive to the type of learning activities they occasionally and passively must participate in. Elliott (2017) also pointed out that differentiating professional learning opportunities allows a variable degree of involvement to fulfill teachers' professional growth needs. In addition to differentiating professional learning to meet teachers' needs, Lutrick and Szabo (2012) identified interest-driven as the quality of effectiveness in professional learning to get teachers actively engaged in learning. Thus, varied forms of teachers' professional learning are needed to gain learning and ensure engagement, and they should be differentiated based on teachers' needs and interests. It was proposed by Day (1999) that professional learning should involve ongoing attention and support as teachers move through different stages of career development. Elliott (1993, as cited in Day 1999) differentiated teachers in professional learning into four stages where each stage can resemble a certain competency level, ranging from novice to proficient. A variance should follow this disparity in teachers' competency levels in the learning opportunities that can ensure teachers' active engagement and effectiveness in their professional learning. In principle six of the seven identified principles of highly professional learning, Fraser (2005) also pointed out that effective professional learning is a long-term process where teachers should learn by doing and reflecting.

## **2. Collaborative Learning Opportunities**

Collaborative learning is integral to effective professional learning within the school and the whole educational system, as it can guarantee a medium of support and innovation for new and fresh viewpoints (Campbell et al. 2017). Many researchers have reported in their reviews on effective

professional learning how collaboration is a featured component in implementation (Cordingley et al. 2015; Darling- Hammond, Hylar & Gardner 2017; Jensen et al. 2016).

According to Hord, Roussin and Sommers (2010), a professional learning community is an ultimate opportunity for teachers to start collaborating to develop collectively, not just as individuals in isolation. They developed five components from the literature that feature an influential professional learning community. The first feature is shared leadership, where the principal and vice-principal are willing to share their authority among their team and facilitate the learning of the whole team. The old traditional perspective of a teacher is teaching, and the leader managing is no longer helpful if the aim is to develop the whole team as a learning community. In this sense, there are no more top-down game changers but more like ‘democratic teachers’ leading change. The second component is intentional collective learning, where the concept of inquiry in schools should expand to build a collaborative professional learning community. Through inquiry, teachers and leaders can build their ties, learn, and create their learning community. The third feature is shared values and vision, where the team not only engages in creating a vision but also in putting it in front of their eyes when making a decision. The next component is the supportive conditions, where many factors interact to affect each other. Among these comes the physical conditions and human potentialities. The last component is the share personal practice, where teachers share their practices and seek help and support from each other. They celebrate their successes and praise each other. This can provide an appropriate learning setting. However, Fullan and Hargreaves (1996) focused on three types of collaboration that can limit promoting collegiality: (a) Balkanization, (b) comfortable collaboration, and (c) contrived collegiality. Balkanization arises when collectives of instructors or educators become subgroups. Interaction occurs between them as individuals with similar interpersonal interests but excludes those who do

not share the same standards with their groups. Although balkanization fosters some collegiality, it mostly fragments schools and impedes their progress. The second type is comfortable collaboration, which occurs when instructors or educators start sharing what they feel comfortable like providing teaching tips and resources. However, they still avoid conversations with real value and purpose in general teaching practices. Although this type of bound collaboration may contribute to the creation of pleasant social environments in which instructors enjoy each other's company, it ignores challenging topics that might impact the school's progress in the long term. The last type is contrived collegiality. It arises when school leaders seek to force or even persuade instructors and educators to collaborate. Nevertheless, This taming sometimes may not live for too long as it is good or beneficial to kick-start the transformation process. Still, if schools are not careful, fabricated collegiality can inhibit more long-term partnerships.

Thus, collaboration is a critical component of effective teacher-professional learning as 'three minds contribute to the process rather than each teacher existing in isolation' (Beers 2006, p.115).

### **3. Job-Embedded Professional Learning Experiences**

The last teacher's orientation to professional learning identified from the literature on what yields the best practices for an effective professional learning process is advocating job-embedded professional learning opportunities. To this point, Stoll et al. (2006) emphasized that 'work-based learning' is the most effective teachers' professional learning experience as it includes strategies such as "professional development profiles, action research, action learning, coaching, mentoring and peer-assisted learning" (p. 232).

Unlike the traditional disconnected professional learning offerings that provide one shot of learning for teachers, Cavazos, Thompson and Ortiz ( 2018) argued that job-embedded professional learning is placed within the framework of classrooms. It incorporates teachers'

decisions and attends to their needs in the process. In a similar vein, Maggioli (2004) envisioned that:

Effective professional development should be understood as a job-embedded commitment that teachers make in order to further the purposes of the profession while addressing their own particular needs. It should follow the principles that guide the learning practices of experienced adults, in teaching communities that foster cooperation and shared expertise (p. 5).

Darling-Hammond et al. (2009) considered job-embedded learning the most effective relevant practice in promoting student outcomes and pedagogical enhancement, yet still not a common feature of professional learning. In a different study, Darling- Hammond, Hyler and Gardner (2017) conceptualized professional learning as the product of job-embedded professional learning activities that can improve teachers' knowledge and performance within and outside the schools and boost their effectiveness. Concerningly, Campbell et al. (2017) recommended in their prominent findings from teachers' professional learning experiences in Canada that "teachers value professional learning that is relevant and practical for their work; "job-embedded" should not mean school-based exclusively, as opportunities to engage with external colleagues and learning opportunities matter also" (p. 56).

### **Prominent Findings Related to the Second Driver**

Much of the current literature on professional learning pays particular attention to the fundamental latter compelling features that inherit effectiveness in professional learning offerings. Bayar (2014) interviewed 16 elementary teachers in Turkey over one year to explore how teachers define effective professional learning activities. Notably, it was found that active participation opportunities and long-term engagement can be possible when professional learning activities are designed by offering teachers hands-on activities and engaging materials that focus on learning by doing. Another finding was related to the impact of the duration and depth of the activity on

teachers' outcomes. Short-term activities associated with traditional professional learning offerings proved their deficiency and ineffectiveness.

Garet et al. (2001) reviewed professional learning characteristics, divided them into two main features, and differentiated them based on core and structure. On the one hand, the core features were activities related to different types of content: subject-matter content or knowledge, skills, and teaching practices or pedagogy. Activities targeting the content features differ in four-dimensional ways. (1) subject-matter content; (2) general pedagogy; (3) pedagogical content knowledge, and (4) specificity or related to a particular skill, resource, or material. The other type of content reviewed in this study was related to content targeting students' learning, emphasizing general learning skills and ways of learning. The second core feature was promoting active learning, which involves observing and being observed, planning classroom implementation, reviewing student work, and leading and engaging in written work. The third core feature was fostering coherence. The researchers concluded that the latter features are what make professional learning effective.

On the other hand, Desimone et al. (2002) conducted a study that used a large-scale sample of science and math teachers to examine the impact of professional learning's various features (core and structural) on teachers' learning. The researchers used a formal causal model where school and teacher traits were included as control variables. The model included structural features related to the type of activities, the duration, collective participation, and different demographical variables from gender, subject matter, grade level, and teaching experience. The cross-sectional data were collected using the Teacher Activity Survey part of national evaluation data and estimated using the ordinary least squares (OLS) linear regression. Based on the findings, focus on content knowledge, active participation, and alignment with other learning activities were the

three main characteristics of professional learning that significantly and positively impact teachers' knowledge and teaching practices. Additionally, the researchers concluded that long-term activities produce better outcomes than short durational ones, and based on this, they underscored giving more emphasis to duration and active learning to promote effectiveness in teachers' professional learning.

Yoon et al. (2007) analyzed 1300 experimental studies that addressed how teachers' professional learning impacts student outcomes in different content areas. The researchers found that teachers who receive long-term professional learning (49 hours as a typical yearly average between the studies) could increase students learning and achievement by 21%.

Kfyulilo (2013) studied teachers' collaboration for professional learning and improvements across science and mathematics instruction at secondary schools in Tanzania. The researcher identified four types of teacher collaboration for professional learning from the literature on collaboration. The first type was related to the community of practice; the second was a Lesson Study; the third was a professional learning community (PLC); the fourth was related to teacher design teams. These four identified types influence teachers' pedagogical practices and student outcomes. The reviewed literature revealed that collaboration impacts teachers' abilities, confidence, and attitude toward science and mathematics.

In their case study, Butler and Schellert (2012) employed multiple forms of qualitative data to explore how teachers in an inquiry learning community worked alone and collaboratively to enhance student outcomes at multicultural schools in western Canada. The findings revealed that teachers' inquiry leads to significant practice changes. Teachers' collaborative inquiry can offer more benefits if teachers deliberately embed collaboration within the learning cycle. Steyn (2017) also conducted a qualitative study employing the adult learning theory and Mezirow's

transformative theory to investigate mathematics teachers' professional learning at a South African primary school. The instruments used in the case study were open-ended questionnaires and different types of interviews. The teachers reported that their collaboration improved their professional learning activities despite the variance in the offered designs. The team dynamics have positively impacted their learning and tendency for more learning opportunities as collaboration positively links professional learning to student outcomes.

Forte and Flores (2014) examined the link between teacher collaboration and professional learning in Portugal. The mixed-method research phases employed questionnaires, semi-structured interviews, and reflections to collect data. Findings from the two-phase study showed positive perceptions of the importance of collaboration in professional learning and the challenges that might impede collaboration in the professional learning process, such as lack of collaborative training, motivation, and other personal factors.

In more recent studies, like the one in the Netherlands, Noben et al. (2022) conducted a study on 35 teachers within a college department for 80 months of professional learning. The study's central research question examined how language teachers' collaboration changes through the professional learning project. The researchers used the Multiple Regression Quadratic Assignment Procedure (MR-QAP) to demonstrate the significant influence of collaboration on teachers' observation to the extent that teachers showed more inclination to observe and be observed by colleagues with whom they had previously collaborated.

Moreover, Rigney, Dana and Vanderhauwaert (2020) conducted a case study to explore how a cross-national collaboration developed and implemented job-embedded professional learning. The study focused on participants from 6 European countries who succeeded in collaborating and planning professional learning through collaborative framework building, shared learning, and



technology use. The developed program circled three professional learning tools: practitioner inquiry, professional learning community, and academic research. The findings were rewarding to the teachers' professional learning as the concentrated collaboration has effectively impacted empowered learning experiences in opposition to the ineffective 'one day -and- done' professional learning.

Nordgren et al. (2021) explored teachers' perceptions of planning and preparation as detached classroom activities that teachers perform to make learning happen to interrelate with their perceptions of structured collegial collaboration and professional learning. The researchers collected data using surveys of 2285 Swedish teachers. Results showed a consistent relationship between collaborative collegial planning and teachers' evaluation of their teaching, working conditions, and professional learning. Also, the researchers have noted that such frequent, formal, and organized collaborative activities can support and enhance teachers' professional learning experience.

In studies featuring job-embedded professional learning, Derrington and Kirk (2016) examined the link between job-embedded professional learning and teacher formative evaluation qualitatively using four elements of the theoretical framework: learner-centered, knowledge-centered, community-centered, and assessment-centered. The case study was conducted in different schools with 28 principals. The qualitative data from teachers' evaluations and principals' interviews showed that the job-embedded professional learning offerings were based on the evaluation data where principals focus on individual teachers' needs to offer personalized professional learning. Also, the researchers concluded that job-embedded professional learning is highly effective since it is adjustable by instructional supervisors, and its offerings can also be part of teachers' daily learning and not just an add-on.

Owens, Pogodzinski and Hill (2016) conducted an evaluation study for Michigan's job-embedded professional learning policy. The researchers reviewed the literature on professional learning to develop four criteria to study the effectiveness of Michigan's policy. The researchers found relevance, focus, goal orientation, and social scope as the four principal factors of an effective job-embedded professional learning policy. The findings also revealed that Michigan's job-embedded professional learning policy was a critical step in the right way toward shifting from the traditional ineffective top-down professional learning into job-embedded professional learning communities that hold teachers accountable for their learning and professional growth. However, the researchers provided a few recommendations based on their policy assessment, such as adding means of evaluation to the professional learning plans for the teacher and the whole job-embedded professional learning. Even integrating more models in this approach can increase teachers' autonomy.

In a quantitative research study, Althaus (2015) examined the effectiveness of job-embedded professional learning that focused on mathematics content on teachers' efficacy. In the literature review, the researchers highlighted the high impact of the unique learning experience of job-embedded professional learning. Employing the efficacy theory, the researchers differentiated between two types of teachers' efficacy: general and personal. The general is more related to how teachers believe students generally learn mathematics. In contrast, personal efficacy relates to teachers' self-perception of their effectiveness in teaching mathematics. Using the teacher efficacy beliefs instrument to survey ten elementary schools in the USA, teachers' efficacy and students' achievement scores in mathematics were measured with the paired t-test to find that job-embedded professional learning can impact students' outcomes in mathematics. Though there was a correlation between general and personal efficacy, the findings showed that general efficacy

influences students' achievements more than personal efficacy. Thus, the researcher recommended that job-embedded professional learning in its mathematics content and strategies focus on teachers' general efficacy.

### Examples of Process-Driven Characteristics

Process-Driven Features	Resources	Prominent Findings
Multiple Learning	In Turkey. Bayar (2014)	Active participation in PL increases when teachers are offered hands-on activities and engaging materials. Long-term activities are better than short-term activities.
	From 28 GLOBE partners, Garet et al. (2001)	Focus on content knowledge, active participation, and alignment with other learning activities are the main features of effective PL.
	In the northeastern part of the United States, Yoon et al. (2007)	Long-term PL has a significant impact on students' learning.
Collaboration	In the Netherlands, Noben et al. (2022)	Teachers' collaboration increases the inclination to observe and be observed by other teachers.
	Across 8 European Countries, Rigney, Dana and Vanderhauwaert (2020)	Using technology to collaborate and share learning among teachers empowers their PL.
	In Sweden, Nordgren et al. (2021)	There is a consistent relationship between collaborative collegial planning and teachers' evaluation of their teaching, working conditions, and professional learning. Collaborative activities can support and enhance teachers' professional learning experience.
	In Tanzania. Kfyulilo (2013)	Teachers' collaboration impacts teachers' pedagogical practices, abilities, and confidence.
	In Canada, Butler and Schellert (2012)	Teachers' collaborative inquiry can offer significant practice changes if teachers deliberately embed

		collaboration within the teaching-learning cycle.
	In South Africa, Steyn (2017)	Collaboration improves teachers' professional learning activities despite the variance in the offered designs. It positively links professional learning to student outcomes.
	In Portugal, Forte and Flores (2014)	Lack of collaborative training, motivation, and other personal factors can impede its effectiveness in the PL process.
<b>Job-embedded PL</b>	In Tennessee, USA Derrington and Kirk (2016)	Job-embedded PL is highly effective since it is adjustable by instructional supervisors, and its offerings can also be part of teachers' daily learning and not just an add-on.
	In Michigan, USA, Owens, Pogodzinski, and Hill (2016)	Job-embedded PL holds teachers accountable for their learning and professional growth.
	In the south-eastern USA, Althausen (2015)	Job-embedded PL impacts students' outcomes in mathematics.

**Table 2. 4: Key Findings from the Process-Driven Characteristics for Effective Professional Learning**

#### **2.4.1.1.3 Leadership Support and Enabling Conditions**

It is also noticeable in the reviewed literature that compelling professional learning features in its components enable conditions and intentional leadership support for the whole professional learning experience. In the schooling systems, educational leaders from instructional supervisors and system managers have a significant and engaging role in supporting teachers' professional learning. The leadership support (internal and external) and the existence of valuable resources and clear policies are necessary enabling conditions for implementing an effective teacher's professional learning.

## **1. Leadership Support**

Sustaining culture of leadership support is needed to ensure effectiveness in teachers' professional learning. Day et al. (2006) instilled that leadership support quality, whether across the departments or the whole school, is critical for teachers' motivation, commitment, and quality retention. Similarly, Reitzug (2002) associated proactive support in professional learning and its centered activities with school leaders and instructional supervisors.

However, the effectiveness of any form of leadership support varies in the literature concerning its provider (internal and external) and depends on the nature of the provided leadership practices. Hawley and Valli (2000) stipulated that leadership support is a continuous follow-up for teachers' professional learning. It does not involve only the internal system but also the external governmental entities, which can offer essential resources, guidance, policies, and perspectives.

### ***a. Internal Leadership Support***

Principals and instructional supervisors come on the frontline to support and facilitate teachers' professional learning. For Timperley (2008), promoting and supporting teachers' professional learning at the school level is the leaders' responsibility, depending on their experience level or assigned position. Although school leaders might play diverse, supportive roles, three main ways are critical and cannot be overlooked to keep teachers engaged and ensure sustainable learning. The three primary designated leadership roles are developing a vision, leading learning, and organizing learning opportunities. Leaders have a critical role in developing a school's vision that should realistically address students' learning in its content and outcomes and teachers' ongoing professional learning in their pedagogy and content knowledge. In leading learning, school leaders are responsible for monitoring and supporting skills transfer to enhance teachers' continuous learning. Also, it is cautioned against limited learning that might exist once outside providers lead

professional learning without the leaders' constructive supervision and constant support. The last supportive way for school leaders to help their teachers is by organizing learning opportunities where they can come up with supportive conditions that sustain teachers' professional learning and never shatter their efforts. Likewise, Wei, Darling-Hammond and Adamson (2010) emphasized the role of school leaders in supporting new teachers through creating induction programs and professional learning activities that depend on content knowledge to support new teachers.

Aside from the limitation of practical support, Darling-Hammond (2005), in principles six and seven of the seven principles of highly effective professional learning, acknowledged that quality support could be presented in the form of emotional support as recognition and encouragement. It is noted that school leaders who recognize and encourage their teachers' professional learning promote more effectiveness and sustain better enhancements. Furthermore, Cordingley et al. (2015) specified that the nature of the internal leadership support for teachers' professional learning should be an ongoing and consistent follow-up to provoke the needed change with a frequency that depends on the required outcomes and the standard practices. The importance of system support to teachers' professional learning was also suggested by Campbell et al. (2017) to illustrate how Canadian school leaders used distributed leadership support to keep engaging their teachers in professional learning by continuously identifying and advocating teachers' needs and formally celebrating their successes. Thus, such internal leadership support is highly appreciated and appraised by teachers. Hence, no matter what professional learning activity is provided, instructional supervisors at the school levels are responsible for promoting, supporting, and sustaining teachers' professional learning activities in any follow-up forms and frequency that they see needed to consolidate their learning.

***b. External Leadership Support***

The 'in-house' support is critical as its impact can be ongoing and job-embedded, yet external leadership support is equally important. Multiple external leadership bodies can support teachers' professional learning in different ways.

Fraser (2005) illustrated that professional learning is a shared responsibility that must prolong from the individual teacher to the collective leadership body, including the whole regional offices and not only at the school level. It implies that professional learning offerings aligned with teachers' needs related to school goals should be proportionately linked to regional needs and goals. Adamson (2010) also underscored the impact of external leadership support from educational bodies such as universities, districts, and other external experts to support teachers' expertise and engage them in sustained and effective professional learning designs.

Timperley et al. (2007) asserted that external input and expertise are essential to support teachers and promote effectiveness in their professional learning to guarantee progress. Also, Glover and Law (2005) emphasized the role of external professional learning providers as they can support teachers' professional learning and add a fresher perspective and new concepts to enhance the professional learning experiences. Similarly, Cordingley et al. (2015) remarked that external specialists and experts effectively support teachers' professional learning by providing multiple perspectives while considering different starting points. It was noted that external providers who act as facilitators might challenge the existing concepts and status quo safely; however, the researchers noticed that external support on its own is unsatisfactory for producing effective outcomes.

## **2. Enabling Conditions**

Enabling conditions in professional learning takes the form of legislating policies and providing resources that can promote effective professional learning offerings for teachers.

### ***a. Policies and Legislative Frameworks***

Campbell et al. (2017) recognized the value of understanding policies that lead to success in establishing effective practices in Canada's professional learning system. It is stated in *The Manitoba Teachers' Society Handbook* that professional learning: "encompasses formal and informal activities which members undertake to direct their own learning and to enhance their professional practice..." (MTS, 2016a as cited in Campbell et al. 2017). Most teaching organizations across Canada emphasize including teachers' own learning needs and outcomes as significant components for effective professional learning at the policy level. For instance, Alberta teachers must continue a yearly professional learning plan that defines the sort of professional learning activities required from teachers to be involved in for the next academic year. Similarly, schools in Alberta should provide the district with annual improvement plans that outline the implementation of the requirements in professional learning content guided by the district.

Another example that reveals the role of external system support to teachers' professional learning through employing legislative policies is from the USA, with Owens, Pogodzinski and Hill (2016), who evaluated Michigan's job-embedded professional learning policy using criteria based on careful reviewing for the literature of effective professional learning. The researchers considered the policy a transformative step in the right direction away from the traditional top-down models toward ongoing job-embedded professional learning, and they suggested a few comments on how to strengthen the policy by discussing how the whole professional learning offering can be evaluated without only looking at the individual evaluation reports. Additionally, they appointed



another suggestion to improve the policy by embracing more strategies that increase teachers' autonomy in their professional learning. Thus, any limitation in any professional learning design at the policy level will be reflected in a shortage and limitation at the practical level. In further context, Darling-Hammond, Hyler and Gardner (2017) highlighted the importance of policy in supporting evidence-based professional learning in many ways. For instance, adopting standards for professional learning, evaluating the use of time and school schedules to suit the professional learning process, and conducting needs assessments in the forms of surveys for schools and teachers to understand what is most needed. Therefore, it is critical to update and empower the policies that drive professional learning so that desired changes start to mount; otherwise, it should be no wonder why traditional forms of top-down professional learning practices are still more common in practice than the ongoing, job-embedded, and personalized forms of bottom-up professional learning.

In the UAE, specifically in Abu Dhabi, the MoE and ADEK are making no fewer efforts to support professional learning with legislative policies that can enable conditions suitable for ensuring effectiveness in teachers' professional learning provisions. For instance, the schools' policymakers in Abu Dhabi have found it critical for teachers to participate in continuous professional learning that encourages a wide range of relevant and collaborative activities based on individual performance objectives.

Policy 28 in article 33 exemplifies activities ranging from courses that vary from attending short courses to long ones, as those offered at the master's level at universities. The other professional learning activities include a "one-day training program or in-School collaborative planning opportunities and staff development programs" (ADEK 2015). The policymakers have limited the minimum duration of continuous professional learning to 25 hours per academic year. They have

assigned specific roles and tasks for teachers, the leadership team, and the school's owner with the board of trustees. Teachers are expected to contribute to their professional learning by collaborating with their peers and self-assessing their learning. They should also actively participate in relevant professional learning activities to identify their growth needs. Principals also have roles that include providing a transparent, professional learning process and assigning teacher plans after at least one yearly appraisal feedback. They should support, monitor, and measure the effectiveness of professional learning activities. The owner and the board of trustees should ensure that principals have created transparent practices and policies for an effective teachers' professional learning experience. Also, they have to cut a share from the annual profit that targets the professional learning offerings at their schools.

For a successful implementation of policies, Desimone (2002) developed a framework based on the theory of policy attributes developed by Andrew Porter in 1988. The developed framework included five guiding attributes: specificity, consistency, authority, power, and stability. The attributes were applied to measure the implementation of the school reform initiative in the USA by Congress to improve schools at different levels, including the professional learning aspect. The study focuses on synthesizing every related literature to filter a few findings. The first finding relates a policy's features to its effective implementation; in other words, implementing a policy that is not characterized by specificity, consistency, authority, power, and stability will soon disappear. It is established that these attributes are interdependent, which demands cooperation among them. It is also found that though the specificity of the content is different between designs of professional learning, school reform literature reveals that teachers prefer more professional learning designs tailored to teachers' needs. The paper concludes that the perception of the policy features, rather than their fundamental values, shapes its application. Thus, investigating the

leadership practices in implementing professional learning policies is crucial to determine their effectiveness in promoting and supporting teachers' professional learning.

***b. Resources***

Leadership support can be valuably appreciated through unique management for adequate provision of resources. Desimone (2002) proposed that the leader's role is to supplement their schools with the essential and needed resources from funding, materials, and Human Resources, as any lack of resources hinders reforms. Likewise, Wei, Darling-Hammond and Adamson (2010) recognized the need to support and provide teachers with sufficient time and resources to empower their professional learning; for instance, time release from school, the time assigned in school for professional learning, and funding to cover the costs. Also, Cotton (2003) asserted that in highly successful schools, only effective instructional supervisors are the one who provides teachers with varied resources to secure the schools' improvement. It is believed that effective professional learning at high-performing schools commits sufficient time and resources for teachers to enhance their professional learning experiences (Jensen et al. 2016). For instance, teachers teach only 10-12 hours weekly in Shanghai; the rest are dedicated to professional learning.

The Learning Forward Standards for Professional Learning outlined seven standards for highly effective professional learning; where the third standard deals with the importance of resources, stating that "professional learning that increases educator effectiveness and results for all students requires prioritizing, monitoring, and coordinating resources for educator learning" (Learning Forward 2011, p.30). Hord and Roy (2013) also emphasized that the principals' responsibility is to assist and support by fostering resources and ensuring room accessibility for teacher-driven professional learning. Similarly, Elliott (2017) stated that "providing resources for future use can also help maintain relevance and raise levels of engagement" (118).

### **Prominent Findings Related to the Third Driver**

The international literature is rich in studies highlighting the great support instructional leaders and supervisors can provide to their teachers' professional learning and other enabling conditions. For instance, Sandholtz and Ringstaff (2016) explored in their case study how contextual factors can have long-term effects on K-2 teachers' professional learning in 5 elementary schools in the rural USA. The purposeful sample was surveyed and interviewed by the end of the professional learning program that aimed to enhance science teachers' outcomes. Findings revealed the influence of context on the sustainability of professional learning practices in teachers' science education. More specifically, it was found that the influence of the principal's ongoing support and the availability of resources are contextual factors that can support or impede effectiveness in professional learning outcomes. Arguably, Whitworth and Chiu (2015), in their review article, explored the factors that influence effectiveness in professional learning in science education to come up with an understanding that day-to-day tailored leadership support plays a crucial role in planning, guiding, and implementing effective professional learning practices. Leaders' roles should not be counted as part of the contextual factors but as primary in any professional learning process. It is worth revealing that enabling work conditions and school culture at schools were found as mediating factors in facilitating effective teachers' professional learning and change. In Singapore, Ng et al.(2015) found that the leadership team's instructional and supervisory practices from principals and middle leaders were supportive in specific domains, such as promoting a clear vision among their teams, enriching the learning community, and improving the curriculum. The article praised and appreciated the effectiveness of the purposeful change in the leadership style from instructional to transformational. Another recent study in China examined the relationship between principal support and teachers' professional skills to find a significant positive correlation between the variables where teacher agency and school-wide inclusive practices mediate between

the two main variables. The findings indicated that school principals directly influence teachers' professional skills and learning (Wang & Zhang 2021).

In answering a research question related to the role of external leadership and support for teachers' professional learning in participation in professional learning networks, Prenger, Poortman, and Handelzalts (2021) conducted a qualitative study that showed how leadership, understanding of a shared goal, practical assistance, collaboration, and particularly ongoing support appear to impact positive outputs in teacher professional growth.

According to a study conducted by Silva, Amante and Morgado (2017) in Portugal on a sample of 234 teachers from middle and secondary schools, it was implied that school leadership support could predict and impact teachers' collaboration in professional learning. The method of the quantitative data collection was the questionnaire that consisted of 96 items and using the 6 points Likert scale; the researchers analyzed the data using the linear and multiple regression analysis tests to find out that with more supportive school leadership comes more teachers' effectiveness, engagement, and collaboration. The types of leadership support revealed in the study varied from emotional, informational, and professional support. Another finding was that supporting teachers in their professional learning can increase engagement and participation in recreational and interdisciplinary activities.

Likewise, in New Zealand, Cardno (2005) emphasized the role of leadership support in her paper that provided educational leaders with a conceptual framework for designing and evaluating professional learning based on four proposed dimensions of professional learning that involved school development, curriculum development, management development and personal development which required supportive leadership to guide the change through professional learning. The review detailed various types of leadership support, including on-the-job support

involving one-to-one support such as mentoring, coaching, job rotation, and promotion to facilitate teachers' professional learning and growth. The other type is off-the-job support which can also increase professional learning through activities such as participating in a research conference related to educational enhancements and joining educational periodicals that can enrich the school's culture. Also, the study revealed that New Zealand schools had no issues with resources for professional learning as much as having a challenge in allocating them efficiently. The paper concluded with a reference for leaders to balance the four-dimensional features to promote effective professional learning at their schools.

According to Schnellert (2020), Personal Learning Networks (PLNs) can be structured and designed to provide educators with access to cutting-edge, evidence-based practices and resources to help them advance their instruction. Likewise, Hirschy (2016) believes that providing resources to involve PLNs can enhance teachers' professional learning. PLNs can permit the teacher user to connect with teachers and resources outside their schools from all over the world and gain comprehensive knowledge about any relevant topic they need to understand. The social media network can be one example of such PLNs where professional online resources are available and explicitly targetting any teachers' interests and needs. The relevance of the materials and the teachers with the same interests, concerns, and needs make collaboration on such platforms and web services a unique personalized professional learning experience.

In the UAE context, though there are a few local studies in the professional learning literature, Azaza, Litz and Hourani (2021) succeeded in their case study conducted in Abu Dhabi to reveal how a group of teachers professionally learned and conceptualized their learning. The study was based on qualitative data collected from teachers and educational leaders that also aimed to explore and assess school policies that influenced teachers' professional learning. The researchers

reviewed the vital role of school leaders in assisting teachers to meet their learning options and reflect on their weaknesses. This exploratory case study revealed that despite the sustainable nature of the teacher's professional learning offerings, it was not embedded in teachers' practices. Also, results showed the lack of teachers' choice to initiate or own their learning and a lack of leadership support. Finally, it was found that there is a gap between the policy and implementation due to the lack of an appropriate professional learning model.

Al Ahbabi (2019) investigated the school's effectiveness from diverse stakeholders' perceptions in a mix-method study. Results showed that there was a need for having a professional learning community with leadership that encourages teamwork. They concluded with a critical need to change the leadership practices and approaches to more shared ones because leadership and a supportive learning environment come at the center of school reform toward effectiveness.

Buckner (2017) conducted a study among teachers in Abu Dhabi using Teaching and Learning International Survey (TALIS) 2013 data from the OECD and a new set of data collected through surveys in 2016. Each data targeted a specific population to understand the status of teaching and teacher professional satisfaction in the UAE. The second sample included 297 residents from different nationalities, gender, and age group in Ras Al Khaimah. After overviewing the importance of professional satisfaction and the educational system in the UAE, the TALIS data analysis revealed that teachers' professional satisfaction was significantly and statistically predicted by teachers' perception of the value of teaching as a profession regardless of the enormous disparity in total teacher's satisfaction between expatriate teachers and Emiratis. In the second part of the paper, based on the new data, the researcher discovered that the status of the teaching profession was low for Emiratis because of the payments. The results of this study pointed to several factors that were linked to teachers' professional satisfaction, among which the "types

of professional support, administrative practices, and policies, opportunities for input into decision-making, and school-based leadership increase teacher satisfaction with their specific schools” (Buckner 2017, p. 30).

Also, Hourani and Stringer (2015) conducted an exploratory study in Abu Dhabi to understand principals’ perceptions about areas to enhance professional learning. The case study relied mainly on qualitative data from semi-structured interviews with 16 principals from different educational backgrounds. The researchers provided a substantial literature review on the five professional learning standards that involved how principals can lead strategically, lead teaching and learning, lead people, lead the organization, and lead the community as stipulated by ADEK. The paper showed critical areas for improvement in professional learning, precisely addressing content and process. More particularly, the areas related to content enhancements fell under the principals’ knowledge improvement category, and for process, it was in delivery, support, timing, and communication. The study recommended that policymakers identify tangible and particular indicators for each standard and the expected principal’s roles and functions in the context of change. Concerningly, McChesney and Aldridge (2021) used the constructivist grounded theory to explore 131 teachers’ perceptions of the contextual factors that impact the implementation of professional learning models in the UAE, particularly Abu Dhabi, during the academic year 2013-14. The paper developed a model to identify contextual factors and barriers hindering teachers’ professional learning implementation. It revealed a few barriers, some of which are school-related or access-related barriers to effective implementation of professional learning portrayed by how school leaders can either facilitate or hinder teachers’ accessibility to professional learning. Another interesting feature of the conceptual model is that it utilizes teachers’ voices to understand their perceptions of what works. In this sense, the study found a need among teachers to be



recognized as adult learners and be offered agency in their professional learning activities. It was concluded that one-size-fits-all models ignore and never differentiates teachers’ voice and choice, leading to their rejection and frustration.

### Examples of Leadership Support and Enabling Conditions

Leadership Support & Enabling Conditions	Resources	Prominent Findings
<b>Internationally</b>	In the USA, Sandholtz and Ringstaff (2016)	Context impacts the sustainability of PL practices in teachers’ science education.
	In the USA, Whitworth and Chiu (2015)	Enabling work conditions and school culture at schools facilitates effective teachers’ PL and change.
	In China, Wang and Zhang (2021)	School principals directly influence teachers’ professional skills and learning.
	In Portugal, Amante and Morgado (2017)	School leadership support increases teachers’ effectiveness, engagement, and collaboration.
	In New Zealand, Cardno (2005)	Leadership support facilitates teachers’ PL and growth.
<b>Locally (UAE)</b>	Azaza, Litz and Hourani (2021)	A gap exists between policy and implementation due to the lack of an appropriate professional learning model.
	Buckner (2017)	The kind of school supports, practices and policies, opportunities for input into decision-making, and leadership are factors that influence teachers’ satisfaction with their profession
	Hourani and Stringer (2015)	Areas related to principals’ content, delivery, support, timing, and communication are critical factors that can impede or facilitate PL.
	McChesney and Aldridge (2021)	School leaders who ignore and never differentiates teachers’ voice and choice lead to rejection and frustration.

**Table 2. 5: Key Findings from the Leadership Support and Enabling Conditions of Effective Professional Learning.**

### 2.4.2.2 Summary of the State of Professional Learning and Its Key Features

The literature has consistently focused on key features of effective professional learning. The main purpose of these features is to design a unique path for teachers and instructional supervisors to assess or evaluate the implementation of the professional learning offerings and guide or shift the teachers' professional learning process toward effectiveness in providing new strategies that can impact students' outcomes. Table (2.6) shows a visual of the main identified features synthesized from the literature review on effective professional learning.

Main Drivers	Main Features	Prominent Findings
Content-Driven Features	Practice-Based Evidence	Effective PL practices are based on data and informed PL decisions. They are data-driven content related to pedagogical practices and teachers' subject knowledge.
	Student-Driven Content	Effective PL practices have a strong emphasis on students' outcomes.
	Self-Directed Content	Effective PL practices empower teachers' voices and choices. They are based on a developed vision. They balance what the system needs and what the teacher needs. They focus on teacher leadership
Process-Driven Features	Multiple Learning Opportunities	Effective PL practices have long-term engagement, ongoing participation, and active participation.
	Collaborative Learning Opportunities	Effective PL practices create a professional learning community with shared leadership; inquiry-based learning; shared values and vision; shared practices.
	Job-Embedded Opportunities	Effective PL practices boost teachers' effectiveness due to their relevant and practical nature.
Leadership Support &	Internal Leadership Support	School leaders should intentionally engage in proactive leadership support, continuous follow-up, guided support, developing a

Enabling Conditions		vision, leading learning, and organizing learning opportunities.
	External Leadership Support	Effective PL practices are supported by the external system, external professional learning providers, experts and specialists, and universities.
	Policies	Effective PL practices are empowered by policymakers, who believe that any limitation at the policy level will be reflected on the practical level.
	Resources	Effective PL practices have access to funding, effective allocation of Human Resources, and timing.

**Table 2. 6: Summary of the Key Features of Effective Professional Learning and Its Prominent Findings in the Literature.**

## **2.4.2 Trends in Professional Learning**

Research concerning professional learning has taken two divergent paths in the related literature. A large-scale of studies solely focused on the ‘top down’ approach to professional learning and examined its effectiveness simply because it was the only available approach. Conversely, a new trend emerges and offers a promising future of professional learning when teachers personalize their own learning experiences in a supportive and job-embedded professional learning environment.

### **2.4.2.1 Top-Down PL Approach**

To begin with, the previous ‘fix it’ top-down professional learning formats gained attention and are still preferred by many teachers and leaders until the moment of writing this thesis for some reasons. Knight (2007) illustrated three fundamental reasons that impede educators from shifting into new effective professional learning strategies worth embracing and implementing to enhance teachers’ and students’ learning experiences. The first reason might be shortened to a phrase called

‘pressing immediacy,’ where everything is critically important and urgently needed from teachers. For instance, on a typical school day, teachers must mark piles of papers, approach parents, plan lessons, complete reports, participate in meetings, and perform many other tasks and duties. Therefore, they must do all these responsibilities while focusing on a profession requiring high emotional resilience. As a result, even if teachers try to apply some, they might struggle or not have the energy to implement a new initiative. Another unsupportive leadership practice that has prevailed in schools with reform initiatives is the tendency of more being better, even if more means more plans with no practical implementation strategies. Such immediate, unplanned, and unbalanced leadership requests have left teachers alone, demotivated, and overwhelmed by innovation overloads. The last reason that impedes educators from showing change once needed is that change is difficult and needs consistent disciplinary measures to daily habits and routines, which are usually not accessible. Thus, teachers and leaders, who are reluctant to manage change, end up stuck with the traditional professional learning model, where decisions are leaders-driven with expected compliance from teachers.

The literature on professional learning has a consensus position that the traditional forms of top-down professional learning proved their ineffectiveness due to the forthcoming red flags and reasons (Baird & Clark 2018; Darling-Hammond et al. 2009; Knight 2007; Maggioli 2004; Reeves 2010; Rodman 2019; Zepeda & Ponticell 2018).

1. It includes all groups of teachers regardless of their backgrounds.
2. It is episodic and disconnected sessions.
3. It confines teachers in rows to listen to a lecture.
4. It is irrelevant in content as it is not based on teachers’ and students’ needs.
5. It lacks self-directedness as it ignores the adult learning model.

6. It is decontextualized as professional learning content is not based on classroom challenges and concerns.
7. It uses ineffective strategies as little knowledge is transferred into implementation.
8. It dismisses follow-up or feedback.
9. It dismisses collaboration, active participation, and teachers' voice.
10. It has a top-down decision with little or no choice for teachers.

There are a few common forms of traditional top-down professional learning demonstrated with lecturing and offered in random participation in the identified literature (Campbell et al. 2017; Darling-Hammond et al. 2009; Garet et al. 2001):

1. Training sessions
  - a. Workshops
  - b. Presentations
  - c. In-service activities
2. University courses
3. Observational visits to other schools

The dissatisfaction with the top-down professional learning offerings was echoed in the international literature with studies that supported principalship's exclusiveness of choice and voice in professional learning. In Zimbabwe, 48 teachers participated in a qualitative case study to explore how principals' effective performance could impact teaching practices. Though teachers were positive in their perceptions that instructional supervisors effectively promoted professional learning, the study reveals a need for a well-planned program of instructional supervision to promote quality in teaching practices (Tshabalala 2013).

Easton (2008) argued that schools should shift their professional learning practices from training teachers, which fits more the traditional factory approach to learning or developing them, which is insufficient, to actively engaging in learning activities that reach teachers to become independent self-learners. In the same vein, Polly and Hannafin (2010) reviewed the literature on professional learning to propose a framework detached from the old traditional approaches to professional learning and centered on teachers' learning to facilitate their instructions. Six characteristics were identified and associated with learner-centered professional learning: Focus on student learning, teacher's ownership, developing knowledge of content pedagogies, collaboration, ongoing professional learning, and supporting teachers to reflect on their practices. The paper also focused on how integrating technology can assist teachers in learner-centered professional learning.

Professional learning experiences that struggle to meet the needed level to produce positive effects on students' learning or teachers' practices were ironically found to consistently share the same feature of top-down dependency in their approach to addressing teachers' professional learning. For instance, despite the apparent relationship between teachers' professional learning and students' learning outcomes, a meta-analysis study questioned the challenge of linking teachers' professional growth to specific student success since they are "far from perfect and varied in its quality and effect" (p. 496). Also, it was noted that workshops were not the main reason for the insufficient professional learning offerings; however, the researchers ensured that one-shot workshops are inefficient, especially when they dismiss to provide follow-up or real support to teachers. The study pointed out that instructional supervisors and leaders of planning and implementing the professional learning process must learn how to critically review and evaluate the effectiveness of their efforts to promote effective learning for their students and teachers (Guskey & Yoon 2009). Also, Borko (2004) reviewed a few critical elements from the literature

on teachers' professional learning. Elements referred to the professional learning program itself, the teachers as learners in the program, and the instructional supervisors as facilitators for teachers' learning and the context of the program. The study aimed to provide a clear terrain for effective professional learning. The researcher in the paper synthesized the conceptual analyses of professional learning literature to develop three consecutive phases that covered prevailing practices and activities. The review assured that effective professional learning is a well-defined and designed program that occurs in multiple contexts and is not only restricted to short workshops or training sessions. Effective professional learning should consider the individual teacher-learner and the social structure. Also, it should support teachers with diverse professional learning opportunities to deepen relevant knowledge and enhance their practices.

Another three-year longitudinal study of teachers' professional learning and its impact on improving instructional practices in mathematics and science from 1996 to 1999 using a purposively chosen sample of roughly 207 teachers across 30 schools across five American States. Findings demonstrated ineffectiveness in the traditional professional learning activities that include workshops, conferences, and courses to support the idea that professional learning is an individual teacher experience that can be more effective when teachers actively participate in engaging learning activities that are long in their duration and more reactive to teachers' needs and goals (Desimone et al. 2002). Also, Garet et al. (2001) used a large-scale evaluation sample of 1,027 mathematics and science teachers to investigate the relationship between various recognized features of professional learning in the research and self-reported growth in teachers' knowledge, skills, and instructional practices. Among the findings, sustained professional learning proved more effective than the shorter professional offerings. It was also found that professional learning that centers on certain effective features like content -focus provides teachers with an opportunity

for active learning. The same happens when professional learning fully integrated into the faculty's daily existence is more likely to improve skills and knowledge than traditional professional learning. Darling-Hammond et al. (2009), who believe that long-term professional learning strategies are more empowering for teachers' and students' learning than the shorter series of disconnected workshops, went in the same direction in a two-year study in the United States to find from the analysis that though progress in teachers' professional learning existed. Nevertheless, the structures and support required to maintain teacher transformation to job-embedded professional learning in collegial settings failed miserably for several reasons, including the lack of teachers' involvement in collective decision-making and problem-solving.

This dissatisfaction was also mirrored in the local literature in the UAE by Badri et al. (2016), who investigated teachers' perceptions of professional learning to identify their needs, challenges, and impacts across the professional offerings. The mixed-method study examined 4,941 secondary teachers from Abu Dhabi public, private, vocational, or regular schools. It compared different variables: age, gender, and school type (public or private) and analyzed its data statistically through individual ANOVAs. The instrument used was the teaching and learning international survey (TALIS) developed by the Department of Education and Knowledge in Abu Dhabi (ADEK). The overall results indicated the paucity of evaluation for professional learning to determine the program's actual impact on the teachers' practices. Findings from the focus group interviews showed that teachers were dissatisfied with the structure of professional learning in Abu Dhabi as they "revealed a lack of deep and meaningful involvement on the part of teachers in professional development planning, implementation and evaluation" (p. 11).



#### **2.4.2.2 Bottom-Up PL Approach**

According to Nazareno (2016), the main issue with the current educational system is how the schooling system still lives the effects of the long history of operations under a traditional top-down leadership structure. In such a schooling structure, students are treated as products in a production line, and teachers are treated as industrial workers who come at the paradigm's bottom in stark opposition to their leaders. In other words, the chief problem lies in the system that ripped teachers from having the opportunity to solve the teaching and learning problems they face on their own; their autonomy is marginalized, and their voice is never elevated. The leading alternative solution proposed is letting teachers lead their learning where they strive for professional growth. Teachers 'collective autonomy' should not be confused by leadership with total freedom but more by flipping the educational system in its structure to "replacing top-down accountability with bottom-up support for teachers" (Evers & Kneyber 2015, p. 5). A bottom-up approach means that teachers make decisions, choose topics, and plan and organize their own professional learning activities to address the needs and issues that are most important to them (Macias 2017).

Unlike the prescriptive top-down approach, bottom-up strategies generally place the teacher at the center of the learning process (Priestley, Biesta & Robinson 2015). It is worth mentioning that a growing body of recent literature described that bottom-up professional learning is embedded in teachers' jobs and tailored to their growth needs. In such a vein, Rodman (2019) contended that the most successful designs for adult professional learning are personalized. They meet teachers strictly at their pace, address their particular learning needs and requirements in formats that correspond with their preferences, and assist them in achieving actual improvement. Likewise, Gregory (2013) pointed out that teachers' job-embedded professional learning experience should

improve students' learning by fostering a better knowledge of academic subjects and expanding instructional activities. These discoveries should be used to meet school-wide needs and further the teaching and learning research while monitoring their impact. Collegial discourse is always an essential part of job-embedded staff development. Heller (2004) emphasized that the effective professional model is not detached from teachers' daily activities; on the contrary, it is a job-embedded professional learning atmosphere. According to Maggioli (2004), teachers should view effective professional learning as a job-embedded effort to advance their pedagogical goals while meeting their own specific needs. Díaz Maggioli's envisioned professional learning practices are distinctive from the characteristics of the traditional professional models in the literature, as tabularized in (Table 2.7).

#### **2.4.2.2.1 Bottom-Up PL Strategies**

The term 'strategies' is used interchangeably with activities, modes, types, and formats to approach professional learning models and designs. Murray (2013) presented a list of eight highly effective strategies centered around the best-recommended features of professional learning in the literature. Common among the eight recommended strategies is that they are disconnected from the traditional top-down approach to professional learning, need a supportive leadership team, and invite personalization in the adult learning context to grow and develop effectively. In other words, most enlisted strategies are bottom-up, job-embedded, and ongoing. Also, it is worth stating that teachers can combine practicing these strategies between individual and group work. This includes collaborating with a personalized focus, whether individually with their instructional supervisors or collectively with other teachers. In both cases, no collaboration comes without leadership support and active participation. Though most of these strategies do not require direct leadership

involvement, leaders might sometimes need to facilitate and participate in the learning activities directly, yet the top-down pressure should be released, and tangible support must be primary.

### **Action Research (AR)**

Huang (2010) defined action research (AR) as a knowledge construction approach that emerges in practice and necessitates academic collaboration. Action researchers attempt to move knowledge production outside the governance of professional learning providers as it reflects a transformational direction to knowledge creation. AR prepares action researchers-teachers- for rounds of action and reflection, and as a result, they must be attentive to how change initiatives are developing and the effect that their involvement (the intervention) is having.

Murray (2013) underlined some advantages of AR as it can be conducted individually or in groups based on the nature of the investigated problem. It also secures relevance to teachers' needs in opposition to traditional educational research since it is directed by teachers and their students at their schools; on questions, they raise regarding difficulties they encounter in their everyday work and because they are less interested in the generalizability of the findings.

Glanz (2003) suggested four steps to guide teachers in their AR. Selecting a focus is the first step based on three requirements: realizing what is needed to be investigated, coming up with research questions about what is needed to be investigated, and sketching a plan to answer these questions. After narrowing the scope of the study, the teacher can start collecting and organizing data to be analyzed in step three, where the teacher-researcher is expected to interpret the analyzed data to make informed decisions about the research. In the last step of the AR, the teacher takes action toward what is investigated. The researcher might proceed to adjust/change what is implemented or stop at a particular decision. However, AR is an ongoing process that continues as long as there are instructional practices in the classroom. Thus, Zepeda and Mayers (2004) believe that AR

empowers teachers' professional learning for several reasons. First, they are the investigators engaging in various testing relevant activities (examining a hypothesis and collecting and analyzing data). Secondly, teachers can apply changes in practice based on significant evidence; finally, the teacher implements decisions depending on what makes far more impact in the classroom activities.

To sum up, AR is an effective professional learning strategy because it is directly linked to teachers' needs, embraces teachers in the process of self-reflection on how and why particular instructional strategies and decisions are made, fosters the development of solid collegial relationships, and advances the development of a professional learning community (Murray 2013).

### **Mentoring**

Gilles and Wilson (2004) highlighted that mentoring is a process designed, controlled, and supervised by mentors with more expertise to provide support and direction to others. Also, the mentorship process is developmental as mentors are relieved of teaching obligations to be mentors, resulting in more concentrated mentoring. Maggioli (2004) distinguished between mentoring and tutoring to explain that top-down decisions always characterize the latter; in contrast, mentoring is a reciprocal growth process in which the mentor and mentee participate in cycles of active learning that improve performance for everyone involved. Simply put, tutoring is done for learners while mentoring is done with them. Like the rest of the professional learning strategies mentioned in this part, mentorship needs a supportive culture of adult learning to be influential; Murray (2013) added that mentoring involves individualized professional support, especially for novice teachers where it is central to consider a few essential steps to ensure its effectiveness. The first step is creating a focused vision where instructional supervisors define the mentoring program's purpose and anticipated outcomes. Then they set competencies and responsibilities around selecting a mentor

with great professional practice and experience. The third guiding step is critical as it focuses on developing a structure for mentoring. The traditional mentoring program is structured one-to-one when an assigned mentor meets with a specific mentee that teaches the same grade level. However, another mentorship structure has been attracting schools recently, where a group of mentors is supposed to provide help and guidance in various professional learning areas. Finding the necessary time is the fourth step in mentoring, where mentors and mentees usually find it challenging to find sufficient time among the many daily tasks and responsibilities to meet formally and informally. This challenge is usually associated with another financial challenge that needs to be addressed before any mentoring program. The fifth step is designing a mentoring process to identify and select the mentor through a formal and insightful process with an interview and evaluation criteria by a committee, including the principal. The last step that ensures an effective mentoring program is determining training methods and providing ongoing support for the mentees to deal with their challenges efficiently.

Mentoring is an effective professional learning strategy as it addresses the personalized needs of the mentee's teachers and fosters their learning and growth, allowing them to imprint on their school by passing on their expertise and skills to newcomers. Gilles and Wilson (2004) stressed that mentoring is determined to be ongoing professional learning, as it offers mentors opportunities to attain insights into their teaching and mentoring duties and develop their leadership skills.

### **Peer Coaching**

Peer coaching is characterized as instructors assisting other teachers in reflecting on and improving teaching methods and implementing specific teaching skills required to incorporate information learned within the schools' departments (Sullivan & Glanz 2000). Peer coaching is often interrelated with peer assistance, collegial, technical, and cognitive coaching. Most of these

strategies are variants of teacher-to-teacher support of equal peers that do not include an evaluation. To add more emphasis, Showers and Joyce (1996) define peer coaching as “when pairs of teachers observe each other, the one is teaching is the ‘coach’ and the one observing is the coached”. In this sense, the observing teacher is learning from the coach and not evaluating. Whereas Kennedy (2005) examined the relationship between mentoring and coaching to reveal that even though both take place within the school context and share one-to-one characteristics of professional learning, they differ in that mentoring involves a hierarchical relationship between novice and veteran teachers in opposition to the collegial relationship of peer coaching.

Similarly, Murray (2013) stated that unlike mentoring and instructional coaching, where the external coach or mentor targets novice teachers or coaches, teachers with an agenda detached from the school’s context, peer coaching is a job-embedded professional learning strategy tailored to teachers’ instructional needs. Peer coaching includes practices that range from sharing, reflecting, and refining teachers’ practices giving continual mutual assistance, participating in a professional discussion, offering nonjudgmental comments to one another, and developing a collaborative culture. There are three types of peer coaching. The first is directive coaching when one teacher guides the other by offering active instructions, numerous skills, and techniques for success. The second type of coaching is collaborative coaching, which occurs when a teacher and a coach collaborate to examine an issue and propose various methods to fix it. It is an appreciating approach that emphasizes and develops each teacher’s strengths and experience. It also recognizes that each teacher can be innovative and inventive and generate personalized results unique to them and their scenario and setting—nondirective coaching, the final type of peer coaching. Like collaborative coaching, it entails teachers agreeing on the desired outcome and engaging to examine alternative ideas. On the other hand, nondirective coaching attempts to assist the other

teacher in confronting and understanding the preconceptions that may have led to the current issue (Murray 2013).

According to Robbins (1991), peer coaching has a few benefits once implemented well.

1. Peer coaching aids in addressing the root causes of teacher isolation. It is advantageous for teachers to connect with the teaching skills of their colleagues. New norms of collaboration may develop when instructors engage in peer coaching to examine, assess, and enhance classroom methods.
2. Peer coaching empowers teachers to make decisions in resolving issues related to their instructional practices and considers several potential solutions to enhance student learning. It encourages colleague discussions that are embedded in their daily work with students.
3. Peer coaching, when properly handled, encourages teachers to work smarter rather than harder. Many teachers who were engaged in peer coaching stated that they have celebrated individual success and learned a lot from their peers away from the traditional trial-and-error work experiences, thus, reducing the pressures on the teacher and saving time.
4. Peer coaching may contribute to transferring newly acquired knowledge to the classroom if all individuals embrace the practice change.
5. It allows teachers to tailor their learning with a personalized professional learning plan. They can become action researchers in their respective fields, own their classes, and look into the links between their teaching practices and implications. In this way, teachers can customize and direct their professional learning based on their most relevant and unique needs.

6. Peer coaching can give a much-needed real-time opportunity for teacher reflection. When teachers reflect on what they have learned and performed, they obtain personalized insights about their teaching and change their practices to better meet their students' needs.

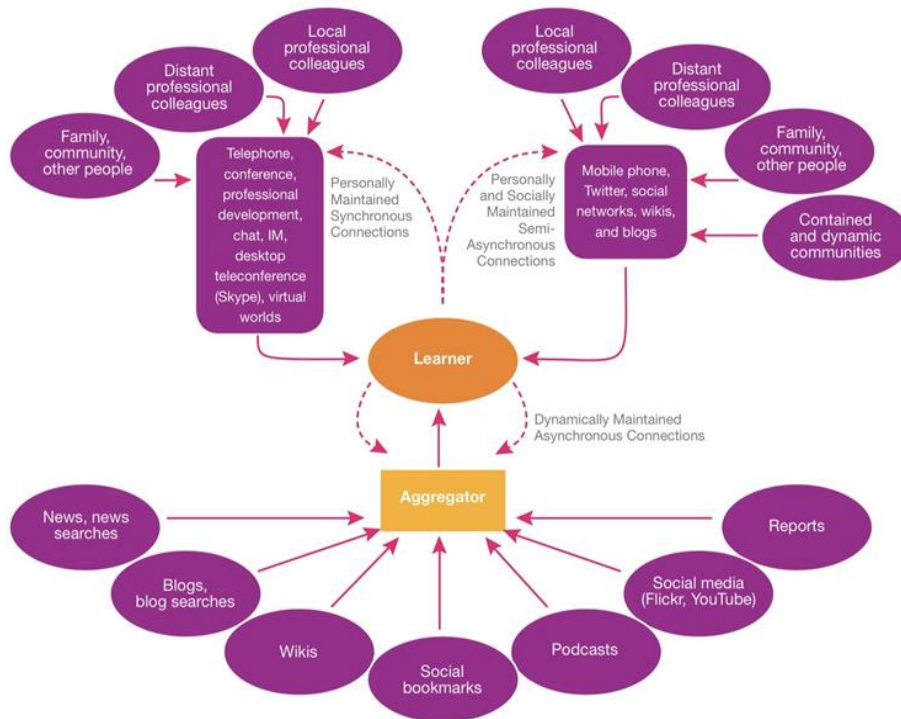
Peer coaching is a successful professional learning strategy because it solves the shortcomings of traditional ways of teacher professional learning teachers' needs while providing a space for fruitful professional cooperation. Providing training, establishing a trustworthy, collaborative school culture, and maintaining an unbroken emphasis on improving teaching methods while offering using sufficient time without linking it to teacher evaluations; instead, giving leadership assistance and support are a few essential elements recommended to ensure effective peer coaching practices (Murray 2013).

### **Personal Learning Networks (PLNs)**

Hirschy (2016) defined personal learning networks (PLN) as a new way of teacher learning where a group of teachers forms a network on any given social media platform to share knowledge and exchange expertise, and it becomes job-embedded in teachers' everyday practices (Prestridge 2019). Also, it is defined as an either online, face-to-face, or blended platform that provides personalized professional learning and tailored instruction for groups and individuals. It assures teacher success, creates a space for collaboration between experts and like-minded peers, provides necessary resources while distinguishing various degrees of teachers' needs, and provides a non-judgmental space where all voices are heard. It is the medium in which teachers can professionally learn and grow at their own pace across diverse topics related to, but not limited to, students' learning styles, outcomes, and teachers' pedagogical practices (Thompson, Kitchie & Gagnon 2011).



Figure 2.5 presents three types of connections to facilitate the creation of a PLN model structure: synchronous, semi-synchronous, and asynchronous sources. The synchronous connections are the conventional networking structure, encompassing the people and events teachers refer to answer inquiries, find solutions, and complete tasks. Teachers may now use digital tools such as chat, instant and text messaging, teleconferencing, and microblogging to broaden their network. That is like going to a school meeting, except more accessible because the usual constraints of location, language, and culture dissolve. Semi-synchronous collaboration implies that collaboration does not have to occur at some point. They are more likely to be distributed to a community of educators who, due to their interests, expertise, abilities, or views, are in a position to assist teachers in resolving practical challenges. Not only may collaborators be physically distant, but educators can also participate in a conversation when it is most convenient for their schedules, independent of time zones or office hours. Social network sites, online group forums, and blog commenting are some of the tools educators may use to develop and grow this network. The first two forms of connections link teachers with other learners, whereas asynchronous connection most typically connects teachers with material sources they have selected as particularly beneficial. The RSS aggregator or feed reader is the critical tool for such communications. The computer software aggregates specific information from various web sources, known as an aggregator. Aggregators like Pageflakes and Netvibes are at the heart of many educators' PLNs because they arrange relevant content information that allows teachers to conduct their jobs more efficiently and quickly. Thus, when teachers subscribe, follow, and tag Facebook/Instagram photographs, YouTube videos, News searches, or podcasts, they tell all of this material how to arrange and distribute itself to them (Warlick 2009).



**Figure 2.5: The Networked Learner and the Various PLNs' Connections** (Warlick 2009, p.15).

Teachers' traditional professional learning struggles to impact their instructional methods and students' outcomes as they used to be treated as passive users of knowledge where their learning is detached from the issues they experience in their classes. PLNs, on the other hand, actively engage them in the collaborative creation and dissemination of professional knowledge tailored to their relevant needs and interests as they are exposed to a global and immensely diversified world through PLNs. PLNs are practical tools for accessing, inquiring and sharing information and instructional expertise. They can support instructors in resolving practice challenges and developing sustained learning abilities. They can also assist teachers in benefitting from just-in-time learning through PLNs. They help teachers in staying in progress while also encouraging instructional creativity. For an effective professional learning model, teachers must soon be

required to balance their professional learning between the in-school collaborative strategies and PLNs' collaborative connections (Murray 2013).

Arguably, Rodman (2019) asserted that many teachers who connect with their PLNs considerably show more engagement than they do with school-based workshops. Nevertheless, she cautioned against school leaders who address teachers' demands the traditional professional learning offerings by substituting technology integration workshops for traditional sit-and-get sessions. In doing this, they risked conflating a need for technologies with a desire for tailored professional learning, or in other words, they provided a wide variety of the same poor products. As a result, teachers will probably end up no closer to obtaining what they genuinely need, i.e., a strategic and long-term direction to assist them in growing.

Finally, teachers' professional learning might benefit from opportunities to establish their own professional networks and engage in social learning. Professional learning that is personalized and bottom-up-driven can benefit teachers. These characteristics guarantee that teachers' learning experiences are centered on their needs, requirements, circumstances, preferences, and interests (Tour 2017).

### **Online Professional Learning**

Online professional learning (OPL) has recently gained significant attention due to the corona pandemic. It brings tremendous changes and impacts to professional learning and its dynamics, as Alexandrou (2021) reflected on how the professional learning community becomes more innovative and flexible due to online professional learning offerings. Foote (2015) counted OPL as a personalized professional experience tailored to learners' learning interests or needs. Online professional learning can be beneficial in gaining knowledge and even watching video

demonstrations of effective teaching or leadership. Some OPL providers also include an interactive, real-time conversation between teachers (Mizell 2010).

Murray (2013) clarified that online professional learning was initiated from a need to provide teachers with job-embedded learning support that might not be available locally, pushing many schools and teachers to seek knowledge online from various external professional learning providers and programs. While OPL is still new to schools, evidence is mounting in the literature that it can suit the requirements of many instructors better than face-to-face strategies (Masters et al. 2010; Pawan et al. 2021; Shemy & Al-Habsi 2021). An online approach to professional learning provides instructors with a unique way to organize knowledge, receive feedback, and share materials with peers. An OPL community can grow to address teachers' specific needs and interests around a particular topic, connecting them to their colleagues from a distance. Online professional learning offers various benefits. It offers teachers continuous access to information and guidance and engagement with other instructors before and after the program is completed. It also caters to various learning styles and preferences tailored to teachers' learning needs and interests. Written content, video meetings, video clips, face-to-face meetings, e-mail, discussion boards with other course participants, and group work are standard components of an online course.

### **Lesson Study**

Murray (2013) defines lesson study as a set of shared reflections on teachers' best practices in the classroom, focusing on how students can better learn and what teaching materials, content, and instruction can better improve classroom practices. Lesson study centers on professional learning discussions concerning teaching and learning, which eventually promotes professional knowledge and experience. For Lewis, Perry and Hurd (2004), Lesson Study establishes a collaborative

approach for ongoing pedagogical enhancement, not just refining one model lesson. To Cerbin (2012), a lesson study is a unique approach that “has been molded by the needs and interests of practitioners” (p.23).

Fernandez and Yoshida (2004) highlighted that the lesson study approach originated in Japan and proved its effectiveness in enhancing students’ and teachers’ learning. The researchers enlisted six steps that define the process of lesson study. Through this process of repeated practices, a group of teachers in the lesson study initially collaborate to plan the lesson, where they sit together to share what best teaching design can fit the details of their lesson plan based on their prior knowledge, experience, observations, and materials. In the second step, one of the teachers takes a turn teaching the lesson while the rest of the group will be observers with a lesson plan as an instrument to guide their observations. In step three, they meet again and reflect on the lesson after observing their plans. In step four, the lesson is revised to be retested in step five, and then teachers will come up with a clear and shared understanding of what works and what does not work with their students before they write their final report that records the whole professional learning process. Murray (2013) adjusted the lesson study process by adapting the Japanese steps to be more research-based and contextual. The first step tackles the mechanism and the conditions of forming a lesson study group where it is suggested that 4-6 teachers from the same level or teaching the same content in trustworthy and supportive adult learning conditions join together to establish the group norms from expectations, time schedules, and mechanisms. Then they set professional learning goals related to students’ learning and achievement. In the second step, a research lesson plan is facilitated through collaboration based on best practices in the literature, teachers’ experience, and available resources. The outcome of this step is a research lesson. Cerbin (2012), who emphasized the impact of lesson study as a practical approach to improve teachers’

instructional inquiry and powerful professional learning strategy, recommended in step two to use of a background design for planning the lesson study, which involves teachers starting from the learning goals and not from the topic in the subject matter. This way, they develop the right strategies that support teachers' attainment of their students' learning objectives. In phase three, Murray (2013) revealed that lesson demonstration and observation would draw inferences and share reflections based on the evidence collected from the lesson with a primary focus on students' progress in response to the teaching practices and learning goals. In step four of the cycle, a post-lesson discussion should be scheduled shortly to highlight the main pros and cons of the research lesson. Teachers must compare and analyze the collected observational data to develop patterns and implications for improvements.

Similarly, Cerbin (2012) proposed the previous steps with additional scrutiny and analysis of students' written work and assessment to gain an in-depth and accurate understanding and measurement of the lesson study. In steps five and six, the group should revise what needs to be removed and what needs to be added to the lesson study, where another teacher from the group will retest a new updated version of the lesson to evaluate the new changes. Afterward, the group meets again to reflect and review the whole instructional process to reach a shared vision of best teaching practices across the content, student learning, and classroom activities. The lesson study approach ends after the teachers write their reports and document their work with conclusions and recommendations. Teachers are finally encouraged to share the best practices across the school, publish a research paper based on the findings, or share findings at a conference (Cerbin 2012).

Lesson study is an effective strategy to improve personalized professional learning driven by domains related to content knowledge, pedagogical content knowledge, practice-based evidence, and students' learning and outcomes. It is based on a relevant and supportive context for adult

learning where teachers can share their needs, interests, experiences, decisions, opinions, expectations, and judgments to enhance their instructions and professional learning (Murray 2014).

### **School Rounds**

The available models in the literature on school rounds are (a) teacher rounds and (b) instructional rounds, Murray (2013) explained how both models share the same goals and objectives, but they only differ in their scope. Teacher rounds focus on instructional practices in a detailed manner and context, while instructional rounds have a broader scope to cover all instructional practices in a school. The philosophy of school rounds originated in the medical learning rounds framework and was brought into schooling to better improve teachers' pedagogical practices and professional learning. It is structured around a group of 4-6 teachers who go through endless rounds per the academic year to visit classrooms and observe lessons. The cycle starts with one teacher planning a lesson and inviting the rest of the group members to attend a pre-lesson meeting where the lesson goals and details are shared with the group. Afterward, the group might video record the lesson to review, observe, and collect evidence on students' learning. Then, a debriefing session is organized in a post-meeting with the host teacher to share and reflect on the enabling conditions and best practices the group noted to improve teaching and learning. Afterward is the post- rounds reflection, where the host teacher reflects on what is received from teachers and what is reviewed from the recorded lesson with an intent to improve and adjust the instructional practices.

According to Marzano, Frontier and Livingston (2011), the school rounds have two primary purposes. The first purpose involves a self-reflection opportunity for the observer's teaching practices while attending and observing the host teacher. Another purpose lies in getting an opportunity to be engaged in a professional learning discussion related to a relevant instructional

practice or need. The two purposes have nothing to do with ‘walkthroughs’ that are usually shorter and more evaluative.

Murray (2013) argued that school rounds are an effective professional learning strategy for the following reasons. First, teachers need various chances to try new ways, incorporate new ideas, and give feedback. School rounds give these chances and aid in transforming queries about practice issues into personalized learning. Teaching can be enhanced by doing it, thinking about it, and criticizing it. Teachers learn best by doing rather than being told how to accomplish something. Secondly, the school rounds strategy is predicated on the assumption that teachers must create standard best practices for schools to improve. This is best accomplished by focusing on the instructions rather than the instructors. The emphasis must be on creating and adopting progressively practical approaches while eliminating unsuccessful practices. Finally, individual and group effectiveness improves as a result of learning. The entire institution enhances when instructors better know the link between how they teach and how and what students learn. For significant changes in student learning to occur at the schoolwide level, best practices must percolate from individual instructors to the group level. Individual instructors’ effectiveness is dependent on collaborative efforts and knowledge. Thus, adopting the school rounds is a practical professional learning approach for teachers.

### **Critical Friends Groups (CFGs)**

Critical Friends Groups (CFGs), which stands for essential or urgent friend groups, came into birth in opposition to the ineffective traditional teachers’ professional learning. Its approach is based on the idea that professional learning must be driven by teachers from their daily classroom challenging issues. It depends on a monthly structured meeting where a group of 6-8 teachers from different or same grade levels teaching the same or different subjects sits to critically discuss for



two hours whatever knowledge or challenges they are gaining or facing in instructional methods to enrich their professional learning and improve their professional skills. The CFGs have a protocol guided by a facilitator who plans and monitors the meeting to keep it focused, with a presenter communicating the questions and responding to the discussants, a note-taker recording the meeting, and a process observer reporting the findings at the end of the meeting. The topics of the structured discussions or protocols are focused on keeping every member engaged in all types of conversation, including the difficult ones. To have effective outcomes from the meetings, the group members need to go and implement what was suggested in the CFGs meetings and seek to improve their practices. Also, observing each other between the meetings is advisable to examine the changes related to what was discussed. New insights emerge from the feedback in the meetings to expand their professional learning repertoires (Murray 2014).

The CFGs approach needs to be guided by a commitment from the leadership team to offer teachers ownership of their professional learning. The CFGs can not be forced, yet they can be promoted effectively with leaders facilitating its process from the side. For instance, an instructional leader can encourage the meetings, offer teachers a space of time in their schedules to conduct their observations and meetings, model an inquiry approach by initiating topics for discussions, work as a member of the CFGs, and ensure a context of supportive adult learning in the school. The CFGs have significant gains that the whole school can reap, among which comes in importance is fostering a collaborative adult learning culture where teachers lead their professional learning and elevate their professional voices. Another gain is that CFGs impact teacher practices as they apply what they believe is essential and relevant to meet their challenges, so no one is imposing any decision on them, resulting in more learning. MacPhail, Tannehill and Ataman (2021) also stressed that a critical friend could promote highly personalized professional learning by providing more

focused assistance, encouraging reflection, and challenging teachers to continually enhance their skills and knowledge.

To sum up, discontentment with inefficient, traditional top-down professional learning models led to the birth of the CFGs. The strategy encompasses almost all of the research-based features of effective teacher professional learning; for instance, a focus on pedagogical and content knowledge, an emphasis on students' learning and achievements, and a context to teachers' relevant needs through an ongoing collaborative effort, both in organized full-group meetings and more informal individual sessions.

### **Summary**

In stark contrast with the old tradition of top-down professional learning offerings (Table 2.7), the literature on bottom-up professional learning highly recommends the latter strategies due to their responsive nature and flexible structure. More particularly, the above strategies are job-embedded, collaborative, and personalized. They have been designed to tailor professional learning in response to each teacher's needs, preferences, interests, experience, and opinions to achieve the best practices impacting students' learning outcomes.

The bottom-up model encompasses various professional learning strategies, and the distinguishing feature of these strategies is their flexible structure, where the learning emphasis can be on the one-on-one or group relationship. The one-on-one relationship can often be between two instructors, as in action research, peer coaching, and mentoring. Also, the flexible structure of the strategies permits groups relationship where there are numerous ways for grouping teachers under these professional learning activities; for example, they can be grouped or paired according to their pre-assessed/identified needs, shared interests, and experience. It should be noted that bottom-up professional learning is a job-embedded process and a promise made by educators to support each

other in the profession's goals while attending to their personalized professional learning needs. Also, it should adhere to the ideas that influence experienced adult learners' learning practices in educational contexts that encourage collaboration and sharing of expertise (Maggioli 2004).

<b>Characteristics of Traditional PL</b>	<b>Characteristics of Visionary PL</b>
Top-down decision-making	Collaborative decision-making
A 'fix-it' approach	A growth-driven approach
Lack of program ownership among teachers	Collective construction of programs
Prescriptive ideas	Inquiry-based ideas
One-size-fits-all techniques	Tailor-made techniques
Fixed and untimely delivery methods	Varied and timely delivery methods
Little or no follow-up	Adequate support systems
Decontextualized programs	Context-specific programs
Lack of proper evaluation	Proactive assessment
Pedagogical (child-centered) instruction	Andragogical (adult-centered) instruction

**Table 2. 7: Characteristics of Traditional vs. Visionary Professional Learning** (Maggioli 2004, p.6).

#### **2.4.2.2.2 Prominent Findings in the Literature**

The literature on bottom-up professional learning has presented the model in contrast to top-down professional learning and as a new alternative job-embedded offering that considers teachers as owners of their learning. Teachers under this model are self-directed adult learners, who elevate their voices, make their choices and decisions, customize their professional learning to address their needs, interests, and goals, adjust a timely-paced according to their readiness, and personalize their professional learning in diverse adaptive strategies.

Hathorn and Dillon (2018) investigated the role of Action Research (AR) as a teacher's professional learning that can improve pedagogical practices in the UAE, Abu Dhabi, as implemented by GEMS Education. The study aimed to explore how teachers' participation in AR impacted their instructional practices. Using surveys as the primary data collection instrument, the researcher took two years of investigation. According to the study's findings, there are three main challenges to effective AR: leadership support, timing, language, and resources. Thus, it was recommended that more individual support be provided to teachers during the AR process, teachers should receive more time to work on classroom-based research, and more resources should be made accessible in languages other than English, where appropriate.

Another study was conducted to explore teachers' perceptions of effective professional learning and the impact of action research on their perceptions. Four teachers and a media specialist participated in a study using pre-and post-surveys. The study aimed to explore teachers' perceptions of effective professional learning and the impact of action research on their perceptions. Results revealed a tremendous shift in participants' perspectives on effective professional learning as their definitions expanded and became more precise. Also, due to the participants' engagement in AR, a significant transformation and enhancement to teachers' classroom instructional practices were evident as they became more purposeful and clear (Morewood, Ankrum & Taylor 2013).

Hairon (2017), who believes in the relevance of AR to teachers' ongoing and job-embedded professional learning, investigated the implementation of action research in Singapore and reflected on its reported challenges that made sustaining AR in the Singapore educational system daunting. The first challenge for instructional supervisors was to sustain supporting and directing teachers to the value of AR while embedding it in their professional learning. Also, building

teachers' competency and research skills to engage in AR was another challenging task. Additionally, modeling how AR can be conducted and performed was essential yet challenging. Educators also found it challenging to link AR to students' outcomes, where cooperation between educators and academic researchers at the university level was highly recommended.

Mentorship in professional learning literature has been the subject of much systematic investigation. One study was conducted to understand how the mentorship program impacted new teachers' induction to reach their classroom potential. Its effect was portrayed in how new teachers gained a fresh perspective on their professional growth. According to the surveys' results, mentors were found very helpful for new instructors in coping with classroom challenges, analyzing students' progress, planning classes, creating curricula, and developing techniques for working with different pupils (Fletcher & Barrett 2004).

To help improve the processes for selecting influential group mentoring individuals, Kroll (2017) uncovered in another study how the developmental nature of the mentoring experience depended on the individuals involved—specifically, the personal traits of the mentoring collaborators. The author investigated the participant qualities for influential peer group mentoring. A group of supervisory professionals shared their experiences in interviews to reveal that these characteristics include (a) an interest; (b) a learning attitude; (c) dedication to the mentoring experience; (d) comfort and courage to share struggles; and (e) an intrinsic willingness to help everyone else in their learning, development, and growth.

Another study investigated the impact of mentoring as a professional learning strategy on the mentor and the mentee. Hudson (2013) surveyed 101 teachers and interviewed ten mentors in mixed-method research in an Australian setting. The data indicated that improvements in both teachers' and mentors' pedagogical knowledge were evident yet variable through mentoring. Also,

there were enhancements in communication skills and leadership practices, such as building competency and problem-solving skills.

Likewise, Gilles and Wilson (2004) looked into mentorship by examining mentors' perceptions and progress within an induction program. According to the findings, mentors' professional learning includes relearning, seeing the larger picture, extending their duties, discovering the mentoring process, and comprehending the program's influence on individuals. Mentoring allowed these mentors to better comprehend educational complexities, which boosted their leadership abilities and offered them more competency. Also, it was found that mentoring needs constant support for mentors to act efficiently between the teachers and the leadership team.

In Kuwait, 12 pre-service teachers were targeted in a qualitative study exploring the impact of peer coaching on their professional learning. The study aimed to discover how the head of departments (n=6) supported peer coaching to enhance their teachers' professional learning. Results showed that peer coaching developed positive teachers' relationships, collaboration, confidence, autonomy, enthusiasm, and classroom practices. Also, it was found that heads of departments and principals should be empowered with more authority to implement effective strategies of professional learning similar to peer coaching (Alsaleh, Alabdulhadi & Alrwaished 2017).

Another qualitative case study was conducted for two years to investigate biology teachers' perceptions of the peer coaching strategy and its effectiveness on their professional learning. Teachers' professional learning experiences with peer coaching revealed three main components that influenced the effectiveness of peer coaching. The relationship between teachers was the first component, wherein the findings, not all teachers' pairing was positive and strong. Another component was teachers' commitment to peer coaching. There was a clear difference in teachers' responses to participating in the peer coaching process. The third theme that emerged from the

case study was related to teachers' growth. Teachers perceived peer coaching as the primary driver for their pedagogical enhancement. The researchers concluded that peer coaching should be built on trust and strong relationships between peers and should never be practiced with any supervisory mindset if the school wants to make a difference in teachers' practices (Pearce et al. 2019).

Quasi-experimental research was conducted in China to examine teachers' professional learning participation across two models of personalized professional learning and their impact on teachers' learning and pedagogical skills. In detail, the researchers created a personalized learning model to target teachers who learned using the expert guidance-based personalized learning approach in opposition to the peer coaching-based personalized learning approach on a sample of 20 female in-service teachers who taught the mandarin course in elementary schools. Based on the problems revealed in their lesson plans, teachers appointed a 5-week PPL program. The experimental group used the peer coaching strategy, while the other used the expert guidance-based PPL approach. The findings showed that teachers' personalized learning has positively impacted their professional learning. Also, it was found that peer coaching activity in a PPL context enhances teachers' learning participation and the interactions between the mentors and the mentees. It also improves teachers' practical knowledge, learning capabilities, and pedagogical skills across the experimental group (Ma, Xin & Du 2018).

Personal Learning Networks were examined in a study focusing on teachers' self-directed online professional learning regarding digital capabilities. The paper presented the outcomes of a more comprehensive qualitative investigation and explored how teachers' digital literacy practices influenced their professional learning. The paper identified numerous characteristics of the teachers' learning that made their professional learning effective and different from the traditional models. Such distinctive characteristics are social, personalized, active, interactive, ongoing, and

blended. The research has advocated rethinking the existing traditional professional learning models and providing teachers with more possibilities to “benefit from professional learning that is differentiated, personalized and participant-driven” (Tour 2017, p.18).

In an exploratory mixed-method study, Carpenter, Krutka and Trust (2022) relied on the personalized nature of PLNs to investigate the continuity and change in the PLNs across various school and university educators from many countries. Many factors, such as educators' interests and goals, schools, professional communities, technologies, and contexts, justify educators' shifts to PLNs. The study also found several factors that contribute to changing educators' PLNs to meet their professional needs within their contexts; for instance, people, close social media contacts, and changes in jobs or responsibilities are among the impactful factors on educators' PLNs.

In response to the ineffectiveness of the top-down professional learning approach, Schnellert and Butler (2021) investigated in a qualitative case study the potential of an inquiry-oriented PLN to enable teachers to create meaningful professional learning goals related to their contexts and their needs and practices. Results revealed that using PLNs makes a difference in schools and the educational system. For effective implementation of PLNs, the study found that having a shared perspective, feeling accountable to the group, collaborative legislation of practices within the PLNs, group sharing and providing feedback, sustained cycles of collaborative inquiry, helpful support, appreciating diversity, and drawing from expert resources are critically important.

Furthermore, the Lesson Study strategy was investigated in the Netherlands to examine to what degree it is perceived as a practical approach to promoting teachers' professional growth and what conditions should be addressed when implementing Lesson Study in their environment. Using learning reports with evaluative questions and focus group interviews, the researchers in the exploratory study showed that the lesson study strategy proves to be a supportive professional



learning approach that increases (a) focus on teachers' pedagogical learning and practices and (b) collaboration among teachers. Regarding the enabling conditions, it was found that (a) having sufficient time and (c) having more commitment to be involved in the lesson study groups were among the main conditions that ensure effectiveness in the implementation of lesson study (Schipper, Willemse & Goei 2021).

A renowned study dived into the Scottish teacher community of School Rounds to unravel the strengths and limitations of such a strategy on the professional learning community (PLC) to influence change across the schools. The paper used Learning Rounds, which often replaced the terms school/instructional rounds in the Scottish context. The research relied on recordings of School Rounds from post-observations for the existing debriefing talks. Though the study suggested a lack of clarity in the outcomes or products of the School Rounds because there was an absence of an explicitly expressed question of practice or theory of action, which limited teachers' opportunities to develop a clear 'product' in the form of new practice knowledge, findings showed that the formal statement of a School Rounds concept enables transformational change in practice. This implies that teachers must openly define their expectations about cause and effect in the classroom and utilize their observations to evaluate, revise (or eliminate) these assumptions. In this respect, they are significant for transformative change in relationships and cultures because teachers can become producers of pedagogical knowledge rather than merely users and practitioners (Philpott & Oates 2017a). In the same year, the same researchers conducted another study in Scotland based on the link between teacher agency and Learning Rounds as a strategy of collaborative teachers' professional learning to explore how the Learning Rounds in Scotland might afford teacher agency and whether such socio-cultural affordance was effectively used. Qualitative data from observations revealed that the Learning Rounds strategy enhances teacher

agency. Still, several recommendations should be considered to develop an effective PLC, among which comes the presence of diverse voices in PLC. The study concludes that PLCs can not offer changes in teachers' agency without developing and changing individual identities (Philpott & Oates 2017b).

Likewise, School Rounds was explored when researchers dug into the theory and practice of School Rounds in the United States, the United Kingdom, and Australia, presenting rich profiles of applications and research from School Rounds policies and legislation with teachers. The study revealed that teacher-to-teacher learning is an effective professional learning strategy since it can change practice and improve teaching and learning quality. School Rounds encourages teachers to guide and direct their peers into further nuanced performance (Goodwin et al. 2015).

A Critical Friends Group (CFG) strategy for teachers' professional learning was examined in its effectiveness on a group of Turkish English foreign language teachers. The case study used grounded theory to qualitatively analyze the data from meetings, interviews, questionnaires, and observations. Findings exhibited that through CFG, teachers have opportunities to enhance their preparedness for teaching and learning, collegial relationships, and collaboration (Aktekin 2019). Likewise, MacPhail, Tannehill and Ataman (2021) conceptualized a framework to detect the nuances of multiple critical friend enactments while also advising a potential spectrum of what it means to operate as a critical friend (characteristics, roles, and tasks of a critical friend) to supporting and enhancing teachers' professional learning. The researchers reached considerations that stressed navigating key dimensions that emerged from a critical friendship, investing in creating trust and a safe space, and thinking about critical friendship from the perspective of the individual(s) with whom the critical friend had developed a relationship. It was also reported that using the Critical Friends Group strategy has significantly improved teachers' pedagogical

knowledge and practice. The Critical Friends Group protocols employed in the New Zealand study gave teachers a confidential setting to challenge assumptions and recommend changes, leading to deep introspection, pedagogically rich discussions, and reflection. The findings revealed that CFGs facilitate the creation of collegial discussions and provide peer feedback that can improve teachers' classroom performance (Blake and Gibson 2021).

Further to the findings mentioned above, several breakthrough studies were found in the literature to shed light on the focused nature of personalization in professional learning. In the UK, Jarvis et al. (2012) explored the effectiveness of a personalized needs-led approach on a group of experienced educators as part of an induction process at a University School of Education. The qualitatively designed research showed that the self-study approach has effectively developed the professionals, particularly in showing more confidence in working in complex contexts and facilitating learning in researching, writing, and teaching.

Grierson and Woloshyn (2013) conducted a seven-month case study in an urban private school in Ontario, Canada. Qualitative data varied from interviews and field notes (lesson observations, summative reflections) to document analyses (lesson plans and goal-setting sheets) to explore how differentiated professional learning through individualized instructional coaching can build teachers' professional capabilities. Findings revealed that differentiated professional learning positively impacts teachers' instructional practices.

In a mixed method study, Cleary et al. (2022) investigated teachers' perceptions and experiences about changes in knowledge and skills following a professional learning model that incorporates Self-Regulated Learning (SRL) processes into teachers' learning. In SRL, learners proactively control and direct their actions and environments to set and achieve personal goals. Overall, researchers discovered that differences in growth patterns across groups existed. Teachers who

demonstrated advanced SRL skills after the professional learning were more self-directed, flexible, and responsive about implementing SRL than those who demonstrated emerging skills. Thus, the researcher concluded that comprehensive SRL professional learning enhances teachers' outcomes across many measures.

To further meet the needs of the faculty, Rhode, Richter and Miller (2017) optimized a PPL program at a university to examine instructors' readiness and proficiency in online teaching and learning, considering their diverse needs, skills, expertise, and self-efficacy. The researchers designed a self-assessment instrument that can measure online efficiency and competency for such a purpose. The instrument was distributed through surveys of 114 faculty developing online courses. The compiled results were insightful to adopt the model as the new personalized offerings supported faculty in their developmental process for adult learners.

In another educational setting, Clark, Schoepf and Hatch (2018) used a mixed-method design to examine how PPL can improve elementary teachers' knowledge-building and reading instructional practices. Teachers' interviews, surveys, and lesson observations showed that PPL enhances reading instructions in diverse ways with little impact on teachers' knowledge construction.

Furthermore, Sum et al. (2021) investigated PPL in Hong Kong in how customized ongoing professional learning affects PE teachers' perception of physical literacy and teaching efficacy. The research found that customized professional learning has empowered teachers to become more aware of previously neglected elements of PE teaching and school organization. Findings suggested customized professional learning can help increase individual PE teachers' self-efficacy in supporting curriculum change.

By drawing on the concept of personalization in teachers' professional learning, Swanson (2014) provided new insights to educators on how a participant-led format of professional learning can encourage teachers to be engaged in designing their learning and empowering them to actively share their voices and collaborate in the offering at Edcamp professional learning. Edcamp was established by educators who found that the top-down approach to professional learning doubted their potential and dismissed their learning needs. They came with Edcamp as a personalized experience to empower and liberate teachers in their professional learning. The collaborative nature of the design is in all its details. Teachers organize professional learning events, agree on the topics, and control the content's quality. In the Edcamp model, everyone is empowered, as there is always a chance for anyone to present the content. Sessions are based on the participants' needs and are rich as they rely on different interests and experiences. The teacher is never bound by a time or a place, as technology is used to engage and integrate more learners anywhere. There is always room for freedom, so if the teacher feels low quality, biased, or for any other reason, they can leave the room and join another. Sessions are a motivating space for teachers to discuss their ideas informally and demonstrate their best practices. The model has spread globally and even locally in Abu Dhabi. It is worth mentioning that Edcamp relates to the current study as it aims to offer teachers personalized professional learning based on a model of 'do it yourself for yourself' with great emphasis on teachers' choice and voice.

Similarly, Carpenter and MacFarlane (2018) investigated educators' perceptions of the impact of Edcamp participant-driven practices on their professional learning. The three targeted Edcamp events were mandated by two districts in the United States of America. Using the mixed-method research on 252 participants, the researchers revealed that most participants believe the experience has positively impacted their professional learning. Although EDcamp might not be the ideal

format for teachers' professional learning, the researchers recommended that adopting some functions or qualities of Edcamp and instilling them in the school's system have a great potential to add in the context of personalizing teachers' needs.

In her doctoral study, Phan (2017) explored a group of educators using semi-structured interviews to understand their perceptions of their Edcamp experience and how it impacted their professional learning practices. Teachers revealed that their professional learning experience was self-directed, natural, genuine, and liberating for their voices to be heard and shared. The choice offered to the teachers accelerates personalization and differentiation in professional learning. In the same vein, the ongoing nature of the Edcamp PPL is ongoing, which eventually increased collaboration. The study aimed to gain insights into what contributes to or hinders teachers' professional learning. It found that factors associated with teachers' motivation and support from their colleagues and administrators have critically impacted teachers' professional learning. The findings were promising as they shed light on how effective teacher-driven professional learning might be once empowering the teachers' choice and voice in their professional learning.

Other researchers answered the calls for systematic reform in professional learning by developing a framework to guide teachers' professional learning from a constructive lens focusing on Identity Structure Analysis (ISA). Passmore and Hart (2019) revealed that their approach to professional learning is a "tailored response to individual teacher needs" (p. 195). The personalization element in the ISA framework reflects components related to teacher identity, voice, and agency. They stressed the importance of understanding that a teacher's professional identity is a learning process that needs to develop and evolve within a personalized path that can facilitate its learning acquisition in any mode (group/ individual) and authorize its practices to meet the needs of each teacher. It is worth concluding that the exploratory framework is a potentially helpful and

innovative PPL tool to foster teachers' identity and agency and meet their professional learning needs.

The view of personalization in professional learning was also explored by Geurkink-coats (2019), who believes that just as teachers personalize learning for their students based on their needs and interests, they should experience personalized learning. In her article about personalization in professional learning, she revealed how administrators at Parkway School District in west St. Louis County, Missouri, the United States of America, applied a flexible and personalized professional learning approach that ensures the application of the latest trends in learning in classrooms. For this aim, the district appointed an educator's committee from all levels to develop a PPL process that counts on teachers' responsibility by putting them at the front of their learning. The initial practice of the committee was to survey teachers and administrators to know their preferences about PPL. They found four elements that can guide the PPL approach. (1) Teachers should be free to choose what matches their interests or meets their students' needs. (2) Teachers should be motivated to participate in the professional offerings. (3) The professional learning providers should ensure flexibility in the timeline and mode of study. (4) Teachers should implement and share their best learning experiences and practices with others. The 18-month experiment witnessed three phases of changes and repetitions to meet its challenges and goals. PPL was offered online through external professional learning providers who left teachers with limited content and frustrated expectations to acquire their credentials in its first phase. The main focus has changed from content to transforming learning into classroom practices in the second phase. At this phase, teachers started designing, implementing, and demonstrating their shared practices in both modes (online/in-person) and (individual/in groups). The last phase witnessed critical changes in restructuring the PPL approach with a mechanism of 4 tiers based on the four components.

Teachers were encouraged to design their level of learning, yet they needed to complete the four tiers process to receive awards at its end. Each tier was designed to collect specific evidence to be submitted and presented to be examined and approved before moving into the other step. In the first tier, the learner should present evidence of learning based on research. In the process's second tier, the learner must show evidence of implementation. Then in tier 3, evidence of the impact of their learning on their students; in the last tier, teachers should offer evidence of sharing the new learning with others. Implementing the PPL has had fruitful results for teachers and students where teachers, for the first time, direct their learning and guide their exponential growth independently and confidently to a new level.

DeNisco (2016) revealed another PPL initiative to implement it in Tennessee by exploring the effectiveness of using a teacher-driven professional learning model to enhance teaching practices. The program allows teachers to direct their learning by offering them the freedom to select the topics or skills they want to develop from a wide range of online courses from internal or external providers. Teachers receive a micro-credential or a digital badge specifying their professional learning level, which can be why their salaries increase. Teachers have one year to finish their credentials, and a panel of experts in education review to approve each teacher credential proposal. Teachers should demonstrate how their students benefited from their learning, and a self-assessment plan should also be provided.

Similarly, Schachter and Gerde (2019) identified using videos as an effective practice in PPL where teachers can entirely improve their learning and performance. They emphasized the impact of this powerful tool on professional learning that paves the learning path for teachers to own and lead their learning experiences. Using such an approach can allow teachers to reflect on their



learning and engage them in personalized professional learning that provides accurate feedback on their classroom practices.

Hirschy (2016) reviewed in her article the new dimensional possibilities that can be offered within the unrestricted boundaries of PPL. She revealed how integrating technology into teachers' professional learning via PLNs can guide and enrich the learning experience with unlimited resources. The PLN offerings create a rich environment of information and connection that are highly specific to every teacher's interests. Through this, teachers own their learning process as they can specify the topic that needs to be explored and the desired learning objective. The rest goes into automation as the platform proposes personalized and relevant user resources. The teachers can also discuss the provided information and what is learned with others or solve a problem. In such an experience, the teachers develop a personalized learning path based on their needs and interests and connect with educators with similar needs.

From an information and communication technological (ICT) perspective, Fok and Ip (2006) discussed how the richness of information with the great body of e-learning materials could be integrated into education to lead to PPL that can identify and support the diverse needs of learners. Similarly, Hall and Trespalacios (2019) investigated the effectiveness of PPL concerning teachers' self-efficacy and comfort zone toward ICT in a public school in Arizona, USA. The program study was conducted on 480 KG-12 public school teachers, and from the pre-and post-tests, it was found that PPL was significantly effective on teachers' self-efficacy in using ICT and improved their comfort level in using ICT skills.

Dennis and Hemmings (2019) explored how an elementary teacher engaged in job-embedded professional learning passed his developing expertise in guided reading lessons which impacted how he became more responsive to students' learning needs. The study showed that the teacher's

professional learning provided practical, personalized, and relevant support and impacted his pedagogical knowledge despite time and workload inhibiting factors.

Likewise, in Kuwait, Al Shammari (2011) addressed how implementing PPL can enhance teachers' professional learning in contrast to the traditional professional learning model. The proposed framework depends on ICT to personalize teachers' professional learning and address the challenges in the existing offerings. The paper concludes that PPL should never be considered an optional form of professional learning as its frame can reach the needs of individual teachers and suggests more investigation to examine how PPL can improve teachers' practices.

In the UAE, Alawani and Singh (2017) conducted a pilot study to develop a conceptual framework on how smart mobile learning can be engaged in professional learning activities, eventually leading to personalization in teachers' learning. In contrast, Hourani and Litz (2019) explored school administrators' perceptions of the professional offerings at six cycle-1 public schools in Abu Dhabi to examine 14 principals' performance in the light of school self-evaluation and performance standards. Researchers found that professional learning was ineffective; the skills and knowledge were missing in linking the offerings to the relevant standards.

In Beirut, Lebanon, Akkary (2019) conducted a seminal mix-research method study to examine the effectiveness of professional learning through the case of a job-embedded program entitled the Tamam project in 2007. The paper revealed the absence of self-directedness in learning at schools and the limitation in the traditional 'one size fits all' professional offerings that leave teachers passive receivers instead of active knowledge transformers. Another significant finding was the role of ongoing professional learning support, follow-up, and job-embedded and purposeful learning opportunities that respond to teachers' conditions and needs. Also, the study emphasized

in its findings the role of the socio-cultural context in shaping effectiveness in teachers' professional learning and sustainable school improvement.

From the previous wide range of studies across the literature of the related bottom-up professional learning, research-informed findings have guided the current one to its distinctive stance among others that opposed the conventional top-down professional learning model. The findings have drawn together challenges and opportunities for adopters of bottom-up professional learning strategies. However, the research-based opportunities of these strategies outweigh their challenges as they offer a promising chance for teachers' voices to be elevated and more choices to be incorporated to build essential and personalized professional learning experiences. From these shared perspectives, strategic highlights are identified to inform the research with an in-depth standpoint toward the importance of teachers' voice, choice, collaborative decision-making, collective construction of professional learning activities, varied and timely delivery methods, and adequate and proactive support. The study, in this sense, draws on every term discussed in the related bottom-up professional learning and every research finding to contribute to the global literature and the local one with a unique investigation into the effectiveness of instructional supervisors in expanding the self-directed and personalized teacher professional learning taking into account the contextual factors that enhance or impede its effectiveness and the role of PPL on teachers' professional practice. The following table (2.8) identifies the main strategic highlights from the literature to inform the thesis.

Strategic Highlights from the Bottom-up PL		Supporting Resources	Impact on the thesis
Challenges	A gap exists between policy and implementation due to the lack of an appropriate professional learning model.	<b>Azaza, Litz and Hourani (2021)</b>	Teachers' PL policies have informed and shaped the effectiveness of instructional supervisors in implementing PPL.
	School leaders who ignore and never differentiate the teacher's voice and choice lead to rejection and frustration.	<b>McChesney and Aldridge (2021)</b>	The study investigates the effectiveness of instructional supervisors where voice and choice are included.
	PL challenges include leadership support, timing, language, and resources.	<b>Hathorn and Dillon (2018)</b>	These factors, excluding language, are included in the investigation.
	Building teachers' competency is another challenging task for leaders to keep teachers engaged in PL.	<b>Hairon (2017)</b>	Building teachers' competency through job-embedded PL offerings is a key study component.
	The absence of self-directedness is challenging for an effective teacher PL.	<b>Akkary (2019)</b>	The essence of self-directedness (adult-centered) instruction in PPL is central to the investigation.
Opportunities	Teachers' agency or having a voice and choice in PL significantly impacts teachers. Teachers' collective agency influences teachers' professional learning by sharing information and experience while keeping their agency.	<b>Wild et al. (2018)</b>	Part of the teacher's survey scale covers the teacher's voice and choice in their PPL.
	Using technology to collaborate and share learning among teachers empowers their bottom-up PL.	<b>Rigney, Dana and Vanderhauwaert (2020)</b>	Using technology (online professional learning) is included in the questionnaires.
	Teachers' collaboration increases the inclination to observe and be observed by other teachers.	<b>Noben et al. (2022)</b>	How teachers collaborate and share best practices is included in the impact of PPL on teachers' performance measurement scale.
	Teachers' personalized learning positively impacts their professional learning. Also, it enhances teachers' learning participation and improves teachers' practical knowledge,	<b>Ma, Xin and Du (2018)</b>	The study aims to investigate whether PPL is effectively implemented.

learning capabilities, and pedagogical skills across the experimental group		
Trust and strong relationships between peers play an essential role in the effectiveness of the PL offering.	<b>Pearce et al. (2019)</b>	Investigating the socio-cultural context helps better understand the factors that promote or impede the PPL.
Bottom-up PL helps develop positive teachers' relationships, collaboration, confidence, autonomy, enthusiasm, and classroom practices.	<b>Alsaleh, Alabdulhadi and Alrwaished (2017)</b>	The study advocates teacher empowerment as a component of effective PL.
The effective PL offerings are distinctive for being personalized, active and interactive, ongoing, and blended.	<b>Tour (2017)</b>	A growth participant-driven approach is proposed where Tailor-made techniques are included.
Having sufficient time and more commitment to be involved in PL are among the main conditions that ensure effectiveness in the bottom-up PL offerings	<b>Schipper, Willemse and Goei (2021)</b>	The study examines these factors where varied and timely delivery methods are part of the PPL.
Teachers have opportunities to enhance their preparedness for teaching and learning, collegial relationships, and collaboration in the bottom-up PL model.	<b>Aktekin (2019)</b>	The investigation includes how teachers collaborate and actively engage in the PPL.
Teachers gain the freedom to choose what matches their interests or meet their needs because of using the PPL. They are motivated to participate in the offerings.	<b>Geurkink-coats (2019)</b>	The first construct in the literature addresses teachers' choice, voice, and freedom in the offerings.
Teachers' professional learning provides practical, personalized, and relevant support and impacts their pedagogical knowledge despite time and workload inhibiting factors.	<b>Dennis and Hemmings (2019)</b>	Time and workload are contextual factors addressed in the fourth research question and interview questions.
The PPL approach can allow teachers to reflect on their learning and engage them in personalized and ongoing professional learning that provides accurate feedback on their classroom practices.	<b>Schachter and Gerde (2019)</b>	This finding informs the researcher to investigate the impact of PPL on teachers' performance.

**Table 2. 8: Key Highlights from the Literature Review that Inform the Thesis**

## **2.5 Chapter Summary**

The researcher has framed the study through a proposed conceptual framework that reflects the reviewed literature on effective personalized professional learning (Figure 2.1) and engraves a conceptual path that can lead to the investigation of the effectiveness of instructional supervisors in promoting the PPL model. Four leadership and learning theories have resounded in the relevant literature and adopted to drive the study's overarching theoretical framework. From leadership, the instructional leadership theory in its shared reconceptualization, as proposed by Marks and Printy (2003), is integrated with the transformational leadership theory in its insightful model, as proposed by Bass (1997). Both have formed a comprehensive mutual understanding of what accentuates effective instructional supervisory practices to inspire teachers for PPL. These theories, on the one hand, are paired with two prominent theories in learning: The adult learning theory and the soci-cultural constructivism theory, which explain how adult learners can be better self-directed and scaffolded with 'more able other' or assistance to produce a theoretical blend that paves the path for the paper to follow in its investigation.

Furthermore, from the previously reviewed studies on the effectiveness of instructional supervision, it can be concluded that the identified instructional supervisory functions are numerous and performed by different personnel from principals and subject coordinators. The leadership styles are instructional in general. Thus, an effective instructional supervisor is expected to support, monitor, use informed data, offer constructive feedback, develop a curriculum, and collaborate to provide teachers with professional learning. It is worth reporting that the qualitative design prevails over the studies with slight exceptions, and most research methods are observational and analytical.

The literature on teachers' professional learning norms starts with ineffective models (Hourani & Litz 2019), where the traditional one-size-for-all no longer fits (Akkary 2019). Teachers are dissatisfied with the old structure offered (Badri et al. 2016). Many researchers have found that integrating technology can be engaging (Alawani & Singh 2017; Fok & Ip 2006; Rhode, Richter & Miller 2017). In comparison, others have found that effectiveness in professional learning lies in collaboration and building a learning community (Stewart 2014), differentiating learning opportunities (Grierson & Woloshyn 2013), self-study approach (Jarvis et al. 2012), and personalized professional learning (Clark, Schoepf & Hatch 2018; Hall & Trespalacios 2019).

The current research sits in the middle of an international debate about what instructional supervisory practices define effectiveness in professional learning. To situate the study, nothing in the literature proves that any trends have any ultimate significant relevance and responsiveness to teachers' professional learning, except what has previously been discussed about highly effective professional learning strategies, which are in a consistent relation to what is defined in the research as job-embedded and personalized professional learning. Also, there is a lack of evidence in the global literature to show what effective instructional supervisory practices can promote PPL in schools and how teachers' learning can be self-directed or driven by self-growth strategies or scaffolded by instructional facilitators and not by summative evaluators. Thus, the study undoubtedly reflects what numerous researchers and the latest theorists have confirmed about adult learning, a unique experience distinct from that of a child in the learner, process, and context characteristics. Moreover, the study extends its originality by investigating the implementation of the bottom-up PPL model in Abu Dhabi detached from the traditional top-down models. Finally, the study differs in research design from most qualitative studies in the related literature by chiefly employing mixed research methods and surveying teachers and instructional supervisors.

## **CHAPTER THREE: METHODOLOGY**

### **3.1 Introduction**

The present study investigates the effectiveness of instructional supervisors in promoting personalized professional learning at four private schools in Abu Dhabi. This chapter explains the research methodology used to achieve the study's primary purpose and answer its research questions. At the beginning of the chapter, the researcher's methodological assumptions and philosophical stance are presented and followed by an in-depth analytical consideration and connection to the research design, the methods of data collection, and the data analysis. The mixed-method research approach is employed in the study in its concurrent or methodological triangulation design, where equal attention and priority are given to both quantitative and qualitative research methods. After the concise description of the research sites, population, and sample, the diverse instruments employed in the study are justified with analysis, and the results from the pilot study are uncovered to serve the reliability and validity of the instrumentations. The chapter concludes with a discussion of the ethical considerations and guidelines used across every procedure in the research.

### **3.2 Research Approach**

To reach the desired research purpose, overcome the weakness of using a single research method with support from the other, and find out if they converge on one understanding or diverge in results, the researcher employed the convergent concurrent mixed-method research to guide the current investigation (Creswell 2014; Johnson & Christensen 2017).

Mixed-method research conceptualizes integrating both quantitative and qualitative methods in a single study (Tashakkori & Creswell 2007); Johnson, Onwuegbuzie and Turner (2007) defined mixed-method research as a type of research that combines components of qualitative and



quantitative research approaches to address one's research questions. According to Creswell (2014), a concurrent design aims to simultaneously collect quantitative and qualitative data, whereas convergence is achieved when the researcher triangulates the two methods to directly compare the two datasets. In this sense, the working meaning for the study's design is the one where "the researcher gathers both quantitative and qualitative data, analyzes both datasets separately, compares the results from the analysis of both datasets, and makes an interpretation as to whether the results support or contradict each other" (Creswell 2012, p. 540).

In the context of this research, the researcher employed mixed-method research by mixing two research methods where both quantitative and qualitative parts were almost given equal attention, emphasis, and priority. The rationale behind choosing the mixed-method approach is its potential strength and flexibility to ease the conduction of the study through the collection of both qualitative and quantitative data that can provide the research with an advantage over the mere mono-methodological data collection and compensate for each method's weaknesses (Fraenkel & Wallen 2009). To exemplify, the researcher in the quantitative method depended on using self-administered questionnaires to assess teachers' and instructional supervisors' perceptions of the effectiveness of instructional supervisors in promoting PPL. Concurrently, the qualitative method complemented the quantitative part by using semi-structured, focus-group interviews and document analysis to give a holistic picture of perceptions toward the investigation. If one of the methods were removed, the study would lack the methodological triangulation essential to confirm the findings and strengthen its credibility, eventually impacting the generalizability of the results. Also, the study's research questions required the mixed-method approach to be used where the qualitative data can flesh out the statistical data and crystallize its outcomes to extensively investigate the effectiveness of instructional supervisors' practices and gain unbiased insights and

answers (Fraenkel & Wallen 2009). Thus, the mixed-method approach allowed the researcher to gain an in-depth and insightful perspective on the problem under investigation by exploring it and examining it statistically. For instance, while the qualitative part of the study covered what contextual factors enhance or impede instructional supervisors in promoting PPL, the quantitative part covered the outcome of the PPL model of teachers' performance. So, each method complemented the other to understand the research problem clearly.

Furthermore, the study's goals demanded different sampling techniques that provide a mutual/paradoxical understanding of the different populations (teachers and instructional supervisors). This can only be easier achieved through mixed-method research as having one perspective on the research problem would limit the other's inputs in the study while mixing the research methods would allow different voices to overlap on a particular understanding. Thus, it was essential to have an equal chance for both instructional supervisors and teachers to add their voices to the current research. Moreover, employing the mixed-method approach facilitated the collection of rich data that can ease the complexity of the investigation, taking into account the social context of Abu Dhabi to reveal what defines instructional supervisors' effectiveness in promoting PPL. The last and most critical reason for mixing the quantitative and qualitative research methods was the study's prime philosophical paradigm, i.e., pragmatism, which calls for a complementary balance between the mixed methods while examining participants' perceptions and exploring their beliefs in-depth.

Research methodologists conscripted different types of mixed-method research designs. Johnson and Christensen (2014) identified two main dimensions in designing mixed-method research. (a) time orientation and (b) paradigm emphasis. They interpreted time-orientated studies about their existence: concurrently (at almost the same point in time) or sequentially (that means the studies

are organized into phases over time). The other dimension that finalizes the researcher’s decision on what to select for their studies is the paradigm emphasis, which refers to whether the researcher is putting equal emphasis on both types of data or whether one data is given more emphasis than the other. For instance, if the quantitative data is given more emphasis than the qualitative data, the design will be quantitatively driven due to the extra weight offered in its data.

To highlight the difference between the two dimensions, table (3.1) shows a clear matrix for the commonly used mixed-research designs, yet a consideration should be taken that qual stands for qualitative and quan stands for quantitative, where priority is low. Whereas QUAN and QUAN stand where their roles are of high priority. A plus sign (+) represents a concurrent collection of data, and the arrow (→) represents a sequential collection of data (Johnson & Christensen 2014)

		<b>Time Order Decision</b>	
		<b>Concurrent</b>	<b>Sequential</b>
<b>Paradigm emphasis decision</b>	<b>Equal emphasis</b>	QUAL+ QUAN	QUAL → QUAN QUAN → QUAL
	<b>Dominant Emphasis</b>	QUAL+ quan QUAN+ qual	QUAL → quan qual → QUAN QUAN → qual quan → QUAL

**Table 3. 1: Mixed Methods Design Matrix** (Johnson & Christensen 2014, p. 660).

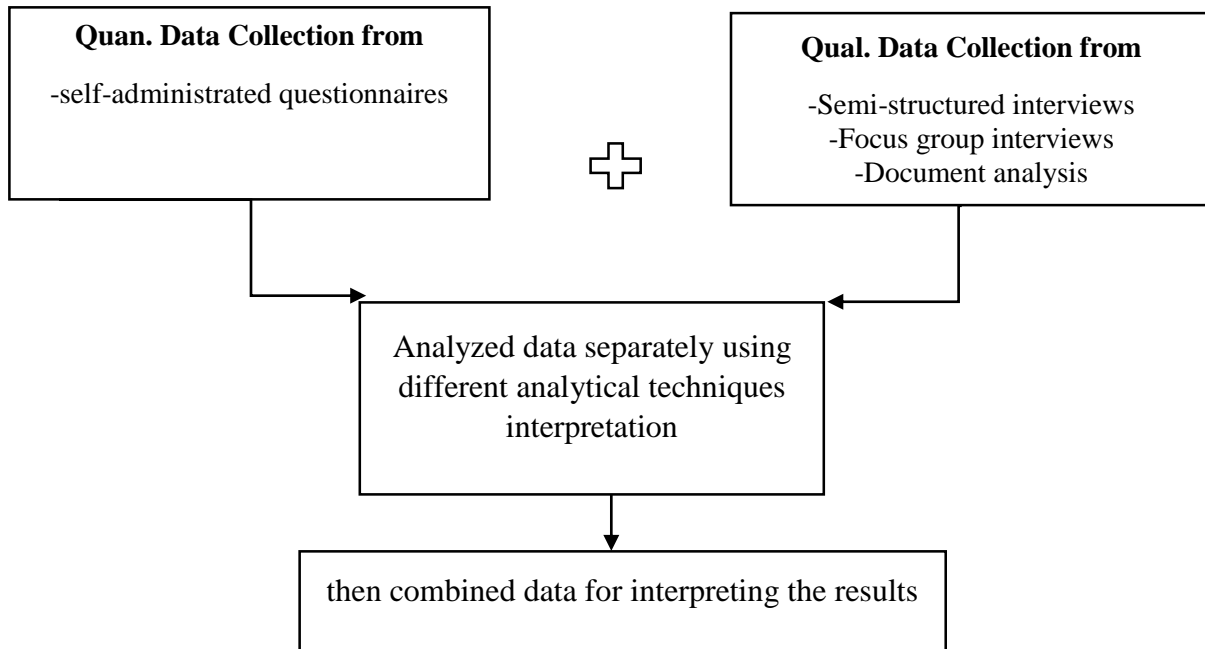
Creswell (2014) and Fraenkel and Wallen (2009) enlisted three main types of mixed-method designs that require the mixing of quantitative and qualitative data: (a) the exploratory design, (b)

the explanatory design, and (c) the methodological triangulation design or concurrent, convergent mixed methods design. The current study utilized the concurrent, convergent mixed methods design by simultaneously combining quantitative and qualitative methods with equal priority, analyzing them separately, and then comparing the results to confirm whether their findings converge and provide the same picture of the investigated research problem or disconfirming each other.

Also, researchers debated over the concept of data integration in mixed-method research without explicating what strategies are most effective in its process; however, it is undebatable that a transparent form of integration should be explicitly articulated at a specific stage or degree in the research (Johnson, Onwuegbuzie & Turner 2007). In the methodological triangulation design, Fraenkel and Wallen (2009) stressed that it is the researcher's choice to decide whether the collected data will be analyzed separately or together. If together, the researcher should quantify the qualitative data or vice versa, and if separately, then the data the researcher should interpret and discuss how the data converge or diverge in its findings.

For the study, it was thus decided that the integration would be better to occur after analyzing the data separately using different analytical techniques so that the integration function could mirror the employed design, i.e., the concurrent, convergent mixed-method research design. Therefore, the collected data was merged or combined in the interpretation stage of the research to provide a complete picture of the issue being investigated (Johnson & Christensen 2014). Also, incongruency in the collected data results was explained in the discussion (Creswell 2014; Fraenkel & Wallen 2009). It is worth mentioning that methodological triangulation in the study was achieved by comparing quantitative measures from the surveys to the qualitative data collected from its designated instruments. Figure (3.1) below can clarify the study design.

The underlying rationale for using the convergent concurrent mixed-method design is that each type of the two research methods provides different information. It can add a unique perspective toward the investigation, so the strength of the two research methods can complement each weakness and yield far more solid evidence and richer data to verify the findings than using a pure one type of method in the research. In this sense, the quantitative data will supply a general understanding of the research problem through participants' perceptions collected via questionnaires; simultaneously, the qualitative data will refine the statistical results by exploring and validating them interactively through semi-structured and focus group interviews and finally authenticating them with evidence from the document analysis. Also, it sounds appropriately helpful to obtain answers for the study's research questions that do not require multiple phases to develop any other instruments. Additionally, the design features drawing on the best effective practices of instructional supervisors that never needed a methodological commitment to a particular type to uncover or proceed forward with the investigation; in contrast, flexibility with the employed design would be better to offset or at least lessen the unavoidable bias that arises from using a mono-methodological data (Fraenkel & Wallen 2009; Johnson & Christensen 2014; Moran-Ellis et al.2006).



**Figure 3. 1: Concurrent Mixed-Method Research Design**

### **3.3 The Philosophical Foundation**

Reality and rationality were two major human concerns for philosophers and researchers. Educational researchers, as in any field, seek to dive philosophically into a pool of questions that are not only related to what knowledge is but also to why and how it can be applied to inform actions (Biesta & Burbules 2003).

From the distinct worldwide views of reality and knowledge, quantitative and qualitative methodologists differed in their philosophical assumptions and remarked on diverse approaches in their investigations. Each research methodology was acquainted with a particular school of philosophy. The quantitative paradigm was associated with positivism, which holds a stance that “all genuine knowledge is based on sense experience” (Cohen, Manion & Morrison 2007), and the qualitative paradigm, with postmodernism, holds that knowledge can not be objectively discovered since they do not exist as laws in social science. Arguably, qualitative researchers viewed

knowledge as multiple mental constructions only attached to those involved in its situation. Such long separation fosters a misconception implying that the quantitative methodology can never be side to side with the qualitative research methodology as if they were an optimal dichotomy (Fraenkel & Wallen 2009).

The current investigation was informed and guided by the critical philosophical assumptions of pragmatism. The origin of pragmatism goes back to three founding American philosophers: Charles Pierce, William James, and John Dewey. It is a school of Thought expressed in an intellectual philosophy rooted in the old argument of knowledge acquisition (Biesta & Burbules 2003). The philosophical foundation of the adopted approach prioritized flexibility and practicality over the rigidity and limitation of using one methodology. The researcher has adopted a ‘whatever works’ outlook, determining that it will better serve the study in dissolving questions about knowledge than the limited monistic strategies of the other paradigms (Biesta & Burbules 2003). Pragmatism is manifested in seeing meaning in any notion as long as it has a function or an outcome (Muijs 2004). In other words, reality to pragmatists only reveals itself in actions and activities (Biesta & Burbules 2003); more explicitly, they believe in the plurality of reality at different levels where it is always susceptible to be retested and renegotiated in any new unpredictable situation (Johnson & Christensen 2014). It is also worth noting that the pragmatic tradition adopted for the research design depends on Deweyan’s theory of inquiry which offers the researcher more practicality and flexibility. Philosophers debated for centuries whether knowledge is objective or should wholly and accurately mirror reality or things as they are in the world; they also questioned whether knowledge is subjective or a complete constructed product of the human mind. The pragmatist philosophers rejected both methods of inquiry. For instance, Dewey considered knowledge in its acquisition uncertain because the patterns created in the past are never

proper for solving problems that might occur in a unique situation in the future. In this sense, knowledge is neither objective nor subjective; it is more dynamic to be constructed and based on reality (Biesta & Burbules 2003). Therefore, such a pragmatist position goes beyond the traditional framework of offering researchers a recipe to follow or a solution to a problem; it is more an intelligent prescription that offers openness and flexibility to find new possibilities.

Besides the fact that researchers have already counted pragmatism as a well-developed philosophy with an epistemological logic for mixing methods (Johnson, Onwuegbuzie & Turner 2007), the rationale behind the pragmatist philosophy was initially related to several reasons linked to the nature of the study. First, the philosophy of pragmatism is associated with the mixed-method research paradigm employed in this study (Johnson, Onwuegbuzie & Turner 2007). Second, teachers' professional learning is a rich topic interwoven with other complex concepts; eventually, this puts the researcher in front of a challenging decision when designing the methodology that guides the study. Ultimately, the active warrant of pragmatism backs up the choice of using mixed-method research when it comes to complex ideas. Third, the researcher aims to understand how instructional supervisors implement PPL and draw a baseline for their effective practices; this requires openness to whatever exists, especially in a multicultural context where only a pragmatist position can offer results. To elaborate more, the inclusiveness of different methodological choices where the main focus of the researcher is on generating solutions from the actual study in contrast to the exclusiveness and limitations in choices in following a particular research approach is what makes pragmatism the right philosophical view for the study (Moran-Ellis et al.2006). Finally, the research problem calls for flexibility and elasticity in investigating what might be problematic in many educators' perceptions of instructional supervision and professional learning in the study's context. These have demanded moving between the wide angle of the qualitative view and the



narrow-angle of the quantitative view; consequently, it releases the researcher from the limits of a specific viewpoint. Thus, only pragmatism can best partner with mixed-method research as it offers a middle ground between the different philosophical schools. It unlocks researchers' potentialities to new elastic perspectives where only through its lens can approaching any research problem be distinctively possible (Biesta & Burbules 2003).

The researcher viewed the study from both objectivist and subjectivist epistemological perspectives. The researcher's outsider-insider role is expected to be structured by both perspectives due to the following factor. As an expatriate outsider to the context, the researcher formed an objective educational viewpoint different and detached from the cultural background of the context; however, after a decade of teaching experience in the country, an insider perspective has reshaped the outlook. Based on the above, the researcher quantitatively examined educators' perceptions of PPL, while concurrently, the qualitative data involved interviewing and analyzing documents to explore and understand the effectiveness of instructional supervisory practices. The mixed research approach and methods are summarized in table (3.2) below. Research questions are also enlisted below for straightforward reference.

RQ1. From teachers' perceptions, how effective are instructional supervisors' practices in promoting PPL at four private schools in Abu Dhabi?

RQ2. From instructional supervisors' perceptions, how does the PPL model impact teachers' performance?

RQ3. Do teachers and instructional supervisors of different gender, experience, grade level, and subjects taught or supervised significantly differ in their investigated perceptions?

RQ4. From teachers' and instructional supervisors' perceptions, what contextual school factors might enhance or hinder the effectiveness of their PPL experience?

## Research Methods

Questions	Approach	Instrument	Participants	Sample	Data analysis
RQ1.	Quantitative	self-administrated questionnaire	Teachers	300 teachers from 4 private schools in Abu Dhabi using convenient sampling.	SPSS Statistical analysis (descriptive and inferential)
		Semi-structured interviews		4 purposively selected teachers (1 participant from each school)	
	Qualitative	Focus groups interviews		4 focus groups (4 teachers) using convenient sampling.	Thematic analysis using NVivo
		Document analysis		Purposive sampling	
RQ2.	Quantitative	self-administrated questionnaire	Instructional supervisors	30 instructional supervisors from 4 private schools using convenient sampling	SPSS Statistical analysis (descriptive and inferential)
		Semi-structured interviews		12 purposively chosen instructional supervisors (3 participants from each school)	
	Qualitative	Document analysis		Purposive sampling	Thematic analysis using NVivo
RQ3.	Quantitative	self-administrated questionnaires	Teachers Instructional Supervisors	330 teachers and instructional supervisors from 4 private schools in Abu Dhabi	SPSS Statistical analysis (ANOVA And Independent T-test)
RQ4.	Qualitative	Semi-structured interviews	Teachers Instructional supervisors	4 purposively selected teachers (1 participant from each school)	Thematic analysis using NVivo
		Focus group interviews		12 purposively chosen instructional supervisors (3 participants from each school)	
		Document analysis		4 focus groups (4 teachers) using convenient sampling.	
				Purposive sampling	

Table 3. 2: Summary of the Research Questions, Approach, and Methods.

### **3.4 Research Context**

Abu Dhabi, the United Arab Emirates' capital, is the context of the study because the expatriate researcher resides in its populous hub with a multicultural diversity of educators. According to the SCAD, the Statistical Center in Abu Dhabi, the capital hosts around 499 schools, of which 198 are private, and 251 are public (2020). In order to identify which schools should participate in the study, the researcher started the investigation process by looking into the recent schools' inspection reports (Irtiqaa) published by the Abu Dhabi Department of Education and Knowledge (ADEK) to find the outstanding schools that are top-rated in all performance standards and indicators among which the provision of the PPL model. The results showed that only nine schools in Abu Dhabi were overall rated outstanding, and all were private schools, where eight out of nine offered the British curriculum from K-12 except one which offered the International Baccalaureate. The researcher contacted the selected schools for preliminary access, and request emails were sent to get preliminary approval explaining the purpose of the study and why the school was chosen along with three others to be the medium sites of the study (Appendix 8). Unfortunately, there was a small amount of difficulty in getting approval from the desired schools, except one that showed interest and withdrew later, so the researcher then reconsidered selecting from the remaining six outstanding schools available in the city. However, none returned their interest in the study, so the researcher shifted in selecting his sampling choice from schools rated outstanding (overall) to schools rated outstanding in leadership, teaching, and learning standards. In this way, several schools approved and allowed the researcher to conduct the study at their premises. The four selected schools were private American, British, and IB curriculum schools that populate up to 597 teachers (including the middle leaders) with different demographics reflecting the UAE's social nature.

Data related to participants' demographics (gender, experience, subject taught, etc.) were added in chapter four under the section that addresses the quantitative data analysis. Generally speaking, the data was representative of all four selected schools and represented different age groups, cultural backgrounds, nationalities, and languages. For instance, in terms of gender for the quantitative data, the female teacher participants (n=234) substantially exceed the male teacher participants (n=66). Similarly, 20 female instructional supervisors participated in the study, whereas only 10 male instructional supervisors showed interest and availability to participate.

### **3.5 Study Population**

Whether large or small, a target population is defined as a group of individuals with the same characteristics that can be studied. For instance, in educational settings, teachers in a particular school or city make a population of teachers, and college students create a population of college students. On the other hand, the sample is a subgroup selected from the target population to be studied with the researcher's aim of generalizing about the population (Creswell 2012).

The researcher in the current study found it indispensable to aim for KG-12 teachers' and instructional supervisors' perceptions to gather the correct data. The targeted populations were expatriate teachers and instructional supervisors from middle and senior leaders (coordinators, heads of departments, principals, and vice-principals). The study population works at diverse private schools in Abu Dhabi from multicultural backgrounds and nationalities.

Table (3.3) illustrates the distribution of schools' characteristics and teachers' numbers in each private school. The selected sites range in their teachers' population from 134 in school B to 161 in school A.

<b>School characteristics</b>	<b>School A</b>	<b>School B</b>	<b>School C</b>	<b>School D</b>
<b>Location</b>	Abu Dhabi	Abu Dhabi	Abu Dhabi	Abu Dhabi
<b>Type of school</b>	Private	Private	Private	Private
<b>Num. of teachers</b>	<b>161</b>	<b>134</b>	<b>143</b>	<b>159</b>
<b>School-level</b>	K-12	K-12	K-12	K-12

**Table 3. 3: Summary of the Selected Sites' Population and Characteristics.**

### **3.6 Samples Selection**

The researcher employed a concurrent mixed-method design that combines quantitative and qualitative sampling components. To meet the purpose of the proposed study, the researcher utilized a sampling design driven by the research questions where non-random convenience and purposive sampling techniques were used in the research (Fraenkel & Wallen 2009).

Probability and nonprobability are two main sampling approaches often used in research studies. In both approaches, the researcher selects individuals from the population, yet they differ on whether the sample is a true representative of that population or just convenient because they are available or volunteering in their participation. The most rigorous sampling approach is the former because the researcher can generalize to the population as the sample accurately represents that target population. Convenience sampling is “a quantitative sampling procedure in which the researcher selects participants because they are willing and available to be studied (Creswell 2012, p. 619).

Two factors influenced the methodological sampling decision the population's characteristics and the availability of participants. For the quantitative data, the researcher used convenient sampling to survey 300 teachers and 30 instructional supervisors via self-administrated questionnaires based on participants' availability, will, and interest in sharing their perceptions of the study. The

researcher was aware that the homogenous convenience sampling technique might not be the perfect choice due to its biased nature and inability to produce a representative sample, where each member of the population is given an equal and independent chance of being selected to participate in the study (Johnson & Christensen 2014). However, it was the only convenient option due to practical constraints, i.e., COVID-19. The researcher tried to seek different sampling techniques, yet many leaders had restrictions due to accessibility and availability. Also, the nature of the study requires more openness in investigating new ideas and practices initiated in promoting the PPL model, so the researcher counted on the convenience and ability of the participants to allow him to get valuable responses that could answer the research questions.

The process of sample selection started directly after specific schools were selected. The investigator gave the whole population an equal opportunity to participate voluntarily in the study, except the new teachers/ instructional supervisors with no prior experience in the PPL model were excluded from the study. This was done with the help of the administrative team, which pointed out a few names to be excluded from the sample. The researcher invited all the rest of the teachers and instructional supervisors to participate in the study. Only 330 educators agreed and responded to the request to have (n=300) teachers and (n=30) instructional supervisors from different demographical backgrounds participate in the current study (Check section 4.2.3 for demographic information).

In the interviews, despite the quite challenging nature of the choice that is based on personal and inconsistent judgments that might hold errors, the purposeful sampling in its confirming and disconfirming form of representation was still more preferred for the individual interviews in the qualitative data than the rest of the sampling strategies due to the nature of the PPL model that counts on a precise criterion. Thus, purposeful sampling was used as it allows the researcher to

reach participants with valuable information based on their expertise in the PPL to reflect what others cannot on how it is being promoted and practiced at the selected schools (Creswell 2014).

The process of purposive sampling selection takes place in two directions. On the one hand, in the individual semi-structured interviews, purposive sampling was used where a total of 20 purposively selected participants were chosen to participate in the qualitative data via interviewing based on the principal and vice principal's praise and recommendation and the initial results from the demographical data where inexperienced participants in PPL were excluded from the study. To be more specific, the total number of participants from each school was 4 participants, where 3 of them were instructional supervisors and 1 experienced teacher in professional learning, with a total of 16 instructional supervisors and 4 teachers from all schools. On the other hand, for the focus group interviews, convenient sampling was employed since teachers' availability was a challenging aspect that determined the researcher's choice. The typical sampling size in the focus group interviews ranges from 4 to 6 (Creswell 2014). Thus, the researcher conducted one focus group interview in each of the selected schools, and each group consisted of 4 teachers from different subjects, gender, and experience. The total number of focus group participants in the four schools was 16. Therefore, the total number of participants in the qualitative data from the semi-structured interviews and focus group was 32 (Check Table 4. 66 for participants' demographical profiles).

The second direction of the purposive sampling was for the qualitative document analysis. The researcher used purposive sampling techniques to select all sorts of available documents and artifacts relevant to the process of PPL from teachers' and instructional supervisors' work and to be authentically examined. The researcher collected 20 school documents from the four schools, where 8 were identical, so these were omitted from the analysis.

The rationale for using this population and these different sampling methods is due to several reasons related to the nature of the study, the research design, and the philosophy guiding the research. The study into the effectiveness of instructional supervisors in promoting PPL has revolved around a bottom-up professional learning model that is still at its initial implementation and requires more accessibility, flexibility, and openness in decisions. Second, the research design should focus on the convergent concurrent mixed-method research design, which does not require any method to inform the other or build on it, giving the researcher more freedom to work with whatever works. Finally, the pragmatism philosophical foundation guiding the research unchained the researcher from following a particular recipe to answer the research questions. On the contrary, it offered the researcher openness and flexibility to find new possibilities in making research decisions.

### **3.7 Instruments**

The effectiveness of instructional supervisors in promoting PPL relied on different data collection methods or instruments. Mixed-method research added depth in understanding and clarity to the research problem investigated, along with concise exploration and explanation for the discovered relationship between variables (Fraenkel & Wallen 2009). The study's primary purpose was operationalized into research questions by using specific and concrete questions that fairly cover the scope of the study, generate the needed data types, and target suitable participants to collect the correct data. This study relied on quantitative and qualitative instruments to address the appropriate foci in answering the research questions. Quantitatively, two self-constructed questionnaires were used to collect numerical data, and qualitatively empirical data were collected through interviews (individual and focus group interviews) and document analysis. The numerical



and verbal data together gave depth to the investigation, where each served a specific aim, as explained in the following discussion.

### **3.7.1 Questionnaires**

The questionnaire is considered a leading data collection instrument for any quantitative research that eventually offers valid and reliable data once designed well (Creswell 2014). Like other researchers in any field, educational researchers depend on questionnaires that are usually constructed from statements or questions to collect information about what and how the target population might respond, think, feel, perceive, and even believe about variables related to their researchable topics (Johnson & Christensen 2014). Though using a questionnaire is tempting for researchers as it provides them with data that can show the relationship or differences among variables to prove or disprove their hypotheses (Creswell 2014), Cohen, Manion and Morrison (2011) advised researchers to balance the questionnaire's advantages with the overwhelming time and effort of constructing, piloting, and validating them. Thus, it might be overwhelming and frustrating to construct a questionnaire from scratch instead of simply adopting one, but it is a skill worth acquiring because, without such a challenge, the researcher would have missed a great deal of research knowledge.

The literature on professional learning has witnessed the birth of many questionnaires that mainly targeted the traditional top-down models of professional learning, and those covering the PPL have shown extraneous positions toward what is investigated in the current study (Casey 2018; Hanson 2017). Thus, it was necessary to construct a questionnaire that measures the effectiveness of instructional supervisors in promoting the PPL. However, the researcher adopted some items from the previous questionnaires and adapted them to target the main foci behind the research questions. For instance, the items from the survey by Tesfaw and Hofman (2014) and OECD's Teaching and

Learning International Survey (TALIS) were adapted into the current study’s questionnaires, as displayed below (Table 3.4).

Adapted from	Examples	Adapted to the study’s Questionnaires
Tesfaw and Hofman (2014)	<p><i>Professional development opportunities should be chosen by the teacher.</i></p> <p><i>The supervision I receive meets my individual professional needs</i></p>	<p>Item 4 My instructional supervisor offers me the freedom to design my learning path tailored to my growth needs and readiness. (Teacher’s Questionnaire)</p> <p>Item 4 My teachers can set short and long-term growth goals without my help. (IS Questionnaire)</p> <p>Item 6 My instructional supervisor is well aware of my learning styles, needs, and points of strength. (IS Questionnaire)</p>
OECD Teaching and Learning International Survey (TALIS)	<p><i>Item 3. Use needs assessment or other systematic methods to secure staff input on goal development</i></p> <p><i>Item 4. Use data on student academic performance when developing the school’s academic goals</i></p> <p><i>Item 5. Develop goals that are easily translated into classroom objectives by teachers</i></p>	<p>Item 11 My instructional supervisor uses a needs assessment plan to personalize my professional learning. (Teachers’ questionnaire)</p> <p>Item 12 My teachers have become more skillful in using students’ achievement data to measure their performance.</p> <p>Item 14 My teachers can easily develop professional learning goals that are translated into classroom objectives.</p> <p>Item 15 My teachers have become more competent in using the students’ data to make informed instructional decisions. (IS questionnaire)</p>

**Table 3. 4: Examples of Items’ Adaptation**

Furthermore, related literature reviews, theories, and models in leadership and learning were consulted to guide the formulation of the constructs in the questionnaires. For example, (Table 3.5) portrays some instances of items that were based on literature consultation. For further examples, check (Appendix 12).

**Related literature reviews,  
theories, and models in  
leadership and learning**

***Examples from the Questionnaires***

Adult Learning Theory	<i>My instructional supervisor offers me space to choose, try and adjust any instructional methods and tools in my class.</i>
Vygotsky’s Theory of Learning	<i>Item 6 How collaborative do your teachers become with you and the rest of the learning community? (Instructional supervisor’s questionnaire)</i>

**Table 3. 5: Examples of Literature Consultation for Self-Constructed Questionnaires.**

Johnson and Christensen (2014) recommended 15 principles for constructing a questionnaire, and the researcher considered their principles while constructing the questionnaires. Special attention was given to the professional appearance of the questionnaire, from clarity and readability to adding a title and using section titles within the questionnaire. The length of the question was considered where questions that do not serve an aim and might evoke sensitivity among the respondents were avoided, i.e., nationality. Consistency was crucial in using the same font type, size, and color; clear and direct instruction was a priority, and a matrix formatting was used with the Likert scale to allow the participants to work efficiently throughout the questionnaire. Multiple responses were avoided except in a question related to the subjects of the instructional supervisor or teacher and the professional learning strategies offered at the targeted schools. Open-ended questions were used at the end of part 3 to add more space for participants to record their thoughts. Caution was in place for the double negatives and reversed wording to prevent multi-item scales. Familiar language and terms were generally used as the researcher considered the participants’ educational backgrounds, and critical terms were defined once used; for instance, PPL was defined at the beginning of the questionnaire to ensure participants understood what it meant before filling

in their answers. The quantitative data depended on two self-constructed questionnaires that were mainly web-based and designed using Forms for two reasons: saving time and collecting responses accurately. Also, paper questionnaires were ready to be distributed once requested during the data collection.

The first questionnaire (Appendix 1) was designed to investigate the effectiveness of instructional supervisors in promoting PPL, and it has targeted teachers' perceptions of their instructional supervisors. It was divided into three distinct sections, with an introductory paragraph reflecting the study's purpose and participants' rights and agreement on the ethical conduct of the study. The first section, entitled 'Teacher's Background,' covered the participants' demographical data in four close-ended questions, which range in type from mutually exclusive to checklists and focus on gender, experience, subject taught, level taught, and the most commonly used strategies for professional learning at their schools. The categorical scale used in the demographics allowed the researcher to collect nominal data that can be classified into separate groups. This eventually added valuable information in terms of means and standard deviations to understand statistically how each group of participants perceived the effectiveness of instructional supervisors. Consequently, this type of data was used in the third research question to examine if there were any statistically significant differences among them.

The second section, entitled 'Instructional Supervisors' Practices,' has included 15 statements composed on a Likert scale of 5 points rating scale that range in score or value on a continuum of strongly agree to strongly disagree. Researchers highly recommend the Likert scale to rate and measure respondents' perceptions on any specific topic (Ary et al. 2018; Fraenkel & Wallen 2009; Johnson & Christensen 2014). Similarly, measuring a single construct using multiple items adds more reliability, validity, and variability to the measurement (Johnson & Christensen 2014). For

this key advantage, the second section was divided into three main themes or constructs, where each consists of multiple statements (5 items each) interconnected to their constructs. In the first theme, the effectiveness of instructional supervisors was measured in relation to their practices in developing a professional learning vision, recognizing the teachers' voice, and offering them choices in applying and evaluating instructional tools in their classrooms informed by the Adult learning theory (Knowles, Holton & Swanson 2005) and personalized learning by Kallick and Zmuda (2017). The second theme assessed the effectiveness of instructional supervisors in developing PPL content based on Tomlinson's theory of differentiation (2000). The statements determined whether instructional supervisors are fully cognizant of their teachers' learning preferences, needs, and points of strength and sufficiently target them with the suggested PPL topics. The construct also involved measuring the instructional supervisor's role in individualizing instructional feedback, differentiating entry points into PPL, using evaluation data to determine the content of the PPL, following up on the professional learning goals, targets, and areas of focus for PPL, and aligning professional learning needs and interests to the school's common professional standards and goals. The third theme examined the PPL process by testing whether instructional supervisors use a needs assessment plan to personalize teachers' professional learning; suggest a PPL calendar, format, and timing that best suits teachers; collaborate with teachers to determine how professional growth will be measured; provide teachers with sufficient time and resources to expand their professional learning, and finally execute a PPL for their teachers. Five statements were employed to measure each theme. These three primary constructs were based on the literature on personalized learning (Kallick & Zmuda 2017), the theory of differentiation (Tomlinson & Imbeau 2013), and the adult learning theory (Knowles 1984) and adopted from well-validated surveys in the literature on professional learning and leadership as the

OECD Teaching and Learning International Survey (TALIS), Principal Instructional Management Rating Scale (PIMRS) which is grounded in a conceptual framework developed by Hallinger and Murphy (1985) and Tesfaw and Hofman's survey (2014).

Aside from the closed-ended questions in the first two sections, open-ended questions were used in the third section (entitled Teacher's Final Word) to offer more room for the participants to express their perceptions without any restricted choices (Cohen, Manion & Morrison 2007; Johnson & Christensen 2014). Three open-ended questions were formulated to allow more individualized perceptions of the effectiveness of their instructional supervisors in promoting PPL. More particularly, to allow teachers to expand and elaborate on how the PPL model proves to be beneficial at their schools and how they ensure that their instructional supervisors are satisfied with their performance, and what practices might be modified if they had a chance to change anything in the promotion of PPL. Due to the nature of the open-ended questions, where inconsistency in content and length usually prevails among responses, the data were treated and analyzed together with the qualitative data as it is not associated with the quantitative data (Fraenkel & Wallen 2009).

Similarly, the second questionnaire (Appendix 2) was also self-designed to survey instructional supervisors' perceptions about the impact of PPL on teachers' performance at four private schools in Abu Dhabi. The researcher followed the same procedures while constructing the second questionnaire; however, the three themes targeted teachers' performance in PPL. The first theme underscored the learner's development to determine if the PPL has increased teachers' competence in identifying the appropriate strategies to meet their students' needs. Also, the construct involved teachers' independence in assessing that a particular teaching method or tool should be changed, identifying and solving any academic and behavioral challenges without getting back to their

instructional supervisors, setting short and long-term growth goals without their help, and taking ownership of their professional learning. The second theme covered the professional learning environment from teachers' collaboration with their instructional supervisors and the rest of the learning community, innovation in their practices, curiosity about innovative ideas, confidence in taking the initiative to invite their instructional supervisors to the class, and flexibility in making professional decisions. The third theme included the learner's product and application in which the teacher-learner shows engagement in PPL, uses students' achievement data to measure performance and make informed instructional decisions, differentiates learning for students, and develops professional learning goals that are easily translated into classroom objectives. All three constructs were based on the literature on personalized learning (Kallick & Zmuda 2017), the theory of differentiation (Tomlinson & Imbeau 2013), adult learning theory (Knowles 1984), Vygotsky's theory of learning (1978), leadership theories (instructional and transformational) and adopted from well-validated surveys in the literature of professional learning and leadership as the OECD Teaching and Learning International Survey (TALIS), Principal Instructional Management Rating Scale (PIMRS) which is grounded in a conceptual framework developed by Hallinger and Murphy (1985) and Tesfaw and Hofman's survey (2014).

Both questionnaires were translated into Arabic to serve the Arabic-speaking teachers and instructional supervisors, as the study did not dismiss Islamic and Arabic subjects' teachers and instructional supervisors.

The self-constructed questionnaires passed through different layers of verification from the content and the construct validity to pilot testing and statistical analyses on a group of teachers similar to the sample in the actual study to determine whether the questionnaires were operating appropriately and to measure the instrument's validity and reliability (Johnson & Christensen

2014). Among the given verifications for the validity of the questionnaires, the convergent and discriminant statistical tests, and the factor analysis were employed to validate the construct validity (Johnson & Christensen 2014). Factor analysis was also employed in the study using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity to extract the maximum common variance from all the variables and put them into a common score. Both techniques were utilized and discussed in the following subsections. While for the reliability of the questionnaire, Cronbach's alpha coefficient was calculated to measure and check the internal consistency of the items for each construct and the overall variables. Using the latter statistical tests, construct validity and reliability of items, comprehensive questionnaires were determined and assured (check quantitative results for results of the statistical tests).

The questionnaires were administered using a few guiding procedures to ensure the appropriate data collection. Initially, ethical measures were taken, from getting formal permission to signing informed consent letters to ensure voluntary participation. The questionnaires were prepared using Microsoft Forms to ease the distribution and collection of the data. Afterward, the surveys were emailed to each group of respected participants. The survey introduced the topic in the introductory paragraph and requested the participant's agreement to participate (Appendix 1& 2 in the introductory paragraph of the survey). Once the participants tick the agreement box, the questions start to enroll. The estimated time of the questionnaire was 4-5 minutes, and all questions were mandatory to ensure the completion of the questions and avoid missing data. However, the open-ended questions at the end of the questionnaires were left optional, where participants could avoid answering and go directly for submission. This gave the participants some space to avoid leaving the questionnaire unsubmitted.



### **3.7.2 Interviews**

Interviewing is a powerful and prevalent qualitative research tool in which the participant or informant is given a space to be engaged in an in-depth and meaningful conversation with the interviewer (Creswell 2014). Interviewing the participants was prepared to be in harmony with the study's theoretical framework, where knowledge is socially constructed through any form of social interaction (Jarvis, Holford & Griffin 2003). Interviews had a protocol to follow as any social interaction, and the interviewer showed a moral inquiry toward interviewees and all sorts of information they provided (Kvale 1996) because the interviewers should never underestimate the impact of interviews on enhancing the human situation (Creswell 2014).

There are two widespread techniques of interviews, i.e., one-to-one and group interviews. One-to-one interviews or interviewing an individual to obtain in-depth responses has the essential advantage of letting the researchers' capabilities to make sensitive inquiries where responses can go beyond the initial questions. The only disadvantage of using such a form is that it does not protect the participant's anonymity as other forms might (Creswell 2014). Another approach is the focus group interview which depends on the interaction between a group of 4-6 interviewees. In contrast to one-to-one interviews, focus group interviews are more helpful as they trigger more interaction among participants and generate more valuable responses (Creswell 2012). Besides the former approaches, there are many other types of interviews, and the number entirely depends on what fits the study's purpose or the needed data type and which source the researcher is perusing (Cohen, Manion & Morrison 2007).

In the current study, the researcher followed diverse interviewing strategies and a few techniques as a protocol of conduct during the interview to acquire accurate interview data; for instance, after choosing a comfortable physical setting and conveying the purpose of the study, the researcher

took notes while the recording was available to make sure that the interview was on the right track. Also, instructions for the interviewees were clear, concise, and inviting; 3 to 5 probe questions (subquestions) were suggested for more information and further elaboration of the answers. Maintaining motivation and openness and offering encouraging icebreakers and space between answers were also present. Finally, preserving judgments, refraining from debating with the interviewees, and ending the interview with a compliment were guaranteed (Creswell 2012).

The researcher conducted one-to-one semi-structured interviews with the first category of participants and focus group interviews with the second group of participants and followed all the above protocols of conduct in both types of interviews (check Table 3.2 for more details).

The first qualitative data collection method was individual semi-structured interviews (Appendix 3) with the rationale of providing in-depth clarifications for the interviewees' perceptions regarding the effective practices of instructional supervisors in promoting the PPL. The semi-structured interview is a widespread instrument that has attracted interest in the researcher for its "purposive topical steering allowed and often happens in one event meeting with the interviewers asking pre-prepared questions that need specific answers from the interviewees (Flick 2009).

Since "the purposive topical steering allowed by a semi-structured interview may be the more effective way to achieve the desired data and findings" (Flick 2009, p.185), the researcher gave more weight to this particular type over the other. Thus, semi-structured questions were designed to reflect the research questions and elicit responses due to their flexibility and ability to minimize rigidness, as in responding to highly structured questions that might not help the researcher thoroughly explore in-depth the participants' exact attitudes toward the topic. Also, it is worth noting that shifting the sequence of words between the structured and the unstructured can enhance

the quality of the desired information collected from the interviewees, mainly when probing questions are provoked (Merriam & Tisdell 2016).

For the current study, the researcher used one-to-one semi-structured interviews that proved their smoothness with all the interviewees (n= 16). Using purposive sampling, the researcher chose 12 instructional supervisors (3 participants from each school) to participate in the study based on expertise in the PPL implementation and application, as the schools' principals recommended. In addition, four individual semi-structured interviews were conducted with the school teachers (1 participant purposively selected from each school) to share their practices and perceptions toward promoting the PPL at their schools.

For the group interviewing, the focus group interview (Appendix 4) was used as the second instrument in the qualitative data collection to explore participants' perceptions about the effectiveness of instructional supervisors in promoting PPL. The focus group interview's rationale lies in its strategic support for creating a discussion medium where participants can share ideas or solve problems beyond their individual opinions (Flick 2009). In the focus group interviewing approach, the researcher saved time and stimulated the participants' informational diversity as they came together to discuss the same topic. Eventually, this collective interaction in the focus group leads to insightful data due to its focused nature (Cohen, Manion & Morrison 2007). The sample chosen for the focus group interviews was selected using convenient sampling based on the teachers' availability and interest in sharing their experiences in the PPL (4 teachers in each group), where one focus group participated from each school to have a total of 4 focus groups interviews and total participants of 16 teachers distributed across all the core subjects. All the groups of participants were homogeneous in their background experience on PPL. The composed questions for this type of interview were mainly open-ended to yield more information and reasonable

explanations (Creswell 2014). This type of questioning gives the researcher more flexibility to give more depth to the conversation, assess the respondents' knowledge and beliefs, and clear up any possible confusion (Cohen, Manion & Morrison 2007). However, it should be noted that focus group interviews might be challenging for new researchers in three situations. The first challenge lies in maintaining control over the interview discussion, as some interviewers tend to dominate the discussion, which might lead to responses that do not represent the group. The second challenge might be analyzing and transcribing the interview, as it is hard to discriminate between the participants' voices. The last situation requires the investigator to find common ground between the interviewees on a specific response to scoring one mark for all group members (Creswell 2012). From the former discussion, it is worthwhile noting that the researcher kept these limitations in mind to overcome them during the event and prepared well to never slip into such constraints.

The formulated questions in both interviews were literature-driven; in other words, the researcher reviewed the literature on instructional supervision and professional learning to develop the semi-constructed and open-ended questions. Experts checked the content validity of the questions in the field from professors, instructional supervisors, and teachers. The interview questions were piloted to ensure the tools' trustworthiness and check whether the questions fit in the local context. Interviews as questionnaires were translated into Arabic to address the Arabic-speaking sample better.

Interviewing participants in person for data collection is preferable unless the social circumstances are against the researcher. Online interviewing is considered acceptable as long as the researcher records and achieves it (Merriam & Tisdell 2016). Thus, the researcher was open to any available option and left the choice to the interviewees; where some of the interview meetings were virtual and recorded via the popular platform 'zoom meeting' scheduled with the help of the school

administrative team and sent as an invitation in advance to the participants' emails. Others preferred the interviews to be face-to-face in the meetings room at their schools, so a COVID-19 PCR test of 96 hours had to be taken by the researcher every week to be allowed to visit the designated school and interview the participants on time. Such an arrangement was necessary never to waste everyone's time and keep the conduct and contact safe, organized, focused, and suitable for the participants. Before the beginning of the interview, the study's purpose was explained, the consent letter was signed, and the audio recording request was granted from all the participants. During interviews, notes were also written to ensure the conversation's track, and clarification probing was used to clarify and elaborate on a particular point or maintain the conversation's flow.

### **3.7.3 Document Analysis**

Document analysis is a research method explicitly designed to scrutinize written or visual content. In educational studies, it is widely used for several reasons, among which is identifying prevailing practices (Ary et al. 2018). Document analysis is a rich source of information that generates insightful data -without intrusion in the physical setting- to substantiate the results.

As far as the investigation of the effectiveness of instructional supervisors' practices in promoting PPL was concerned, the researcher executed a plan to gather school documents that could serve to answer the research questions. Document analysis is counted as equal to or even better than other qualitative methods. Its usefulness comes from the stability of the documents where its content is not subject to continuous change as in the interviews or observations (Merriam & Tisdell 2016). The rationale for using this method was to discover valuable information that can clarify the path to effective promotion and implementation of the PPL, end any ambiguity around it, and supplement the other research methods used in the study.

For the study, the purposive sampling technique was used to select relevant documents that included the following types: professional learning plans, evaluation instruments, topics and need alignment charts, PPL needs assessment, teacher observation framework, teacher observation analysis sheet, and progress self-assessment sheet.

In document analysis, the researcher became the primary instrument for gathering data, and it was essential to show openness, sensitivity, and flexibility while tracing leads (Merriam & Tisdell 2016). The researcher remained open-minded and flexible to any possibility or discovery, yet sensitive to whatever fits in the study's purpose and the document's authenticity, which can be a limitation. Also, no pre-determined categories to evaluate the collected data were developed in advance, so openness was vital for new insights and synthesized patterns to emerge. Using Bowen's model (2009), the researcher combined the thematic and content analysis as suggested.

In evaluating the budding evidence, steps were followed that included the following:

- a. Determining the document's meaning and relevance to the study's purpose.
- b. Determining the relationship between the documents and the conceptual framework.
- c. Ensuring the documents' authenticity, credibility, and completeness.
- d. Identifying the original purpose of the document as well as the intended audience.
- e. Determining whether the documents were created from first-hand experience or secondary sources.

Then the data was organized in its recurring themes in coding categories using the QSR NVivo to arrive at chapter 4 with a descriptive presentation of the results.

### 3.8 Validity and Reliability

Erasing threats to validity and reliability is impossible as it is never achieved in any research; however, a researcher can minimize errors and avoid threats that might distort the data (Cohen, Manion & Morrison 2007). Scholars have addressed validity and reliability where efficient tests and procedures were proposed at every research stage (Cohen, Manion & Morrison 2007; Creswell 2014). For the study, several techniques were applied to never slip into invalidity or unreliability throughout the various stages of the research, i.e., collaboration with a panel of research experts for content validity, statistical verification for construct validity and factor analysis, reliability, pilot testing, and triangulation.

To ascertain the content validity of the instruments' questions and to verify that they are entirely covering what they needed to stand for (Cohen, Manion & Morrison 2007), the researcher constructed clear and precise questions in the questionnaires and interviews that matched the research objectives and were based on the existing research literature. Table (3.6) enlist a few examples.

What the Research says	How Instruments' Items/ Questions Were Constructed
The degree to which students value an academic task strongly influences their choice, persistence, and performance at the task (Zmuda, Curtis & Ullman 2015, p 47).	My instructional supervisor recognizes my professional voice and encourages me to elevate it via sharing my new identifiable learning outcomes. My instructional supervisor offers me space to choose, try and adjust any instructional methods and tools in my class. (Teachers' Questionnaire) My teachers have become more engaged in their personalized professional learning. (IS Questionnaire)
Our aim is for students to become self-directed learners who know how to manage themselves in various situations. By helping them learn about themselves, we help them build the capacity to make wise decisions and navigate a turbulent and rapidly	My instructional supervisor offers me the freedom to design my learning path tailored to my growth needs and readiness. (Teachers' Questionnaire)  My instructional supervisor offers me opportunities to reflect and suggest ideas on my professional learning. (Teachers' Questionnaire)

changing world (Kallick & Zmuda 2017).	
Transformational leadership is the process whereby a person engages with others and creates a connection that raises the level of motivation and morality in both the leader and the follower (Northouse 2016).	<p>Can you describe a situation where your instructional supervisor was supportive and flexible? (interview)</p> <p>What was it like for you to have your instructional supervisor as a motivational one? (interview)</p>

**Table 3. 6: Examples from the Literature that Explains how Items/Questions Were Constructed**

The self-administrated questionnaires (check Appendix 1 and 2) were constructed using a multiple-item scale to measure the single construct. Each item was measured using the Likert scale of 5 points, ranging in value from “strongly agree” to “strongly disagree.” Also, to increase the validity and reliability of the measure, the questionnaires were sent to a panel of arbitrators in the research to weigh and validate the various proposed items (Johnson & Christensen 2014).

Construct validity refers to the operational formulation of any meaningful abstract the researcher wants to examine and explore (Cohen, Manion & Morrison 2007). To confirm the proper construction of the concepts with the relevant theories in the field, the researcher consulted the leading literature to understand what constructs define the effectiveness of instructional supervisors in promoting personalized professional learning. Construct validity is vitally crucial as it controls what constructs the study will examine. Researchers proposed statistical tests as the convergent and discriminant validity tests or homogeneity tests to validate the construct validity (Cohen, Manion & Morrison 2007; Johnson & Christensen 2014). Convergent validity describes how closely a measured variable is connected to another while attempting to assess the same conceptual factor. The degree to which a measured variable is shown to be unconnected to another while attempting to measure other theoretical factors is referred to as discriminant validity (Stangor 2011). Statistically, that means when there is a highly significant correlation between two scales



using the same construct, they converge, and the scales are valid. Conversely, divergent validity occurs when there is low or no correlation between different constructs using different scales. Together they can statistically prove the construct validity of the research tool. It was also noted that factor analysis could generate discriminant validity, collectively cluster related items, and split them from others (Cohen, Manion & Morrison 2007). Factor analysis in the study was conducted using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity. Both were employed as it is believed that they help in analyzing data factors, yet with specific concerns related to the sample size and the strength of the relationship (Pallant 2013).

Although the factor analysis assessment should be addressed prior to the actual study, it was not feasible to be performed during the pilot study on a limited sample size ( $n=40$ ), where it is not recommended to assess the factor analysis on a small sample size (Rahim et al. 2018; Williams, Brown & Onsman 2010). Thus, the factor analysis with the construct validity in its two components, i.e., convergent and discriminant validity tests, was performed on the actual study (check quantitative results).

Reliability was another measure taken into consideration while constructing the questionnaires and refers to the consistency or how much the scale used is free from random errors (Pallant 2013). There are two popular tests for reliability: the test-retest reliability and the internal consistency, which indicates the average correlation among all the items that create the scale (Ayiro 2012). For the questionnaires in hand and reliability purposes, Cronbach's coefficient alpha test was applied to measure the internal consistency between the whole items in the questionnaire and between the items of each construct.

Pilot testing was another step toward ensuring the validity and reliability of the self-constructed instruments. A pilot study is a trial for the research procedures on participants that can assist the researcher in making decisions about the nature of the data collection methods (Ary et al. 2018).

Finally, triangulation can be a powerful technique using multiple data collection instruments for any human behavior (Cohen, Manion & Morrison 2007). To ensure the data's trustworthiness and explore participants' different standpoints, the researcher has methodologically triangulated data by comparing results from different instruments such as questionnaires, document analysis, and interviews. The corroboration of evidence from diverse sources will guarantee valid results (Creswell 2014).

### **3.8.1 Questionnaire Validity**

The quality of the instruments defines the value of the whole research work, which cannot be achieved without valid instruments. With the study's main aim in mind, the researcher, in the first questionnaire, assessed teachers' perception of the effectiveness of instructional supervisors in promoting the PPL. The second questionnaire examined the instructional supervisors' perceptions of how implementing the PPL influences the teachers' performance. To ensure the validity of the quantitative self-constructed questionnaires, the researcher depended on content-related evidence known as content validity in the validation process. Content validity refers to evaluating and judging the level to which the items adequately indicate the constructs (Johnson & Christensen 2014). It was imperative to consult a panel of experts and attach a requesting email document with a brief review of the literature, theoretical rationales, and adopted survey items that were adopted in the instruments to support and facilitate making a judgment on the instrument's formation in terms relevance, clarity, and essentiality (Appendix 12). The panel of arbitrators in the research were experts in education and professional learning from professors, instructional supervisors, and

teachers who agreed to participate in the validation process. Feedbacks mainly were positive except for specific comments related to the number of open-ended questions and a few confusing words and repetitive phrases that might confuse the participants. For instance, one suggestion was to remove the nationality item for its sensitivity and lack of importance to the overall study.

Regarding the general technical form of the questionnaire, minor changes were initiated to the Likert scale statements to create more consistency among the statements and more coherence among the sequence of the items. The wording was simplified to have more clarity and conciseness and avoid confusion among participants. Microsoft Forms was used to design the questionnaire format where the latent concepts were defined, e.g., PPL.

### **3.8.2 Translation Validity**

The researcher initially constructed instruments in the English language, yet an Arabic-translated variant was necessary to include the Arabic and Islamic studies teachers and instructional supervisors regarding comprehensive coverage in a school. Thus, a translation protocol was used following a combination between the bilingual approach and back-translation. A group of bilingual colleagues employed these two techniques to translate the questionnaires (Appendix 16 &17) and interview items (Appendix 18 & 19) from the source language (English) to the target language (Arabic). Then two other bilingual translators transferred blindly from the target to the source using the back-translation procedures. The two versions were compared and contrasted while identifying differences between both versions to agree on better equivalence before testing the translated version on bilingual participants (Jones et al. 2001).

### **3.8.3 Trustworthiness of the Qualitative Interview Data**

Unlike the quantitative research method, which takes its strength from the high probability of replication in every analogous situation, the qualitative research method takes its strength from the

uniqueness of representation in any given phenomenon (Cohen, Manion & Morrison 2007). The focus group, the semi-structured interviews, and document analysis were used in the study, and they have a significant enough portion of the qualitative data. Therefore, it was inevitable to increase the validity or trustworthiness of these qualitative instruments using different techniques as recommended by researchers (Cohen, Manion & Morrison 2007; Johnson & Christensen 2014). The term trustworthiness in interviews replaces validity to measure the variant quality of the developed qualitative methods intended to measure, and different strategies are suggested to defend their credibility (Johnson & Christensen 2014). Two professors have checked the questions for face and content validity based on an attached overview of the related theories used in the study. Also, two instructional supervisors, two teachers, and two doctoral students (peer review) participated in the revision process and revealed that some questions needed clarifications, so the researcher restructured them to enhance their intelligibility. Though only the researcher was taking all the analysis in the study, it was necessary to send the semi-structured interviews for professional advice from experts to check the inter-rater reliability and to agree on which data would be entered in which categories for the thematic analysis. All the themes and codes were well discussed and agreed on.

#### **3.8.4 Pilot Study**

The pilot study aimed to examine the effectiveness of instructional supervisors in promoting PPL with an integral focus on detecting any problems that might arise from the instrumentation and finding the proper remedy. For such an essential purpose, the researcher chose one private school in Abu Dhabi that confirmed the integration of personalization in teachers' professional learning to pilot the study on a small group of teachers and instructional supervisors (colleagues). This preliminary testing choice is supported by (Fraenkel & Wallen 2009; Johnson & Christensen

2014). It proved efficient in avoiding logistic challenges when it comes to data collection among teachers and instructional supervisors; also in gaining soft, technical skills related to SPSS version 23 like importing data from excel to SPSS, transferring data type from string to numeric without losing it, using the automatic reordering and analyzing the Cronbach's alfa. For the qualitative data, the QSR NVivo version 11 pro was used to determine the suitability and readability of the questions and to analyze the audio-recorded data from interviews qualitatively.

### **3.8.5 Questionnaire Piloting**

To identify any problems in the self-constructed questionnaires and to increase their reliability before the actual study is carried out, it is a highly recommended norm in the research to conduct a pilot study (Creswell 2014; Fraenkel & Wallen 2009; Johnson & Christensen 2014). The researcher met several errors through piloting and gained more confidence in the study's final results. Johnson and Christensen (2014) suggested targeting in the pilot study a sample and situation similar to the one in the actual study and using a 'think-aloud' technique to help the researcher identify and record what the participants reflect on their thinking aloud while taking the questionnaire. In light of their comments, adjustments can take place. It is also recommended to record the time amount participants paid on the questionnaire to determine if it is lengthy or not. According to Connelly (2008), the sample size in the pilot study is determined by 10 percent of the sample size in the actual study. Accordingly, the researcher used simple random sampling to select only 30 teachers from all the core subjects and 10 instructional supervisors to participate in the pilot study in a private school in Abu Dhabi. The simple random sampling technique uses participants' emails to randomize and select the target number using the randomizer free online software. The surveys were distributed online via Microsoft Forms and analyzed via the Statistical Package for the Social Sciences, SPSS.

The main aim of the pilot study was to measure the reliability and internal consistency of the items using Cronbach's alfa, a general statistic in research that evaluates the accuracy of the used scale for the questionnaires. Using the SPSS, Cronbach's alfa is estimated when the test scores are measured above 0.7 (Cortina 1993). If the coefficient Cronbach's alpha is .90, the reliability is high, where .6 is an acceptable level, and .7 is a satisfactory level of reliability (Creswell 2012). Based on this, the results from the pilot study showed that Cronbach's alpha across the two self-constructed questionnaires reached a high level of internal reliability (.894 for the total items of the teachers' questionnaire and .918 for the instructional supervisor's questionnaire). The results were presented and visualized in table (3.7). The other reliability test performed on the piloting data was related to measuring the internal consistency between the items of the same construct, where a coefficient above .7 needs to ensure that the items are measuring the same construct (Cortina 2013). The questionnaires' internal structure proved reliable as Cronbach's alfa climbed above .7 in all the given constructs. More specifically, the coefficient scores for the teacher's questionnaire were .874 in theme 1, .707 in theme 2, and .784 in theme 3. While for the instructional supervisors' questionnaire, .799 was Cronbach's alfa in theme 1; .880 for 2; and three .736 for theme 3. Therefore, the attained results from the pilot study showed that the self-constructed questionnaires ensured high internal consistency and a 'good' level of reliability in all their constructs across the Likert scale.

<b>Cronbach's alfa</b>	<b>Theme 1</b>	<b>Theme 2</b>	<b>Theme 3</b>	<b>Total</b>
<b>Teacher's Questionnaire</b> <i>N=30</i>	.874	.707	.784	.894
<b>Instructional supervisor's Questionnaire</b> <i>N=10</i>	.799	.880	.763	.918

**Table 3. 7: Reliability Test Results for the Self-Constructed Questionnaire**

During the questionnaire piloting, the researcher received helpful comments to rephrase and drop words that blocked or might block the respondent’s understanding. From the feedback on the questionnaires, careful attention was given to valid suggestions, especially in terms of terminology, words, and phrases that might create unwanted confusion. Table (3.8) exemplifies some of the changes that were added or removed from the questionnaires.

<b>Words/Terms/ Phrases from The Original Questionnaire</b>	<b>Actions Taken</b>	<b>Reason</b>	<b>New Words/Terms/ Phrases</b>
How collaborative do your teachers become with you and the rest of the learning community?	Change the structure of the item from a question to a statement.	To create consistency across all the items.	My teachers have become more collaborative with me and the rest of the learning community.
What is your nationality?	Deleted	Though the item can show demographic diversity, it might create discomfort for the participants and add little to the study.	
Where do you stand in your professional relationship with your instructional supervisor?	Deleted	Many teachers left this question in the pilot study unanswered.	

**Table 3. 8: Changes Added or Removed from the Questionnaires.**

### **3.8.6 Interview Piloting**

The procedures of interview piloting were recommended by Creswell (2012) to test the instruments used. Thus, the researcher followed the protocol and started an interview pilot to assess the questions and evaluate whether participants could understand the questions without confusion. The interviews were conducted with three teachers and two instructional supervisors (colleagues).

Based on their feedback, clarity was confirmed, and only minor changes were considered in terms of words that might confuse interviewees (Table 3.9). The interview piloting was insightful since it gave the researcher confidence in what might go wrong during the actual study and how to guide respondents to expand and elaborate their answers to a specific point that needs more explanation.

Questions in the Pilot Study	Questions in the Main Study	Reason
<p>Could you describe how instructional supervision can help promote personalized professional learning (PPL) at your school? In what ways do instructional supervisors differ in effectiveness from each other at your school?</p> <p>From your experience, do you consider your daily actions/behaviors can enhance teachers' performance in the PPL? How could the instructions you use in your meetings affect your teachers' personalized learning experience?</p> <p>In what ways do you think that the personalized professional learning model contrasts with the one-size-fits-all model?</p>	<p>Could you tell us a bit about the professional learning process you use with your teachers at your department/school? In your opinion, how do you think instructional supervisors differ in promoting the personalized professional learning process at your school?</p> <p>Do you consider your daily practices/learning improved as a result of using the PPL approach? How could the instructions you use/ receive in your meetings affect your PPL experience?</p> <p>In what ways do you think that the current professional learning approach contrasts with the previous one?</p>	<p>Moving from the general (PL) to the specific (PPL) and from the specific (process) to the general (promoting the PPL process).</p> <p>The question in the pilot study was limited to instructional supervisors but was changed later to include both instructional supervisors and teachers.</p> <p>The question is directed to teachers, and the terms: model and one-size-fits-all might sound unfamiliar or confusing, so the word 'model' was replaced by approach, as the previous one might sound more familiar with their past experiences.</p>

**Table 3. 9: Changes that Were Added or Removed from the Interview Questions**



### **3.8.7 Methodological Triangulation**

In the social sciences, triangulation is a multi-method approach to data collection that crystals the researcher's perspective and rectifies any bias in the researcher's viewpoint toward understanding any observational behavior. Methodological triangulation is characterized by using multiple data collection methods to study the same object (Cohen, Manion & Morrison 2007).

The study relied on methodological triangulation to investigate the effectiveness of instructional supervisors in promoting PPL by combing the quantitative and qualitative data collection methods via questionnaires, interviews, and document analysis. It then compared and contrasted them to increase the chances of confidence in the consistent validity of the collected data.

### **3.9 Data analysis**

Data analysis is one of the most integral parts of the research process. A mixed-method approach in its concurrent design was employed for the study (Fraenkel & Wallen 2009). Both research methods were given equal attention, emphasis, and priority during collection, and the researcher depended on some recommended strategies to analyze the mixed data (Johnson & Christensen 2014).

The collected data from the investigation on the effectiveness of instructional supervisors in promoting PPL had undergone separate and different layers of multi-analysis. The first layer of data analysis comprised data collected from the quantitative research methods, i.e., the questionnaires. The qualitative data was analyzed in-depth in the second layer of analysis. After completing the analysis from the two separate sets of data, triangulation was achieved by comparing and contrasting both forms of data (Johnson & Christensen 2014).

### **3.9.1 The Quantitative Data Analysis**

For the quantitative data, SPSS was the primary statistical analysis tool used by the researcher in the study. Despite its prerequisite of considerable analytical expertise, this method was chosen due to its popularity and efficiency in offering in-depth statistical analysis. The statistical choices at this level considered what experts recommend (Cortina 1993; Pallant 2013).

As a starting point in the quantitative data analysis, all responses from both questionnaires were manually entered, labeled, and coded in the SPSS codebook for error-testing and data checking. The analysis took three main phases in the descriptive analysis to bring order out of the chaotic data. Initially, the analysis started with the demographical information for both datasets collected from teachers and instructional supervisors. The statistical results were displayed using frequency distributions of tables and graphs to show the difference among the groups of the categorical data. The second analysis phase, the descriptive phase, involved descriptive statistics related to teachers' perceptions of instructional supervisors' practices. Also, this phase was related to the instructional supervisor's perception of PPL's impact on teachers' performance. To explore and display the lowest and the highest perception across the items and find the differences among the responses, the researcher reported descriptive statistical tests using frequency and percentage. Based on the output of descriptive statistics, the data allowed the researcher to explore and examine the perceptions of teachers and instructional supervisors about PPL. Frequency tests were visualized in frequency tables and graphs to display results.

The researcher found it a prerequisite to assess normality in the data using the normality test to compare the groups better and understand their differences. Normality means the data is normally distributed or has a bell-shaped curve. Pallant (2013) suggested that the researcher is in front of two choices when the data is non-parametric: (a) either to transform the data with a formula till its

distribution looks more normal or (b) to use the non-parametric techniques. There is also a discussion in the research that the large size of data can be treated as if it is parametric even if it violates some of the assumptions of the parametric as the tests like the ANOVA and T-tests are robust and can stand the minor errors of assumptions due to the central limit theorem (Cohen, Manion & Morrison 2007, p.106). Thus, the normality test occurred, and based on the given data, an analysis test was selected. The collected data met the normality test and fit the selected parametric tests (see Appendix 13 for more details and graphs).

In the third phase, the researcher depended on the parametric tests, namely the One-Way Analysis Of Variance (ANOVA) and the Independent T-Test, to answer the third research question. Notably, these statistical choices were congruent with what Pallant suggested (2013). ANOVA was used for its capacity to measure more than two groups. It was used to measure the statistical difference between the computed total of the data (teachers' and instructional supervisors' perceptions) and each categorical group. The categorical data were split into independent groups in opposition to the ordinal data from the respondents. Finally, results were presented in tables to visualize the analyzed data. The other test was the Independent T-Test, similar to the ANOVA, yet it was used to check the significant difference between the two separate categories of males and females as recommended (Pallant 2013). Appendix 5 maps the data analysis process in its procedures and test choices.

For the validity, construct validity was measured using convergent and discriminant techniques. SPSS was also used to measure the correlation between the constructs across the two prerequisite components of the construct validity, i.e., convergent and discriminant validity.

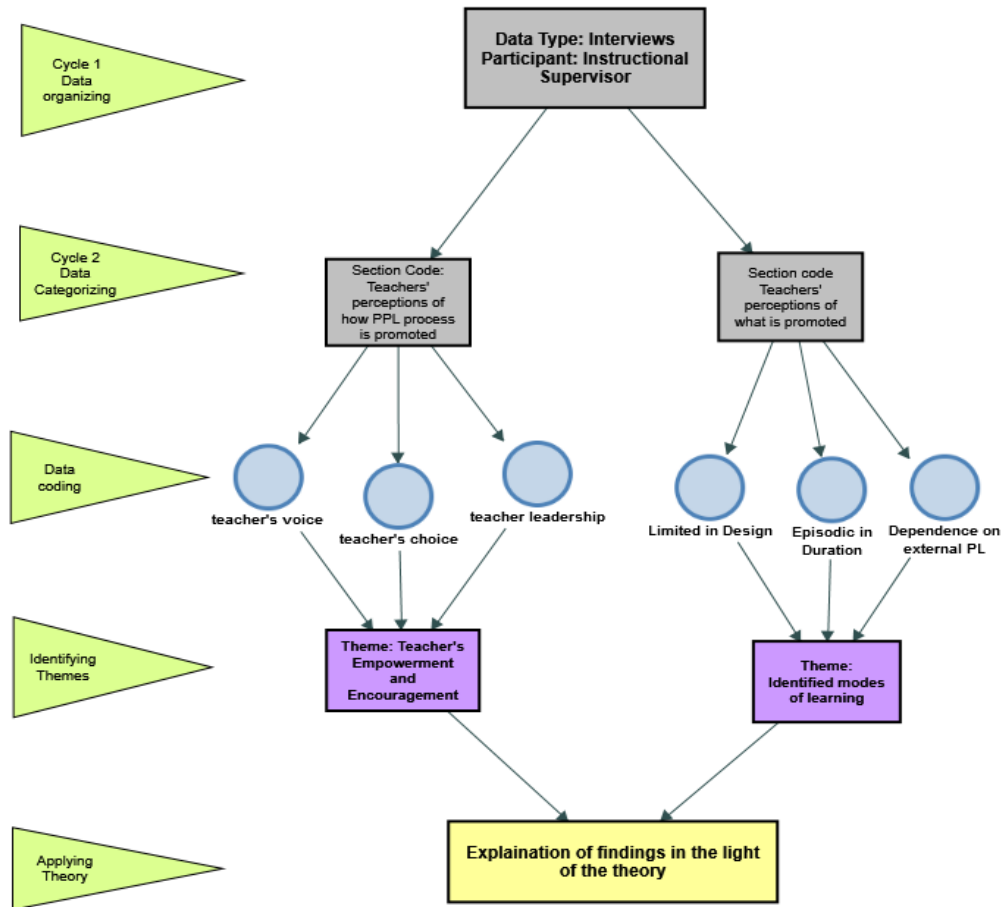
As for reliability, the statistical measurement of SPSS should indicate a correlation between the items that make up the scale to be confirmed on estimation in the coefficient alpha between the

values of 0-1, where the minimum recommended value is .7 (Cortina 1993). Cronbach's Alpha ( $\alpha$ ) was addressed in both questionnaires, including all the constructs and related items. Additionally, factor analysis was carried out using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity. Both were recommended to be used as they help calculate the factorability of the data (Pallant 2013).

### **3.9.2 The Qualitative Data Analysis**

To comprehensively analyze the qualitative data, the researcher drew out insights in the form of themes using thematic analysis (Ary et al. 2018). The widely used research technique of thematic analysis never depends on a rigid single right approach; however, thematic analysis is a flexible qualitative analytical method that can best answer the related research questions. Thematic analysis has a few limitations related to its interpretative capacities and the researcher's analysis paralysis, which might leave the researcher incapable of deciding what segment in the data should be in the target. Nevertheless, using thematic analysis has advantages in its potential flexibility and usefulness in summarizing critical insights of a large body of qualitative data, generating themes, comparing and contrasting data, and producing explanations (Braun & Clarke 2006). The thematic analysis considers the level of analysis at which the researcher operates. Braun and Clarke (2006) distinguished between two levels of thematic analysis, semantic and latent, where the researcher either focuses on analyzing the explicit meaning or digs deeper into the interpretative level. Another critical decision for the thematic analysis involves how or the technique the researcher relied on during the analysis. There are two principal approaches for thematic analysis: (a) inductive and (b) deductive, where the former is more data-driven while the latter depends on pre-determined categories concluded from the theory.

In the current study, the researcher was committed to the participants' words without going beyond that surface meaning. In doing so, the thematic analysis operates on a descriptive level of finding patterns in the data detached from the hypothetical meaning. Also, the researcher used inductive and deductive approaches while examining the qualitative data. Using the Nvivo was very helpful in different ways, as running auto coding and queries can give a particular perspective to explore and figure out trends in the data. At the same time, the researcher had a few pre-determined concepts from the conceptual and theoretical frameworks and the literature on professional learning that helped create, sort, and label the data into categories, themes, and subthemes. Both approaches were enlightening for decision-making on the data while coding and categorizing the cases in the qualitative data (Perry & Jensen 2001). The visual model below was designed on Nvivo to describe the analytical process of the qualitative data. It shows a snapshot example from the interview with one of the instructional supervisors and the five cycles of analyses that started with organizing the data and theorizing the findings. Therefore, both inductive and deductive techniques were balanced, as outlined in figure (3.2) below.



**Figure 3. 2: A Visual Sample of Using Deductive and Inductive Processes on Nvivo for a Qualitative Data Analysis.**

The qualitative data collected from the semi-structured interviews, focus group interviews, and open-ended questions included in the questionnaire and documents have undergone systematic and dynamic procedures. Backed by Braun and Clarke’s model (2006) of thematic analysis, the researcher followed three main steps: (1) organizing and familiarizing, (2) coding and reducing, and (3) interpreting and representing.

During the first step, the researcher was immersed in familiarizing himself with and organizing all forms of qualitative data. Transcriptions were prepared for all the audio recordings to fit into the

analysis by listening and reading attentively. While transcribing, notes or memos were written to have a comprehensive picture where no words were added, and no grammatical errors were corrected to keep the original meaning. Pseudonyms were used to sustain anonymity and confidentiality. All the data was managed and organized using the qualitative data analysis software QSR NVivo. NVivo enriches the quality of analysis and reduces the time exerted in themeing the data in a better-visualized way (AlYahmady & Al Abri 2013).

The second step of data analysis was dedicated to coding and data reduction. After organizing the data into scripts and transcribing the responses into sections or segments, the constructed segments were descriptively coded to find the recurring patterns. Coding involves developing concepts from the raw data, and the recurring patterns are called themes as they describe repeated behaviors within a culture (Saldaña 2016). Coding can occur in different approaches, yet the researcher has chosen Creswell's (2012) analytical framework for developing provisional codes, categories, and themes. The visual model (Appendix 6) reveals the steps followed in coding and data reduction until themes emerge. During the data reduction, all the words and phrases that did not serve the labeled themes were ignored as they were not serving the underlying unit meaning. After the coded data were sorted according to importance and consistency, common patterns and meaningful units of words and phrases were transformed into distinct categories. From the categories, themes emerged, showing relationships among the categories. The relationship was explored and revised to ensure the emerged themes paved for a clear understanding of the studied sample.

In the last step of the analysis, interpreting and representing, the researcher started bringing out meanings by explaining what was well-conceived and eliminating what was misconceived based on the theoretical knowledge supported by the data. The data analysis results were represented using tables, graphs, and figures to produce the reports.

After reflecting on the analysis was facilitated once the data collected from both tools were merged and interpreted comprehensively for an in-depth comparative understanding.

### **3.10 Ethical considerations**

“Ethics are the principles and guidelines that help us uphold the things we value” (Johnson & Christensen 2014). Ethics in conducting research is an integral part of its process and should not be seen as a burden (Mertens 2010). Researchers recommended ethical procedures to guard against violating any ethical and cultural issues (Creswell 2014; Mertens 2010). Johnson and Christensen (2014) enlisted the ethical codes from American Educational Research Association (AERA) that focus on non-maleficence (harming others) and beneficence (being beneficial for others) as two broad concepts for the 22 ethical guiding standards related to educational researchers (p. 201). The study’s ethical guidelines align with AERA’s ethical standards and refer to the university’s ethical research codes.

The Research Ethics Committee at the British University in Dubai requested that all doctoral students/ researchers follow critical ethical research measures. Respecting such recommendations and guidelines at multiple points during the research was a fundamental interest and concern for the researcher, as the integrity of the whole work was haled from meeting these ethical considerations.

For such a purpose, the investigator signed an ethical research form (Appendix 9) that ensures that the researcher can secure the ethical principles in detail and uphold the social values that help the committee estimates the foreseeable harm that might trigger any medium or high-risk to the participants’ rights and wellbeing and the selected schools’ communities not meet. After meeting the ethical requirements, which included providing personal information and a concise and brief description of the study, its rationale, methodology, a draft of the used instruments, and the final



revised copy of the consent letter, the researcher obtained the ethical approval and started the pilot study.

The study's ethical measures included (1) a permission email letter (Appendix 8) before the study was sent via emails to the schools' principals seeking official approvals to conduct the study at their premises and grant an excess to participants' emails. An official data collection letter (Appendix 10) from the university was used and emailed to the principals to strengthen the researcher's request and facilitate the approval (2) The informed consent letters (Appendix 7) were voluntarily signed. They stated how participants' rights were to be upheld throughout the multiple data collection methods. Afterward, (3) the sample participants were introduced to the topic via the survey itself (Appendix 1& 2 in the introductory paragraph of the survey), guaranteeing anonymity and confidentiality in how all shared data from emails and collected data could be shared stay anonymous and confidential. Later, (4) the researcher visited the premises to fulfill the data collection. Again, the research's purpose was verbally communicated to all the interviewees in the interview meetings without coercion in the study and assured that their privacy would be highly respected and protected. It is worth mentioning that the school leaders played an essential role in helping the researcher meet teachers and encouraging them to participate (Check Appendix 11). (5) All the withdrawal conditions were communicated to participants to ensure how acceptable it was to withdraw at any level. (6) Personal distance and judgment were maintained throughout the data collection and analysis to keep its original and objective approach in the investigation. (7) All qualitative data were audio-recorded during the interviews; textual documents and artifacts were sent directly to the researcher's email; then saved safely on encrypted cloud storage for data protection. Finally, (8) the results of this study protected identities and entities by using codes and pseudonyms to refer to schools and participants.

### **3.11 Chapter Summary**

The study aims to investigate the effectiveness of instructional supervisors in promoting personalized professional learning at four private schools in Abu Dhabi. This chapter reviews the methodological assumptions underpinning the investigation. The rationale for using pragmatism and the research design and approach have been discussed and elaborated to portray the mixed-method research design in all its data collection and analysis instruments. Also, the chapter sheds light on the validation process that includes the validity and reliability of the instruments, with results from the pilot study. The chapter concludes with ethical considerations adopted in the research process and a visual representation of the investigation (Figure 3.3). The next chapter will be dedicated to discussing the findings.

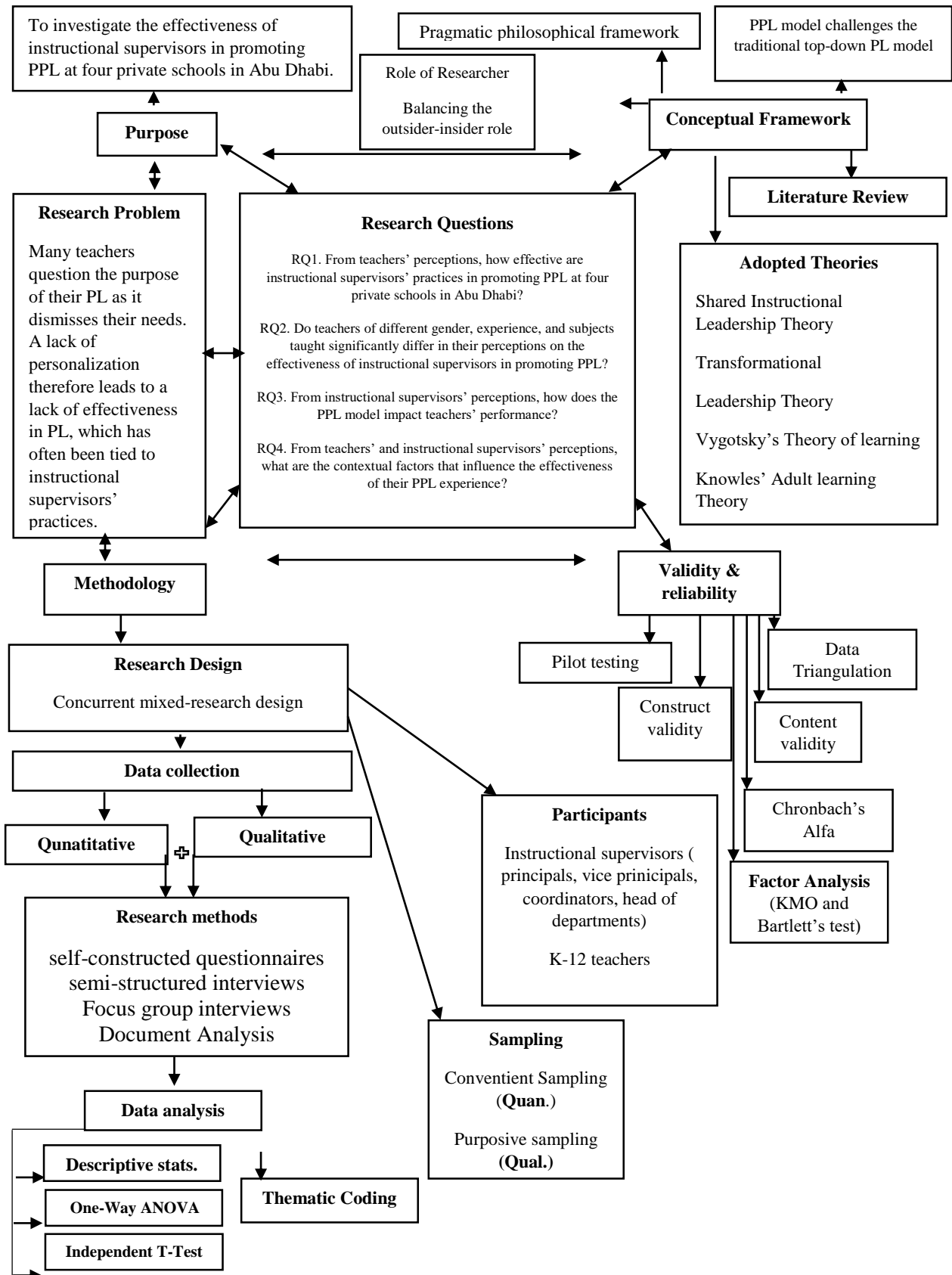


Figure 3. 3: A Visual Representation of the Research Investigation

## **CHAPTER FOUR: DATA ANALYSIS AND FINDINGS**

### **4.1 Introduction**

This chapter engages in the analysis and reports the findings from the study. The findings from the quantitative data analysis are presented, followed by the qualitative data to answer the research questions. Each section of the analysis is concluded with a summary; then, the whole data are integrated for an in-depth comparison using methodological triangulation. The chapter ends with a broad overview of the findings from the data analysis.

The chapter is divided into six sections. The first section introduces the chapter and overviews the research, including the research objectives, theories, and methodology undergirding the study. The following section presents the quantitative data analysis and all the necessary statistical tests. The third section thoroughly shares the findings from the qualitative data analysis. Then, document analysis is presented in the next section to proceed with the results from the data triangulation. Section five summarizes the whole chapter and recaps its main highlights.

The study's prime aim is to investigate instructional supervisors' effectiveness in promoting PPL at four private schools in Abu Dhabi. More specifically, it intends to investigate the effectiveness of the existing instructional supervisors' practices as perceived by teachers and instructional supervisors and their impact on teachers' performance; then, it explores the contextual factors that foster or impede the effective implementation of the PPL model by different providers across the country. To serve its purpose, the researcher has grounded the study's theoretical underpinning on four merged theories of leadership and learning (i.e., Instructional Leadership Theory, Transformational Leadership Theory, Adult Learning Theory, and Socio-Cultural Constructivism Theory).

The study also utilized the convergent concurrent mixed methods research approach to answer the four research questions that guided the study, then analyzed and presented the data separately following the instrument applied. Table (4.1) summarizes each research question, the type of data used to achieve or answer it, and participants from which data are collected, and the type of data analysis used; eventually, it serves as a foundation to move into reporting the results.

Questions	Approach	Instrument	Participants	Data analysis
<b>RQ1. From teachers' perceptions, how effective are instructional supervisors' practices in promoting PPL at four private schools in Abu Dhabi?</b>	Quan + Qual	self-administrated questionnaire Semi-structured interviews Focus groups interviews Document analysis	Teachers	SPSS Statistical analysis (descriptive-inferential) Thematic analysis using NVivo
<b>RQ2. From instructional supervisors' perceptions, how does the PPL model impact teachers' performance?</b>	Quan + Qual	self-administrated questionnaire Semi-structured interviews	Instructional supervisors	SPSS Statistical analysis (descriptive-inferential) Thematic analysis using NVivo
<b>RQ3. Do teachers and instructional supervisors of different gender, experience, grade level, and subjects taught or supervised significantly differ in their investigated perceptions?</b>	Quan	self-administrated questionnaires	Teachers Instructional Supervisors	SPSS Statistical analysis (ANOVA And Independent T-test)
<b>RQ4. From teachers' and instructional supervisors' perceptions, what contextual school factors might enhance or hinder the effectiveness of their PPL experience?</b>	Qual	Semi-structured interviews Focus group interviews Document analysis	Teachers instructional supervisors	Thematic analysis using NVivo

**Table 4. 1: Overview of the Research Questions and Methods.**

The analysis of the data in this chapter and how it leads to answering the research questions and achieving the study's primary aim involves reporting and presenting it based on data collection methods, i.e., quantitative and qualitative. Adopting this approach facilitates the clarity of the results presentation and the report's coherence. Also, to avoid too much emphasis on the data collection methods rather than the evidence from the data, the researcher has highlighted the evidence to become more noticeable in the chapter; then linked it to the research questions and the research aim. Equally important, the researcher has discussed how the data has achieved its research aim and how the evidence is used to build a systematic case for the overall research results.

#### **4.2 Quantitative Data Analysis**

The quantitative data relies on two questionnaires designed to collect data from two sample groups, teachers and instructional supervisors. The first questionnaire invites teachers' participants to share their perceptions on the effectiveness of instructional supervisors in promoting the PPL. The other one targets instructional supervisors' perceptions of the impact of the PPL on teachers' performance. The two questionnaires are divided into three sections. The first section deals with the demographical information, and the second is divided into three themes, each involving five items. The third section of the questionnaire deals with open-ended questions added to the qualitative analysis.

Quantitative data analysis went through different layers of analyses where statistical tests and measures were followed to answer the research questions precisely. To present the analyzed data clearly, the researcher focused on the analytical tests related to the questionnaires and presented their results, then moved to address the research questions as explained in the following steps. First and as a preparation for the actual analysis, it was imperative to present the data's normality test,

then the instruments' reliability and validity were displayed and discussed. Next, factor analysis was also completed to verify the adequacy of the sample size and the significance of the two questionnaires' items. The second level of analysis dealt with the descriptive statistics of demographical information of the two samples. The third level of analysis focused on the study's findings, where each research question was answered quantitatively, and each construct of the two questionnaires was reported using diverse tables and charts to visualize the data and answer the research questions. Further statistical analyses were conducted using One-way ANOVA and Independent t-test to examine the statistical differences among the groups and answer the third research question. Results were tabulated and highlighted in tables.

#### **4.2.1 Normality Test Analysis**

The normality test was carried out to explore and understand the type of collected data. The results showed that the data is parametric based on skewness and kurtosis. Skewness measures how symmetrical the distribution of a variable is. The distribution is skewed if the majority of responses for a variable bend to the right or left tail of the spread. Kurtosis determines whether the distribution is too peaked. "When skewness and kurtosis are zero (a situation that researchers are unlikely to encounter), the pattern of responses is considered normal" (Hair et al. 2017, p. 61). A basic rule of thumb for skewness is that the distribution is significantly skewed if the value is higher than +1 but less than -1. The general rule for kurtosis is that if the value is higher than +1, the distribution is too peaked. A kurtosis of less than -1 indicates an overly flat distribution. Distributions with skewness and/or kurtosis that outweigh such limits are regarded as not normal (Hair et al. 2017, p. 61).

Tables related to the skewness, kurtosis, and histograms of the two questionnaires in their different constructs were attached to the appendices. Based on this normality test, parametric tests were used to address the statistical differences among the groups, i.e., ANOVA and Independent T-test.

#### **4.2.2 Reliability, Validity and Factor Analysis**

##### **4.2.2.1 Reliability**

The reliability test aims to test the consistency of the measurement scale. The researcher examined the reliability of the measurement scales of the two questionnaires using the statistical measurement of SPSS. There should be a real correlation between the items that make up the scale to estimation in the coefficient alpha between the values of 0-1, where the minimum recommended value is .7 (Cortina 1993). This study relies on Cronbach's Alpha Coefficient to ensure the precision of the analysis. Cronbach's alpha is a test reliability technique requiring only a single test administration to estimate a test's reliability. Cronbach's alpha is the average value of the reliability coefficients one would obtain for all possible combinations of items when split into two half-tests. The Cronbach's alpha coefficient was calculated to measure and check the internal consistency of the items for each construct and the overall variables (Cortina 1993).

##### ***Teacher's Questionnaire***

	<b>Cronbach's Alpha</b>	<b>N of Items</b>
<b>Theme 1</b>	0.8411	5
<b>Theme 2</b>	0.711	5
<b>Theme 3</b>	0.707	5
<b>All themes</b>	0.712	15

**Table 4. 2: Reliability Analysis of Theme1, Theme2, Theme3**



The table above confirms that Cronbach’s alpha of the three themes was 0.7 and above, which is considered good. That means the internal consistency is high, and questions about each theme are related.

***Instructional Supervisor’s Questionnaire***

	<b>Cronbach's Alpha</b>	<b>N of Items</b>
<b>Theme 1</b>	0.799	5
<b>Theme 2</b>	0.880	5
<b>Theme 3</b>	0.724	5
<b>All themes</b>	0.917	15

**Table 4. 3: Reliability Analysis of Theme1, Theme2, Theme3**

The values of Cronbach alpha for the reliability test results were 0.799, 0.880, 0.724 for theme 1, theme 2, theme 3, and 0.917 for all themes. The figures above indicate that all the questionnaire items are reliable and consistent in the measurement scale that the researcher constructed.

**4.2.2.2 Validity Analysis**

***Teacher’s Questionnaire***

To confirm what the measure indeed measures and not only its consistency, the researcher used convergent and discriminant techniques to measure the construct validity statistically. The first component was addressed by testing the correlation coefficient between measures of the same construct. It is imperative in convergent validity to have a higher than 0.7 correlation coefficient within the items of the same construct. Below is a table that outlines the correlation coefficient among the items of each construct across the teacher’s questionnaire. The convergent validity test below shows that the sections’ items are highly correlated and significantly suitable.

<b>Theme 1</b>	<b>Corr. Coeff.</b>	<b>Sig</b>	<b>Theme 2</b>	<b>Corr. Coeff.</b>	<b>Sig</b>
Item 1	0.801	0.000	Item 1	0.820	0.000
Item 2	0.840	0.000	Item 2	0.422	0.000
Item 3	0.907	0.000	Item 3	0.758	0.000
Item 4	0.707	0.000	Item 4	0.723	0.000
Item 5	0.665	0.000	Item 5	0.689	0.000
<b>Theme 3</b>	<b>Corr. Coeff.</b>	<b>Sig</b>			
Item 1	0.633	0.000			
Item 2	0.780	0.014			
Item 3	0.786	0.000			
Item 4	0.507	0.000			
Item 5	0.691	0.000			

**Table 4. 4: Statistical Results for the Convergent Validity**

In contrast, the discriminant validity measured the correlation of the items with items of a different construct. The table (Appendix 14) shows the correlation of the themes to have remarkable discriminant validity. Low correlation was detected between the items of different constructs, as in themes 1 and 2, with correlation values ranging between -0.012 and 0.056. Also, themes 1 and 3 showed a correlation between -0.004 and 0.096. Themes 2 and 3 revealed a correlation value between -0.003 and 0.093. Thus, the teacher’s questionnaire construct validity in both components, the convergent, and discriminant, is valid evidently.

***Instructional Supervisor’s Questionnaire***

The second questionnaire was validated with the same test using a correlation coefficient. A construct validity test was established for the scale’s convergent and discriminant validity. The higher the validity coefficient, the more convergent the test is. The validity test showed that the items of the sections were ‘good’ correlated and significant, so the scale is convergently valid.

<b>Theme 1</b>	<b>Corr. Coeff.</b>	<b>Sig</b>	<b>Theme 2</b>	<b>Corr. Coeff.</b>	<b>Sig</b>
Item 1	0.918	0.000	Item 1	0.686	0.000
Item 2	0.469	0.009	Item 2	0.715	0.000
Item 3	0.728	0.000	Item 3	0.951	0.000
Item 4	0.861	0.000	Item 4	0.909	0.000
Item 5	0.711	0.000	Item 5	0.842	0.000
<b>Theme 3</b>	<b>Corr. Coeff.</b>	<b>Sig</b>			
Item 1	0.559	0.001			
Item 2	0.449	0.014			
Item 3	0.783	0.000			
Item 4	0.763	0.000			
Item 5	0.846	0.000			

**Table 4. 5: Summary Results for the Convergent Validity**

Similarly, the discriminant validity was determined by the correlation coefficient. The lower the correlation between the different constructs, the more discriminant is evident. The table (Appendix 14) shows the themes' correlation to have the discriminant validity where there was a low correlation between the items of theme 1 and theme 2 with a correlation value that ranged between 0.09 and 0.5. Also, themes 1 and 3 had a correlation value between -0.349 and 0.441. Themes 2 and 3, had a correlation value between -0.148 and 0.461. Thus, it is concluded that the teacher's questionnaire in both components, the convergent and discriminant is valid in its construct validity.

#### **4.2.2.3 Factor Analysis**

Factor analysis is a technique that is used to reduce a large number of variables into fewer numbers of factors. This technique extracts the maximum common variance from all the variables and puts

them into a common score. The researcher can use this score for further analysis as an index of all variables.

➤ **Kaiser-Meyer-Olkin Measure of Sampling Adequacy**

The KMO, which represents the ratio of the mean square correlation between variables to the mean square partial correlation between variables, can be determined for individual and multiple variables. It ranges from 0 to 1. a value of 0 indicates that the total value of the partial correlations is large relative to the sum of correlations, indicating spread in the correlation pattern, and if the value is close to one, then it suggests that the correlation patterns are relatively small and thus the factor (Field 2018). Tabachnick and Fidell (2007) suggested that an appropriate KMO value should not be lower than 0.6.

**Bartlett's Test of Sphericity**

Bartlett's test evaluates all factors and between each factor separately to test the null hypothesis that correlations among variables are zero (Tabachnick & Fidell 2007). It also checks whether the correlation matrix is the identity matrix (the diagonal value is 1, and the off-diagonal values are 0). Identify matrix can be ruled out and have an appropriate factor model if the p-value of the test is less than 0.005 or ( $p < .05$ ), as recommended by (Pallant 2013), as that means that the correlation matrix is not an identity matrix (Chetty 2015).

***Teacher's Questionnaire***

In the below section, KMO and Bartlett's Tests were conducted on the three parts of the study independently (theme 1, theme 2, theme 3) and a general one for the whole study.

## 1- KMO and Bartlett's Test for Theme 1

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.640
Bartlett's Test of Sphericity	Approx. Chi-Square	1543.047
	df	10
	Sig.	.000

**Table 4. 6: KMO and Bartlett's Test for Theme 1**

The table shows that the value of KMO for “theme 1” was 0.640, which is considered acceptable. That means that this part of the study conducts a factor analysis. Also, Bartlett's test was 0.000, which is less than 0.005, indicating that the factors that form the variables are satisfactory. The outcome result revealed no high correlation or coefficient among the items in the “theme 1” part.

## 2- KMO and Bartlett's Test for Theme 2

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.726
Bartlett's Test of Sphericity	Approx. Chi-Square	384.284
	df	10
	Sig.	.000

**Table 4. 7: KMO and Bartlett's Test for Theme 2**

Moreover, the value of KMO in “theme 2” was 0.726. It is considered good as it exceeds 0.7. Furthermore, it ensures that this part of the study may conduct a factor analysis. In comparison, Bartlett's test was 0.000, which is less than 0.005, suggesting that the factors that form the variables are satisfactory. The outcome picture revealed no high correlation or coefficient among the items in the “theme 2” part.

### 3- KMO and Bartlett's Test for Theme 3

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.675
Bartlett's Test of Sphericity	Approx. Chi-Square	349.422
	df	10
	Sig.	.000

**Table 4. 8: KMO and Bartlett's Test for Theme 3**

Also, the table above reveals that the value of KMO in “theme 3 variables” was 0.697, which is considered acceptable. On the other hand, Barlett’s test was 0.000, which is less than 0.005, implying that the factors that form the variables are satisfactory. Likewise, the outcome result indicated no high correlation or coefficient among the items in the “theme 3” part.

### 4- KMO and Bartlett's Test for the Overall Index

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.658
Bartlett's Test of Sphericity	Approx. Chi-Square	2335.923
	df	105
	Sig.	.000

**Table 4. 9: KMO and Bartlett's Test for Overall Themes**

It is notable from the table above that the KMO of the “3 themes together” was 0.658, which is considered a good outcome for the factor analysis (Pallant 2013; Tabachnick & Fidell 2007). At the same time, Barlett’s test was 0.000, which is less than 0.005, suggesting that the factors that form the variables are satisfactory. Thus, the outcomes revealed no high correlation or coefficient among the items in the “entire scale.”

### ***Instructional Supervisor's Questionnaire***

In the below section, KMO and Bartlett's Tests were conducted on the three parts of the second self-constructed survey independently via (theme 1, theme 2, theme 3) and generally for the whole study.

#### **5- KMO and Bartlett's Test for Theme 1**

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.697
Bartlett's Test of Sphericity	Approx. Chi-Square	60.782
	df	10
	Sig.	0.000

**Table 4. 10: KMO and Bartlett's Test for Theme 1**

As it can be remarked from the above table, KMO's value of "theme 1" was 0.697, which is considered good as it exceeds 0.5, ensuring that this part of the survey may conduct a factor analysis. Also, Barlett's test was 0.000, which is less than 0.005, indicating that the factors that form the variables are satisfactory. Thus, the results revealed no high correlation or coefficient among "theme 1" items.

#### **6- KMO and Bartlett's Test for Theme 2**

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.707
Bartlett's Test of Sphericity	Approx. Chi-Square	128.976
	df	10
	Sig.	0.000

**Table 4. 11: KMO and Bartlett's Test for Theme 2**

As is shown in the table above, the value KMO of “theme 2” was 0.707, which is good as it exceeds 0.5, ensuring sample adequacy. Meanwhile, Bartlett’s test was 0.000, less than 0.005, meaning that the factors that form the variables are satisfactory. The result revealed no high correlation or coefficient among the items in the “theme2” part.

**7- KMO and Bartlett’s Test for Theme 3**

<b>KMO and Bartlett’s Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.481
Bartlett’s Test of Sphericity	Approx. Chi-Square	72.602
	df	10
	Sig.	0.000

**Table 4. 12: KMO and Bartlett’s Test for Theme 3**

However, the value KMO of “theme 3” was 0.481, which is an average outcome as it is almost 0.5. Bartlett’s test was 0.000, less than 0.005, meaning that the factors that form the variables are satisfactory. The outcome revealed no high correlation or coefficient among the items in “theme 3”.

**8- KMO and Bartlett’s Test for the Overall Themes**

<b>KMO and Bartlett’s Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.705
Bartlett’s Test of Sphericity	Approx. Chi-Square	53.343
	df	3
	Sig.	.000

**Table 4. 13: KMO and Bartlett’s Test for Overall Themes**



It is notable from the table above that the KMO of the “3 themes together” was 0.705, which is considered a good outcome for the factor analysis (Pallant 2013; Tabachnick & Fidell 2007). At the same time, Barlett’s test was 0.000, which is less than 0.005, meaning that the factors that form the variables are satisfactory. Thus, the results revealed no high correlation or coefficient among the items in the “entire scale.”

### 4.2.3 Quantitative Sample

At this level in the report, the researcher relies on descriptive statistics to describe the characteristics of the collected sample in all the relevant background information.

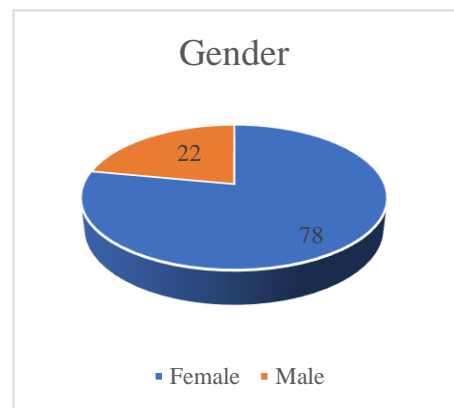
Each questionnaire has four questions related to the participants’ demographical information that address their gender, experience, grade level, and the subject of teaching/instructing. Another question also targets the type of professional learning offered at the participants’ schools to understand the current status of professional learning offerings concerning the provided instructional supervisor’s practices.

### *Teacher’s Questionnaire*

#### 1- Gender

Gender	Frequency	Percent
Female	234	78
Male	66	22
Total	300	100

**Table 4. 14: Teacher’s Gender**



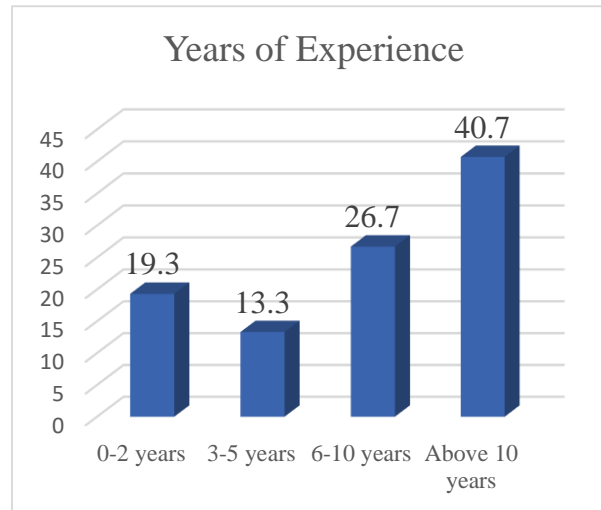
**Chart 4. 1: Teacher’s Gender**

The above results show that 78% of the participants were female, and 22% were male.

## 2- Experience years

Years of experience as a teacher	Frequency	Percent
0-2 years	58	19.3
3-5 years	40	13.3
6-10 years	80	26.7
Above 10 years	122	40.7
Total	300	100

**Table 4. 15: Teacher’s Experience**



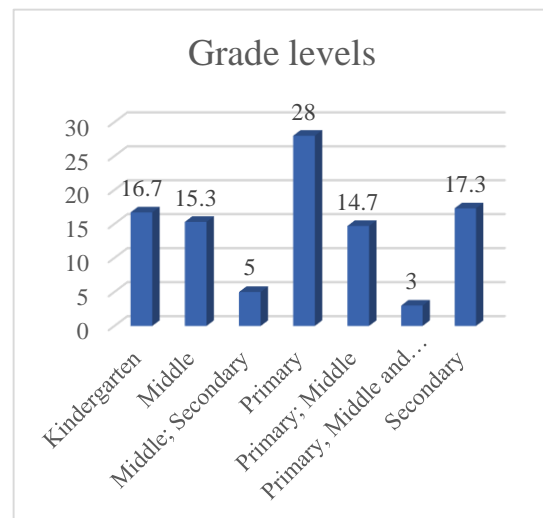
**Chart 4. 2: Teacher’s Experience**

The above results show the years of experience in the sample. 41% of the teachers had more than 10 years of experience, 27% had 6-10 years, 19% had 0-2 years, and the rest had 3-5 years of experience.

## 3- Grade levels

the grade level that you are teaching	Frequency	Percent
Kindergarten	50	16.7
Middle	46	15.3
Middle; Secondary	15	5.0
Primary	84	28.0
Primary; Middle	44	14.7
Primary, Middle and Kindergarten	9	3.0
Secondary	52	17.3
Total	300	100

**Table 4. 16: Teacher’s Grade Levels**



**Chart 4. 3: Teacher’s Grade Levels**

The above table shows that 28% of the teachers taught primary grades, and 17% taught kindergarten and secondary levels. 15% of the participants taught primary, middle, and secondary together.

#### 4- Subjects

Teaching Subjects	Frequency	Percent
Arabic	32	10.7
ELL	8	2.7
English	79	26.3
ICT	18	6.0
Math	60	20.0
Science	34	11.3
special needs	19	6.3
All	50	16.7
Total	300	100.0

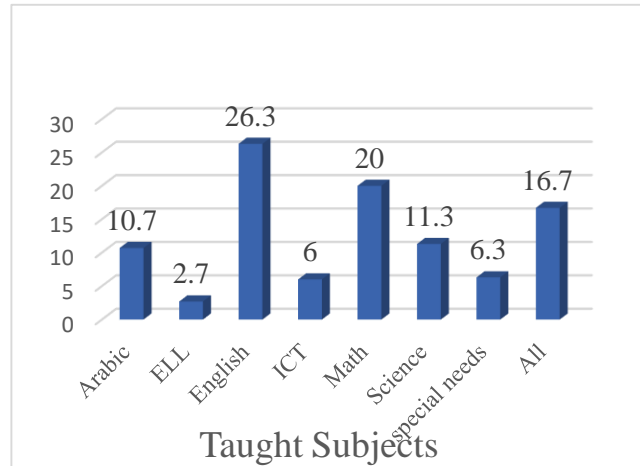


Table 4. 17: Teaching Subjects

Chart 4. 4: Teaching Subjects

The above table reveals that 26% of the teachers taught English, 20% taught Math, and 17% taught all subjects.

#### 5- Which of the following strategies for professional learning is most commonly used at your school?

##### a. Action research

Action Research	Frequency	Percent
Yes	14	4.7
No	286	95.3
Total	300	100.0

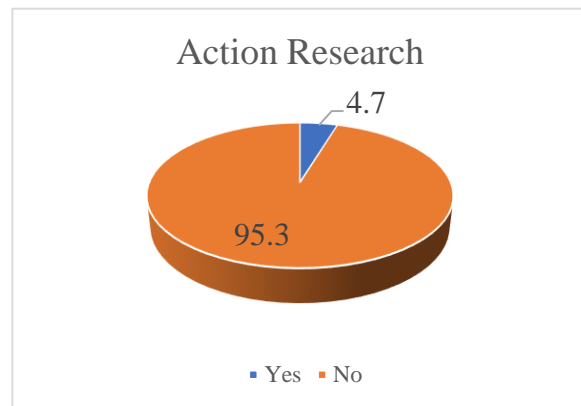


Table 4. 18: Action Research

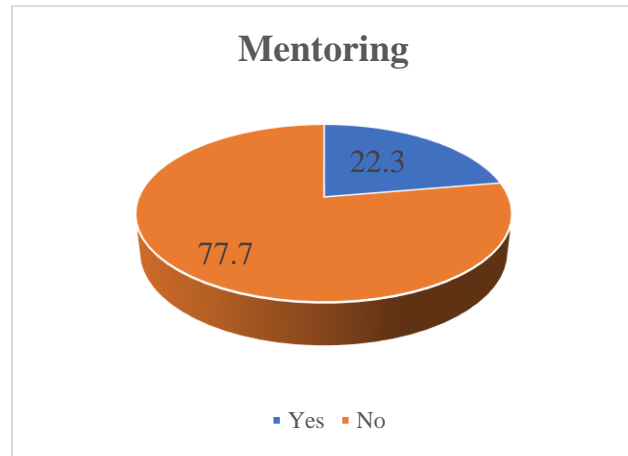
Chart 4. 5: Action Research

The majority of the participants said no to action research, with a percentage of 95%

**b. Mentoring**

Mentoring	Frequency	Percent
Yes	67	22.3
No	233	77.7
Total	300	100.0

**Table 4. 19: Mentoring**



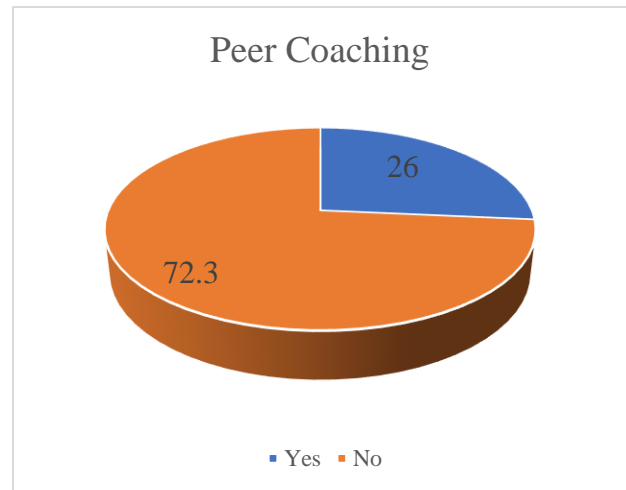
**Chart 4. 6: Mentoring**

The table above shows the mentoring in the sample, where 78% of the participants said no to mentoring, and 22% said yes.

**c. Peer coaching**

Peer Coaching	Frequency	Percent
Yes	78	26.0
No	21	72.3
Total	295	98.3

**Table 4. 20: Peer Coaching**



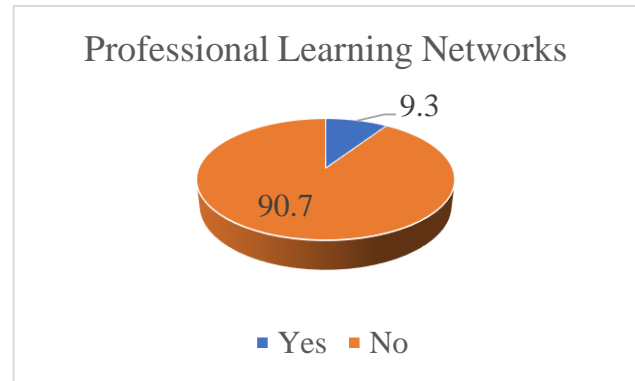
**Chart 4. 7: Peer Coaching**

Most participants said no to peer coaching, and 26% said yes.

**d. Professional learning networks**

PLNs	Frequency	Percent
Yes	28	9.3
No	272	90.7
Total	300	100.0

**Table 4. 21: Professional Learning Networks**



**Chart 4. 8: Professional Learning Networks**

Most participants said no to professional learning networks, with a percentage of 91%.

**e. Online professional learning**

Online Professional Learning	Frequency	Percent
yes	300	100.0

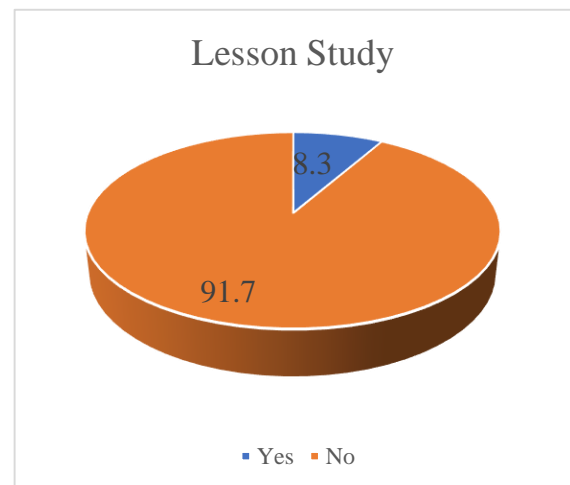
**Table 4. 22: Online Professional Learning**

All the teachers answered yes to online professional learning with a percentage of 100%.

**f. Lesson study**

Lesson Study	Frequency	Percent
Yes	25	8.3
No	275	91.7
Total	300	100.0

**Table 4. 23: Lesson Study**



**Chart 4. 9: Lesson Study**

The above table shows that 8.3% said yes to lesson study, and 91.7% said no.

**g. School Rounds**

School Rounds	Frequency	Percent
Yes	19	6.3
No	281	93.7
Total	300	100.0

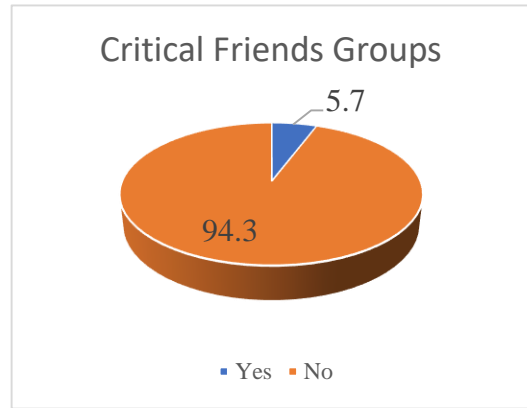
**Table 4. 24: School Rounds**

The above table shows that almost 94% of the participants said no, and 6% said yes for school rounds.

**h. Critical friends’ groups**

Critical Friends Groups	Frequency	Percent
Yes	17	5.7
No	283	94.3
Total	300	100.0

**Table 4. 25: Critical Friends Groups**



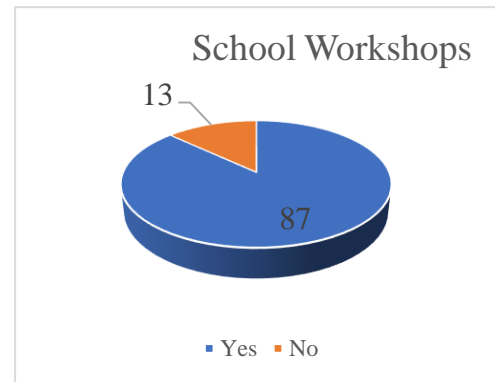
**Chart 4. 10: Critical Friends Groups**

The plurality of the participants said no to critical friends’ groups.

**i. School Workshops**

School Workshops	Frequency	Percent
Yes	261	87.0
No	39	13.0
Total	300	100.0

**Table 4. 26: School Workshops**



**Chart 4. 11: School Workshops**

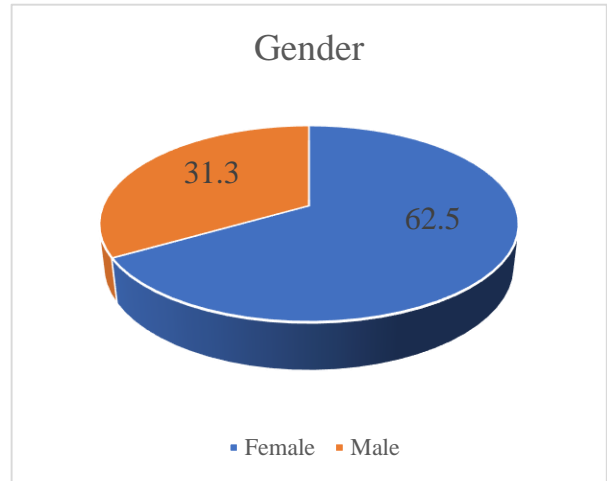
Most participants said yes to school workshops, and only 13% said no.

***Instructional Supervisor’s Questionnaire***

**1- Gender**

Gender	Frequency	Percent
Female	20	62.5
Male	10	31.3
Total	30	100.0

**Table 4. 27: IS. Gender**



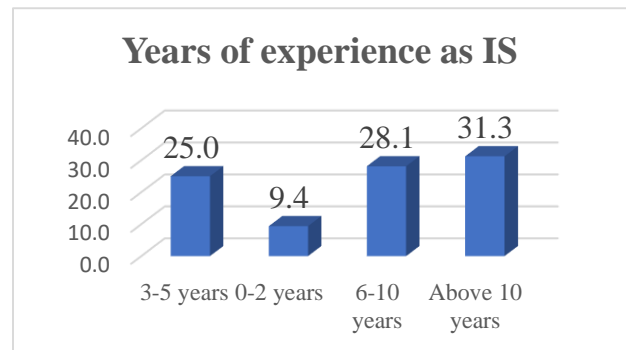
**Chart 4. 12: IS. Gender**

The table above shows the gender in the sample, where 63% were male and 31% were female.

**2- Years of experience as IS**

Years of experience as IS	Frequency	Percent
3-5 years	8	25.0
0-2 years	3	9.4
6-10 years	9	28.1
Above 10 years	10	31.3
Total	30	100.0

**Table 4. 28: Years of Experience as IS**



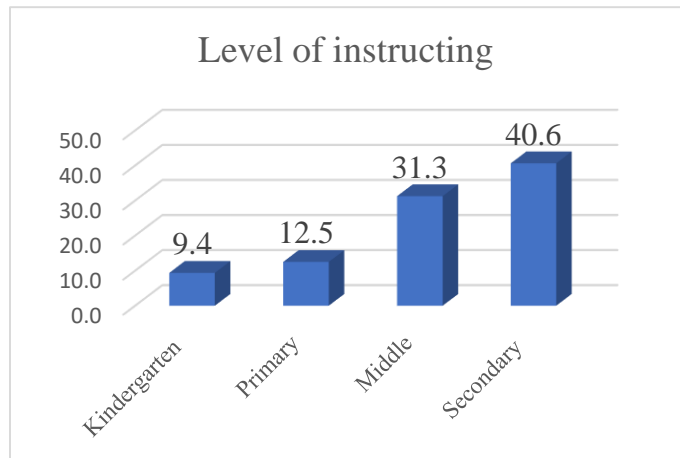
**Chart 4. 13: Years of Experience as IS**

The table above shows the years of experience as IS, where 25% of the participants had 3-5 years of experience, 31% above 10 years, 28% 6-10 years, and 9% had 0-2 years.

### 3- Level of instructing

Level of instructing	Frequency	Percent
Kindergarten	3	9.4
Primary	4	12.5
Middle	10	31.3
Secondary	13	40.6
Total	30	100.0

**Table 4. 29: Level of Instructing**



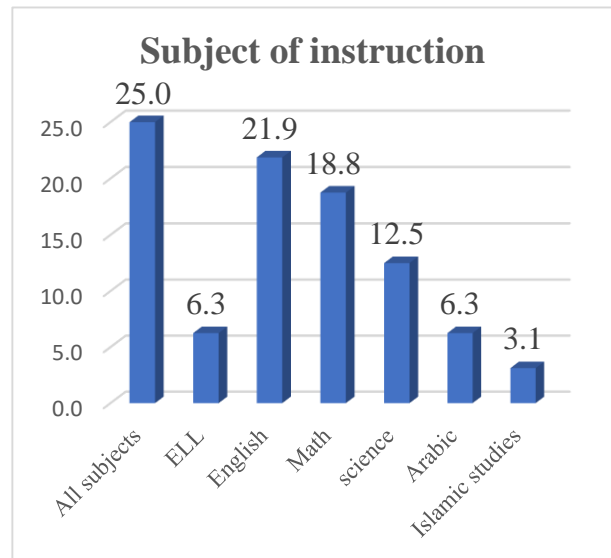
**Chart 4. 14: Level of Instructing**

The table above shows the level of instruction in the sample, where 41% of our participants said secondary, 31% said middle, 13% said primary, and 9% said kindergarten.

### 4- Subject of instruction

subjects of instruction	Frequency	Percent
All subjects	8	25.0
ELL	2	6.3
English	7	21.9
Math	6	18.8
science	4	12.5
Arabic	2	6.3
Islamic studies	1	3.1
Total	30	100.0

**Table 4. 30: Subjects of Instruction**



**Chart 4. 15: Subjects of Instruction**



The table above shows the subject of instruction in the sample schools, where 25% of the participants said all subjects, 22% said English, 19% said Math, 13% said science, 6% said Arabic, 6% said ELL, and 3% said Islamic studies.

**5- Which of the following strategies for professional learning is most commonly used at your school?**

**a. Action Research**

Action research	Frequency	Percent
No	30	100

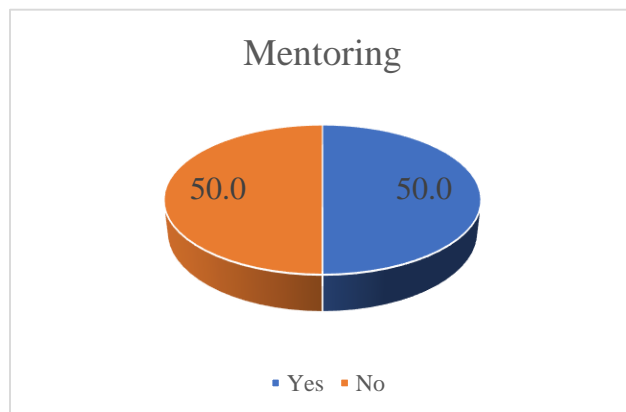
**Table 4. 31: Action Research**

The table above shows the action research results where 100% of the participants said no.

**b. Mentoring**

Mentoring	Frequency	Percent
Yes	15	50.0
No	15	50.0
Total	30	100.0

**Table 4. 32: Mentoring**



**Chart 4. 16: Mentoring**

The results above show the mentoring in our sample; 50% of our participants said yes, and 50% said no.

**c. Peer Coaching**

Peer coaching	Frequency	Percent
Yes	25	83.3
No	5	16.7
Total	30	100.0



**Table 4. 33: Peer Coaching**

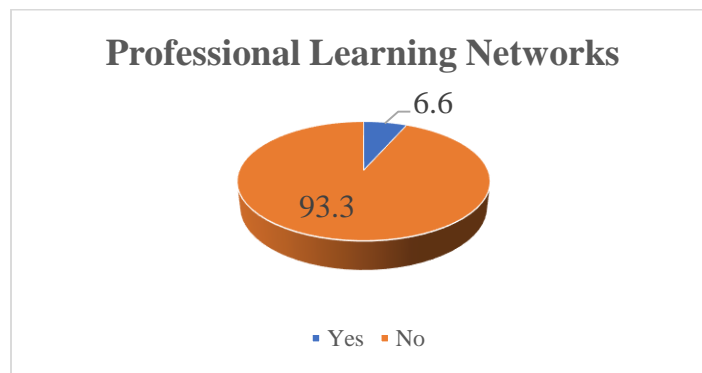
**Chart 4. 17: Peer Coaching**

The results above show the peer coaching in the sample; 83% said yes, and 17% said no.

**d. Professional Learning Networks**

Professional Learning Networks	Frequency	Percent
Yes	2	6.6
No	28	93.3
Total	30	100.0

**Table 4. 34: Professional Learning Networks**



**Chart 4. 18: Professional Learning Networks**

The results above show the professional learning networks; 93.3% of the participants said no, and 6.6 % said yes.

**e. Online Professional Learning**

Online Professional Learning	Frequency	Percent
Yes	30	100

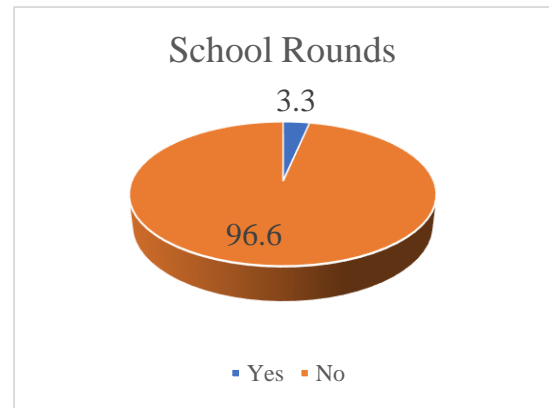
**Table 4. 35: Online Professional Learning**

The table above shows online professional learning, where 100% of the participants said yes.

**f. School Rounds**

School Rounds	Frequency	Percent
Yes	1	3.3
No	29	96.6
Total	30	100.0

**Table 4. 36: School Rounds**



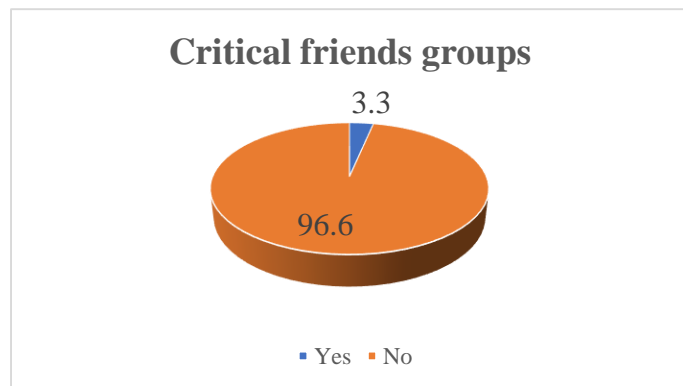
**Chart 4. 19: School Rounds**

The table above shows the school rounds where almost 97% of the participants said no, and only 3% said yes.

**g. Critical Friends Groups**

Critical Friends Groups	Frequency	Percent
Yes	1	3.3
No	29	96.6
Total	30	100.0

**Table 4. 37: Critical Friends Groups**



**Chart 4. 20: Critical Friends Groups**

The above chart shows the results from the critical friend groups; 97% said no, and 3% said yes.

#### **h. School Workshops**

<b>School Workshops</b>	<b>Frequency</b>	<b>Percent</b>
Yes	30	100

**Table 4. 38: School Workshops**

The table above shows the school workshops where 100% of the participants said yes.

Overall, the demographical profiles of teacher participants showed that 78% of the participants were female, and 22% were male. 63% of the instructional supervisors were male, and 31% were female. In contrast to teachers' participants, where 41% had more than 10 years of experience, 31% of the instructional supervisors were similarly noticed. It was also found that the type of professional learning offered at the participants' schools seriously lacks the effective bottom-up professional learning strategies reviewed in the literature. For instance, Action Research (AR) was reported missing with 95% and school rounds and critical friends groups with 97%. It is a shred of explicit evidence from the quantitative data that the lack of such bottom-up strategies is a weakness of the professional learning system across the participating schools.

#### **4.2.4 Findings of the Study**

##### **4.2.4.1 RQ1: Effectiveness of Instructional Supervisors' Practices in Promoting PPL**

To answer the first research question for this study: From teachers' perceptions, how effective are instructional supervisors' practices in promoting PPL at four private schools in Abu Dhabi? The researcher analyzed the quantitative data collected via questionnaires and presented results in clear, descriptive statistics about each theme and its associated statements within the teachers' self-administrated questionnaire. Descriptive statistics tables were used with each theme to analyze teachers' perceptions thoroughly. The tables break down the frequency distribution in frequencies and percentages.

## Teacher's Questionnaire

### Descriptive Statistics for Theme 1

		Strongly agree	agree	neutral	disagree	Strongly disagree	Total
My instructional supervisor has established a professional learning vision that clearly defines what and how to expand my professional learning	Frequency	30	120	60	60	30	300
	Percent	10	40	20	20	10	100
My instructional supervisor recognizes my professional voice and encourages me to elevate it via sharing my new identifiable learning outcomes.	Frequency	0	30	30	150	90	300
	Percent	0	10	10	50	30	100
My instructional supervisor offers me space to choose, try and adjust any instructional methods and tools in my class	Frequency	0	30	60	120	90	300
	Percent	0	10	20	40	30	100
My instructional supervisor offers me the freedom to design my learning path tailored to my growth needs and readiness.	Frequency	0	30	30	180	60	300
	Percent	0	10	10	60	20	100
My instructional supervisor offers me opportunities to reflect and suggest topics for my professional learning.	Frequency	0	60	120	90	30	300
	Percent	0	20	40	30	10	100

**Table 4. 39: Frequency across Theme 1**

Theme 1 highlights three main concepts: vision, voice, and choice (Table 4.39). Five basic questions covered these concepts, and the results were irregular. First, 50% agreed that their instructional supervisor had established a professional learning vision that clearly defined how to expand their professional learning; 20% were neutral, and 30% disagreed. Half of the respondents disagreed that their instructional supervisor recognized their professional voice and encouraged them to elevate it via sharing their new identifiable learning outcomes; 30% strongly disagreed. When asked if their instructional supervisor offered space to choose or try to adjust any instructional methods and tools in their class, 40% disagreed and 30% strongly disagreed; however, 20% were neutral, and only 10% agreed. Moreover, 60% disagreed that their instructional supervisor had offered them the freedom to design their learning path tailored to their

growth needs and readiness, and 20% strongly disagreed. Ultimately, 40% were neutral, and 30% disagreed, whereas 20% agreed that their instructional supervisor had offered them opportunities to reflect and suggest topics for their professional learning.

### Descriptive Statistics for Theme 2

		Strongly agree	agree	neutral	disagree	Strongly disagree	Total
My instructional supervisor is well aware of my learning preferences, needs, and points of strength and targets them with the suggested PPL topics	Frequency	7	9	49	209	26	300
	Percent	2.3	3	16.3	69.7	8.7	100
My instructional supervisor individualizes instructional feedback and differentiates entry points into my PPL	Frequency	0	9	50	207	34	300
	Percent	0	3	16.7	69	11.3	100
My instructional supervisor uses evaluation data to propose the content of my personalized professional learning.	Frequency	7	9	59	215	10	300
	Percent	2.3	3	19.7	71.7	3.3	100
My instructional supervisor follows up the professional learning goals, targets, and focus areas for my PPL	Frequency	0	7	40	229	24	300
	Percent	0	2.3	13.3	76.3	8	100
My instructional supervisor aligns my professional learning needs and interests to the school's common professional standards and goals.	Frequency	8	9	83	159	41	300
	Percent	2.7	3	27.7	53	13.7	100

**Table 4. 40: Frequency across Theme 2**

Table 4.40 demonstrates the content concept (Theme 2), where five basic questions covered this construct, and the results were comparable. Initially, the majority, 70%, disagreed that their instructional supervisor was well aware of their learning preferences, needs, and points of strength and targeted them with the suggested PPL topics, 16% were neutral, and 9% strongly disagreed. Similarly, the majority disagreed when asked if their instructional supervisor had individualized instructional feedback and differentiated entry points into their PPL, and 17% were neutral. When

asked if their instructional supervisor used evaluation data to propose the content of their personalized professional learning, 72% disagreed, 20% were neutral, and few agreed. Moreover, 76% disagreed, and 13% were neutral when asked if their instructional supervisor followed up on their PPL's professional learning goals, targets, and focus areas. At last, 28% were neutral, and 53% disagreed when asked if their supervisor had aligned their professional learning needs and interests with the school's common professional standards and goals.

### Descriptive Statistics for Theme 3

Process		Strongly agree	agree	neutral	disagree	Strongly disagree	Total
My instructional supervisor uses a needs assessment plan to personalize my professional learning	Frequency	0	3	104	149	44	300
	Percent	0	1	34.7	49.7	14.7	100
My instructional supervisor suggests a PPL calendar, format, and timing that best suits me	Frequency	10	18	78	185	9	300
	Percent	3.3	6	26	61.7	3	100
My instructional supervisor collaborates with me to determine how my professional growth will be measured	Frequency	1	9	52	202	36	300
	Percent	0.3	3	17.3	67.3	12	100
My instructional supervisor provides me with sufficient time and resources to expand my professional learning.	Frequency	2	13	59	196	30	300
	Percent	0.7	4.3	19.7	65.3	10	100
My instructional supervisor has executed a PPL plan for me.	Frequency	1	18	70	202	9	300
	Percent	0.3	6	23.3	67.3	3	100

**Table 4. 41: Frequency across Theme 3**

Theme 3 reveals the process concept (Table 4.41); another five basic questions covered this concept, and the results were similar. Initially, half of the participants disagreed, and 35% were neutral when their instructional supervisor used a needs assessment plan to personalize their professional learning. Similarly, the majority disagreed, and 26% were neutral when asked if their instructional supervisor had suggested a PPL calendar, format, and timing that best suit the

participants. When asked if their instructional supervisor collaborated with them to determine how their professional growth would be measured, the plurality disagreed; 17% were neutral, and 12% strongly disagreed. In addition, 65% disagreed, and 20% were neutral when the teachers were asked if their instructional supervisor provided sufficient time and resources to expand their professional learning. Eventually, the majority disagreed, and 23% were neutral, whereas 6% agreed that their instructional supervisor had executed a PPL plan for them.

The above descriptive analysis for the quantitative data collected using the first questionnaire reveal valuable insights that assist in formulating an answer to the first research question. Teachers' perceptions generally reflected that instructional supervisors' practices did not effectively promote PPL at the target schools, as some practices were still missing. For instance, most teachers denied that instructional supervisors recognize their professional learning voice or encourage them to elevate it via sharing new identifiable learning outcomes. Also, teachers revealed they lacked the choice and freedom to design their learning paths tailored to their growth needs and readiness. However, findings showed that half the teacher sample confirmed that their instructional supervisors had established a professional learning vision that clearly defines what and how to expand their professional learning.

Similarly, results indicate that instructional supervisors' practices related to the professional learning content were missing, as in suggesting PPL topics based on teachers' needs awareness and alignment, differentiating entry points to PPL, using data to propose the content of PPL needs, and following up on the focus areas for PPL. More specifically, 70% of the teachers denied that their instructional supervisors were well aware of their learning preferences, needs, and points of strength and targeted them with the suggested PPL topics. Likewise, 53% of the teachers



uncovered no alignment of their professional learning needs and interests to the school's common professional standards and goals.

Regarding the professional learning process, instructional supervisors' practices showed insignificant effectiveness in using a needs assessment plan to personalize teachers' professional learning and suggesting a PPL calendar, format, and timing that best suits teachers, even in collaborating with teachers to determine how their professional growth would be measured and executing PPL plan for them. Almost 50% to 67% of the teachers perceived that such practices did not exist at the sample schools.

Overall, teachers perceived that instructional supervisors' practices did not promote PPL effectively at the target schools,

#### **4.2.4.2 RQ2: The Impact of the PPL Model on Teachers' Performance**

From instructional supervisors' perceptions, how does the PPL model impact teachers' performance? To answer this research question, the researcher examined instructional supervisors' perceptions, and descriptive statistics for each theme were analyzed to understand whether the PPL model influenced teachers' performance across the four targeted schools.

#### ***Instructional Supervisor's Questionnaire***

#### **Descriptive Statistics for theme 1**

<b>Learner's Development</b>		A little	A fair amount	Quite a bit	A great deal	Total
My teachers have become more competent in identifying the appropriate strategies to meet the needs of their students.	Frequency	6	12	9	3	30
	Percent	18.8	37.5	28.1	9.4	100.0
My teachers have become more independent to assess that a particular teaching method or tool should be changed.	Frequency	3	9	18		30
	Percent	9.4	28.1	56.3		100.0
My teachers have become more independent to identify and solve any academic and behavioral challenges without getting back to me	Frequency	9	18	3		30
	Percent	28.1	56.3	9.4		100.0
My teachers can set short and long-term growth goals without my help.	Frequency	6	21	3		30
	Percent	18.8	65.6	9.4		100.0
My teachers take ownership of their professional learning through involvement in its process.	Frequency	3	15	12		30
	Percent	9.4	46.9	37.5		100.0

**Table 4. 42: Frequency Table across Theme 1**

The results above show the learner's development in our sample. First, 66% of the instructional supervisors said that their teachers could set short and long-term growth goals without their help in a fair amount. Similarly, 56% of the participants said quite a bit about 'my teachers have become independent to access that a particular teaching method or tool should be changed.' Another 38% said quite a bit about 'my teachers take ownership of their professional learning through involvement in its process.' Moreover, 56% said a fair amount about 'my teachers have become more independent to identify and solve any academic and behavioral challenges without getting back to me.' Finally, 28% of the participants said quite a bit about teachers becoming competent in identifying the appropriate strategies to meet the needs of their students.

## Descriptive Statistics for theme 2

<b>Theme 2: Professional Learning Environment</b>		a little	A fair amount	Quite a bit	A great deal	Total
My teachers have become more collaborative with me and the rest of the learning community.	Frequency	0	12	9	9	30
	Percent	0	37.5	28.1	28.1	93.8
My teachers have become more innovative in their practices.	Frequency	3	9	15	3	30
	Percent	9.4	28.1	46.9	9.4	93.8
My teachers have become more curious about new ideas.	Frequency	3	9	12	6	30
	Percent	9.4	28.1	37.5	18.8	93.8
My teachers have become more confident in taking initiatives in their classes.	Frequency	12	3	12	3	30
	Percent	37.5	9.4	37.5	9.4	93.8
My teachers have become more flexible with me in making professional decisions.	Frequency	6	9	15	0	30
	Percent	18.8	28.1	46.9	0	93.8

**Table 4. 43: Descriptive Statistics across Theme 2**

Table 4.43 above shows the Professional Learning Environment in the sample, where 47% said quite a bit about my teachers have become more flexible with me in making professional decisions, and 38% of the participants said, ‘my teachers have become more confident in taking initiatives in their classes.’ Also, 38% of our participants said, ‘my teachers have become more curious about new ideas,’ and 28% said a great deal about ‘my teachers have become more collaborative with me and the rest of the learning community.’

## Descriptive Statistics for Theme 3

<b>Theme 3: Learner’s Application</b>		A little	A fair amount	Quite a bit	A great deal	Total
My teachers have become more engaged in their personalized professional learning.	Frequency		13	16	1	30
	Percent		40.6	50.0	3.1	100

My teachers have become more skillful in using students' achievement data to measure their performance.	Frequency	3	15	12		30
	Percent	9.4	46.9	37.5		100
My teacher has become more effective in differentiating learning for their students.	Frequency	3	12	12	3	30
	Percent	9.4	37.5	37.5	9.4	100
My teachers can easily develop professional learning goals that are translated into classroom objectives.	Frequency	6	9	15		30
	Percent	18.8	28.1	46.9		100
My teachers have become more competent in using the students' data to make informed instructional decisions.	Frequency	6	12	12		30
	Percent	18.8	37.5	37.5		100

**Table 4. 44: Frequency across Theme 3**

The table above shows the learner's application in the sample schools. First, 50% of our participants said quite a bit about 'my teachers have become more engaged in their PPL.' 38% said quite a bit about 'my teachers have become more effective in differentiating learning for their students.' 47% said, 'my teachers can easily develop professional learning goals that are translated into classroom objectives,' and 38% were quite a bit confirmative about, 'my teachers have become more competent in using the students' data to make informed instructional decisions.

The above descriptive analysis for the quantitative data collected using the second questionnaire reveals valuable insights that assist in formulating an answer to the second research question. Instructional supervisors' perceptions generally revealed that the PPL model positively impacted teachers' performance at the target schools differently.

For instance, teachers gained more competency in identifying the appropriate strategies to meet the needs of their students, and they became more independent in assessing teaching methods and changing them, and solving academic and behavioral problems without getting help from supervisors. Also, instructional supervisors mostly perceived positive changes in teachers' performance concerning the professional learning environment. More than half of the instructional

supervisors in the sample schools revealed that teachers became more innovative in their practices; more collaborative with them and the rest of the learning community. In comparison, a few instructional supervisors noted that teachers have become more confident in taking the initiative in their classes. Also, quantitative findings showed a significant impact of PPL on teachers' application, as 47% of instructional supervisors believe that PPL impacted teachers in differentiating learning for their students and developing professional learning goals that could be translated into classroom objectives. Half of the instructional supervisors also believe teachers engaged more in their PPL. Overall, instructional supervisors perceived that the PPL model positively impacted teachers' performance differently, especially in differentiation, collaboration, engagement, and developing professional learning goals.

#### **4.2.4.3 RQ3: Differences in the Investigated Perceptions among the Participants**

The third research question in the study states:

RQ3. Do teachers and instructional supervisors of different gender, experience, grade level, and subjects taught or supervised significantly differ in their investigated perceptions?

To answer the question, one-way ANOVA was used to measure the differences between the teachers' and instructional supervisors' perceptions and the latter categorical groups.

#### **One-way ANOVA**

The One-way ANOVA test was used to compare the relation mean between variables for more than two groups, and it was utilized with qualitative and quantitative variables, with a confidential level of 95% and a risk alpha of 5%.

#### ***Teacher's Questionnaire***

	ANOVA	Sum of Squares	df	Mean Square	F	Sig.
How many years have you been working as a teacher?	Between Groups	33.742	28	1.205	.916	.591
	Within Groups	356.405	271	1.315		
	Total	390.147	299			
What is the grade level that you are teaching	Between Groups	119.217	28	4.258	1.076	.368
	Within Groups	1072.713	271	3.958		
	Total	1191.930	299			
What subject do you teach at school?	Between Groups	139.000	28	4.964	1.034	.423
	Within Groups	1301.547	271	4.803		
	Total	1440.54	299			

**Table 4. 45: Teachers' One-way ANOVA**

The ANOVA test showed no relation between the mean perception and 'how many years have you been working as a teacher?' With a significant level of  $0.591 > 0.05$ .

There was no relation between the mean of perception and the grade level you teach, with a significant level of  $0.368 > 0.05$ . There was no relation between the mean of perception and the subject of instruction, with a significant level of  $0.423 > 0.05$ .

### **One-way ANOVA theme 1 and demographics**

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
How many years have you been working as a teacher?	Between Groups	4.463	7	.638	.483	.847
	Within Groups	385.683	292	1.321		
	Total	390.147	299			
	Between Groups	31.097	7	4.442	1.117	.352

What is the grade level that you are teaching	Within Groups	1160.833	292	3.975		
	Total	1191.930	299			
What subject do you teach at school?	Between Groups	17.913	7	2.559	.525	.815
	Within Groups	1422.633	292	4.872		
	Total	1440.547	299			

**Table 4. 46: Teachers' One-Way ANOVA for Theme1 and Different Groups**

The table above shows the ANOVA t-test. There was no relation between Theme 1 and years of experience, with a significant level of  $0.847 > 0.05$ .

Also, there was no relation between Theme 1 and the grade level the teacher is teaching, with a significant level of  $0.352 > 0.05$ . There was no relation between Theme 1 and the teaching subject, with a significant level of  $0.815 > 0.05$ .

#### **One-Way ANOVA Theme 2 and Demographics**

<b>ANOVA</b>						
		Sum of Squares	df	Mean Square	F	Sig.
How many years have you been working as a teacher?	Between Groups	44.971	11	4.088	3.411	.000
	Within Groups	345.176	288	1.199		
	Total	390.147	299			
What is the grade level that you are teaching	Between Groups	119.698	11	10.882	2.923	.001
	Within Groups	1072.232	288	3.723		
	Total	1191.930	299			

What subject do you teach at school?	Between Groups	55.266	11	5.024	1.045	.407
	Within Groups	1385.281	288	4.810		
	Total	1440.547	299			

**Table 4. 47: Teachers' One-Way ANOVA for Theme 2 and Different Groups**

The table above shows the ANOVA t-test. There was a relation between Theme 2 and years of experience with a significant level of  $0.000 < 0.05$ . Also, there was a relation between Theme 2 and the grade level you teach, with a significant level of  $0.001 < 0.05$ . There was no relation between Theme 2 and the teaching subject, with a significant level of  $0.407 > 0.05$ .

### One-Way ANOVA Theme 3 and Demographics

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
How many years have you been working as a teacher?	Between Groups	9.655	12	.805	.607	.836
	Within Groups	380.492	287	1.326		
	Total	390.147	299			
What is the grade level that you are teaching	Between Groups	52.475	12	4.373	1.101	.359
	Within Groups	1139.455	287	3.970		
	Total	1191.930	299			
What subject do you teach at school?	Between Groups	79.838	12	6.653	1.403	.163
	Within Groups	1360.708	287	4.741		
	Total	1440.547	299			

**Table 4. 48: Teachers' One-Way ANOVA for Theme 3 and Different Groups**



The table above shows the ANOVA t-test. There was no relation between Theme 3 and years of experience, with a significant level of  $0.836 > 0.05$ . Also, there was no relation between Theme 3 and the grade level the teacher is teaching, with a significant level of  $0.359 > 0.05$ . There was no relation between Theme 3 and the teaching subject, with a significant level of  $0.163 > 0.05$ .

***Instructional Supervisor’s Questionnaire***

	<b>ANOVA</b>	Sum of Squares	df	Mean Square	F	Sig.
Level of instructing	Between Groups	12.117	15	0.808	0.682	0.765
	Within Groups	16.583	14	1.185		
	Total	28.700	29			
Years of experience as IS	Between Groups	24.550	15	1.637	1.291	0.319
	Within Groups	17.750	14	1.268		
	Total	42.300	29			
Subject of instruction	Between Groups	42.050	15	2.803	0.840	0.631
	Within Groups	46.750	14	3.339		
	Total	88.800	29			

**Table 4. 49: IS. One-Way ANOVA**

The ANOVA test shows no relation between the mean perception and instruction level, with a significant level of  $0.765 > 0.05$ . There was no relation between the mean of perception and the subject of instruction, with a significant level of  $0.631 > 0.05$ . Also, there was no relation between the mean of perception and years of experience, with a significant level of  $0.319 > 0.05$ .

## One-Way ANOVA Theme 1

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
subject of instruction	Between Groups	17.078	5	3.416	1.143	.365
	Within Groups	71.722	24	2.988		
	Total	88.800	29			
years of experience as IS	Between Groups	10.578	5	2.116	1.601	.198
	Within Groups	31.722	24	1.322		
	Total	42.300	29			
level of instructing	Between Groups	4.478	5	.896	.887	.505
	Within Groups	24.222	24	1.009		
	Total	28.700	29			

**Table 4. 50: IS. One-way ANOVA for Themel and Different Groups**

There was no relation between the mean of theme 1 and the subject of instruction, with a significant level of  $0.365 > 0.05$ . There was no relation between the mean of theme 1 and years of experience, with a significant level of  $0.198 > 0.05$ . The ANOVA test revealed no relationship between the mean of theme 1 and the level of instructing with a significant level of  $0.505 > 0.05$ .

## One-Way ANOVA Theme 2

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
subject of instruction	Between Groups	9.967	6	1.661	.485	.813
	Within Groups	78.833	23	3.428		
	Total	88.800	29			

years of experience as IS	Between Groups	2.300	6	.383	.220	.966
	Within Groups	40.000	23	1.739		
	Total	42.300	29			
level of instructing	Between Groups	2.533	6	.422	.371	.890
	Within Groups	26.167	23	1.138		
	Total	28.700	29			

**Table 4. 51: IS. One-Way ANOVA for Theme2 and Different Groups**

There was no relation between the mean of theme 2 and the subject of instruction, with a significant level of  $0.813 > 0.05$ . There was no relation between the mean of theme 2 and years of experience, with a significant level of  $0.966 > 0.05$ . The ANOVA test showed no relationship between the mean of theme 2 and the level of instructing, with a significant level of  $0.890 > 0.05$ .

### One-Way ANOVA Theme 3

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
subject of instruction	Between Groups	34.661	9	3.851	1.423	.244
	Within Groups	54.139	20	2.707		
	Total	88.800	29			
years of experience as IS	Between Groups	18.744	9	2.083	1.768	.138
	Within Groups	23.556	20	1.178		
	Total	42.300	29			
level of instructing	Between Groups	6.561	9	.729	.659	.735
	Within Groups	22.139	20	1.107		
	Total	28.700	29			

**Table 4. 52: IS. One-Way ANOVA for Theme3 and Different Groups**

There was no relation between the mean of theme 3 and the subject of instruction, with a significant level of  $0.244 > 0.05$ . There was no relation between the mean of theme 2 and years of experience, with a significant level of  $0.138 > 0.05$ . The ANOVA revealed no relationship between the mean of theme 2 and the level of instructing with a significant  $0.735 > 0.05$ .

**Independent T-Test**

The independent t-test was used to appropriately address the third research question and measure the differences among the two independent groups of participants (males and females). The researcher calculated the mean scores and standard deviations for teachers’ and instructional supervisors’ perceptions and gender. Results are displayed in the tables below.

*Teacher’s Questionnaire*

		N	Mean	Std. Deviation	Std. Error Mean
<b>Gender</b>	Female	234	3.71	.3685	.0241
	Male	65	3.69	.299	.0371

**Table 4. 53: Group Statistics across the Different Gender**

<b>Independent Samples Test</b>		Levene’s Test for Equality of Variances		T-Test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
<b>Perception</b>	Equal variance	2.345	.127	.338	297	.736	.017	.049	-.081	.115

	s assumed									
	Equal variances not assumed			.380	123.45	.704	.017	.044	-.071	.104

**Table 4. 54: Independent T-Test Perception and Gender**

As is noticeable in the above tables, the independent t-test shows the relation between the different means of variables with a dependent variable gender as two groups, female and male. The mean of “perception and gender” was 3.69 with N=65 for males and 3.71 with N=234 for females. These two variables were not significant ( $0.736 > 0.05$ ), where there is a 95% chance that the confident interval of [-0.081;0.115] contains the true difference in the mean.

**Theme 1 and Gender**

Group Statistics						
	What is your gender?	N	Mean	Std. Deviation	Std. Error Mean	
<b>Theme1</b>	Female	234	3.59	.742	.049	
	Male	65	3.53	.771	.096	

**Table 4. 55: Group Statistics across the Different Gender**

Independent Samples Test									
Levene's Test for Equality of Variances		t-test for Equality of Means							
F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
							Lower	Upper	

<b>Theme1</b>	Equal variances assumed	.332	.565	.647	297	.518	.068	.105	-.139	.274
	Equal variances not assumed			.633	99.380	.528	.068	.107	-.145	.281

**Table 4. 56: Independent T-Test Theme 1 and Gender**

As is noticeable in the above tables, the independent t-test shows the relation between the different means of variables with a dependent variable gender as two groups, female and male. The mean of “theme 1 and gender” was 3.53 with N=65 for males and a mean of 3.59 with N=234 for females. These two variables were not significant ( $0.528 > 0.05$ ), where there is a 95% chance that the confident interval of [-0.145,0.281] contains the true difference in the mean.

### Theme2

<b>Group Statistics</b>						
	<b>What is your gender?</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>	
<b>Theme 2</b>	Female	234	3.81	.483	.032	
	Male	65	3.78	.433	.054	

**Table 4. 57: Group Statistics across the Different Gender**

<b>Independent Samples Test</b>									
			Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	

									Lower	Upper
<b>Theme 2</b>	Equal variances assumed	.333	.564	.348	297	.728	.023	.066	-.107	.153
	Equal variances not assumed			.370	112.015	.712	.023	.062	-.100	.147

**Table 4. 58: Independent T-Test Theme 2 and Gender**

As noticeable in the tables above, the mean of “theme 2 and gender” was 3.75 with N=65 for males and 3.81 with N=234 for females. These 2 variables were not significant ( $0.712 > 0.05$ ), where there is a 95% chance that the confident interval of [-0.100, 0.147] contains the true difference in the mean.

### Theme 3

<b>Group Statistics</b>					
	What is your gender?	N	Mean	Std. Deviation	Std. Error Mean
<b>Theme 3</b>	Female	234	3.73	.526	.034
	Male	65	3.77	.228	.028

**Table 4. 59: Group Statistics across the Different Gender**

<b>Independent Samples Test</b>								
	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference

									Lower	Upper
Theme 3	Equal variances assumed	19.931	.000	-.605	297	.545	-.041	.067	-.172	.091
	Equal variances not assumed			-.911	245.491	.363	-.041	.044	-.128	.047

**Table 4. 60: Independent T-Test Theme 3 and Gender**

As noticeable in the tables above, the mean of “theme 3 and gender” is 3.77 with N=65 for males and 3.73 with N=234 for females. These two variables were not significant ( $0.363 > 0.05$ ), where there is a 95% chance that the confident interval of  $[-0.128, 0.047]$  contains the true difference in the mean.

***Instructional Supervisor’s Questionnaire***

Gender		N	Mean	Std. Deviation	Std. Error Mean
Perception	Female	20	3.37	0.581	0.130
	Male	10	3.37	0.473	0.149

**Table 4. 61: Group Statistics across the Different Gender**

		Levene’s Test for Equality of Variances		t-test for Equality of Means						
Independent Samples Test		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Perception	Equal variances assumed	1.508	0.230	0.000	28	1.000	0.000	0.212	-0.435	0.435
	Equal variances not assumed			0.000	21.817	1.000	0.000	0.198	-0.411	0.411



**Table 4. 62: Independent T-Test Perception and Gender**

Tables (4.61) and (4.62) show that the mean of “perception and gender” was 3.37 with N=10 for males and 3.37 with N=20 for females. These two variables were not significant ( $1.000 > 0.05$ ), where there is a 95% chance that the confident interval of [-0.411;0.411] contains the true difference in the mean. The independent t-test in table 4.61 shows the relation between the different means of variables with a dependent variable gender as two groups, female and male.

**Theme 1-3**

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Theme 1	Female	20	3.18	.569	.127
	Male	10	3.18	.537	.170
Theme 2	Female	20	3.55	.776	.173
	Male	10	3.52	.700	.222
Theme 3	Female	20	3.37	.532	.119
	Male	10	3.40	.452	.143

**Table 4. 63: Group Statistics across the Three Themes**

Independent Samples Test									
Levene's Test for Equality of Variances		t-test for Equality of Means							
F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper

Theme1	Equal variances assumed	.202	.657	.000	28	1.000	.000	.216	-.443	.443
	Equal variances not assumed			.000	19.089	1.000	.000	.212	-.444	.444
Theme 2	Equal variances assumed	.211	.649	.103	28	.919	.030	.291	-.567	.627
	Equal variances not assumed			.107	19.878	.916	.030	.281	-.557	.617
Theme 3	Equal variances assumed	.681	.416	-.153	28	.880	-.030	.197	-.433	.373
	Equal variances not assumed			-.161	21.012	.873	-.030	.186	-.417	.357

**Table 4. 64: Independent T-Test Theme 1-3 and Gender**

As seen in tables (4.63) and (4.64), results confirmed the mean of “Theme 1 and gender” as 3.18 with N=10 for males and a mean of 3.18 with N=20 for females. These two variables were not significant ( $1.000 > 0.05$ ), where there is a 95% chance that the confident interval of [-0.443;0.443] contains the true difference in mean, as shown in the above tables. The mean of “Theme 2 and gender” was 3.52 with N=10 for males and 3.55 with N=20 for females. These two variables were not significant ( $0.919 > 0.05$ ), where there is a 95% chance that the confident interval of [-0.567;0.627] contains the true difference in mean, as shown in the above table. The mean of “Theme 3 and gender” was 3.40 with N=10 for males and 3.37 with N=20 for females. These two

variables were not significant ( $0.880 > 0.05$ ), where there is a 95% chance that the confidence interval of  $[-0.433; 0.373]$  contains the true difference in mean, as shown in table (4.64).

Thus, it can be concluded from the above tables that the independent t-test showed no significant relationship between the different mean of variables across the three themes with a dependent variable gender of 2 groups, female and male.

#### **4.2.5 Summary of the Quantitative Data Analysis**

Results from the quantitative data can be summarized in the following:

- a) The demographical profiles of teacher participants showed that 78% of the participants were female, and 22% were male. 63% of the instructional supervisors were male, and 31% were female. In contrast to teachers' participants, where 41% had more than 10 years of experience, 31% of the instructional supervisors were similarly noticed. Additionally, it was revealed that the form of professional learning provided at the schools had few effective bottom-up professional learning strategies mentioned in the literature. For example, Action Research (AR) was reported missing 95% of the time, while School Rounds and Critical Friend Groups were reported missing 97% of the time. The quantitative data prove that the dearth of such bottom-up strategies is a significant drawback of the professional learning approach of all the selected students.
- b) Teachers' overall perception showed disagreement toward the effectiveness of the current instructional supervisory practices in promoting PPL at the targeted schools, with a few exceptions in the first construct as the provision of the PL vision. Tables (4.39), (4.40), and (4.41) support such conclusions.

- c) Instructional supervisors showed a positive perception of the impact of the PPL model on teachers' performance within the three measured constructs. Tables (4. 42), (4.43), and (4.44) support such findings.
- d) The ANOVA test (Table 4.45) showed no relation between the mean perception of teachers and years of experience, with a significant level of  $0.591 > 0.05$ . There was no relation between the mean perception of teachers and the grade level of teaching, with a significant level of  $0.368 > 0.05$ . Also, no relation between the mean perception and the subject of instruction was found, with a significant level of  $0.423 > 0.05$ . Similarly, for instructional supervisors, no relation was found between their perception and years of experience, subject, or level of supervision, as revealed in table (4.49).
- e) The independent t-tests for the two groups of participants (teachers and instructional supervisors) showed no significant relationship between the mean difference of variables across the three themes with a dependent variable gender of 2 groups, female and male. The result from the teachers' questionnaire showed that these two variables were not significant ( $0.736 > 0.05$ ), while results from the instructional supervisors' questionnaire showed that these two variables were also not significant ( $1.000 > 0.05$ ).

### **4.3 Qualitative Data Analysis**

The qualitative data was collected with an exploratory intention to find meaningful insights from respondents' perceptions that might flesh out what was analyzed in the quantitative part of the research investigation. With that in mind, it was fundamental to dig a bit deeper into what the participants genuinely believed about the current instructional supervisors' practices at their schools and the PPL's impact on teachers' performance, along with the possible contextual factors that might enhance or impede the success of the PPL program at the sample schools. Thus, this

part of the chapter reports the findings from two types of interviews, the semi-structured and focus group interviews, from two perspectives, i.e., teachers and instructional supervisors. The presentation of the qualitative data analysis in this section and how it leads to answering the research questions and achieving the study’s primary aim involves reporting it based on the emerging themes and subthemes from the data. Adopting this powerful approach offers more clarity and coherence in presenting the qualitative results and emphasizes the evidence obtained from the data.

It is worth remembering at the beginning that the comprehensive data analysis was fulfilled using the NVivo and relied on its approach on the following phases recommended by (Braun & Clarke 2006) as described in table (4.65). In due course, the results identified diverse themes and subthemes spread over five sections to answer the research questions. The thematic analysis was treated with attention and intention so that no enforcement was practiced on the data to fit into the deduced themes from the professional learning literature. Equally, the researcher allowed the data to speak and be driven by the informants. Therefore, a balance between the inductive and deductive approaches was maintained.

Phase	Description of the process
1. Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic ‘map’ of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

**Table 4. 65: Adopted Phases for Analyzing the Qualitative Data** (Braun & Clarke 2006, p. 87).

### 4.3.1 Qualitative Sample

The total number of participants in the qualitative data from the semi-structured interviews and focus group were 32.

In the semi-structured interviews, 16 interviewees were selected purposively to join the study based on the school leaders' recommendations because experience in PPL was a priority. In detail, the total number of participants was 4 from each school; 3 were instructional supervisors and one experienced teacher in professional learning to have a total of 12 instructional supervisors and 4 teachers from the four schools.

Also, four teachers' focus group interviews were conducted; each group consisted of different subjects, gender, and experience. Convenient sampling was employed since teachers' availability was a challenge that limited the researcher's choice. The total number of focus group participants in the four schools was 16.

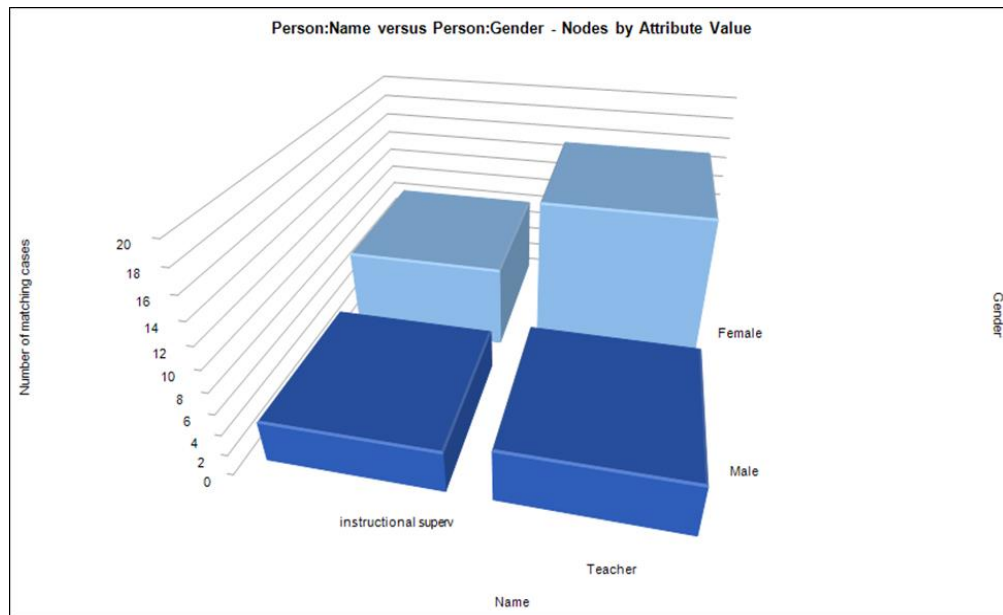
Table (4.66), extracted from NVivo, summarizes the participants' profiles in the interviews as cases with granted nicknames to present the demographical information about their gender, grade level, and year of experience.

Person/Nicknames	Job Title	School Name	Gender	Grade Level	year of experience
Cases\\IS1fSA	instructional supervisor	School A	Male	K-12	6-10 years
Cases\\IS2fSA	instructional supervisor	School A	Male	secondary	3-5 years
Cases\\IS3fSA	instructional supervisor	School A	Female	Middle	3-5 years
Cases\\IS1fSB	instructional supervisor	School B	Male	K-12	above 10 years
Cases\\IS2fSB	instructional supervisor	School B	Female	K-12	above 10 years
Cases\\IS3fSB	instructional supervisor	School B	Female	secondary	above 10 years
Cases\\IS1fSC	instructional supervisor	School C	Female	K-12	6-10 years
Cases\\IS2fSC	instructional supervisor	School C	Male	secondary	3-5 years
Cases\\IS3fSC	instructional supervisor & Teacher	School C	Female	secondary	6-10 years
Cases\\IS1fSD	instructional supervisor	School D	Female	Middle	3-5 years
Cases\\IS2fSD	instructional supervisor	School D	Female	K-12	6-10 years
Cases\\IS3fSD	instructional supervisor	School D	Female	Primary	3-5 years
Cases\\T1FGSA	Teacher (Focus Group)	School A	Female	Primary	6-10 years
Cases\\T1FGSB	Teacher (Focus Group)	School B	Male	Middle	3-5 years
Cases\\T1FGSC	Teacher (Focus Group)	School C	Female	KG	0-2 years

Cases\\T1FGSD	Teacher (Focus Group)	School D	Female	Primary	0-2 years
Cases\\T1fSA	Teacher (Individual)	School A	Female	KG	3-5 years
Cases\\T1fSB	Teacher (Individual)	School B	Male	secondary	6-10 years
Cases\\T1fSC	Teacher (Individual)	School C	Male	secondary	3-5 years
Cases\\T1fSD	Teacher (Individual)	School D	Male	Middle	3-5 years
Cases\\T2FGSA	Teacher (Focus Group)	School A	Female	Middle	3-5 years
Cases\\T2FGSB	Teacher (Focus Group)	School B	Female	Primary	6-10 years
Cases\\T2FGSC	Teacher (Focus Group)	School C	Female	KG	3-5 years
Cases\\T2FGSD	Teacher (Focus Group)	School D	Female	KG	0-2 years
Cases\\T3FGSA	Teacher (Focus Group)	School A	Female	Middle	6-10 years
Cases\\T3FGSB	Teacher (Focus Group)	School B	Male	secondary	3-5 years
Cases\\T3FGSC	Teacher (Focus Group)	School C	Female	Middle	3-5 years
Cases\\T3FGSD	Teacher (Focus Group)	School D	Female	Primary	0-2 years
Cases\\T4FGSA	Teacher (Focus Group)	School A	Female	secondary	above 10 years
Cases\\T4FGSB	Teacher (Focus Group)	School B	Female	Primary	0-2 years
Cases\\T4FGSC	Teacher (Focus Group)	School C	Female	secondary	6-10 years
Cases\\T4FGSD	Teacher (Focus Group)	School D	Female	Primary	6-10 years

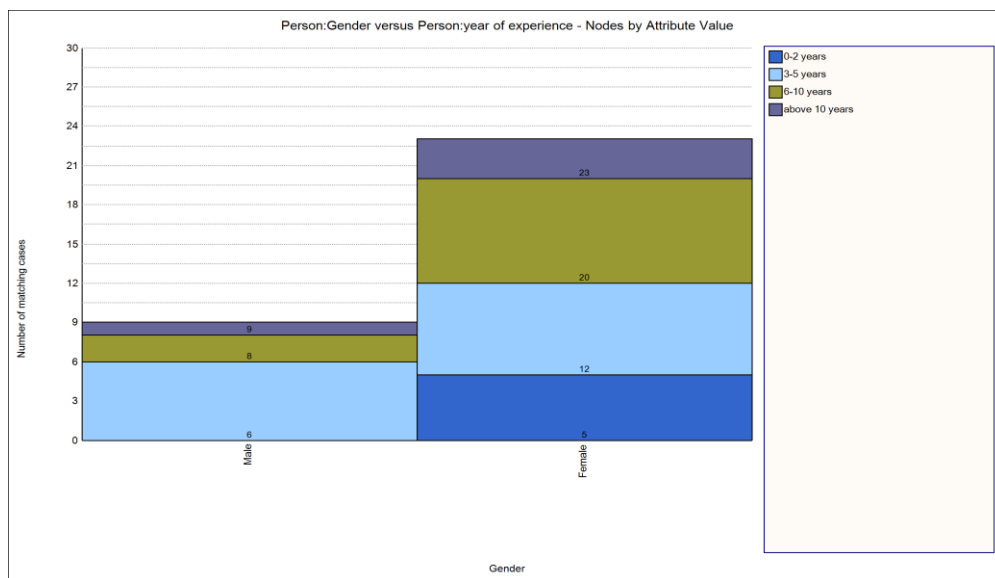
**Table 4. 66: Participants' Demographical Profiles**

The qualitative data showed that female instructional supervisor interviewees were more than male interviewees in the sample schools. Similarly, female teachers' interviewees were almost twice the male ones. This means that female participants dominated the interviews as they were more present, involved, and nominated with interest and purpose to share their perceptions across the study. The distribution of both groups is presented in chart 4.21 below.



**Chart 4. 21: Age Group**

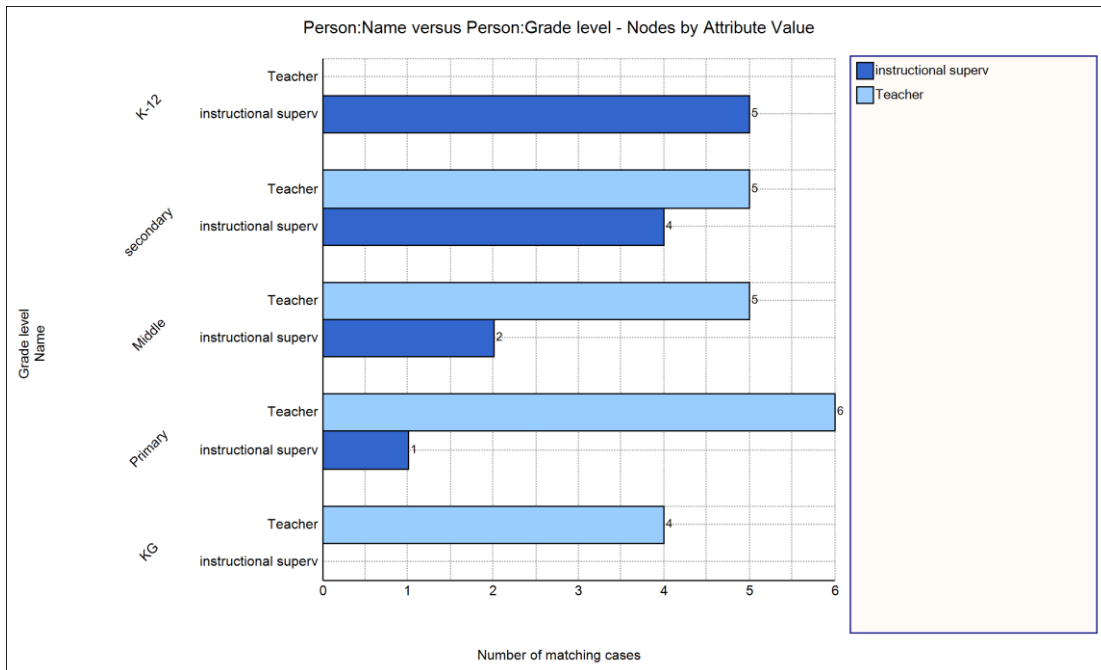
Moreover, the researcher compared the cases by gender and experience (Chart 4.22) to conclude that female participants outnumbered males, especially those above 10 years of experience. The number of participants within the range of 0-2 years of experience was only present in the female case (n= 5). Also, the chart below shows that most interviewees ranged in experience between 6-10 years, double the percentage for female participants (n=12).



**Chart 4. 22: Gender and Experience**

It was found that instructional supervisors were represented with different profiles ranging in supervisory levels (5 cases in K-12, 4 secondary, 2 middle, and 1 primary), as portrayed in chart 4.23. The presence of K-12 instructional supervisors indicates that the interviewees were from the senior leadership team or that the instructional supervisor was responsible for all the levels in his/her subject. In comparison with teachers, no KG instructional supervisor was interviewed. Comparably, teachers' interviewees were represented with a different grade level of teaching where a high number of cases was detected in every grade level as follows: KG (n=4); primary (n=6); middle (n=5); secondary (n=5) except for K-12.





**Chart 4. 23: Level of Teaching/Supervision**

### 4.3.2 Analysis of the Interviews

Five sections were written across the findings from the interviewing data. The first three addressed the first research question in the current study, where each covered a specific angle in teachers’ and instructional supervisors’ perceptions of the effective instructional and supervisory practices at the sample schools. The fourth section mainly addressed the second research question, which inquires about the impact of PPL on teachers’ performance. Section 5 focused on the fourth research question in the study that dealt with the contextual factors that were found to enhance or impede the effectiveness of the PPL at the four private schools in Abu Dhabi. Though the research questions were mainly focused on a particular perception, it was complementary to include whatever was revealed from the other related perspective to clarify the whole picture and add more depth to the qualitative analysis.

Table (4.67) organizes and summarizes the findings in sections, themes, subthemes, and references to the related research questions. NVivo was used to count the number of selections within that

source code to a specific theme or subtheme, guiding the following discussion and interpretations for the critical thematic findings.

	<b>Name of section, theme, and subtheme</b>
<b>RQs</b>	<b>Section 1 Perceptions of Common Instructional Supervisory Practices</b>
<b>Research question 1 (RQ1)</b>	<b>Theme 1 Monitoring the instructional process</b>
	a) The use of classroom observations, observational frameworks, and reports
	b) The use of data to analyze teachers' practices
	<b>Theme 2 Guiding the Instructional Supervisory Process</b>
	a) Through setting meetings and giving feedback
	b) Through identifying teachers' instructional needs
	<b>Section 2 Perceptions of What is Promoted</b>
	<b>Theme 3 Identified Strategies of Professional Learning</b>
	a) Top-Down PL Workshops
	b) Limited Bottom-Up PL Opportunities
	<b>Theme 4 Identified Features of Professional Learning</b>
	a) Dependence on External PL
	b) Episodic in Duration
	<b>Section 3- Perceptions of How the PPL is Promoted</b>
<b>Theme 5 Supportive leadership Environment</b>	
<b>Theme 6 The Important Role of a Clear and Unified Vision</b>	
	<b>Section 4 Perceptions on the Impact of PPL on Teachers' Performance</b>
<b>RQ 2</b>	<b>Theme 1 Improving teachers' Practices</b>
	<b>Section 5 School Factors</b>
<b>RQ4</b>	<b>Theme 1 Promotive School Factors</b>
	a) Leadership Support
	b) Sufficient Funding and Resources
	<b>Theme 2 Hindering School Factors</b>
	a) Absence or Inadequate Bottom-Up PL Strategies
	b) Lack of Leadership Guidance
c) Workload and Lack or Wrong Timing	

**Table 4. 67: Research Questions, Themes, and Sub-Themes**

### **4.3.2.1 Section 1 Perceptions of Common Instructional Supervisory Practices**

In the beginning, two main themes recurred in the interview data. These themes were mainly related to how teachers and instructional supervisors perceived their schools' instructional supervisory practices. The themes focused on how the instructional supervisors monitored and guided the instructional and supervisory process. As it was highlighted in chapter two, the literature review, the researcher adopted the shared instructional leadership theory as theorized by Marks and Printy (2003), where several models, Hallinger & Murphy (1985), Patterson (1993), and Weber (1996), were employed to define the effective instructional supervisory practices.

#### **4.3.2.1.1 Theme 1 Monitoring the Instructional Supervision Process**

Monitoring the instructional process was the first theme reflected in teachers' and instructional supervisors' perceptions about the effectiveness of instructional supervisors in promoting the PPL. The theme included monitoring teachers through classroom observations where instructional supervisors depended on evaluation frameworks to measure teachers' performance, and then the gathered evidence would result in a written report. Also, the theme included a second subtheme that explained how teachers' performance data was analyzed. Thus, it was found that to evaluate teachers effectively, instructional supervisors must demonstrate vital desirable functions for conducting their instructional supervision roles at their schools.

- a. The use of classroom observations, observational frameworks, and reports

The first frequent practice that emerged from the data to reveal how instructional supervisors monitor the instructional supervision process at the schools was the use of classroom observation. Teachers' interviewees from the focus group at school D revealed the essence of continuous observation practiced by instructional supervisors as they stated that “*the consistent observations by the coordinator and the head of section that would help us improve by giving the feedback.*”

(T1FGSD) Another teacher participant from school B asserted during the focus group interview a similar frequent routine when stating that “*during or after any observation they put for us...so, regularly we have visits as follow up.*” (T3FGSB) Another teacher in the same focus group said, “*uh, they visit your class more than once*” (T2FGSB) to indicate the frequency of the observations. While in the focus group at school A, the fourth teacher participant stated that “*we have from time to time, having them in classes observing our lessons.*” (T4FGSA). Some teachers name the observation as a pop-in visit as one teacher said, “*for example, first term I used to have lack of the time management so that coordinator used to pop in always.*” (T2FGSB) Similarly, at school C, where one of the teachers in the focus group said, “*some activities that enhance my professional development is the observation from my coordinator as she shares after the visit with me the areas of strength and needs.*” (T2FGSC)

Instructional supervisors’ reflections backed up teachers’ perceptions during the interviews to add more depth to this widespread practice. For instance, the second instructional supervisor at school D confirmed that “*they [ISs] pop in or they have formal or informal observation. They will evaluate teachers and they see where's the weakness.*” (IS2fSD). Similarly, an instructional supervisor at school C informed that classrooms are two types-formal and informal as it was stated, “*we have formal and informal visits. Uh, we do it around three to five times per term. Two formal visits informal three visits per term for each teacher,*” (IS2fSC) whereas, at school B, the instructional supervisor referred to it by evaluations and walkthroughs as when he said “*we have regular evaluations of teachers and walkthroughs.*”(IS1fSB) Likewise, at School A, the third instructional supervisor specified the duration of the observation by mentioning that “*when I see students improving in class, there is progress, I can see progress when I see engagement between the students and the teachers when I observe them like we can really, because we do observations all*

*the time.*” (IS3fSA) However, the first instructional supervisor at school A said “*so basically, as a school, we do not call it supervision, we call it more like an observation. So, we do four teacher’s classroom observation.*” (IS1fSA)

Additionally, it was noticed from the interviews with instructional supervisors the use of observational frameworks and reports as observational tools to assess, record, and monitor the instructional supervisory practices at the sample schools. It was referred to as the framework of teaching and learning, checklist, and evaluation framework. For instance, the second instructional supervisor referred to the observational tools and reports when he said:

*“I have a team of 13 teachers, and us, as leaders, working with a school director and vice principals have been trained to look at the aspects of a lesson that we really want to see. And this is under vision of ADEK. so, the checklist that we have, what we want to see in the class, is something that we know very well, once we go into these classes, we look at them, we evaluate them, we put our report.”* (IS2fSA)

Another put in when she said, “*we we have the teacher evaluation framework. We evaluate her based on the school framework.*” (IS2fSC)

In brief, it is clear that the use of classroom observation was one of the practices that instructional supervisors depended on to monitor their teachers’ performance; however, it is clear that there is no consistency in the duration and frequency of this practice between the schools. Also, they referenced the observational tools they used to evaluate and report teachers’ performance in class.

b. The use of data to analyze teachers' practices

Instructional supervisors at the sample schools were found to have another sharable instructional supervisory practice featured in the data analysis. This common instructional supervisory practice was based on analyzing teachers’ performance data collected from classroom observations and reports. It was noticed that teachers were indirectly referring to data analysis while sharing their perceptions about how instructional supervisors monitor the observational process from meeting teachers after the formal classroom visits and placing reports based on observations. On the other

hand, instructional supervisors were more directly referring to this practice while telling how they monitor teachers' performance. For instance, at school A, the second instructional supervisor was clear about how he depended on the statistics of all the observational reports to understand teachers' performance clearly.

*“And then we put all of these reports together and we look at the basically the statistics, the systems of every aspect we want to see. So, if there's something that we barely saw, we saw only twice in 20 sessions of observations, it means that something that we need to really look at because our teachers need help them something that every teacher is doing. If it's working well. We just enforce it.” (IS2fSA)*

Similarly, the first instructional supervisor at school B expressed the use of data analysis collected from various sources to address teachers' classroom performance and professional learning as he said:

*“What we've been accessing right now is just survey feedback from teachers, teacher giving us feedback about how the professional learning is going. We have regular evaluations of teachers and walkthroughs that do play a role in our strategic plan. Those three aren't entirely linked yet. But I think we're getting closer to that. Because we're starting to do more sharing, we're really kind of developing this new culture.” (IS1fSB)*

Then he continued to speak about a type of data analysis that involved analyzing data from surveys and not only from classroom visits, and it was expressed in:

*“Yeah, so we have, we have regular surveys that we have, and then we analyze those surveys. The problem that we had this year was we didn't have enough eyes on the survey data. So, we've re-instituted a professional development committee, that's that's chaired by a representative from our elementary school, and next year will also be co-chaired by our representative at a secondary school, and they are going to be tasked with analyzing survey results, and then presenting those results with a little bit more clarity to the leadership team.” (IS1fSB)*

Another confirmation of such practice came from school C when the instructional supervisor highlighted that:

*“And plus on the the data analysis. And you know the the the internal data and external data that we collect for the students and teachers. You know both. for us we focus on the students data and also yeah, for example. And if we are teaching certain things and then we found that there is a drop here in the the data and the progress of the student, there's a regression. So we we put this. We put this under the spotlight and we look. Thoroughly, in order to bridge the gap in this point. plus the teachers data also is very important, especially when it comes for us for the behavior. For the you know, academic level inside the classroom. Sometimes the relationships with the other students. So all of these things the quantitative and the qualitative data, by the way, are considered when it comes to decide what kind of topic to be for the professional development.” (IS1fSC)*

For school D, the first instructional supervisor echoed the same practice yet with more specifications on the type of examination for the data analysis that is taking place at her school as it was revealed that:

*“What we do is kind of triangulation. So, after looking at the data that we have from lesson observations or, let's say, walkthrough. It's not even the formal or official observation and based on some forms that we send to the teachers, and then they feel, according to what they feel, that they really need.”* (IS1fSD)

Overall, it is evident that data collection and analysis for teachers' classroom performance was another common feature of monitoring the process of instructional supervisors at the sample schools, with a few references to how the collected data is used to identify the topics for teachers' professional learning.

#### **4.3.2.1.2 Theme 2 Guiding the Instructional Supervisory Process**

Guiding the instructional supervisory process was another recurring theme to reflect teachers' perception of instructional supervisors' practices in promoting the PPL. Several subthemes were deduced from this theme to reflect how instructional supervisors guide the instructional supervisory process by setting meetings, offering feedback and recommendations, and identifying teachers' instructional needs.

##### **a. Through Setting Meetings and Giving Feedback**

This was another common instructional supervisory practice that teachers perceived to reveal how their instructional supervisors guided the instructional supervision process. Different guiding strategies were offered to teachers across the four schools and were considered helpful. Though these strategies varied from setting meetings and giving feedback and recommendations, they were interrelated to how instructional supervisors guided their teachers to improve their classroom performance. For instance, during the focus group at school, one of the teachers found receiving feedback from her instructional supervisor helpful when she said, *“having them [instructional supervisors] in classes observing our lessons, give us feedback, this helps a lot.”* (T4FGSA) In

school C, one of the interviewees mentioned that “*during or after any observation they put for us, they meet with us*” then continued and said that “*she [her instructional supervisor] also does not give us any feedback until we implement it and see the result*” (T3FGSC), to be confirmed with another teacher by stating their instructional supervisor “*always checking if the PD (Professional Development) reached everyone and understandable to everyone.*” (T2FGSC) At school B, one of the teachers in the focus group asserted that feedback and support are offered “*during individual meetings with the coordinator.*” (T4FGSB) However, the second teacher in the same focus group interview referred to this by stating, “*uh, they [instructional supervisor] observe your class if they want to observe your class, they come observe your class. They give you feedback and that's it.*” (T2FGSB) Giving feedback to teachers after an observation was also noticed in a focus group at school D when one teacher said, “*yeah, and the consistent observations from the from the coordinator the the head of section that would help us improve by giving the feedback.*” (T1FGSD) In occurrences with teachers’ perceptions about receiving feedback during individual meetings with their instructional supervisors, the latter confirmed such regular practice during the individual interviews. For example, the first instructional supervisor at school A used ‘*recommendation*’ as part of the feedback to guide his teachers. He stated that “*based on the observation, we identify the weaknesses and the strength of each of the teachers. And then we do some kind of recommendations for teachers*” then he continued to describe its nature as “*it is a very active discussion of how to implement what you want to implement.*” (IS1fSA)

The first instructional supervisor at school D was more illustrative of the kind of feedback that is given and received from teachers during the post-observation meetings or sessions. She stated:

*“What actually we do, we give them [teachers] a feedback. for by the end of the session. And this is where they have to write their feedback about the session itself. And what are the things that they let's say what did they get from that session? And plus, they have to tick a box and choose, and what there's a point that says that they have to write whatever they feel that they did, and it it gives really good feedback.” (IS1fSD)*



In the same way, another instructional supervisor from the same school referred to the individual meeting that takes place between teachers and instructional supervisors to discuss the former's performance, saying, *"well, after observing teachers, they [ISs] meet them [teachers] individually and they sit together to talk."* Where as another instructional supervisor might give immediate feedback if she found it necessary, as she said:

*"From my side, usually I enter the teachers' lessons who they allow me to interfere and to give them feedback. And for example, last week I was in one of the classes. During the lesson I interfered, I changed some activity and a way not to interrupt or to disturb her class, so they accept this."* (IS2fSD)

And sometimes, she waited for the meeting to give focused feedback when she said, *"during my meetings, I always focus on the teachers' strength and areas of needs. I have to go over them during the meeting."* (IS2fSD)

Comparably in school C, the instructional supervisor pointed toward the post-observation conference by affirming that

*"A teacher is observed from her head of section coordinator and the academic advisor as well. Once they [ISs] observe her, they ask her to meet after the observation. They meet her, they ask her to write down the points of what did or to evaluate herself before they evaluate her and before they give her the points. Then they discuss all points of strength and the points of needs during this conference."* (IS2fSC)

Therefore, it is obvious how instructional supervisors guide the instructional supervisory process by setting meetings and offering feedback to their teachers, which in turn find these functions rewarding.

#### b. Through Identifying Teachers' Instructional Needs

Guiding the instructional supervisory process was not limited to setting meetings and offering feedback and recommendations to teachers, but also instructional supervisors extended their practices to identify teachers' instructional needs, as found in teachers' focus group interviews at two schools from the four sample schools. In school B, one of the teachers said that instructional

supervisors *“put the areas of strength and the areas of needs and they focus on the areas of need, how to improve it to be one of their strengths.”* (T2FGSB) Likewise, another teacher confirmed such practice during the pandemic COVID19 when teacher’s professional learning was offered online to utter that *“so most of the learning was critical, focused and relevant to what we need currently during the pandemic.”* (T3FGSB)

In comparison, one of the school C teachers said that such practice existed in every department, saying: *“every school department is concerned with the needs of its teachers in the training of professional learning.”* (T2FGSC) Whereas another illustrated more such practice by stating that:

*“Especially when instructional supervisors focus more on being according to the needs of each department. Assessment of professional learning should not be limited to the session only. Well, it should depend on more tangible assessment for learning. This way the training will be more practical.”* (T3FGSC)

The same concept was emphasized by instructional supervisors, as one of them at school A specified the needs that they looked at when identifying teachers’ instructional needs saying:

*“What we really look at are the aspects of teaching that our teachers need in terms of the syllabus, strategic, for example, our curriculum keeps on being changed and edited and updated by the boards. So, we have to follow these changes that happen. And then we do focus groups of teachers that make sure that these new aspects of the curriculum are being discussed.”* (IS2fSA)

Then he continued to clarify how, in an example that declares: *“let's say for students recently is something big for added for all schools, and the use of data classes. We've seen that our teachers were struggling with how to measure progress and attainment and the difference between them. So, we work on it.”* (IS2fSA)

At school B, one of the instructional supervisors had a different illustration of how they identified teachers’ needs when she stated: *“we do first needs assessment. We know that our teachers they lack, for example, at doing assessment or creating multiple-choice questions or dealing with difficult behavior or dealing with students with disabilities.”* (IS2fSB) However, the way instructional supervisors meet teachers’ instructional needs takes the form of school focus; for

instance, another instructional supervisor at the same school explained that thoroughly when he stated:

*“So right now, our big focus is reviewing MAP because teachers need to understand how to do it. So, a lot of our time and attention is focused on MAP professional learning programs. Okay. Next year, our focus is on science, we design our PD programs. So next year's professional learning is going to be focused around that...”* (IS1fSB)

At school C, the instructional supervisor referred to addressing teachers’ instructional needs through continuous support and follow-up as she stated:

*“Once we see that some of the teachers are struggling or is she? Is she struggling with? We we have the teacher evaluation framework we have. We evaluate her based on the school framework. If this teacher has some. Uh, points needs to be improved. We visit her again. We meet with her. We ask her to set goals for herself. And we keep supporting her inside the class until she meets or she achieves her goals.”* (IS2fSC)

It is apparent that instructional supervisors are well aware of teachers’ instructional needs from the classroom visits, observations, and meetings between them; however, meeting their needs lacks adequate personalization.

Overall, the first section of the analysis covered the common instructional supervisory practices across the schools as perceived by teachers and confirmed by instructional supervisors.

#### **4.3.2.2 Section 2 Perceptions of What is Promoted**

In the second section, the qualitative data analysis showed that there was another dimension to what teachers perceived, resembling what was promoted at the four schools in Abu Dhabi. The themes that emerged from the questions were directed toward understanding the process of professional learning, where the interviewees mentioned the existing professional learning strategies. The section also highlighted another theme that can be rephrased by the modes of professional learning at the researched schools.

##### **4.3.2.2.1 Theme 3 Identified Strategies of Professional Learning**

The third theme recognized from the data was related to the identified professional learning strategies. Teachers' interviews showed that two main professional learning models prevailed at the sample schools: Top-down professional learning workshops and bottom-up professional learning opportunities. As discussed in the literature, the top-down professional learning offerings are limited in their modes of instruction as they barely engage teachers in their learning and hardly recognize their voice in the process. The top-down professional learning also lacks relevancy and personalization to the adult learner's self-directed nature, where most of its offerings are led from a senior leader's decision down to teachers who lack any choice and voice but to follow (Baird & Clark 2018; Darling-Hammond et al. 2009; Maggioli 2004; Rodman 2019; Zepeda & Ponticell 2018). The top-down offerings can be delivered in diverse modes; the prevailing one in the sample schools was the workshops. In contrast, bottom-up professional learning is specified by its capability to engage the learner and address the diverse teachers' needs after giving them freedom, voice, and choice to decide what best can serve and address their learning goals. Though there were a few mentioning of the bottom-up professional learning strategies in the sample schools, most teachers were directed to attend the available top-down professional learning.

a. Top-down PL Workshops

The data collected from interviews revealed informative perceptions of what was promoted in professional learning at the sample schools. The results came to show teachers and instructional supervisors referring to the traditional top-down professional learning offerings as workshops. It was necessary to follow up the sequence line of the conversation to understand the implemented strategies offered in the so-called workshops to decide if the offering fits the top-down or the bottom-up to avoid any confusion in the usage of terms. Most of the participants elaborated on the used strategy once mentioned. It was noticed that teachers at the four schools agreed on the top-

downness of their professional learning yet distinguished between one large group workshop (general workshops for all teachers) and small departmental groups (different workshops for departments). The learning mode slightly changed in both cases, yet the top-downness still existed in different forms.

This was clear in the following quotations. For instance, a teacher in the focus group at school A illustrated openly how professional learning offerings were planned for them, *“yeah, what we did was planned for us. It was planned, but at the end for every single workshop that we did, we were in groups... [then she continued to elaborate] usual workshop, you do this, you do this, finish.”*

(T3FGSA) While another from the same school confirmed that the top-downness in the decision was similarly followed with new teachers saying *“it is a shot this year, especially for the new teachers who join the school. We did a lot of professional development workshops.”* (T2FGSA)

At school B, a teacher in the focus group mentioned that practice the whole school participates in such workshops where all groups of teachers participate regardless of their background *“before they used to before when I started here and this country, we used to have professional development for the whole school. And that's it.”* (T3FGSB) However, in a one-to-one teacher interview, there was a specification for such workshops that is not consistent across all departments by stating that *“some departments have, if you talk to people in English, they can talk to you about reader writers' workshop, we didn't ever do anything like that... And what I've heard from people who did, I'm just I know, people who did readers and writer's workshop.”* (T1fSB) This inconsistency at school

B was also verified at school C when one of the teachers explained the changes that took place during the COVID pandemic in 2019, during which the school shifted into online learning to state that *“once the COVID started, it was mainly virtual only. But now again, we get face to face. So,*

*it's like a workshop.*” (T1fSB) At school D, the offerings are not far from the rest, as one of the teachers explained:

*“Well, at the beginning of the year we have introduction workshop. we get introduced to the school norms, school policies and all of that... Well, as my colleagues said, our school sent a paper survey asking us what do we prefer to have as a workshop or where do we think that our areas for improvement are.”* (T1FGSD)

One of the teachers in an individual interview at the same school referred to the top-downness of the professional offerings that are mandatory and disconnected sessions when he said, *“then we go to these different workshops, that might be like an hour, hour and a half long. Part of the day is mandatory stuff. But yeah, basically, I think we have three days a year where we have professional development.”* (T1fSD)

Compared to teachers’ perception of the existing professional learning offerings, some instructional supervisors showed discomfort with what was promoted at their schools. At school A, the second interviewed instructional supervisor was positive about the necessity to shift from the top-downness in professional learning into something more job-embedded and bottomed-up, as he said:

*“So, I really think that this should be moving slowly into the process, until teachers and staff get used to it. But it will definitely cause a greater change in the lives of teachers, rather than a PD that's coming in once every two months, in terms of a workshop or training or something like that.”* (IS2fSA)

At school B, the instructional supervisor reflected on one of her experiences in one of the attended workshops to say, *“so very recently, I attended a workshop and though I had no takeaways from that workshop”* (IS3fSB) while another from the same school explained how teachers might participate in the process of professional learning at her school saying:

*“It really takes the nature of in-house training like we have some teachers who are really like we give the choice or we give the freedom to teachers to, you know, show their interest in providing workshop in certain areas. For example, in class management and dealing with the difficult students and dealing with students with disabilities.”* (IS2fSB)

At school C, the instructional supervisors were promoting top-down workshops assigned to all teachers; as noted in what one said, *“there are two types of contracts, some that were given to all teachers, and there's some which are given to new teachers...So even when we sit on that PD, like every other week, we have a PD meeting after school, all the teachers.”* (IS3fSC) The other said, *“sometimes they assign some workshops to be attended by us. They assigned it to us.”* (IS1fSC)

Though it was clear that some of the schools offered professional learning that is differentiated in its modes of learning, i.e., departmental workshops, the top-downness in the decision and lack of teacher’s voice and freedom still prevails over the common practices where the majority of the teachers were found pushed to attend a workshop that lacks any customization or personalization.

#### b. Limited Bottom-Up PL Opportunities

On the other flip of the coin, it was noticed that there were some limited references to bottom-up professional learning strategies.

As mentioned previously, two school instructional supervisors revealed the existence of differentiation in their provision of professional teacher learning, yet with a certain degree of limitation. For instance, at school B, the instructional supervisor exemplified how teachers can deliver differentiation in professional learning at the school level by stating:

*“For example, in class management and dealing with, you know difficult students with dealing with students with disabilities. In math in, you know, writing, study plans, and so on. So, these teachers, we asked them to write a small like summary about what other abilities [that they can offer for other teachers]and we divide them. We do a schedule as per their time. We announced it and then we invite the teachers. Whoever is in the school in order to attend these workshops.”* (IS2fSB)

Differentiation in professional learning at school C existed within departments where each department offered its teachers a set of professional learning workshops; as stated, *“every school department is concerned with the needs of its teachers in the training of professional learning.”* (T2FGSC) where another teacher in the same focus group referred to the same concept saying:

*“Especially when instructional supervisors focus more on being according to the needs of each department. Assessment of professional learning should not be limited to the session only. Well, it should depend on more tangible assessment for learning. This way the training will be more practical.” (T3FGSC)*

At the same school, one of the instructional supervisors mentioned differentiation in professional learning when speaking about the new teachers *“there are two types of contracts, some that were given to all teachers, and there's some which are given to new teachers.” (IS3fSC)*

Also, at school D, the instructional supervisor approached this strategy by confirming that *“we also differentiate based off of what grade levels feel like they need and kind of focus in on those deficits are skill sets and that they want to develop.” (IS3fSD)*

Online professional learning was also another professional learning practice that was offered for teachers as a choice when the pandemic started, as uttered by one of the teachers at school C *“I mean, there is always an opportunity for virtual as well as face to face, online as well as face to face. But once the COVID started, it was mainly virtual only.” (T1fSC)*

School B went a bit further than just depending on online learning during the pandemic and developed the online professional learning system as they still rely on it to enhance teachers’ professional learning, as revealed in one of the conversations with the third instructional supervisors:

*“And we have also created the PD committee, the PD team has also created a PD hub. It's a website for everything. PD related, but it's an internal website. It's just for the teachers of our school. And anything the teacher wants, whether it's anything to do with maths workshop, whether it's anything to do with resources, from the workshop resources, from the language and literacy sections, any upcoming events that we have, that we've organised for them, any kind of technology, glitches, training, you know, anything like that, it's all on the website. So as a PD team, we've created this one stop shop for everything that the teachers would need, in terms of resources to teach in their classrooms. So that's what a procedure of the PD looks like in our school.” (IS3fSB)*

Teachers welcomed that experience and found it compelling, as one teacher highlighted during the focus group interview saying:



*“I felt that during the online learning, professional development became more effective. I felt that online learning can be more focused on what you want now to improve your instructions. So, most of the learning was critical, focused and relevant to what we need currently during the pandemic.”*  
(T3FGSB)

Whereas a teacher at school C, during the individual interview, showed discomfort and limited learning in online learning because it lacked the richness in communication that can be attained face to face, as she explained:

*“Sometimes you can learn more and meet new people there, so sharing the knowledge with teachers from different schools cause when it was online, you cannot personally talk to the people with you, but when we used to go to workshops that were face to face you can talk to this person.”* (T1fSA)

Also, the interviewing data showed a few references for peer coaching distinctive from the traditional top-down professional learning offerings at the sample schools. However, these practices were not the norm in the schools as it was slightly noticed. Teachers revealed that peer coaching was beneficial once provided. For instance, at school C, one of the teachers in the focus group said that *“peer coaching. It is one of the activities that really helped me in my career, especially when they give when they allow us or give us the opportunity to enter our colleagues’ classes or when we share best practices.”* (T1FGSC) Similarly, another teacher from the same focus group interview repeated that peer coaching might be among the best practices to professional learning when she said that *“for me I can say that it takes the example to observe one of my colleagues who has strength in my areas of needs.”*

Correspondingly as the first instructional supervisor mentioned at school A, *“let's say, a group of teachers need to improve in a certain educational aspect, let's say the use of differentiated activities in classrooms, we asked them to attend classes with teachers who are, who have this as their strength.”* (IS1fSA)

At school B, the existence of peer coaching took the form of offering resources and help, as the instructional supervisor emphasized:

*“We have peer coaching in terms of mentoring sessions, like for teachers. Yeah. Well, we don't have like official mentoring sessions. But we do have like our PYP coordinator, we have in every grade level a grade level leader. And we can go to them with any kind of questions, any kind of resources, and they will always help us with it.” (IS3fSB)*

At school C, instructional supervisors also highlighted peer coaching to respond to a question related to the existence of any job-embedded professional learning strategies other than the traditional top-down workshops:

*“For example, during the peer observation and also sometimes we arrange for a group small group observation. For certain classes in which you know the experience is the most beneficial for the teachers and the one that they will practice, what they learned during the workshops with other teachers or inside the classes.” (IS1fSC)*

Personalization in professional learning was found to exist in the form of getting an amount of money, then spending it on professional learning, as quoted by one of the teachers at school B:

*“Yeah, so I mean, again, with our with our money, we can choose with our PD money, we can choose to spend it how we want. So yeah, that's definitely one form of personalization. And then when they do with staff-led professional development things, which are usually just very, very short, like maybe 40 minutes, maybe hour long, maybe half-hour sessions, there's usually a number of options for us to choose from, so we can kind of pick our own things that interest us.” (T1fSB)*

This statement was supported by the instructional supervisors at the same school when he said:

*“In your second contract, you're given 3000 dirhams a year to spend as you would like, with permission from the principals. So, you can fill out an application. I want to spend my 3000 dirhams in this particular way for myself. Here's how it will benefit me but also aligned with the school-wide goals.” (IS1fSB)*

At school C, the instructional supervisor confirmed that personalized professional learning only takes place once a teacher is observed to have a challenging need that requires intervention, as she stated:

*“We create a personalized plan for the teacher. If we observe that we have comments. we have the intervention plan and we put it in place, but to be honest, not all the time and sometimes it is required, and I know it depends on the personality of the teacher. Sometimes there are certain comments so I put it in a formal way while inside me. To be honest, I I believe that yeah, if it is on paper and it will be more effective. Yeah, but I also it's time consuming but it's not any it's not formal. Yeah, we have to do it.” (IS1fSC)*

The instructional supervisor at school D was also similar to school C in emphasizing that personalizing professional learning might exist when an area needs development in a specific way. There was a reluctance to state who set the learning goals in the PPL plan; then, in the end, it was confirmed that the decision goes back to the instructional supervisor and not to the teacher, as revealed in the quotation below:

*“Well, that's if only a teacher is on an improvement plan. Only so if there is a lot of weaknesses from the observations from the workforce that we do, and the teacher is on an improvement plan. So this is where we have one-to-one and personalized. Well, it's the coordinator academic advisor, and the teacher himself, or herself Alright. And the teacher has a choice to choose between example offering at that time, or it's important to know well to be honest wouldn't because, as I said in our case it's an improvement plan so it's most of the time it's not it's not like okay, we'll give them the options like few options. But there's things that are must because I've seen that as a call. But maybe he doesn't see that area of improvement right so.” (IS1fSD)*

PPL at some sample schools was exceptionally offered when there was a critical need to intervene or a budget to spend on teachers who renewed their contracts with the school. Nevertheless, it is unclear how personalization in professional learning was promoted to teachers and how instructional supervisors track its implementation and impact on teachers in class.

In brief, the identified modes of instruction in professional learning strategies ranged from traditional top-down professional learning that limited its offerings to a series of workshops and training sessions. In contrast, teachers and instructional supervisors shared limited strategies ranging from peer coaching, online professional learning, differentiated sessions, and personalization in professional learning. However, it is worth noting that such practices were not the standard professional learning strategies at the sample school as some were offered as an alternative to face-to-face, and others were inadequate and limited to a particular available condition.

#### **4.3.2.2.2 Theme 4 Identified Features of Professional Learning**

Apart from the in-house or internal professional learning provided at the schools in diverse strategies covered in the previous theme, the interviews with teachers and instructional supervisors offered more codes repeated in all four schools. These codes were combined to form the theme of identified features of professional learning. Features that depended on external professional learning contrast the job-embedded professional learning opportunities covered previously. Another subtheme was related to the duration of the professional learning that appeared to be episodic or periodic.

a. Dependence on External PL

Teachers' participants shared what was practiced and provided at their schools openly. Their perceptions proved not only the existence of external professional learning but the dependence of instructional supervisors on such practices to improve their teachers' professional learning. At school A, a teacher in the individual interview said that "*they're getting us professional people to give us workshops, so we're meeting also new people where we're learning from them.*" (T1fSA) However, this concept was more emphasized by one of the school B teachers declaring that most of the professional learning depends on external providers:

*"Yeah, I mean, the professional development has mostly been external, we get money allocated every year, depending on like, kind of different contracts when you came in. And so, most of the professional development that I've received has been external ... because I've moved into a role as a lead teacher within the school, they do some kind of like, staff lead professional development as well, although it's so of varying quality."* (T1fSB)

Then he continued to speak about having external providers coming into the school and its overall effectiveness doubting if that was up to standards and expectations when he said:

*"We did, we had some trainers from the US who consulted with us. And I know that for a lot of departments for my department, as well, we didn't really feel like it was super helpful. Like they were kind of like, well, the answer to all the questions was like, well, we don't know. And you have to figure it out for yourself, which I think I guess it makes some sense. I felt like it was not super clear."* (T1fSB)

The picture was quite different at school C, where it occasionally happened, as recorded by one of the teachers *“I mean, it's yeah, we have once in a while external, I mean, for sure. But that's not quite often, probably over a year, maybe twice like that.”* (T1fSC)

In contrast, at school D, the teacher was satisfied with his external professional learning experience, as he informed in the interview:

*“Well, the external professional development opportunities are going to be much higher quality. For example, I've done professional development and yeah, that the quality of that is very high, and I get a lot a lot out of it. So, it's kind of like you, if you make that investment, you're gonna get a better return. You know, and I gained a lot of knowledge and skills for those high levels of professional development. The ones we do at school I walk away you know, yeah, you just, you just more like, Okay, I attended. But as far as getting skills, and I don't, I haven't seen much gain there, at all.”* (T1fSD)

Instructional supervisors also had a share in the conversation around the external providers, and what they declared was so affirmative to what was perceived by teachers. For instance, at school B when the instructional supervisor, in the following extended quotation, explained how they depend on external providers to develop their teachers:

*“We bring in expert consultants that follow our curriculum review cycle. So right now, our big focus is reviewing MAP because teachers need to understand how to do it. So, a lot of our time and attention is focused on MAP professional learning programs. Okay. Next year, our focus is on science. So next year's professional learning is going to be focused around that. So, our curriculum review cycle drives, the professional development initiatives that we bring into the school and the consultants that we bring into the school...most of the PD that we offer is external service.”* (IS1fSB)

Additionally, he spoke about sending leaders to attend external professional learning offerings as:

*“We've identified key middle leaders that we're sending to trainings in Europe, and we're sending to trainings over the next few years, that have been been tasked with bringing that information back to us. So really, we have a combination of hiring internal or external consultants, that will help us meet the need for the particular year or the particular goal.”* (IS1fSB)

Similarly, another instructional supervisor at the same school emphasized the importance of external providers in enhancing teachers' professional learning. She said:

*“We have a PYP coordinator who looks at this data, the survey that we collect, and she looks for around UAE, around the globe, if there are any trainings happening by the IB or any kind of outside source, who's providing training on that particular need, that the teacher has, and the reason for*

*those, those trainings... so throughout the year, we have new numerous features going for trainings either outside of UAE or inside UAE.” (IS3fSB)*

The dependency on external professional learning providers at school C was noticeable as the school hired consultants once training was needed or sent teachers once the school had a budget or need. This was clear in what instructors revealed: *“they hired consultants to come into school and train teachers here, regardless if they were being sent to training or not.” (IS3fSC)* Moreover, that was confirmed by another instructional supervisor who said that *“asking teachers to do external PDs. If we are not able to provide it in our school so we can send them outside the school to do any professional learning.” (IS2fSC)* and by *“also we have the PDs that are given outside the school, and you know the external PD would be simple. They assigned it to us. Sometimes we asked them to, you know, for approval and orders because some of them are paid.” (IS1fSC)*

At school D, the scenario was not far from the existing one at the latter schools, yet the instructional supervisor denied the total dependency on external providers to ensure professional learning at the school as stated:

*“We also have consultants that come in to build our curriculum and reinforce some of the best practices that we're currently doing... when you find something externally, I, you have like a small group that you use externally, and then having them come back and redevelop and deliver that to the full faculty and having them be responsible for following up with it is a good balance to have. So, you're not totally dependent on external development, but you're making sure to develop the talent that you have within your ability.” (IS3fSD)*

Similarly, another instructional supervisor from the same school said that *“we can do it inside the school or its internal or external. They can provide both. It depends on the teacher needs or even coordinators needs.” (IS2fSD)*

From the above, it is clear that some teachers preferred external professional learning providers and viewed them as more effective than internal ones. On the same page, instructional supervisors did not deny their dependency on the external to provide professional learning for their teachers.

b. Episodic in Duration

In opposition to the ongoing and focused teachers' observation and evaluation, the duration of their professional learning practices in most schools proved to be periodic, disconnected, and not continuous.

The disconnection in the duration of professional learning was reflected in the findings on what was provided to them from the focus group at school B when a teacher replied, "*it will be maybe once or twice per year.*" (T4FGSB) Another teacher from the same school was evident in stating how the offerings were disjointed as he said:

*"it's always been really kind of like, just little bits of things here and there, right, an hour here an hour there about very differing things that kind of, we can use. But it's sort of like optional, I guess. And so it feels it feels like pretty disjointed... we really haven't had a whole lot of like, department-wide PDs. It's been, it's been pretty disjointed."* (T1fSB)

Similarly, at school C, one teacher in the focus group highlighted this fragmentation in provision by saying, "*we start at the beginning of the year and the half of the semester and the end of the semester and the end of the year so that we all are fully aware what we have to do and how to prepare.*"(T1FGSC) Also, at school D, the teacher at the individual interview highlighted that professional learning is not continuously offered when he said:

*"Um, the way we do our professional development, they have, I think, two or three days that are designated in the calendar year, where we have professional development...that might be like an hour, hour and a half long... basically, I think we have three days a year where we have professional development."* (T1fSD)

Teachers' viewpoints on the duration of professional learning intersected with what instructional supervisors unveiled; for instance, the instructional supervisor at school A explained that professional learning at his school was based on needs and results:

*"We don't overdo it. In our schools we do professional development two hours a week. We do the orientation week in the beginning of the year, which is a full week of orientation. And then we do like sessions, based on the results that we have, let's say we notice that there's something that we need to target this week, like this differentiation. let's say that's happening, then we do it, we*

*schedule it for the coming week, and we do it not pre-scheduled from the beginning of the year. And and this other than the Orientation Week, which is be scheduled with a full week of orientations and development.” (IS1fSA)*

The instructional supervisor at school B shared that professional learning was offered twice per year, saying that:

*“I am the chairperson of the team for the professional development. And what we look into is, you know, ensuring that we have professional development opportunities internally given to teachers in the school. So, like, in October, we had no in February, we had a professional development day... we have done professional developments like these twice in this year.” (IS1fSB)*

“And some teachers haven't gotten training for for a long time” was also one concern shared by one of the instructional supervisors at school C.

Similarly, at school D, the instructional supervisor referred to the beginning of the year as “well, at the beginning of the year, we have some PD sessions that are as an introduction to things that we implement in our school.” (IS1fSD) Another reflected on the duration of professional learning, saying that it happens per the academic terms:

*“Our school provides training termly. During department meetings, during PD weeks, during my department meeting for any training if it was urgent. Frankly, I need to provide it for them. I do it across a week at the end of the day. They deduct one week from the winter break, and they do training at the spring break.” (IS2fSD)*

From the above, it is apparent that the duration of professional learning at the sample schools was not continuous, as it was more periodic and disconnected.

#### **4.3.2.3 Section 3 Perceptions of how the PPL Process is Promoted**

In addition to what was promoted, there was a further inquiry about how the process of PPL was promoted at the targeted schools. Teachers’ interviews revealed that their instructional supervisors were supportive in different matters, facilitating a supportive leadership environment. Also, the data revealed the importance of a unified and clear professional learning vision.



#### 4.3.2.3.1 Theme 5 Supportive leadership Environment

Providing a supportive leadership environment was acknowledged by many participants, where leadership support took the forms of encouraging teachers, motivating them, and offering them resources. Also, showing flexibility with teachers was present in the discussion to reveal that the theme of supportive leadership in the literature as a feature of effective professional learning existed in the instructional supervisor practices in numerous ways. For example, during the focus group at school A, when asked about describing a situation where their instructional supervisors were supportive of them, one of the teachers agreed to say:

*“Yes, yes, for sure. The head of the departments are always supportive...If you would like they are supportive. Like first of all, we have orientation we have from time to time, having them in classes observing our lessons, give us feedback, this helps a lot. If they don't like the class, like they're always supportive. They give us ideas” (T4FGSA)*

Another confirmed by saying, *“they comment on certain activity on certain work” (T2FGSA)*, to be followed by another noting, *“flexible with us in the professional learning that you have in school.” (T3FGSA)* The second teacher in the group interfered by adding more details that revealed that the leaders at their school followed the open-door policy, which allowed them to get resources easily when she said:

*“Big time; Yeah. Whenever the platform's the school pays for in order to provide us with the resources. Plus, if we have anything that we we need easily we get it. It's an open-door policy, you can just go in and tell them, and of course, they do their investigation about the whatever the platform, the need is, and if they find out, yes, it's going to be beneficial...” (T2FGSA)*

At school B, one of the teachers mentioned that support took the form of *“regular visits to our class by supporting us during individual meetings with the coordinator” (T3FGSB)* and *“they are someone who want to treat us with respect and they motivate us” (T1FGSB)* another one said. While a third added that instructional supervisors *“support you in anything if you want to check your lesson objective is right or success criteria is right. They can sit and support you if you want them to come and observe your lesson; they can. They are available for you,” (T2FGSB)* while

the last one in the focus group confirmed the role of motivation, saying, *“if my instructional supervisor is not motivational, definitely I will not be motivated to work.”* (T4FGSB)

In like manner, one of the teachers at school C declared that *“when we introduce any new topic or activity and we share it with our coordinator, she is very flexible and supportive to accept and encourage us to do it and she adds more to it.”* (T1FGSC) While another stated that:

*“When we share with our coordinator any situation, she listens to it and sees our opinions and is it going to help our students or not. In addition if we have any idea toward anything she wants to see why we chose this and how it will benefit our students so we study it carefully and she will support it to the end...”* (T2FGSC)

At school D, the teachers were also confirmatory of the existence of a supportive leadership environment when one of the teachers said in the focus group interview that *“she gives us our time to finish what's needed from us. There's always no pressure on us and she always welcoming new ideas and she listens to us...”* (T1FGSD) Comparably, another teacher in the same group said *“also when it comes on a daily tasks in school, she's always supportive. She gives us advice and she's always open to new ideas that we are sharing to to her. When she knows it's going to be beneficial for the team, she's always open to further suggestions.”* (T2FGSD)

Consistent with what was shared from teachers' perceptions about the supportive leadership environment in the sample schools, instructional supervisors referred as well to such notable practices when an instructional supervisor at school A said that teachers *“are given all the support to be leaders, then, of course, everyone is accountable for the outcome at the end. And this mentality is being driven all the way from the top to the bottom of the pyramid.”* (IS2fSA)

Another linked support to flexibility was when he said, *“we believe that it's [instructional leadership] full flexible cycle that we're all influenced by each other, and it starts from the middle leaders and all the way up to the senior leadership.”* (IS1fSA)

In the same vein, another instructional supervisor from the same school explained the impact of the supportive approach on teachers when she said:

*“Because we are flexible leaders or we have the privilege, or the ability to let them avoid certain paths or hardships, or really like struggles. So, we go through them with the teachers, we do what we need to do, the way it's supposed to be done. And this sets an example to everyone. This creates the atmosphere of professionalism all over. And I believe that reflects a lot on what you're talking about in terms of PD and system the school.” (IS3fSA)*

At school B, the instructional supervisor narrated how they were supportive in providing resources, showing flexibility, and encouraging their teachers, as in:

*“And anything the teacher wants, whether it's anything to do with maths workshop, whether it's anything to do with resources, from the workshop resources, from the language and literacy sections, any upcoming events that we have, that we've organised for them...we've been very flexible, very proactive about the PD, especially trainings for the teachers...And we are always encouraged during this PD to collaborate to always like you know kind of enhance their skills and talents...”(IS3fSB)*

At school C, the instructional supervisor specified that support was to be given to teachers inside the class as *“and we keep supporting her inside the class until she meets, or she achieves her goals.”* (IS2fSC) In a similar fashion, the instructional supervisor at school D said, *“when they [instructional supervisors] are doing any PDs or when they are asking them [teachers] if they need any support. Rarely we see teachers come to vice principal or principal's office, or to the instructional supervisor asking for support or any help.”* (IS1fSD)

Furthermore, the supportive leadership environment was not only limited to offering teachers support, flexibility, resources, and motivation but extended to instructional supervisors themselves as the experience of instructional leadership offered them learning opportunities to grow as the instructional supervisor at school D revealed:

*“It [instructional leadership] gives us opportunity to grow. For instance, I've been able to move into different fields within the school within two years. So, I've led curriculum development here. And next year, I'll be moving into an instructional coordinator position. But that's because admin actually has poured into me, and they're cultivating my knowledge and skill set. And I really appreciate that.” (IS3fSD)*

Another found it also in:

*“To be honest, they [referring to principal and vice principal] are highly supportive ... sometimes we asked them to, you know, for approval and orders, because some of them are paid and in order to be attended and the most of the times they approve it and they follow up on this...” (IS1fSC)*

Thus, it is apparent that the leadership environment at the four schools was supportive and ready to offer help and money not only to teachers but also to instructional supervisors themselves.

#### **4.3.2.3.2 Theme 6 The Important Role of a Clear and Unified Vision**

The theme of the important role of a clear and unified professional learning vision was revealed mainly by instructional supervisors and partially by teachers. Based on the conducted interviews, there was a common perception that accentuated the presence and the importance of PL vision, yet it was noted that its presence relied on its clarity and unity. At school A, two instructional supervisors confirmed the existence of a vision, where the first highlighted how it all should start with leaders developing a unified vision:

*“So, if you have a vision, let's say that would enable students or empower students to become leaders, then it has to start in the cycle within the leadership to influence others and school to follow the same vision... The teacher now has a key role in the vision because they are also let's say, if the vision is informing leadership or growing leaders and their students, the teachers also have the capacity to be their own leaders and their own capacity in their department.” (IS1fSA)*

While the second instructional supervisor at the same school illustrated the importance of setting a vision and an example that can reflect what they believe in as he said:

*“One of the main goals or dreams that we have in the school is growing other leaders. And to grow another leader, you will have to set an example of how leadership is. So, one thing that we look at is teachers and our departments, even other teachers in the school that they see all of our actions, and all of our behavior should reflect all the values that we believe in.” (IS2fSA)*

At school B, the instructional supervisor shared the vital role of a clear vision when he said:

*“But this year, my school had a vision that we wanted the professional development to be taken seriously. And like, you know, we had a clear vision with like having a team and having a chairperson for the team. And, you know, that team will revolve and do everything about professional development.” (IS3fSB)*

By the same token, another instructional supervisor confirmed the existence of a clear vision and purpose beyond the professional learning practices when he said, “*so the purpose of professional learning at our school is ultimately to, to focus on developing teachers to then ultimately develop our students and help them to be successful with our students.*” (IS1fSB) He then, in a different question, mentioned the significant role that instructional supervisors had at the school in setting a vision for teachers to follow with openness when he said:

*“I think that we have leaders in the school that do a really good job of setting a vision for the teachers to then follow... Our director talks about operating in the grey like we give our teachers and our faculty a vision and a sense of what's ahead. But we also leave it open for them to then come back to us to give their ideas and thoughts and feedback as well, in anything that we're doing...”* (IS1fSB)

Also, at school D, the importance of having a vision was brought to attention when the instructional supervisor highlighted that at her school, there was not a unified vision for professional learning where each instructional supervisor had his or her own, and they were primarily different. She expressed this concern when she said:

*“Everyone has a different perspective. What do those teachers need? You know what I mean? So, me as a coordinate that I really care about the teaching and learning inside the classroom, but maybe the head of section, she cares about a bigger picture, which is the curriculum maybe unpacked from the curriculum. Maybe the administration themselves, they care about safety and well-being for the students. So, it's according to everyone's perspective so that's why, I see that everyone has his own let's say different vision for the PD sessions.”* (IS1fSD)

In stark contrast with what was highlighted in the meeting with the latter instructional supervisors, a teacher from school B underscored the absence of a clear professional learning vision at his school when he revealed:

*“And like, there's not a whole lot of I don't know, it's not clear to us, like what direction it's going in oftentimes, or kind of like how we should be changing... But definitely, it helps if there's like, a clear vision, where it's like, no, this is what we want to see, we're going to be observing about it.”* (T1fSB)

From the above examples, it is evident in everyone's perceptions of the presence and the importance of a PL vision, yet there was also a need for a clear and unified one that should not be overlooked.

#### **4.3.2.4 Section 4 Perceptions on the Impact of PPL on Teachers' Performance**

The interviews consist of questions about PPL's impact on teachers' performance to answer the second research question in the study. Even though the research question targets the instructional supervisors' perceptions, it was complementary to include whatever teachers revealed in this sense to clarify the whole picture. Based on the analyzed data, one theme surfaced to explain how teachers' practices improved using the PPL.

##### **4.3.2.4.1 Theme 1 Improving Teachers' Practices**

Instructional improvements, raising awareness, and gaining leadership skills and insightful knowledge were among the most gains teachers and instructional supervisors highlighted in their interviews when asked about PPL's impact on teachers' performance.

At school A, instructional supervisors confirmed the impact of professional learning on teachers' performance by enhancing their leadership capacities, seeing changes in performance, and seeing progress and engagement between teachers and students. The following statement from the first instructional supervisor supports this finding as he said *"the teachers also have the capacity to be their own leaders and their own capacity in their department."* (IS1fSA) While the other one said, *"they [instructional supervisors] tried it with teachers in the PD, and then they tried it again, in class, we went to observe again, we saw change, so that everything."* (IS2fSA) The third instructional supervisor revealed that the impact of professional learning on teachers' performance could be noted in students' improvements as she said, *"when I see students improving in class, there is progress. I can see progress when I see engagement between the students and the teachers."*

*When I observe them like we can really, because we do observations all the time... Then she continued referring to the positive interaction and relationship between the teacher and student, saying, “when I see the interaction, it's like the relationship is so friendly between the teacher and the student...” (IS3fSA) In a similar degree, teachers during the focus group at school A shared some of the benefits that professional learning had on their performances as the first teacher who noted that “you're learning something new, even though if you're trying for the first time, but you're adding something to whatever you know, like you're enriching your own in whatever information you have [and] knowledge you have.” (T1FGSA)*

*In addition to gaining knowledge, another teacher added that professional learning enhanced her skills “for example, maybe before couple of years we will not used to use a lot of technology like, yeah, now we have a lot of way for to change the way we teach this.... and we have not only depended on the PowerPoints or even the same lesson, we include a lot of activity that enhance and encourage the student to learn more, and to like what they are doing.” (T2FGSA) and confirmed by the last one saying “we all improved. Yes.” (T4FGSA) Even in the semi-structured interview with the teacher, who explained that “we're learning new things, updated things based on research. So, it's basically making our work better and more professional, and it's it's making us like better. I'm not a technology person, so these workshops really helped me to learn. They [instructional supervisors] made us use the apps and try them.” (T1fSA)*

*At school B, the findings were similar to what was recorded by instructional supervisors during the interviews. For instance, the first one focused on developing teachers and students when he said, “yeah, I think it plays a huge role... developing teachers then ultimately develop our students and help them to be successful with our students.” (IS1fSB) In contrast, the second instructional supervisor was unique in perceiving the impact of PPL on teachers’ performance and knowledge*

being enhanced as a result of informal learning occasions that he or she might encounter on a daily basis when she said:

*“Yes, definitely, because uh, when we speak about, you know, professional development you speak about a regular a specific time where the teacher will get specific amount of information in order to enhance his knowledge. However, knowledge can be enhanced by daily encounters by daily sharing experiences by you know which we call it in formal education or informal, uh, situational. Learning, so when I mentioned the strategies I used in the class, just informally to my teacher, when we are drinking coffee that is also an incident of learning. When we shared our challenges and how we when we created them. It’s also kind of, you know, adding to my knowledge, and this is also a kind of indirect way of enhancing knowledge, which is also part of the development of the teacher himself. So yes, I agree. You know, encountering teachers meeting with them formally informally can really lead to you know, improving of awareness and knowledge...” (IS2fSB)*

The third instructional supervisor referred to the classroom skills in an attempt to explain how professional learning impacts teachers’ classroom performance; she said, *“you’re not teaching her skills for her personal life, you’re not teaching her skills that she will apply in her home, you’re teaching her skills for the classroom. So, I personally love when facilitators give PD sessions in a way that they are the teacher and we are the students, so that way we can, like, replicate that thing in the classroom.” (IS3fSB)*

Likewise, teachers in the focus group confirmed that professional learning impacted their practices as one teacher said:

*“Yeah it it it enhanced my performance in a great way because they [instructional supervisors] keep following up with us. For example, first term I used to have lack of the time management so that coordinator used to pop always into my class she supported me with a timer to control my activities. Second observation, it was one of my strength, the time management.” (T1FGSB)*

Another declaration about how professional learning improved teachers’ classroom performance came from another teacher who said: *“For me yes, it improved my performance inside the class. I usually apply what I see works in my class. So, regularly we have visits as follow up, but still professional learning only improves my performance once I’m convinced that this practice is essential to my students.” (T2FGSB)* Similarly, another said, *“to me, my performance has changed because the professional learning becomes more engaging to me with the useful hands-on that we*



receive. Also, I felt that during the online learning, professional development became more effective.” (T3FGSB) whereas the last one in the group gave an example saying:

*“I can give you an example, during the pandemic, I become more in need to a help for strategies to engage my students in blended learning and once it was available to us by our instructional supervisor, I became more interested because I needed that learning. So yeah, it impacted my instructions.”* (T4FGSB)

Also, the teacher in the individual interview noticed that professional learning impacted his performance to get more different ideas as he said: *“ um, well, I mean, I don't know like my PD trainings have led to a lot of different ideas, like different things I implemented in the classroom. I'm trying to move towards to a more concept-based education, you can see like the concept wall behind me trying to be more like inquiry-based stuff and having kids like ask and answered questions...”* (T1fSB)

The findings at school C were communicated from a similar perspective where most of the participants from instructional supervisors referred to classroom practices, student-teacher relationships, meetings students' needs, raising awareness, and improving the skill set that the teachers used as examples of how the provided professional learning impacted teachers' performance.

To start with, the first instructional supervisor focused on classroom performance, saying, *“the academic level inside the classroom. Sometimes the relationships with the other students. So all of these things.”* (IS1fSC) Further to this, the second instructional supervisor confirmed that saying, *“yes, definitely. When you observe teacher first time, it's completely different. When you see her third or fourth time because of the continuous oral consistency of meeting with the teachers planning with the support for the teacher. So yes. We can see the improvement.”* (IS2fSC) The third spoke about awareness, saying that *“you will have the awareness what to improve and what to change in your performance.”* (IS3fSC)

This perception was also supported by teachers who expressed that professional learning was rewarding in many aspects like it *“gave me more awareness about what I'm doing... It could change my perspective inside the class.”* (T2FGSC) While answer said that *“It enhances my performance and changes the way I look at the students. It actually permits me to look carefully at the needs of my students.”* (T4FGSC) Along the same line, another teacher inferred saying:

*“Yes, as I said, over the period of time, definitely there is some impact where I am trying to you know, implement certain things, which I got from the professional development, but yes, there is something which definitely helped me, but majority of it, I had to depend on my skill set. And these these are like, you know, a further, you know, added advantage for me to carry on. So, that's what I would say. So, yeah... to some extent, I definitely benefited.”* (T1fSC)

School D was similar to what was concluded earlier as instructional supervisors focused on the impact of the provided professional learning on teachers' performance from different angles like teacher learning and lesson planning, students' improvement, and developing practices. For example, the first instructional supervisor said:

*“That will impact.let's say, a good impact on the teachers that would really affect on their teaching and learning.. of course, it would really impact the teaching and learning right plus all other things that comes from the coordinator and goes down to the teacher. Right, so that would really impact.”* (IS1fSD)

Another said, *“first from the impact inside the class, the students... impact even teachers' performance. Uh, you can see that this was really effective.* She continued that impacted their lesson planning, saying, *“Ah well it really improves the teachers' performance because in every meeting. Usually, before any meeting I have stuff planning. I check all the teachers planning before I do my meeting with them.* (IS2fSD) While the third approved, saying:

*“Yes, very much. So, I see that it's changing a lot currently, because we are developing our curriculum. So it's like constantly changing and when we're meeting and we're talking about some of the things that we're practicing from professional developments, we can kind of see it, we see it within our students.... We're seeing that in practice.”* (IS3fSD)

School D teachers were divided in their perceptions of the provided professional learning at their school and its impact on their performance. Not all of them were positive in their perceptions. For instance, one of the teachers said, *“for me, as a special needs teacher. I think I did not really benefit from the PDs I took unless it was a new strategy for teaching.”* (T2FGSD) Another was almost reluctant to say that professional learning had benefited her performance, saying, *“well, some PD decisions really influenced my learning, my teaching, and the learning process inside my classroom. But to be honest, other PD sessions, they didn't have any influence neither any impact neither on my teaching or my learning, or my students' learning.”* (T1FGSD)

Finally, the last teacher in the individual interview was pessimistic in his perception of the impact of professional learning on his performance, saying that: *“some are some of the sessions are better than others. But you know, if you were to take a a poll at the end of the day, and a lot of teachers are probably the majority who say it was kind of a waste of time.”* (T1fSD)

To sum up, instructional supervisors and teachers were generally optimistic about the impact of the provided professional learning on teachers' performance, with a few voices that saw little impact or even benefit on what was provided. In the next section, the researcher highlighted what contextual factors might enable the success of the PPL program and what might hinder it.

#### **4.3.2.5 Section 5 School Factors**

The fourth research question for this study examines teachers' and instructional supervisors' perceptions about the possible contextual factors that influence the effectiveness of their PPL experience, or, in other words, what school conditions can enable or hinder the process of PPL. Different questions from the semi-structured interviews and the focus group interviews asked participants about their perceptions; for instance, in the semi-structured interviews, participants were asked the third question the following: “To what degree do you believe that the school's

conditions and traits enable the success of the PPL program? How can that affect your response to the PPL program? What are some of the factors that can hinder the process of professional learning?” Similarly, teachers were asked questions in the focus group interviews, such as: “In your opinion, what factors lead to the success of the personalized professional learning model at the school? Another was, “tell me about something that might impede your professional growth/progress at any point in the PPL process.”

The collected data from these questions yielded a list of factors that can be enlisted under two themes and six subthemes. The first theme is the promotive school factors, which include contextual conditions related to leadership support and sufficient funding and resources. The second theme in this section dealt with what impedes teachers’ professional learning, which was entitled hindering school factors. The latter theme includes subthemes related to the absence or inadequacy of bottom-up professional learning strategies, lack of leadership guidance and follow-through, workload, and lack or wrong timing.

#### **4.3.2.5.1 Theme 1 Promotive School Factors**

The participants’ voices were repeated harmoniously in the respective schools revealing a few promotive conditions that enabled teachers to professionally learn and grow, among which was the leadership support in instructional supervisors’ availability and proper communication with teachers. In addition, it was found that having sufficient funding and resources played a significant role in the success of the PPL program. These two subthemes were synthesized from teachers’ and instructional supervisors’ perceptions of the possible contextual factors that enhanced the promotion of the PPL.

##### **a. Leadership Support**

Participants viewed leadership support resembling leaders' availability, encouragement, and proper communication as among the significant promotive school factors that enhanced PPL at the sample schools.

At school A and during the focus group interview, teachers expressed how leadership support can be an enabling condition through proper communication between teachers and instructional supervisors to develop professionally as is shown in the following quotes: "*communication, proper communication and cooperation, they all need to be there...*"(T1FGSA) then another confirmed saying "*nothing works without communication.*" (T2FGSA) Also, in the individual interview with the teacher at the same school, she referred to offering leadership support based on understanding teachers' needs and meeting them, as she said:

*"OK, so for a successful professional learning it is to understand every individual, and this would like to know the teachers and like how to provide them with professional learning that meets their their needs. Because since I'm a special needs teacher I'm I'm really interested in this area where like you need to understand every person and like what things that you need to work on improving or like what things that this person is good at..."* (T1fSA)

Along the same line of thoughts, the instructional supervisor shared his personal experience in leadership and the needed type of leadership necessary to promote professional learning when he said:

*"I'm going to talk about my experience here at the school for the years I've been here, seven years I've been here recently, and the new structure that I'm having for the past five years now is how Leadership isn't centered anymore. It's more of shared responsibility among all the team leaders. And the way this makes people feel empowered. They are the people and leaders of the school are responsible for their departments for their domains, for all the tasks they're doing. And they're given all the support to be leaders, then, of course, everyone is accountable for the outcome at the end."* (T2fSA)

Not far from what was previously revealed, at school B, the first teacher referred to leadership support regarding leaders' availability and accessible communication with them. She expressed this idea when she said: "*look in our school we have this policy open-door policy, so anytime you need anyone, any instructional supervisor, any coordinator, you will find them available for you.*"

(T1FGSB) Whereas the second one referred to leadership support as a school condition when the instructional supervisor is available and ready to help her in her daily teaching tasks as she said, *“to support you in anything if you want to check your lesson objective is right or success criteria is right, they can sit and support you.. if you want them to come and observe your lesson, they can. They are available for you.”* (T2FGSB) The teacher in the individual interview emphasized leadership support as enabling factor when he stated:

*“Okay, yeah. I think. Yeah, I mean, I think that, I mean, just being in the classroom gives us opportunities to like, develop and change and improve our instruction... But I guess the leadership there was sort of like, you know, we're gonna kind of we you make the road by walking, we're going to kind of figure it out as we go and keep on like improving, which is certainly like one way of doing it.”* (T1fSB)

Instructional supervisors referred to placing professional learning within a calendar and creating a vision as two supportive initiatives to assist teachers and enable the program's success. He said:

*“In this particular school, we have a very dynamic team and a very supportive and strong leadership team... I think our intentional calendaring that we're doing now, which we haven't done before, is really helping. So now that we have a stronger vision of the school, we're actually building a better calendar to support these initiatives. I would say this year's calendar is probably the strongest it's ever been. But next year is will be even better, because we've literally built in time for these things this half day here this half day here, this full day here. And we hadn't done that before with such purposefulness. So yeah, I think that's an area where we're improving.”* (IS1fSB)

The second instructional supervisor stated that leadership support should exist:

*“Without really putting restriction on the teacher without really feeling that I am really being monitored or surveyed in order to do that. So, if you give the opportunities under chances in a friendly way for teachers to come and attend classes to come and give classes to, you know, to learn from each other. Then definitely that will be more effective.”* (IS2fSB)

At school C, it was similarly mentioned by one of the teachers in the focus group that *“the factor that leads to the success of PD is the resources, motivation, the support of leadership team and the cooperation of other departments as well.”* (T1FGSC) Another interrupted to add that lack of leadership support and encouragement could be limiting for teachers as in:

*“We always feel that the leadership team is supporting and encouraging us... everything in school can hinder the professional growth such as lack of leadership support and encouragement, negative*

*vibes, low salary as well is this amount of money worth my tiredness, is there any support to our ideas and appreciation to all the efforts exerted on students and finally the workload.” (T2FGSC)*

In a discussion with the third instructional supervisor, leadership support was brought to the researcher’s attention in two ways. At first, she was concerned about the lack of staffing when it comes to the leadership team at her school, as she said:

*“We have a leadership team and then we have instructional leadership, which is a different role that has been recently a couple of years ago...One thing I think about, regarding leadership in general is I would say that we have very limited amount of people doing a very vast job, I feel that there should be much more people in admin...”(IS3fSC)*

And in the other, she referred to ensuring that her teachers feel happy about the success of professional learning plans at her school, stating, “if you don't keep your teachers happy, and there will be a lot of labor turnover, then of course, we the plans will have a hit.” (IS3fSC)

At school D, the teacher acknowledged that leadership support and encouragement could be an essential enabling factor for professional learning, as she explained:

*“One of the factors that lead to the success of personalized professional learning model in school is like in our department; we have teamwork. We always have teamwork and cooperation. Yeah, and learning from other teachers' experiences. By observing them and school encouragement.” (T1FGSD)*

This was parallel to what was reflected by another instructional supervisor who reported that her availability and close presence with teachers had supported them and made them feel happy:

*“Uh, to support professional learning as well, so if any coordinator or if instructional supervisor academic advisor wants to introduce any new thing or any new topic to support teaching and learning, they do it during this... I feel that they are happy because always can see me there inside their classes or supporting them.” (IS2fSD)*

In the last example, the third instructional supervisor returned the reason behind her professional success for leadership support and narrated a personal experience from her professional progress inside the school as she said:

*“I actually love it [leadership support at her school], because it gives us opportunity to grow. For instance, I've been able to move into different fields within the school within two years. So, I've led curriculum development here. And next year, I'll be moving into an instructional coordinator*

*position. But that's because admin actually has poured into me, and they're cultivating my knowledge and skill set. And I really appreciate that.” (IS3fSD)*

In a nutshell, it was perceived that leadership support demonstrated by leaders’ availability, encouragement, and proper communication was among the most critical enabling factor that ensured the success of the provided professional learning at the sample school.

b. Sufficient Funding and Resources

Another enabling theme inferred from the data was providing sufficient funding and resources from physical and online resources. The participants considered these essentials critical to successfully implementing the teachers’ professional learning program. In the literature, finding funding and offering sufficient resources were considered among the effective features of professional learning covered in the literature chapter.

At school A, this factor was reflected when one of the teachers in the focus group turned their attention toward how the school was doing an excellent job in funding resources, especially the online ones when she noted:

*“Big-time; Yeah. Whenever the platform's the school pays for in order to provide us with the resources, resources...we don't mostly depend on books. We rather go online, we get resources, extra resources, which in return not only helps our kids but also us as teachers like new techniques, new methodologies, at times, strategies.” (T2FGSA)*

Following what she said, the instructional supervisor confirmed that the absence or lack of funding could be limiting for professional learning, primarily if the school was relying on external providers, as he detailed:

*“We have we do have the funding for this. The school ownership and board they have come on board on this, they are willing to fund us in terms of CPD (Continous Professional Development) of whatever we ask for... Yes, yes, it does, of course, I think this can be it can enable to it can be a limiting. So, if you don't have the timing or funding, or none, it can be limiting... So if you have the funding to to, to budget, let's say, CPDs are engaging for teachers that are might be relatively more expensive than others, but with a better value, if you do have the funding for this, then you know*



*that the teachers are going to have a better chance and development than another program.”*  
(IS1fSA)

At school B, the instructional supervisor believed that funding could be limiting for human resources as qualified teachers would no longer join the school, and eventually, this would impede the success of professional learning at the school, as he defended by saying:

*“That has been a major push for us this year, the funding is there. But these are all linked. These, I'm really glad you asked this, but it's making me think a lot too. For many years, we've had the funding to have very successful professional development. What we didn't have was a culture of teachers, that, to be honest, this sounds harsh, but we have higher quality teachers now, because of our better recruiting practices and better school, just we've just improved as an organization, we have better teachers than we used to just to be blunt. So, we have better teachers and faculty here.”* (IS1fSB)

The second instructional supervisor was very verbose when speaking about funding and resources, saying that was a crucial factor for successful professional learning; she detailed:

*“Resources at some point you need the experience of a you know outside speaker, let me say and for that you need to have a budget. For external speakers, speakers from. Well, uh, you know, recognized centers or universities and you know at some point you might invite someone from abroad. You need to have accommodation for them and all these. They need money. You know many times we we just, you know. Uh, writing people who were offering free service, but the quality was not really as we expect. So, at some point, these sources are important. Also, having you know something as simple as projector speaker, mic.”* (IS2fSB)

Similarly, the third instructional supervisor at the same school revealed how funding could be necessary to sustain professional learning, mainly if depending on external providers to develop teachers when she shared that:

*“We as a school we also keep aside a huge budget for teacher development, professional development. So, throughout the year, we have new numerous teachers going for trainings either outside of UAE or inside UAE. So yeah, I think our instructional leadership definitely takes it very seriously.”* (IS3fSB)

At school C, instructional supervisors shared their concerns about this important factor, and they agreed that funding and offering resources for professional learning were considered a challenge, as the first said:

*“Yeah, this is a challenge to be honest because we attend many PDS, and they have a lot of lovely ideas to be implemented. But, uh, we face the difficulties with time management with funding with, you know, sometimes the initiative from the team...In addition to that, some of the workshops which are really needed are very or high expensive, and this is also a challenge, and it's not easy to be afforded by the school or by the teachers themselves. (IS1fSC)*

While the other revealed the procedures needed to provide the teachers with professional learning, including the cost of the offerings, she said: *“Well, in our school we have really good funding and providing resources for professional development. A school principal asks departments to write to or to yeah to write number of PDs with the funding or will cost for for each PD.” (IS2fSC)*. Also, the last one shared that the essential question that they usually faced with their leaders was *“how much money is being spent, how many people are behind it?”* then she justified that because school funders had concerns with teachers’ turnover and passive attitude:

*“Because the teachers don't mind that we did like, Okay, we're here for some time, and then we're gonna go, so there's no work behind it. And even when there'll be given something, it's more like, you know, oh, this won't apply to me. So why would I? Why should I concentrate? Why should I contribute? And all that?” (IS3fSC)*

At school D, the instructional supervisor reflected on what was said at school C, explaining why teachers preferred schools with funding or those that relied on external professional learning providers. This was reported as a concern for the school, and any shortage in funding might impede its professional learning progress, which was shared in the quotation below:

*“Teachers do really believe and have a great interest in PD sessions that are external right that comes from like let's say professional companies rather than the PDs. That come from the school, because they believe at the end they might get a certificate right rather than the ones that they get from the school. So this is one thing? So maybe if that school has good funding so that won't limit the schools. They can't pay whatever 10,000 50,000 per session to bring someone from outside the school to give to delivering the PD session rather than someone from the inside the school what about this time? So this is when it comes to funding.” (IS1fSD)*

The other two instructional supervisors confirmed that funding was there once external professional learning providers were needed, as indicated in the following:

*“As far as professional development outside of the school, if we find a session, and we have the money for because we each get professional development money, we're able to go to different things that we feel is going to strengthen our practices individually.” (IS3fSD) Or in what the other said, “we have funding for professional development.” (IS2fSD)*

In brief, finding funding and getting sufficient resources were two practical measures for effective professional learning. The data showed that these two essential factors played an enabling role in the program's success.

#### **4.3.2.5.2 Theme 2 Hindering School Factors**

The researcher synthesized data collected from the interviewees to find that a few hindering school factors emerged, revealing that teachers were professionally impeded from learning and growing when there was a lack of leadership guidance. In addition, it was found that the absence or inadequacy of bottom-up professional learning strategies can substantially impede teachers' professional learning. Also, it was inferred that workload and lack or wrong timing of professional learning significantly limit the PPL program's success. The latter three subthemes were combined from teachers' and instructional supervisors' perceptions to form the possible contextual factors that impede the promotion of the PPL.

##### **a. Absence or Inadequacy of Bottom-up PL Strategies**

The bottom-up professional learning strategies were discussed in the literature with the set of strategies considered more effective than the traditional top-down professional learning offerings as they meet the effective professional learning features defined and agreed upon among researchers. The bottom-up professional learning strategies can empower teachers, giving them a voice and choice in professional learning where they can have more freedom and ownership over what they choose based on their needs and interests. This focused nature of such strategies made them more personalized and relevant as the practices are no longer generalized without

customization and specification of the type of adult learner as in the old traditional random practices of professional learning.

The data collected from the interviews with teachers and instructional supervisors showed that the absence of bottom-up strategies in professional learning was a hindering factor among the participants who yearned for more purposeful practices that looked after their interests and needs. At school A, teachers were confirming the absence of bottom-up strategies, as seen in the examples below. For instance, during the focus group interview, one of the teachers denied the existence of any personalized professional learning plans as the offerings fit in the traditional whole school workshop as she said, *“it's for the whole group..No no nothing. For the PDs! no never always did it in group all the teachers at the same time.”* (T2FGSA) The teacher was interrupted by another to add that *“they could be individual when they get the feedback from the teacher from the hand when they observe them.”* (T4FGSA), and she received an interrupting response from the same latter teacher saying, *“this is not a PD I think it could be just talking and discussing some points but professional development for each No, no.”* (T2FGSA) Aside from the rest, one teacher in the group had a different experience with one of the strategies, the bottom-up; however, she ended her conversation by confirming that it was an occasional practice that did not happen regularly at her school:

*“I just want to add something. Because it is a plus and you need to know it like two years or two, three years ago, before the whole Corona and the lockdown of the school. We were asked as departments to create individual workshops. And I don't think you guys know what I'm talking to you. And we did that. Like we were five in the English Department. We had five workshops, strategies, and techniques that we individually use. Yeah, we did workshops, we even did activities for our colleagues, they worked on the activities. We practiced activities together and we... Oh, mine was for example a kangen structure...We used to do those but yeah, we don't do them regularly. Definitely. Honestly.”* (T1FGSA)

Also, peer coaching was brought into the conversation when one of the participants mentioned that the teachers practice peer coaching, but another teacher interfered with speaking thoroughly about the importance of this missing bottom-up strategy, saying:

*“Peer coaching! This year, we didn't do it. We, did it? We didn't do the peer coaching. But usually when we do a peer coaching, it's very helpful. Because if I attend any other class, maybe for sure, I will learn. At least peer observation, maybe at least one point that maybe I didn't apply it, or I think about it, and I see for example, the other teacher, she is doing it in a better way, in a different way... that's why peer coaching helps a lot in improving our way.” (T1FGSA)*

In the individual teacher interview, when asked about what changes she would like to see in professional learning, she highlighted the absence of bottom-up professional learning opportunities through the importance of meeting teachers' interests and needs when she said:

*“Professional learning that meets their needs. Because since I'm a special needs teacher I'm really interested in this area where like you need to understand every person and like what are the things that you need to work on improving or like. What are the things that this person is good at? We can even make better.” (T1fSA)*

After narrating the benefits of mentoring and peer coaching and the skills teachers might get out of continuous practicing for such practices, the second instructional supervisor in the interview was a bit reluctant about the ability to practice such strategies due to the time limit and other demands. He stated:

*“Yeah, talking about mentoring, and coaching is something really important. There are skills that teachers can gain from these sessions... So, this, this kind of coaching and training that can be continuous is really helpful...Now, on the other side, its effectiveness and time management will also be an issue. I'm talking big, trying to be very practical here, especially with schools like ours that has a system that is really heavy on teachers and students very demanding.” (IS2fSA)*

Nevertheless, he ended his conversation with more helpful details about the vital role of shifting traditional professional learning into having more job-embedded offerings as a goal for all schools to better benefit the teacher learning experience, saying:

*“So, I really need to think about how job-embedded PD that is on a daily basis, how can it fit into what we do every day. Now, I, ultimately, I think that should be the goal of every school, to have PD something embedded, but the path into that is going to take time. So, I really think that this*

*should be moving slowly into the process, until teachers and staff get used to it. But it will definitely cause a greater change in the lives of teachers, rather than a PD that's coming in once every two months, in terms of a workshop or training or something like that.” (IS2fSA)*

Also, another instructional supervisor from the same school emphasized why he did not have such a continuous professional learning culture at his school because he estimated that such ongoing practices might lead to exhaustion among teachers and adverse effects. He stated that openly saying:

*“So, we don't have this culture of okay, every week you have to do two hours of professional development. No, we don't do it like this. We think that this is too much on staff who are really exhausted with their with their weekly like tasks. If we believe that if you're in school, and it is forced to have a continuous CPD on weekly basis, then it's also going to have a negative effect. Because in our human nature, if you're forced to do something, then you're actually not going to do it properly.” (IS1fSA)*

At school B, the teacher at the individual meeting saw that the lack of specific professional learning impeded her progress as she explained: *“I think that having a little bit more kind of specific training would have been helpful that some of the trainings that we had also like, weren't really very helpful.” (T1fSB)*

From a similar perspective, one of the instructional supervisors at the same school clarified the unhelpful disconnected practices of professional learning and highlighted the importance of ongoing daily practices as peer coaching that can transcend beyond the traditional time frame that was usually conditioned by several assigned workshop sessions:

*“If the school wants to show that they're creating a professional development culture, it has to take many aspects and many nature. One of them is attending formally. Workshops getting a diploma or getting a record that I participated here and there, but also that should be. Ongoing and what I mean by ongoing. It should be an everyday something that I don't have to register, and formality and fill million papers. Something that I knocked the door come in and get you know the information that I need or get them to learn. The skill that I need a, you know, uh, without really feeling lots of papers without feeling really like. You know, I'm so uh observed by the management or that's gonna uh I have just to get row scores of how many hours I I attended these workshops because at some point. We don't want a show we want. Uh, we won't really. People willingly attending classes or attending, you know sessions because they want to improve their knowledge. But what I recommend*

*is that that teacher has to show how did he implement, what did he learn? Either by visiting and showing evidence that he practiced it, or he should show otherwise that I practice it, but it didn't. Work, but he has to show that what happened to the knowledge that he gained from that session, because that that will be an active in all teachers because he at some point criticized or critically thought of what I mean the session that he was. Given you know. Or how did he adopt it? Or how did He adapt it to his classes. And this is how we learn.” (IS2fSB)*

Besides, the third instructional supervisor at the school mentioned the absence of bottom-up professional learning in the form of a lack of knowledge about the learners' entry points and the absence of differentiation among learners. It is worth mentioning that she referred to the professional learning provider as a facilitator, and this was an excellent shift in the conversation as the role of the facilitator, as it is clear to her, was not only delivering a presentation as in:

*“What PDs have failed for me is when the facilitator has not taken into account the variety of teachers who are attending his or her session, I feel like every person who's giving, who's facilitating a session must take into account the entry points, or as I can see the prior knowledge of the teacher coming for his or her session, if you don't take that into account. And if you teach everyone the same thing, I think that can break your session because I can if I am in a group, if I'm in a session that is being attended by a teacher who's only one year old, and I'm eight years old, obviously, her level of expertise and my level of expertise is going to differ. And if the facilitator does not differentiate that for us, I think that can break a session because I'm not going to take anything away from it.” (IS3fSB)*

At school C, the teachers in the focus group interview had similar perceptions on what had impeded their professional learning as one of the teachers saw that evaluating professional teacher learning should not be restricted to what takes place in the session but should be more practical and depending on more tangible practices said: *“Assessment of professional learning should not be limited to the session only. Well, it should depend on more tangible assessment for learning. This way the training will be more practical.” (T2FGSC)* Another said that relevancy, purposefulness, and more focus on professional learning would enhance her practices *“if the PD was only for the inclusion department, then it will enhance my performance and it will enhance my practices towards my students.” (T1FGSC)* Another stated that *“for example each subject needs specialists*

*to their fields for example when we have PD on differentiation, and they ask the special need teachers to attend! it does not make any sense for them! Since they teach one-to-one.” (T3FGSC)*

The instructional supervisor shared that lack of peer coaching hindered professional learning when she spoke about giving teachers opportunities to attend to other teachers, saying:

*“So, you have to have that opportunity for teachers to be in each other's classroom. So, they can recognize how a good teacher you are, because you must have heard it from another teacher that she's very good. But unless we come in the classroom, we see herself, then they're like, alright, you know what, she's really good. Now what she's gonna say, I'm going to take seriously.” (IS3fSC)*

At school D, a teacher reflected on his practices back in the USA. He said that the offerings here lacked the opportunities that he used to have there as the existing professional learning here was more formal, pointing to interest-driven professional learning as an example to define its effectiveness:

*“My experience from the United States, the professional development is not very effective Here... We it's, it's, it seems to me, it's kind of slapped together. At the last minute, usually, when we would do professional development, the US would have industry experts and professionals teaching the class, it's like find a teacher teach a class about something they're interested in. So, the quality of professional development is not as strong as it is in the United States.” (T1fSD)*

Overall, it was clear that interviewees at school A were in need and looking forward to bottom-up opportunities that were considered necessary yet challenging to implement due to time and workload pressure. School B participants were way more supportive in their perception of the bottom-up PL practices and considered the existing traditional top-down PL unhelpful disconnected practices. School C participants shared similar perceptions and illustrated how relevant and purposeful practices were more rewarding in professional learning. Similarly, school D educators believed informal professional learning was as effective as formal professional learning strategies and looked forward to seeing it in practice.



b. Lack of Leadership Guidance

The second data-driven subtheme from the interviews was the lack of leadership guidance. This subtheme emerged as a critical hindrance in promoting PPL at the given schools. The need for leadership guidance was present in the responses and took different forms: Internal leadership guidance, where follow-through was reported missing or limited, and external leadership guidance, which resembled the absence of a unified framework to be used in the schools. Internally, this lack of leadership guidance was expressed by different participants during the interviews as a hindering factor. For instance, during the individual interview with the school B teacher, he said that he lacked accurate leadership guidance:

*“Um, it's like, it's not great. Yeah, not not great. I can kind of elaborate that on that. Like, I just, I feel like there isn't a whole lot of a whole lot of guidance. And yeah, that like, I mean, for us in social studies, anyway, there hasn't been, we haven't like really tried to do like a program where we all sort of work together to have kind of like a longer-term goal within the department...”*  
(T1fSB)

Then he continued to elaborate on the lack of follow-through as another part of the lack of leadership guidance and direction. He detailed:

*“Yeah, I mean, I think that like a big one is I mean, it's follow-through, right, like, on the things that we had some follow-through on like, where we are required to change our standards and use like standards-based learning like, Yeah, I mean, we all we all made those changes. But with some of the other ones, where it's like, we just take these little, one afternoon, when a one-hour 40-minute courses, there's no, there's no follow-through, right. So, it's like, okay, I can implement those ideas in my classroom. Sure, I can, if I want, but there's no one no one's ever going to check and see, like, was this was this effective? Was this something that you did?... But definitely, it helps if there's like, a clear vision, where it's like, no, this is what we want to see, we're going to be observing about it. ...So, I'd say yeah, like, follow-through that includes both support in making a change and accountability to you know, like, how much are you making this change?”* (T1fSB)

The lack of leadership guidance was mirrored at school C as well when a teacher at the individual interview as well highlighted how the lack of leadership follow-up can be demotivating to implement the providing; he expounded on this by saying:

*“Another is follow up of whatever the professional development is the follow-up...Yeah. So, for instance, let us say, I have professional development on how to, you know, implement one of the technology to get, so, yes, we been trained for that one hour, but, you know, but there are many details to it. So, now, okay, from there, and, okay, they have delivered it, what, from my end, you know, I'm not feeling so confident to implement it, because, you know, I got at that point, but I really don't get the full subject knowledge of it. So I would suggest that, you know, probably there should be a follow-up, you know, with the teacher, and maybe personally be present, or, you know, and guide, probably for one class and, you know, this is how it wants to, you know, yes, the teachers do leave a note that if you have any concerns, any questions, please, you know, reach reach us, that's really nice. But, you know, that really don't motivate us, you know, what takes us me, an initiative witness or, Okay, shall I really try for it? And, you know, just send the questions and or, rather, you know, if they were to take an initiative, that's okay, so and so classically, you know, I'm becoming and checking and see how you're going to implement this, and I'm going to, you know, walk through it something like that, that that thing would give a more better impact and maybe an impulse to carry forward.” (T1fSC)*

At school D, the teacher denied having clear leadership guidance and follow-up as he replied to the question by *“no, nothing, nothing like that. There's been no follow up. It's just no. Yes, no.”* (T1fSD)

In addition to the need for follow-through, the lack of leadership guidance also surfaced in the school's data as a hindering factor in the form of a missing unified framework to be used in professional learning. This critical finding was highlighted by two instructional supervisors when asked if Abu Dhabi should adopt and shift to using the PPL model; they replied:

*“ADEK should have criteria for formal and informal. You know, opportunities to get the professional development. Either the teacher has to do it on his own by seeking outside sources, or smartly thinking of how can I use in-house training using the tenants that I have recycle of manpower in order to get you know. Uh, uh, a better information and better knowledge in some areas.” (IS2fSB)*

*“Yes, definitely, because we can at least we have something one model across UAE, it will make our life easier because if you go or move or shift from school to another each school creating her own. Plus, so you feel that there is no consistency in the the city, so I prefer if they can have a unified framework and we all work on it.” (IS2fSC)*

*“A framework or any model we use it. It would be much better than any each one of us creating her own instructions or her own framework to apply it or to use it with her teacher.” (IS2fSD)*

All in all, it was clear that the shortage in leadership guidance, whether in the form of limited follow-through or the absence of a unified framework that instructional supervisors could rely on in professional learning, was among the hindering factors of PPL.

c. Workload and Lack or Wrong Timing

Teachers and instructional supervisors reported that their workload during the school day impeded their ability to have a successful professional learning experience. Also, it was reported that the lack or wrong timing of such offerings hindered their ability to focus on the offerings. For example, one of the teachers in the focus group at school A narrated her experience with one of the professional learning offerings by ADEK during the online learning, and the timing of such offerings was restricting for teachers to develop their learning fully:

*“Even me, we had ADEK webinars they sent us for learning support. And they have the webinar at three o'clock. Exactly. So, it does have time to literally driving and device just to the side. The time was wrong, it was decided after school. I mean, did they think that we have not worked we're exhausted and mothers, no it was terrible! The timing was terrible for listening! Because I want to drive. So, timing I think is very important. Taking into consideration that teachers are teaching, we have to wall say 7am till three. Yeah, so it's I think it's too much. I used to have it in another school. We stay sometimes before 4.30. It's too much.” (T4FGSA)*

Consistent with what was shared during the focus group interview, the instructional supervisor at the same school shared a similar concern about how teachers' workload and timing can be limiting when he acknowledged saying: *“No, we don't do it like this. We think that this is too much on staff who are really exhausted with their with their weekly like tasks. And once he was asked if the timing could enable the success of the PPL program, he answered with, “yes, yes, it does. Of course, I think this is can it can be it can enable to it can be a limiting judgment on this if you don't have the timing.” (IS1fSA)*

This was reflected as well in what he shared with another instructional supervisor when he questioned hesitantly if the school could offer teachers professional learning *“especially with*

*schools like ours that has a system that is really heavy on teachers and students very demanding.”*  
(IS2fSA)

The workload and timing were repeated at school B as possible barriers to the teachers when one of the teachers referred to them when asked about something that had impeded her progress in professional learning. She said, *“maybe maybe the time. Any you will be very tired after a long day and they want to provide something for you.”* (T4FGSB) Another reported that wrong timing was also limited because *“Sometimes they don't choose the correct timing. I know it's beneficial for us, but it's not the proper time for us to do it.”* (T4FGSB)

At school C, one of the teachers said: *One factor is as I said, the lack of planning, lack of timing, the lack of timing and another is you know, follow up of whatever the professional development is the follow-up.”* (T1FSC)

While in school D, the lack of time and the overwhelming workload were also mirrored in the instructional supervisor's reflection on what impeded the success of the PPL at her school. She emphasized saying that:

*“Well, to be honest, they're very empowering at that stage. But sometimes, you know, when it comes to teachers, they feel that there are things that should be prioritized rather than the Pd session. You know what I mean. So there's a lot of burden on the teacher's shoulder. So when you say, okay, I have a PD week. Okay? Where the leaders think. Okay, So this is the empowering week. This is the progress week. This is the week that we're gonna achieve a lot of things. But at that same time the teacher says, oh, that's the way where I can finish a lot of things that I haven't finished yet. Yeah. So, you know maybe I feel that leaders should put themselves in the shoes of those teachers and feel okay. So, this also they need time for things to be done rather than just having the PD sessions...”* (IS1fSD)

On a final note, and based on the given data, the school workload and the shortage or wrong timing for the professional learning offerings were some of the hindering factors that impeded the success of the provided professional learning at the sample schools.

#### **4.3.3 Analysis of the Survey Open-Ended Question**

This section goes hand in hand with the previous data analysis yet focuses more on what was collected from the open-ended questions drafted at the end of the two questionnaires. The analysis was divided by each participant's perceptions.

### ***Teachers' Perception***

In the teachers' questionnaire, three open-ended questions were constructed to ask the respondents about their perceptions of how they determine their satisfaction with the offered professional learning practices and what benefits and changes they would like to see in implementing the PPL program. Two themes emerged from the analysis: monitoring the instructional supervision process and hindering school factors.

#### **4.3.3.1 Theme 1 Monitoring the Instructional Supervision Process**

Centered around the open-ended questions collected from the teacher's questionnaire, teachers revealed that they were knowledgeable about their instructional supervisors' satisfaction with their performance based on their observational feedback, comments, and reports. Thus, the detected theme out of the data was related to the first theme in the first section entitled monitoring the instructional supervision process. Teachers' responses confirmed what was mentioned earlier in the interviews about their schools' common instructional and supervisory practices matching the subtheme of using classroom observations, observational frameworks, and reports to know that their instructional supervisors were satisfied with their performance. Below are some of the examples from teachers' exact words, and the word cloud in figure (4.1) visualizes the analyzed responses:

*“From the observation conducted in my class and report after it.”*

*“From the feedback and observation reports.”*

*“From her comments during observation lessons.”*



**Figure 4. 1: Word cloud for theme 1 Monitoring the Instructional Supervision Process**

#### **4.3.3.2 Theme 2 Hindering School Factors**

Following what was mirrored in the interviews, the open-ended questions for teachers' questionnaires added more hindering school factors that limited teachers' professional learning. Teachers shared a few suggestions that had benefited their learning. These could be summarized by offering more topics, freedom, and time.

Based on what the teachers said, it was concluded that offering more professional learning topics, more freedom to choose what they need, and more time to acquire and implement what they had learned were among the suggestions. Teachers shared that if they had a chance to modify the process of professional learning, such suggestions would add to the instructional supervisors' practices and could better promote the PPL and enhance teachers learning, as it was clear from the examples below:

*“To give us freedom to choose our topics and needs for PL.”*

*“I would strongly encourage if we have a chance to choose our training subjects.”*

*“Maybe providing resources, giving flexible timing for PDS, choosing topics to our needs.”*

*“Choices choosing topics for PD that's suits our needs.”*

*“To make the ppl differentiated to meet needs for teachers as students.”*

*“Provide us with more options of topics.”*

*“By letting us choose topics we need to work on or giving us opportunity to attend external workshops.”*

Upon conducting a query search using the Nvivo, the data was visualized using the word cloud in figure (4.2), as reported below



**Figure 4. 2: Word cloud for theme 2 Hindering School Factors**

### ***Instructional Supervisor’s Perception***

Whereas in the instructional supervisor’s questionnaire, three open-ended questions were constructed to ask the respondents about their perceptions of whether and how teachers’ performance was enhanced using the PPL model and how they aligned teachers’ needs on the one hand and the local needs imposed on them by the ministry and ADEK on the other. One theme that emerged from the analysis was related to targeting teachers’ needs. The survey questions were as follows:

1. Do you believe teachers’ performance can be enhanced using the PPL model, and what should be done to sustain teachers’ growth learning?
2. How does the use of the PPL model influence teachers’ performance?
3. How is the conflict between teachers’ needs on the one hand and the local/global needs on the other best addressed at your school?

#### 4.3.3.3 Theme 3 Targeting Teachers' Needs

The results from the instructional supervisor's questionnaire mirrored what was detected from the interviews concerning targeting teachers' needs. In addressing the first open-ended question, instructional supervisors agreed that teachers' performance could be enhanced using the PPL; it should be done by targeting teachers' growth learning. They emphasized the importance of meeting teachers' needs as they were meeting students' needs, as in the following example *"Yes, as we do personalized plans for students, teachers also need the same. Each teacher is different and her HOS [Head of Section] needs are different."*

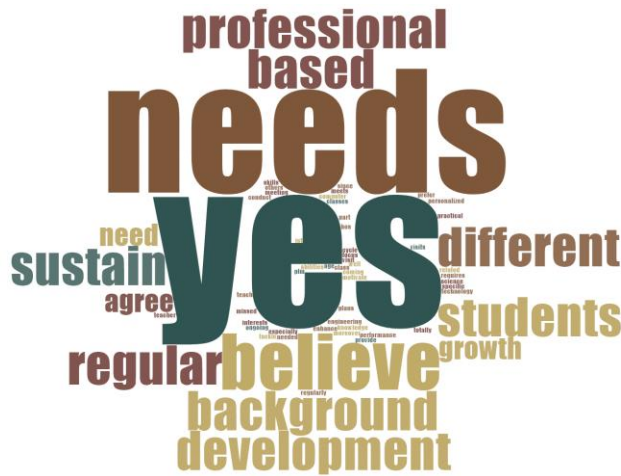
Another, an ICT coordinator, agreed on differentiated professional learning as each teacher had a different educational background. She said:

*"Yes, I totally agree especially in ICT I prefer to provide the PL based on their abilities cycle age of students, technology skills and knowledge that requires to teach their students. Moreover, we have teachers who are coming from different background, some teachers with computer science background and others from engineering background."*

Another stated, *"if it is not meeting the needs, it will not enhance teachers' performance, most of the PD not related to teachers needs and if so, it missed practical part."*

The word cloud figure (4.3) shows their agreement and targeting teachers' needs among the emerging words in the query.





**Figure 4. 3: Word Cloud for Theme 1 Targeting Teachers' Needs**

For the second question, the instructional supervisors mirrored what was said during the interview, where it was concluded that the PPL impacted teachers' performance. Below are some examples that show how they referred to teacher's skills, performance, and learning:

*“It enhances the teachers’ skills and add value to the school.”*

*“It will give teachers more confidence and let them work harder to improve their performance.”*

*“It helps and guide them in their teaching.”*

*“Teachers can get a training that meet his needs immediately they don’t need to waste their time in training that they already master it. Teacher will have specified on their needs, their student grade level.”*

*“As I mentioned if it is not meeting the teachers needs it will not add anything to teachers’ development.”*

*“More engaging for teachers and more relevant to their needs.”*

The word cloud figure (4.4) shows that “improving teachers’ performance, needs and confidence” were among the emerging words in the query.



**Figure 4. 4: Word Cloud for Improving Teachers' Performance, Needs and Confidence**

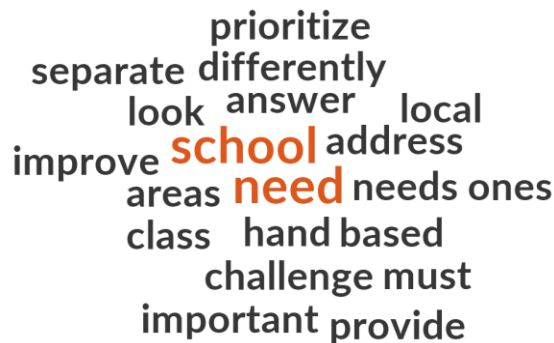
In the last question, the instructional supervisors suggested ways to deal with the conflict between the needs of teachers and other needs by prioritizing and aligning them and addressing them simultaneously. Below are some examples:

*“We should look at it differently. They go hand in hand. We can't Separate them, and we need to work on Both needs simultaneously.”*

*“The school must address the local needs based on their class visits; the school provide whole school training for the areas that most teachers need to improve in.”*

*“Need to prioritize which ones are most important together with the teachers.”*

The word cloud in figure (4.5) shows how the ‘school needs and prioritize’ were among the emerging words in the query.



**Figure 4. 5 Word Cloud for School Needs and Priority**

#### **4.3.4 Summary of the Qualitative Data Analysis**

The extensive qualitative data analysis sought to answer the designated research questions, where many findings were consistent with the quantitative data analysis findings. Five sections were composed of the interview data results—the first three targeted the study’s first research question. The analysis depended mainly on teachers’ perceptions of the effective instructional and supervisory practices at the sample schools, supported by instructional supervisors’ perceptions to add more clarification and depth to the analysis. Six themes and eight subthemes were discovered from this part of the analysis. The fourth section addressed primarily the second research question, which inquired about the impact of PPL on teachers’ performance. Section 5 centered around answering the fourth research question in the study, where two themes and six subthemes were found as significant contextual factors that enhanced or impeded the PPL at the four private schools in Abu Dhabi.

The first research question explored teachers’ perceptions about the effectiveness of instructional supervisors’ practices in promoting the PPL. According to the interview findings, four themes and eight sub-themes were deduced from the data. These themes were: monitoring the instructional process, guiding the instructional supervisory process, identified strategies of professional learning, identified features of professional learning, supportive leadership environment, and the important role of a clear and unified vision. All these themes were found to confirm what was found in the quantitative data analysis. The results underscored the limitation in teachers’ voice, choice, and freedom to design their own PPL as most of the professional learning offerings were imposed as workshops were mostly episodic in duration and not ongoing. They lacked any customization or personalization to teachers’ needs as they followed the top-down practices where little bottom-up offerings were found to be present. For instance, there was no reported

identification or use of Action Research (AR) by instructional supervisors or teachers in the data in their approaches to supervision and professional learning. Bearing in mind recurring themes in the data where teachers repeatedly referred to how much they valued practical and useful approaches to their professional learning. Also, it was found that the instructional supervisory process was evaluative as there was a considerable emphasis on monitoring the PL process with the use of classroom observations, meetings, and the use of data analysis, where little was found on how that can be translated to serve teachers' professional learning offerings or meeting their needs that lacked adequate personalization.

The second research question focused on how the PPL model impacted teachers' performance from instructional supervisors' perceptions. According to the interview findings, improving teachers' practices was a central theme that emerged from the data. Participants were generally optimistic about the impact of the provided professional learning on teachers' performance. When asked about PPL's impact on teachers' performance, instructional supervisors revealed that the PPL model enhanced teachers' performance in several manners. For instance, teachers' instructions, awareness, insightful knowledge, leadership skills, and students' learning as in meeting the needs of their students. The findings were in line with the quantitative data analysis that found that teachers gained more competency in identifying the appropriate strategies to meet the needs of their students, and they became more independent in assessing teaching methods and changing them, and solving academic and behavioral problems without getting help from supervisors.

The fourth research question explored the contextual factors that impeded or enhanced the PPL's effectiveness from different perspectives, i.e., teachers and instructional supervisors. Two themes and five subthemes were deduced from the qualitative data. These themes were the promotive

school factors and the hindering school factors. They emphasized the role of leadership support, sufficient funding, and resources as leading enabling factors for the success of PPL. On the other hand, the absence or inadequate bottom-up professional learning strategies such as Action Research (AR), the lack of leadership guidance, and the workload and lack or wrong timing were inhibitor factors that hindered the success of PPL.

Similarly, open-ended questions were used to utilize more results from participants to investigate the effectiveness of instructional supervisors in promoting the PPL. The thematic analysis results from the survey's open-ended questions validated what was revealed in the interviews, with three additional themes subdivided by informants. The themes were: monitoring the instructional supervision process, hindering school factors, and targeting teachers' needs. Two themes were related to teachers' perceptions of instructional supervisory practices, and one was related to instructional supervisors' viewpoints on the impact of PPL on teachers' performance. Teachers revealed that they were knowledgeable about their instructional supervisors' satisfaction with their performance based on their observational feedback, comments, and reports. However, they expressed the shortage of timing, lack of freedom, and limited PL topics as school factors that limited their professional learning. Instructional supervisors, in contrast, revealed their concerns about targeting teachers' needs as they emphasized the importance of meeting teachers' needs in parallel to meeting students' needs and agreed that teachers' performance could be enhanced using the PPL.

After all, the qualitative findings from different data sources were mainly in line with the quantitative findings. The insights revealed that instructional supervisors' practices were not effectively promoting the PPL at the sample schools as many practices proved to be missing; nevertheless, the impact of the model on teachers' performance was confirmed. Still, contextual

factors were critical in promoting or impeding the model's success. The following section discusses the school documents analysis to investigate whether the numerical and verbal perceptions are validated in documents and evidence.

#### 4.4 Document Analysis

The third research instrument in the study was document analysis. During the investigation, different documents were gathered from the four schools that feature aspects related to the professional learning process at the sample schools. The researcher used the same procedures and steps recommended by (Braun & Clarke 2006) to analyze the documents using NVivo 12. After examining the documents from school departments, instructional supervisors, and professional learning providers, a few themes emerged, showing how instructional supervisors promote PPL at their schools. Table 4.68 summarizes a list of common documents gathered from the schools during the data collection and examined in the analysis. The primary aim of these documents was to organize the school's instructional supervision and provide evidence of teachers' progress and professional learning.

Document Number	Document's Name	Document's Purpose	Document's Description
Doc.1	Teacher Evaluation Form	To record and review teachers' performance in the classroom.	It includes general information about the teacher's performance, feedback, and overall score. It is summative and enlists the involved instructional supervisors. Also, there is a designated space for directions.
Doc.2	Teacher Observation Form	To measure the teachers' skills and the manner of teaching.	It details information about the observed session and teacher with rating criteria that rank teachers' performance from weak to outstanding. It is judgmental, with a designated space to summarize the points of strength and development.

Doc.3	Orientation Program/ Induction Week	To orient and equip teachers to what is expected from them and introduce new teachers to the environment.	It includes a week of scheduled ‘workshops’ offered to teachers within 6-7 intensive hours daily. There is a wide range of topics entitled (modules) that are enlisted in the received document
Doc.4	Self-Evaluation Form	To evaluate the teacher’s own progress.	It is a tool that includes performance factors that allow teachers to evaluate their progress in grades across three main factors related to lesson planning and delivery, student-teacher relationship, and classroom environment.
Doc.5	Pre-&Post-Observation Conference Tools	To guide the teachers during the observation phase and will direct the discussion that takes place afterward.	It includes a set of guiding questions instructional supervisors use before the observation. The questions target different pedagogical and instructional school priorities.
Doc.6	Teacher Goal Setting	To help promote a learning culture and track teachers’ professional learning.	It includes questions that help teachers set goals for their professional learning to ensure student learning gains.
Doc.7	Performance Management Record	To assist in recording teachers’ diverse performance factors.	It involves five performance factors related to adherence to school rules and policies, knowledge of content, instruction, knowledge of students, and communication. Each performance indicator should be supported with evidence from the teacher’s performance.
Doc.8	Teacher’s Improvement Plan/Action Plan	To support struggling teachers by identifying their weaknesses and developing a growth strategy.	It can be counted as a completion for the classroom observational tools as it reports what is observed and what actions or strategies are suggested to support teachers' performances.
Doc.9	Data Analysis Report for Teachers	To analyze teachers’ observational data.	The excel sheet documents a sample of analyzed data from teachers’ observations. The points in the rating scale (very weak to outstanding) are summed up to give a total average for the teacher’s overall performance.
Doc.11	PD Week/Day	To introduce teachers to new topics and skills or scaffold old ones.	It involves a week or day of scheduled ‘sessions’ offered to teachers within intensive hours. A wide range of topics

			is distinguished by groups based on the delivery language or grade level.
Doc.12	Yearly PD Plan	To plan the professional learning topics across the whole academic year	It includes a yearly schedule of ‘sessions’ planned about the required professional learning topics and the person responsible for delivering the session with an anticipated impact on teachers’ performance.
Doc. 13	Professional Development Plan (PDP)	To plan for professional learning and write a professional learning goal for the teachers.	This document includes a space for the teacher to write the learning objective related to whole school improvement, strategies to be undertaken, the due date for achievement, and the evidence of achievement.

**Table 4. 68: Document Analyses**

Not all schools in professional learning had the same documentation, and there were variations in focus and emphasis on teachers’ professional learning. However, two main themes emerged while coding the data collected from the school documents. These two themes were related to the state or nature of instructional supervision and professional learning at the sample schools. Based on the data, the first emerging theme reflected the evaluative nature of instructional supervision. However, the other theme reflected the periodic nature of teacher professional learning at the sample schools.

**4.4.1 Theme 1 The Evaluative Nature of Instructional Supervision**

<b><i>THEME 1 THE EVALUATIVE NATURE OF INSTRUCTIONAL SUPERVISION</i></b>	
<b><i>RELATED DOCUMENTS</i></b>	<i>Teacher Evaluation Form</i>
	<i>Teacher Observation Form</i>
	<i>Self-Evaluation Form</i>
	<i>Observational Rubric</i>
	<i>Data Analysis Report for Teachers</i>
	<i>Pre-Observation Conference Tool</i>
	<i>Post- Observational Conference</i>
	<i>Performance Management Record</i>
	<i>Teacher’s Improvement Plan/Action Plan</i>

**Table 4. 69: Theme 1 The Evaluative Nature of Instructional Supervision**



Based on the related school documents (Table 4.68), the analysis emphasized empowering the instructional supervision process at the sample schools. The theme developed from the repetitive pattern in the documents showed that the weight was given to the observations and reports significantly focused on evaluating teachers' instructional performance. This reflected the evaluative nature of instructional supervision as it was apparent (Table 4.69) how instructional supervisors documented every observation step for their teachers. Also, the observational tools, teacher/ self-evaluation forms, pre- and post-conference tools, performance records, and action plans showed how frequently the instructional supervisors evaluated teachers' instructional performance in class. It was noticed that there was a formal evaluation and an informal evaluation. The formal was organized, assigned, and scheduled into a few announced visits per term; however, the informal unannounced visits might take place regularly and continuously. The existence of this evaluative nature was all over the provided practices. For instance, in the following word cloud (Figure 4.6), the words that surfaced were related to students' learning, the rating of the class during the observational visit (unsatisfactory, satisfactory, good), and the rest with less weight carried the related observational criteria or method of teaching, etc.



**Figure 4. 6: Word cloud for Theme 1 The Evaluative Nature of Instructional Supervision**

#### 4.4.2 Theme 2 The Periodic Nature of Teacher Professional learning

##### *THEME 2 TEACHER PROFESSIONAL LEARNING*

<i>Related Documents</i>	<i>Teacher Goal Setting for Professional Learning</i>
	<i>PD Week/Day</i>
	<i>Yearly PD Plan</i>
	<i>Orientation Program/Induction Week</i>
	<i>Learning Topics/ Modules</i>

**Table 4. 70: Theme 2 The Periodic Nature of Teacher’s Professional learning**

As shown in table (4.70), another data-driven theme emerged from the related documents to reflect the state of professional learning in the given sample. This theme showed a disjointed durational pattern throughout the school documents related to the offered professional learning. The main weight in the documentation for the professional learning process was less than what was presented in the evaluation of teachers’ performance. The main feature evident throughout the analysis was the disconnected nature of the process where teachers and instructional supervisors would meet periodically or termly following pre-scheduled sessions pre-planned and entitled as modules or topics. The offered duration ranged from a specific day or week through the academic year. The theme of disconnection in professional learning surfaced in opposition to what was detected in the evaluative nature of instructional supervision. Besides, there were not many school documents on personalization for professional learning at targeted schools except what was shared by only one school regarding the ‘PDP’ where teachers plan their learning goals. Another two school documents were shared by only two schools that displayed how teachers set their learning goals; however, there was no evidence of tracking for any learning goals. To cite evidence, in the following word cloud (Figure 4.7), the most frequent words that surfaced were related to ‘professional learning activities,’ ‘module,’ and ‘goal’ to reveal the disconnection in the duration of the process of professional learning where the rest of the words were with less weight. Another

example, figure (4.8), shows the dynamic connection between all the files and their codes associated with a single theme. From the names of the files, it is evident that the durational nature of professional learning was periodic, as in yearly PD, orientational program/ induction week offered in modules or workshops, and PD Day (Check Appendix 15 for more sample documents).



Figure 4. 7: Word cloud for theme 2 in document analysis

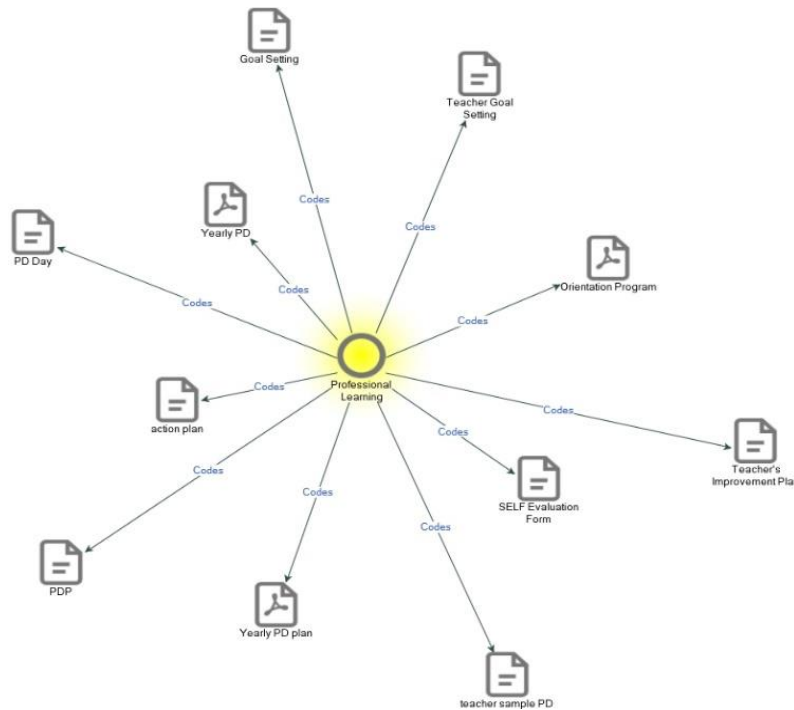


Figure 4. 8: Exploring Files Related to Professional Learning

#### **4.4.3 Summary**

Document analysis was the third qualitative instrument used to investigate the effectiveness of instructional supervisors in promoting the PPL. Results from the thematic analysis showed that the evaluative nature of instructional supervision and the disconnected and periodic nature of teachers' professional learning were two central themes suggested from the collected school documents.

#### **4.5 Data Triangulation**

The researcher collected data concurrently using self-constructed questionnaires, semi-structured and focus group interviews, and document analysis. All these research tools enabled the researcher to thoroughly investigate the effectiveness of instructional supervision in promoting PPL at the sample schools. The investigation depended on methodological triangulation to combine the quantitative and qualitative instruments. Data triangulation is characterized by using multiple data collection methods to study the same object. Then the analyzed data is compared to increase confidence in the collected data's consistent validity (Cohen, Manion & Morrison 2007). The findings from each data collection method were tabulated in four tables (4.71- 4.72-4.73- 4.74) across the designated research questions and evaluated in their consistency rate.

#### 4.5.1 Research Question 1

**RQ1** From teachers’ perceptions, how effective are instructional supervisors’ practices in promoting PPL at four private schools in Abu Dhabi?

Data	Quantitative	Qualitative		
Method	Questionnaires	Interviews	Document analysis	Open-ended questions (surveys)
Findings	<p>-Though there was an agreement on the existence of some practices, such as the provision of a PL vision, participants showed general disagreement on the effectiveness of instructional supervisors in promoting PPL across the three measured themes in the first questionnaire.</p> <p>-The analysis of theme 1 that focused on teachers’ vision, voice, choice, and freedom to design their PPL showed percentages between 40% agreement and 60% disagreement. The highest agreement was on the statement, ‘My instructional supervisor has established a professional learning vision that clearly defines what and how to expand my professional learning.’ Moreover, the highest disagreement was on the item ‘My instructional supervisor offers me the freedom to design my learning path tailored to my growth needs and readiness.’</p> <p>-In theme 2, which targeted the PPL content, teachers’ disagreement dominated the</p>	<p>Teachers</p> <p>-Theme 1 Monitoring the instructional process</p> <p><i>a) The use of classroom observations, observational frameworks, and reports</i></p> <p><i>b) The use of data to analyze teachers' practices</i></p> <p>-Theme 2 Guiding the Instructional Supervisory Process</p> <p><i>a) Through setting meetings and giving feedback</i></p> <p><i>b) Through identifying teachers' instructional needs</i></p> <p>-Theme 3 Identified Strategies of Professional Learning</p> <p><i>a) Top-Down PL Workshops</i></p> <p><i>b) Limited Bottom-Up PL Opportunities</i></p> <p>-Theme 4 Identified Features of Professional Learning</p>	<p>Theme 1: The Evaluative Nature of Instructional Supervision Related Documents: Teacher Evaluation Form</p> <p>Teacher Observation Form</p> <p>Self-Evaluation Form</p> <p>Observational Rubric</p> <p>Data Analysis Report for Teachers</p> <p>Pre-Observation Conference Tool</p> <p>Post-Observational Conference Performance Management Record</p> <p>Teacher’s Improvement Plan/Action Plan</p>	<p>Theme 1 Monitoring the Instructional Supervision Process</p> <p>Theme 2 Hindering School Factors</p>

	<p>responses regarding the instructional supervisor being well aware of teachers' learning preferences, needs, and points of strength and targeted them with the suggested PPL topics. Similarly, items related to differentiating entry points, aligning needs, using evaluation data, and following up the professional learning goals. The highest negative perception, 76%, goes for the item stating, "My instructional supervisor follows up on the professional learning goals, targets, and focus areas for my PPL."</p> <p>For theme 3, results showed similar disagreement with (40-60 %) toward the provided process as teachers disagreed with the use of needs assessment in the PPL process or with the suggestion of a PPL calendar that suits teachers; similarly for offering sufficient time and resources and executing PPL plans for teachers.</p>	<p>a) <i>Dependence on External PL</i>  b) <i>Episodic in Duration</i></p>	<p>Theme 2 The Periodic Nature of Teacher's Professional learning  Teacher Goal Setting for Professional learning  PD Week/Day  Yearly PD Plan  Orientation Program  Learning Topics/  Modules</p>	
<p><b>Rating</b></p>	<p>There was a consistency in the data between the quantitative and qualitative, where teachers' perception in the quantitative data showed disagreement on the existence of personalization in the PL content and process and a lack of teachers' choice or freedom to design their own professional learning. Similarly, the qualitative data revealed the dependence on top-down practices and external providers to counteract the absence of ongoing job-embedded practices.</p>			

**Table 4. 71: Triangulation for Findings across Research Question 1**

#### 4.5.2 Research Question 2

**RQ2** From instructional supervisors' perceptions, how does the PPL model impact teachers' performance?

Data	Quantitative		Qualitative	
Method	Questionnaires	Interviews	Document analysis	Open-ended questions (surveys)
Findings	<p>-Though there was a little disagreement on specific practices, such as teachers becoming more confident in taking the initiative in their classes, participants showed a general agreement on how the use of the PPL model impacted teachers' performance across the three measured themes in the second questionnaire.</p> <p>-The analysis of theme 1 focused on the learners' development, and it showed agreement in percentages that ranged between a fair amount of 66% and quite a bit of 56% on items related to teachers' independence to assess that a particular teaching tool should be changed and on setting short and long-term growth goals without help.</p> <p>-In theme 2, which targeted the PL environment, the instructional supervisor's high percentages of the agreement were presented in almost all the items of this construct, especially in a statement like 'My teachers have become more collaborative with me and the rest of the learning community'. Similarly teachers' innovation, curiosity, confidence, and flexibility were perceived as improved due to the PPL.</p> <p>For theme 3, results showed similar high positive perceptions toward</p>	<p>-Theme 1 Improving teachers' Practices.</p> <p>-Instructional improvements, raising awareness, and gaining leadership skills and insightful knowledge were among the most gains teachers and instructional supervisors highlighted in their interviews when asked about PPL's impact on teachers' performance.</p>	<p>Related Documents:</p> <ul style="list-style-type: none"> <li>-Teacher Evaluation Form</li> <li>-Teacher Observation Form</li> <li>-Self-Evaluation Form</li> <li>-Observational Rubric</li> <li>-Data Analysis Report for Teachers</li> <li>-Pre-Observation Conference Tool</li> <li>-Post-Observation Conference</li> <li>-Performance Management Record</li> <li>-Teacher's Improvement Plan/Action Plan</li> <li>-Teacher Goal Setting for Professional learning</li> </ul>	<p>Theme 1 Targeting Teachers' Needs</p>

	learner application as 47% of the participants revealed that teachers could easily develop professional learning goals that are translated into classroom objectives. 50% of the participants said quite a bit about ‘my teachers have become more engaged in their PPL.’			
<b>Rating</b>	The data was consistent between the quantitative and qualitative, where the findings from the analyzed data disclosed that instructional supervisors perceived teachers improving due to the use of the PPL; similarly, in the interviews, they detailed in which areas teachers were showing improvements and supported that in documents related to the process of instructional supervision and professional learning.			

**Table 4. 72: Triangulation for Findings across Research Question 2**

### 4.5.3 Research Question 3

**RQ3 Do teachers and instructional supervisors of different gender, experience, grade level, and subjects taught or supervised significantly differ in their investigated perceptions?**

<b>Data</b>	<b>Quantitative</b>	<b>Qualitative</b>
<b>Method</b>	<b>Questionnaires</b>	<b>Interviews</b>
<b>Findings</b>	<p>The quantitative results for the teachers’ questionnaire showed no statistically significant difference at (<math>\alpha=0.05</math>) in teachers’ perceptions of 3 themes and gender, years of teaching experience, subjects taught, and grade level, except for theme 2, which showed that there was a statistical difference at a significant level of (<math>0.407&gt;0.05</math>) in teachers’ perceptions and years of teaching experience.</p> <p>The quantitative results for the instructional supervisor’s questionnaire showed no statistically significant difference at (<math>\alpha=0.05</math>) in teachers’ perceptions of 3 themes and gender, years of teaching</p>	<p>The qualitative data showed that female instructional supervisor interviewees were more than male interviewees in the sample schools. Similarly, female teachers’ interviewees were almost twice the male ones. This shows that female participants dominated the interviews as they were more present, involved, and nominated with interest and purpose to share their perceptions across the study. Also, it shows that most interviewees ranged in experience between 6-10 years, double the percentage for female participants (n=12). In comparison with teachers, no KG instructional supervisor was interviewed. Comparably, teachers’ interviewees were represented with a different grade level of teaching where a high number of cases was detected in every grade</p>



	experience, subjects taught, and grade level.	level as follows: KG (n=4); primary (n=6); middle (n=5); secondary (n=5) except for K-12.
<b>Rating</b>	There was no evidence to state that teachers and instructional supervisors of different gender, experience, grade level, and subjects taught or supervised significantly differed in their investigated perceptions except in minor cases related to the qualitative data.	

**Table 4. 73: Triangulation for Findings across Research Question 3**

#### 4.5.4 Research Question 4

**RQ4** From teachers’ and instructional supervisors’ perceptions, what contextual school factors might enhance or hinder the effectiveness of teachers’ personalized professional learning experience?

<b>Data</b>	<b>Quantitative</b>	<b>Qualitative</b>	
<b>Method</b>	<b>Questionnaires</b>	<b>Interviews</b>	<b>Open-ended Questions</b>
<b>Findings</b>	NA	Theme 1 Promotive School Factors <i>a) Leadership Support</i> <i>b) Sufficient Funding and Resources</i> Theme 2 Hindering School Factors <i>a) Absence or Inadequate Bottom-Up PL Strategies</i> <i>b) Lack of Leadership Guidance</i> <i>c) Workload and Lack or Wrong Timing</i>	Theme 2: Hindering School Factors
<b>Rating</b>	Two themes and 5 subthemes were deduced from the qualitative data.		

**Table 4. 74: Triangulation for Findings across Research Question 4**

#### 4.5.5 Summary

Using the theoretical underpinning of the merged theories of leadership and learning and with the strength and flexibility of the mixed-research methods that relied on various data sources, the investigator found substantive answers for the four main research questions of the study.

The first research question questioned the effectiveness of instructional supervisors' practices in promoting the PPL from teachers' perceptions. According to the quantitative findings from the questionnaires, teachers perceived that instructional supervisors' practices did not promote PPL effectively at the target schools as they generally reflected. It was evident that some practices were still missing. For instance, the lack of empowerment for the teachers' voice, choice, and freedom to design their PPL and the lack of alignment between teachers' needs and schools' common standards and goals were among the missing practices. Findings from the interviews revealed six themes and eight sub-themes to emphasize the lack of a teacher's voice and freedom, as teachers were found to have no choice/decision but to attend imposed workshops that lack customization and personalization with little bottom-up offerings as exceptions in some schools. These themes were: monitoring the instructional process, guiding the instructional supervisory process, identified strategies of professional learning, identified features of professional learning, supportive leadership environment, and the important role of a clear and unified vision. All these themes confirmed what was found in the quantitative data analysis. Likewise, the open-ended questions collected from questionnaires confirmed what was shared in the interviews with an additional similar theme. The theme was: monitoring the instructional supervision process. The theme was related to teachers' perceptions of instructional supervisory practices. Teachers revealed that they were knowledgeable about their instructional supervisors' satisfaction with their performance based on their observational feedback, comments, and reports. Finally, the school document analysis confirmed similar findings through the emergence of two themes, i.e., the evaluative nature of instructional supervision and the periodic nature of teachers' professional learning. Thus, the overall teachers' perception revealed that instructional supervisors were ineffective in promoting PPL at the sample schools in Abu Dhabi. The findings pointed out

perceptions, themes, and subthemes, which correspondingly represent the answers for the first research question, helped define effectiveness in instructional supervision and formulated a clear definition of what instructional supervisory practices lead to effectiveness in promoting PPL. It also emphasized the role of instructional supervisors in promoting the PPL. Moreover, the findings elucidated the appropriateness of the PPL model proposed by the conceptual framework and aligned with the effective features of professional learning in the literature as a compass to detect the effectiveness of instructional supervisors in promoting PPL.

The second research question focused on how the PPL model impacted teachers' performance from instructional supervisors' perceptions. According to the quantitative findings from the questionnaires, most instructional supervisors' perceptions reflected that the PPL model positively impacted teachers' performance at the target schools in diverse ways, especially in differentiation, collaboration, engagement, and developing professional learning goals. The instructional supervisors' positive perception toward the impact of the PPL on teachers' performance was aligned with what was perceived from the interviews as the theme of improving teachers' practices revealed enhancements concerning teachers' instructions, awareness, insightful knowledge, leadership skills, and even meeting the needs of their students when asked about PPL's impact on teachers' performance. Also, findings from the open-ended questions collected from questionnaires confirmed what was shared in the interviews through the theme of targeting teachers' needs, where it was concluded that the PPL impacts teachers' performance in enhancing their skills, instructions, and learning. Document analysis also showed significant evidence through the set of related school documents, for instance, teacher evaluation form, teacher observation form, self-evaluation form, observational rubric, data analysis, report for teachers, pre-observation conference tool, post-observational conference, and performance management

records. The findings pointed out perceptions, themes, and subthemes that correspondingly represented the answers for the second research question as it helped in underscoring the essence of the PPL model and its impact on teachers' performance. The latter-mentioned enhancements in teachers' performance underlined the effectiveness of the PPL as a model to be used in schools, as its results can be rewarding for students' learning and teachers' instructional experience.

Furthermore, the third research question statistically examined how significantly teachers' and instructional supervisors' perceptions differed regarding gender, experience, etc. The ANOVA test showed no relation between the mean perception and years of experience. There was no relation between the mean of perception and the grade level of teaching. Also, no relation was found between the mean of perception and the subject of instruction. Similarly, for instructional supervisors, no relation was found between their perception and years of experience, subject, or level of supervision. The independent t-tests for the two groups of participants (teachers and instructional supervisors) showed no significant relationship between the mean difference of variables across the three themes with a dependent variable gender of 2 groups, female and male. Thus, the main findings indicated that significant differences did not exist between teachers' and instructional supervisors' perceptions and gender, experience, grade level, and subjects taught or supervised.

The last research question focused on understanding the contextual factors that impeded or enhanced the effectiveness of the PPL from both teachers' and instructional supervisors' perceptions. Two themes and five subthemes were deduced from the qualitative data. All together answered how leadership support (internally and externally), sufficient funding, and resources can be promotive factors for an effective PPL. Also, the findings indicated how the absence or inadequate bottom-up professional learning strategies, the lack of leadership guidance, and the

workload and lack or wrong timing hindered the effectiveness of the PPL. Following what was found in the interviews, the open-ended questions for teachers' questionnaires added more hindering school factors (shortage of timing, lack of freedom, and limited PL topics) that limited teachers' professional learning. After all, the findings pointed out perceptions, themes, and subthemes that correspondingly represented answers for the fourth research question as they helped emphasize what school contextual factors can lead to effective PPL.

Overall, the findings were generally consistent with what was collected via surveys, interviews, and documents, with a certain degree of variation in perception among what was effectively promoted. Though teachers agreed on certain effective practices like guiding and monitoring the instructional supervision process, they disagreed with promoting personalization in professional learning at the sample schools. In contrast, instructional supervisors showed a positive perception of the impact of the PPL model on teachers' performance. It is worth highlighting that there was no consistency in what was offered across the schools, not even among the same school, as some departments were more present in some practices than others. Similarly, there was a discrepancy between teachers' perceptions of the effectiveness of instructional supervisors in promoting PPL and what was shared by instructional supervisors. In brief, the data articulated that instructional supervisors tried to promote PPL at their schools; however, it was partially effective due to its limited bottom-up opportunities and lack of personalization—a conclusion thoroughly discussed in the coming chapter.

#### **4.6 Chapter Summary**

Chapter four of this study reported the findings from the quantitative and qualitative data analysis collected via questionnaires, interviews, and school documents. Using primary analytical tools like

the SPSS and Nvivo, the researcher examined the data, explored the participants' perceptions, and answered the four research questions.

Quantitatively, the researcher found that the two questionnaires were reliable and valid instruments for examining and measuring the effectiveness of instructional supervisors in promoting the PPL. Also, the results revealed that teachers generally perceived instructional supervisors' practices as ineffectively promoting the PPL model at their schools. On the other hand, instructional supervisors perceived that teachers' performance improved due to using the PPL model. Moreover, the results showed no statistically significant difference in teachers' and instructional supervisors' perceptions regarding gender, experience, grade level, and subjects taught/supervised.

In the same vein, the qualitative data analysis collected from the two types of interviews, open-ended questions and document analysis, were driven by thematic analysis using inductive and deductive approaches to analyze the qualitative data in all its forms. Findings unleashed diverse significant perceptions, great insightful themes, and sub-themes that reflected how teachers and instructional supervisors perceived personalized professional learning at their schools. The interviews revealed nine themes and fourteen sub-themes to answer the four research questions in five sections. Open-ended questions collected from questionnaires confirmed what was shared in the interviews with two additional similar themes. Document analysis revealed the existence of effective instructional supervisory practices yet lacked enough evidence of personalization. Both types of data were triangulated and compared to draw from the different data sources answers for the four research questions of the study. The next chapter will present a critical discussion in light of the findings.

## **CHAPTER 5: DISCUSSION AND CONCLUSION**

### **5.1 Introduction**

This chapter filters the study's findings and critically discusses them in light of the relevant literature reviewed, the theoretical framework adopted, and data collected from teachers and instructional supervisors. The chapter is organized into nine main sections. The beginning is with an introduction that provides the purpose of the chapter with some highlights about the organization of the chapter. Section two offers an overview of the research that provides brief information on the research aim and research questions that build on a statement of the theoretical framework and methodology for the research —followed by a clear summary of the findings, where the researcher in this section provides quick highlights of the main findings, which are linked directly to answer the research questions concisely. Section four is dedicated to a detailed discussion to address the research questions' results in sequence. Section five is developed to explain the contribution of the current study to literature, theory, and methodology. Then section six explains how the findings would contribute to policy and practice. The following section is devoted to the limitation, recommendation, and proposal for future research. The study's conclusion and the concluding thoughts and reflections signal the end of the study.

### **5.2 Overview of the Research**

The present study investigates the effectiveness of instructional supervisors in promoting personalized professional learning at four private schools in Abu Dhabi using a mixed-research method. More specifically, it investigates the effectiveness of the existing instructional supervisors' practices as perceived by teachers and instructional supervisors and their impact on teachers' performance; then, it explores the contextual factors that foster or impede the effective

implementation of the personalized professional learning model by different providers across the country.

To serve this research purpose, the researcher grounded the study's theoretical underpinning on the four merged theories of leadership and learning. The first leadership theory is the instructional leadership theory employed in its distributed, shared instructional leadership model because it influences teachers' pedagogical practices, decisions, and professional learning. The second theory is the transformational leadership theory using Bass's model, which underscores the role of instructional supervisors in motivating teachers, giving them a sense of purpose, and inspiring them to learn and work. Correspondingly, the third theory is a learning theory represented by the Soci-Cultural Constructivism Theory, where Vygotsky emphasizes the guiding role of the 'more knowledgeable other' through social interaction, the zone of proximal development, and scaffolding. The fourth pillar in the theoretical framework is the adult learning theory which underlines principles like self-directedness in its adult learning model as proposed by Knowles.

Methodologically, the researcher employed the convergent concurrent mixed methods research approach to answer the four research questions that guided the study. Two self-administrated questionnaires were utilized to collect quantitative data, and semi-structured interviews, focus group interviews, and document analysis were used in the qualitative research method. In the previous chapter of the study, the researcher reported the findings based on the quantitative and qualitative data analysis tools, SPSS and Nvivo, to come up in this chapter with an insightful discussion for the primary purpose of answering the four research questions that state:

RQ1. From teachers' perceptions, how effective are instructional supervisors' practices in promoting personalized professional learning?



RQ2. From instructional supervisors' perceptions, how does the personalized professional learning model impact teachers' performance?

RQ3. Do teachers and instructional supervisors of different gender, experience, grade level, and subjects taught or supervised significantly differ in their investigated perceptions?

RQ4. From teachers' and instructional supervisors' perceptions, what contextual school factors might enhance or hinder the effectiveness of teachers' personalized professional learning experience?

### **5.3 Highlights of the Findings**

Teachers' perceptions of the effectiveness of instructional supervisors' practices in promoting personalized professional learning showed effectiveness in some aspects and less effectiveness in others. The key findings regarding question one about teachers' perceptions of the effectiveness of instructional supervisors' practices in promoting PPL at the sample schools were summarized in the following:

- a) Teachers' voice, choice, and freedom to design their PPL need improvements as there was a limited choice for teachers except to attend compulsory workshops that lacked customization and personalization with little bottom-up offerings as exceptions in some schools. Also, teachers had a poor chance to reflect and share new identifiable learning outcomes. There was a vision, yet it lacked clarity and uniformity across departments.
- b) The content of PPL was not personalized and tailored to teachers' needs, as differentiated entry points were absent in teachers' PPL. The evaluation data existed yet was not used to propose PPL paths for teachers. Also, instructional supervisors were not entirely aware of teachers' learning preferences, needs, and points of strength and scarcely targeted them with PPL topics.

- c) The PPL process lacked any needs assessment plans and PPL plans. Evidence of collaboration between instructional supervisors and teachers existed, yet not enough to promote PPL as there was little collaboration on how their teachers could expand their professional growth and how it would be measured. Also, instructional supervisors seldom suggested a PPL calendar, format, and timing that suited teachers.

Additionally, the key findings for research question two regarding the impact of PPL on teachers' performance at the sample schools were promising, as instructional supervisors' perceptions of the impact of personalized professional learning on teachers' performance revealed its effectiveness in various domains as summarized in the following:

- a) Instructional supervisors' perceptions reflected that the PPL model positively impacted teachers' performance at the target schools disparately, especially in differentiation, collaboration, engagement, and developing professional learning goals.
- b) Teachers' practices revealed enhancements concerning teachers' instructions, awareness, insightful knowledge, leadership skills, and even meeting the needs of their students when asked about PPL's impact on teachers' performance.
- c) Document analysis also showed evidence of such enhancements through the set of related school documents; for instance, teacher evaluation form, teacher observation form, self-evaluation form, observational rubric, data analysis, report for teachers, pre-observation conference tool, post-observational conference, and performance management records.

The key findings regarding the third research question that statistically examined how significantly teachers' and instructional supervisors' perceptions differed regarding gender, experience, etc., were the following:

- a) The ANOVA test showed no relation between the mean perception and years of experience with a significant level of  $0.591 > 0.05$ . There was no relation between the mean of perception and the grade level of teaching, with a significant level of  $0.368 > 0.05$ . Also, no relation between the mean perception and the subject of instruction was found, with a significant level of  $0.423 > 0.05$ . Similarly, for instructional supervisors, no relation was found between their perception and years of experience, subject, or level of supervision.
- b) The independent t-tests for the two groups of participants (teachers and instructional supervisors) showed no significant relationship between the mean difference of variables across the three themes with a dependent variable gender of 2 groups, female and male. The result from the teachers' questionnaire showed that these two variables were not significant ( $0.736 > 0.05$ ), while results from the instructional supervisors' questionnaire showed that these two variables were also not significant ( $1.000 > 0.05$ ).

While teachers' and instructional supervisors' perceptions of the contextual factors that impeded or enhanced the effectiveness of the PPL showed distinct critical enabling and inhibiting school conditions and factors. These key findings regarding research question four were summarized in the following:

- a) Leadership support (internally and externally), sufficient funding, and resources were promotive factors for an effective PPL
- b) The absence or inadequate bottom-up PL strategies, the lack of leadership guidance, and the workload and lack or wrong timing were impeding factors that hindered the effectiveness of the PPL at the sample schools.

From the overall findings of this research, it can be highlighted that instructional supervisory practices were primarily evaluative in nature, and teachers' professional learning was periodic.

This might allow the researcher to state that instructional supervisors were ineffective in promoting PPL at the sample schools in Abu Dhabi. The latter-mentioned enhancements in teachers' performance were promising to underline the impact of the PPL as a model to be used in schools once improvements are made, and inhibitors are removed, as its results can be rewarding for students' learning and teachers' instructional experience.

## **5.4 Discussion of the Findings**

To investigate the multiple perspectives on the effectiveness of instructional supervisors in promoting PPL at four private schools in Abu Dhabi, the researcher analyzed the collected data separately using different analytical techniques and then reported the findings from the three sources, i.e., questionnaires, interviews, and school documents to be triangulated later near the end of the previous chapter.

In the coming four sections of the chapter, the results are combined for interpretation, and the light is shed on what, why, and how the findings can carry out insightful answers for the study's research questions, where each section addresses a specific research question in sequence. Each section of the discussion starts with a general statement for the vital findings, then logically and scientifically interprets the findings taking into account the theories that have informed the theoretical framework of the current study and lent support to the findings. Then the discussion moves gradually to link the findings to other prominent researchers in the pertinent literature where impartial justifications are documented.

### **5.4.1 Effectiveness of Instructional Supervisors' Practices in Promoting PPL**

The first research question targeted teachers' perception of the effectiveness of instructional supervisors in promoting the PPL using a self-administrated questionnaire, focus group interviews, semi-structured interviews, and school documents to investigate what was perceived. Both

teachers' questionnaires and interviews addressed three primary constructs related to the professional learning vision, teachers' voice and choice, the professional learning content, and the professional learning process. The parameters for the upcoming systematic discussion are the extent of the PPL vision and teachers' voice and choice, the relevance of professional learning content, and the relevance of professional learning content.

#### **5.4.1.1 The Extent of the PPL Vision and Teachers' Voice and Choice**

The first construct in the teachers' questionnaire addressed the presence of a vision, teachers' voice, choice, and freedom to design their own PPL paths. Findings revealed that 50% of the teachers confirmed that their instructional supervisors had established a professional learning vision that clearly defined what and how to expand their professional learning, with 20% neutral. In contrast, 80% of the teachers denied that instructional supervisors recognized their professional learning voice and encouraged them to elevate it via sharing new identifiable learning outcomes. Similarly, most teachers lacked the choice and freedom to design their learning paths tailored to their growth needs and readiness. In the qualitative findings, the existence and importance of a professional learning vision were present in some schools, yet there was also a need for a clear and unified one that cannot be overlooked. Findings also revealed that top-downness in professional learning had taken different forms, which led to the lack of a teacher's voice and freedom to prevail over the common practices; similarly, teachers were found to have no choice but to attend imposed workshops that lacked customization and personalization with little bottom-up offerings as exceptions in some schools.

It can be demonstrated from the findings that the presence of a professional learning vision is in line with the instructional leadership theory that guided the study's theoretical framework and the professional learning literature. In the Instructional Leadership Theory, Patterson's model

emphasizes its first function to reach effectiveness in instructional supervision by articulating a shared vision (cited in DiPaola & Wagner 2018). Likewise, the Transformational Leadership Theory, in one of its component factors, idealized influence, asserts the role of the leaders (instructional supervisors) in providing followers (teachers) with a vision and “inspiring them through motivation to become committed to and a part of the shared vision in the organization” (Northouse 2016, p. 169).

The existence of a vision is congruent with what Timperley (2008) underscored about the three leadership roles to keep teachers engaged and ensure sustainable learning. Among them comes the importance of developing a vision. Instructional supervisors have a critical role in developing a vision that addresses teachers’ ongoing professional learning in their pedagogy and content knowledge at the school level. Also, Murray (2013), when speaking about providing a professional learning program for novice teachers as mentoring, illustrated the importance of creating a focused vision where instructional supervisors define the purpose behind the program to ensure its effectiveness.

On the other flip of the coin, it can also be illustrated that even though the findings showed a presence of a professional learning vision, it is apparent that a minimal number of participants in the qualitative data was capable of communicating a clear professional learning vision. It is evident that all participants know the importance of the professional learning vision, as was revealed in the interviews, yet the school documents were missing a clear and unified professional learning vision. Also, some participants shared the need for a clear and unified vision. This indicates a vision, yet it is unclear and disjointed across all school departments. This finding aligns with Abdulla (2020), who found in a study that was conducted in Jordan to investigate the effectiveness of school leaders in promoting the characteristics of professional learning communities the

nonexistence of a clear and common school vision for professional learning and it was recommended in the leaders' implications to ensure involving teachers in designing it.

Additionally, the results revealed that teachers' voices and choices in professional learning were almost recognized as they were restricted by top-down decisions that limited their freedom to choose or design their learning. This leads to the previous illustration that the presence of a vision alone is not enough if it is not empowering for teachers. The lack of a teacher's voice and choice in professional learning is neither compatible with the adult learning theory that informed the current theoretical framework nor with the professional learning literature that emphasizes the importance of articulating a vision and elevating teachers' voice and choice.

For instance, the adult learning theory underlines empowering learners' voice and choice, represented in the teachers' autonomy or freedom to choose their own learning and exercise their voice (Knowles 1975, cited in Merriam & Bierema 2014). Furthermore, the literature also advocates the impactful role of a professional learning vision as developing a clear and unified one for teachers creates a sense of purpose where they understand the relevance of their professional learning and build shared commitment toward it (Cordingley et al. 2015).

The importance of vision, voice, and choice is highlighted in the literature, with studies focusing on the vital role of such empowering practices in turning the school into a learning community. For example, Lieberman (1995) reviewed the outmoded practices in professional learning that need change due to their incapability to support teachers' learning. She found it critical to have a vision as it is an integral part of the school's reform, and teachers must be given a voice and choice to discuss, consider, test, and refine their new instructional practices. Similarly, using qualitative data from interviews and classroom observations, the researchers found that teachers' voices and choices in professional learning significantly impact and support other teachers beyond their

classrooms (Wild et al. 2018). Also, another mixed-method research study by Carl (2005) concluded that the teacher's voice plays a critical role to the extent that if it is not fully supported and recognized by instructional leaders, their professional learning will be jeopardized.

The findings from this part, the extent of the professional learning vision and teachers' voice and choice, corroborate the findings of recent work published in the UAE. For instance, McChesney and Aldridge (2021) explored teachers' perceptions of the contextual factors that impact the implementation of professional learning models in the context of the UAE, particularly Abu Dhabi, during the academic year of 2013-14 and found a need among teachers to be recognized as adult learners and be offered agency, voice, and choice, in their professional learning activities. It was concluded that one-size-fits-all models ignore and never empower teachers' voices and choices, leading to their rejection and frustration. Another example is a mixed-method study by Azaza (2018) that aimed to investigate teacher professional learning by focusing on practices and policies related to New School Model in the UAE context, particularly Abu Dhabi. Results showed that most teachers did not reveal a sense of agency, voice, and choice in their professional learning due to specific contextual barriers such as lack of administrative support, lack of time, and lack of choice in the offered professional learning.

#### **5.4.1.2 The Relevance of Professional Learning Content**

The second construct in the teachers' questionnaire focused on the professional learning content in suggesting PPL topics based on teachers' needs awareness and alignment, differentiating entry points to PPL, using data to propose the content of PPL needs, and following up on the focus areas for PPL. The quantitative findings showed that teachers mostly disagreed between 50 to 70 percent on the above instructional supervisory practices. For instance, 70% of the teachers denied that their instructional supervisors were well aware of their learning preferences, needs, and points of



strength and targeted them with the suggested PPL topics. Similarly, 53% of the teachers uncovered no alignment of their professional learning needs and interests to the school's common professional standards and goals. The qualitative findings revealed that data collection and analysis for teachers' classroom performance was a common feature of monitoring the process of instructional supervisors at the sample schools, with a few references to how the collected data was used to identify the topics for teachers' professional learning.

Moreover, the qualitative findings revealed that teachers' instructional needs were identified but inadequately met as instructional supervisors lacked adequate personalization for teachers' needs in suggesting PPL topics based on needs' awareness and alignment, differentiating entry points to PPL, and using data to propose the content of PPL needs and following up the focus areas for teachers' PPL. Teachers' instructional needs were identified through observation and data analysis; however, such practices only targeted teachers' general professional learning needs to impose generic professional learning training for all teachers, with a few bottom-up strategies as exceptions in some schools. In this sense, the qualitative findings uncovered why disagreement was found in teachers' responses.

It can be interpreted from the qualitative findings supported by school documents that instructional supervisors showed effective professional learning practices, namely in collecting teachers' performance data and analyzing it to suggest general professional learning topics that can excel teachers in their instructional performance. The second effective professional learning practice deduced from the same results was identifying teachers' instructional needs based on observational data. These two instructional supervisory practices align with the study's theoretical framework and the literature on teachers' professional learning. Such findings confirm that collecting and analyzing teachers' performance data is associated with the Instructional Leadership Theory. For

instance, Weber (1996) added three more instructional supervisory practices to the instructional leadership model where managing curriculum and instruction, observing and improving instruction, and assessing the instructional program were among the most common practices that ensure the effectiveness of instructional supervisors (cited in DiPaola & Hoy 2015; DiPaola & Wagner 2018). Also, in the Transformational Leadership Theory, Bass (1997) proposed a model that stands against its opponents in multiple delineated components, among which comes in relevancy to the point discussed here is the individual consideration. In the model's last component, transformational leaders pay attention to followers' growth needs individually and then address them accordingly (Northouse 2016).

Furthermore, prior studies have asserted the findings related to the importance of data's role in monitoring and evaluating performance. Schmoker (2001) exemplified how successful schools refined their teachers' instructional practices when teachers' performance data were analyzed and used as a tool for professional improvement. Pete and Duncan (2007) illustrated how school-based data could be used to assess a program, promote instructional effectiveness, maintain learning focus, and inform professional learning goals. In the same vein, Marzano (2003) emphasized the role of using data to lead the new school reform.

However, what some of the results confirmed is not enough to ensure effectiveness in promoting PPL, as analyzing teachers' data did not aim at personalizing content but more to assigning all teachers to attend general workshop sessions on the most urgent and needed topics school-wide. Also, monitoring teachers' performance and giving a general picture of what is needed at the school level is not PPL. Moreover, it is worth noting that teachers' needs identification was extremely limited to classrooms as it is apparent that instructional supervisors were not well aware of teachers' learning preferences, needs, and points of strength to target them with PPL topics.

Thus, more effective instructional supervisory practices are still missing; the school document analysis proves that.

It is undoubtful that instructional supervisors focus on teachers' instructional needs through classroom visits, observations, and meetings between them; however, meeting their needs lacks adequate personalization. This conclusion reflects those participants who disagreed that their professional learning content was data-driven or that using data was initiated to target their needs in PPL, differentiate entry points to PPL, and follow up on the focus areas for PPL. There has been an agreement on this conclusion in the literature when researchers emphasized the role of data in addressing teachers' needs, as such practices promote effectiveness in professional learning. Maggioli (2020), for instance, considered the issue of addressing teachers' unique needs as an impactful characteristic of powerful professional learning where great reliance on teachers' strengths can be used to address their continuous needs in professional learning. In another example, Hirsch et al. (2018) concluded from their case study that effective professional learning experiences are the ones that feature data-informed approaches where every teacher's needs are well-targeted. Another similar conclusion was reached by Hayes and Robnolt (2006). They investigated teachers' professional learning in the USA to find that data-driven practices support instructional supervisors and enhance teachers' instructional practices as long as they target their needs. Additionally, Minor et al. (2013) found that focused content in professional learning impact students' collaboration and personal autonomy.

#### **5.4.1.3 The Appropriateness of the Professional Learning Process**

The third construct in the teachers' questionnaire focused on the professional learning process with reference to instructional supervisors using a needs assessment plan to personalize teachers' professional learning, suggesting a PPL calendar, format, and timing that would better suit them,

and collaborating with teachers to determine how their professional growth would be measured, providing teachers with sufficient time and resources to expand their professional learning and in executing a PPL plan for them. Results from the quantitative data showed little agreement, and almost 50% to 67% of the teachers perceived that such practices did not exist at the sample schools. The highest percentage of disagreement was on the item that states, “my instructional supervisor has executed a PPL plan for me.” The qualitative findings revealed the theme of providing a supportive leadership environment that many teachers recognized. Leadership support was reported in motivating teachers, encouraging them, and offering them resources. Another qualitative finding revealed the theme of guiding the instructional supervisory process through setting meetings and giving feedback. However, these two findings did not extend to the PPL process as many practices were still absent as personalizing the professional learning calendar, format, and timing to best suit teachers and executing the PPL plan. Also, there was an explicit disconnection in the process and dependency on external professional learning providers that teachers perceived as more effective than the in-house ones.

Thus, it can be interpreted from the results that leadership support in the professional learning process is evident through various practices; however, bottom-up offerings that depend on teachers to lead their professional learning is not the trend in the targeted schools as top-downness is still more present in its episodic process. To exemplify, planning teachers’ professional learning followed traditional practices where neither needs assessment plans nor PPL plans existed at the sample schools. This distinction is further exemplified in the learner’s pathway that was not following a specific calendar, format, and timing to best suit teachers; on the contrary, it is evident that there was only one general pathway for all learners. Also, it can be illustrated from the findings

that the instructional leadership guidance in the instructional supervisory process is present yet limited to two practices, i.e., setting meetings and giving feedback.

The study's theoretical framework in its leadership theories cultivates the finding relating to leadership support. According to the instructional leadership theory, all the proposed models used to define effectiveness in instructional supervisory practices stress the valuable role of leadership support in creating a supportive learning environment. For instance, Hallinger & Murphy (1985) highlighted promoting a positive school climate as the third effective instructional supervisory practice in their model; similarly, Murphy (1990) updated his model to add developing a supportive work environment as an additional function (cited in DiPaola & Wagner 2018). Also, the shared leadership theory underscores the importance of establishing a supportive and collaborative leadership structure that can reshape the top-down hierarchy in leadership to more shared decision-making (Marks & Printy 2003). Likewise, in the Transformational Leadership Theory, Bass (1997) focused on inspiration as a kind of leadership support where leaders motivate followers (teachers) with high expectations to show more commitment and perform better.

Prior studies that have approached the importance of leadership support in the professional learning process through motivating teachers, encouraging them, and offering them resources were numerous. Darling-Hammond (2005) acknowledged that leadership support could be presented as emotional support, recognition, and encouragement to guarantee effective professional learning. In this sense, school leaders who recognize and encourage their teachers' professional learning promote effectiveness and sustain enhancements. Also, Geurkink-coats (2019) found that teachers should be motivated to participate in professional offerings. Likewise, Day et al. (2006) found that leadership support is critical for teachers' motivation and commitment. Whereas Wei, Darling-Hammond and Adamson (2010) recognized the essential need to support and provide teachers with

sufficient resources to empower their professional learning. Locally or more specifically, in Abu Dhabi, Buckner (2017) investigated teachers' professional learning using TALIS 2013 data from OECD and a new set of data collected through a survey. The results of this study pointed to several factors linked to teachers' professional satisfaction, among which comes the type of leadership support they received.

The findings vis-à-vis guiding the instructional supervisory process, as in setting meetings and giving feedback, are compatible with the Instructional Leadership Theory. Patterson, in his model, emphasized that effective instructional supervision involves divergent functions, including monitoring instructions and providing constructive feedback for teachers (cited in DiPaola & Wagner 2018). The results also align with a mixed-research method study conducted by Rous (2004), who examined teachers' perceptions of effective practices that influenced instructional supervision. The study found that instructional supervisors impact teachers' instructional practices through classroom support, constructive feedback, whether verbally or in praising and non-verbally as in facilitated interactions, and offering professional learning for their teachers.

Nonetheless, despite what the results confirmed about a few effective instructional supervisory practices in the professional learning process, other practices are still absent due to the lack of job-embedded and tailored PPL to teachers' needs, calendars, formats, and timing. Also, the inadequate collaboration between instructional supervisors and teachers to determine how their professional growth can be measured and insufficient time to expand their professional learning or execute a PPL plan are absent. These missing practices in the findings are inconsistent with the adult learning theory that informs the theoretical framework of the current study since self-directedness in learning, a pillar in the adult learning model, is ignored. The theory emphasizes that self-directed learning empowers adult learners to own or control their learning and should be

facilitated and translated through independent strategies (Knowles, Holton & Swanson 2005). Also, such missing practices in the findings are not in harmony with the related literature on bottom-up professional learning, where teachers are given a voice and choice in the professional learning process. For instance, not giving the teacher a voice to know what he or she wants or needs will leave him or her behind as the teacher's engagement will be detached and disengaged before looking for a learning opportunity beyond what is offered at school. Also, teachers should have a choice in flexing their learning across an adaptable calendar, format, and timing to warrant personalization in professional learning (Rodman 2019, p. 36). Accordingly, Geurkink-coats (2019) stressed that it is the instructional supervisors' role to ensure flexibility in the timeline and mode of study. Equally important, Timperley (2008) argued that being engaged and active in professional learning requires more than just attending the offerings. Teachers need multiple learning experiences which can deepen their knowledge. Lutrick and Szabo (2012) advised instructional supervisors to target teachers' needs and interests to engage them actively and continuously in learning. In terms of offering teachers sufficient time, Jensen et al. (2016) connected committing sufficient time for teachers to enhance their professional learning experiences.

#### **5.4.2 The Impact of PPL on Teachers' Performance**

The second research question targeted instructional supervisors' perception of the impact of PPL on teachers' performance using a self-administrated questionnaire, semi-structured interviews, and school documents to investigate what was perceived. Both instructional supervisors' questionnaires and interviews revolved around three primary constructs related to the learner's development, professional learning environment, and application. The parameters for the

upcoming systematic discussion are supporting each learner's development, the value of the professional learning environment, and promoting effectiveness in the learner's application.

#### **5.4.2.1 Supporting Each Learner's Development**

The first construct in the instructional supervisors' questionnaire assessed the impact of PPL on teachers' development concerning gaining more competency in identifying the appropriate strategies to meet the needs of their students, becoming more independent in assessing teaching methods and changing them, and solving academic and behavioral problems without getting help from supervisors, setting short and long term growth goals without help, and taking ownership of their professional learning through involvement in its process. Results from the quantitative data showed that the instructional supervisors mostly perceived positive changes in teachers' performance, with percentages that ranged between 56.3% at its highest and 28.1% at its lowest. More particularly, 56.3% of the instructional supervisors perceived that their teachers had become independent in assessing that a particular teaching method or tool should be changed, which was the highest agreeable practice, where only 9.4% said a little on the same item. In contrast, 28.1% of them perceived that the PPL model was a little impactful on the item that says, 'my teachers have become independent to identify and solve any academic and behavioral challenges without getting back to me' when 56.3% said a fair amount and 9.4% said quite a bit. The instructional supervisors' positive perception was in line with what was perceived from the qualitative results as instructional improvements, raising awareness, gaining insightful knowledge, and meeting the needs of their students were among the most gains instructional supervisors highlighted in their interviews when asked about PPL's impact on teachers' performance.

The findings illustrate how instructional supervisors perceived the positive impact of PPL on teachers' development in gaining more independence, competency, and ownership of their



professional learning. The adult learning theory confirms the results, as it distinguishes adult learning from child education based on the learners' distinctive characteristics. It emphasizes how independency and self-directedness can allow adult learners to perceive their learning goals in relevance to the richness of their experiences, as contrasted to children's limited perceptions and experiences (Knowles, Holton & Swanson 2005). In the same vein, Schachter and Gerde (2019) emphasized the impact of using videos as an effective practice in PPL, where teachers can entirely improve their learning and performance. It paves for teachers a personalized learning path where they can own their learning by receiving accurate feedback on their classroom practices.

Similarly, Geurkink-coats (2019) investigated the effectiveness of using PPL in teaching practices. The model allows teachers to self-direct their learning and select topics or skills relevant to their needs through online courses. It was found that implementing the PPL approach impacted teachers' instructional practices as they became more competent in directing their learning and guiding their exponential growth independently and confidently to a new level. Clark, Schoepf, and Hatch (2018) used a mixed-method design to investigate how PPL could enhance teachers' instructional practices in reading. They reached similar results as it was found that instructional practices in reading were enhanced in diverse ways due to the use of PPL. Rhode, Richter, and Miller (2017) optimized a PPL program at a university to examine instructors' readiness and proficiency in online teaching and learning, considering their diverse needs, skills, expertise, and self-efficacy. The researchers designed a self-assessment instrument that measures online efficiency and competency for such a purpose. Findings were promising to refuse the old one-size-fits-all approach to developing online teaching as the new personalized adult learning offerings proved to support faculty in their developmental process.

#### **5.4.2.2 The Value of the Professional Learning Environment**

The second construct in the questionnaire investigated the impact of PPL on teachers' professional learning environment concerning becoming more collaborative with their instructional supervisors and the rest of the learning community, becoming more innovative in their practices, becoming more curious about new ideas, becoming more confident in taking initiatives in their classes and becoming more flexible with their instructional supervisors to in making professional learning decisions. The quantitative findings showed that instructional supervisors generally perceived a positive impact of the PPL model on teachers' professional learning environment. The highest percentage of agreement was for practices related to collaboration and innovation in teachers' performance. In numbers, 59.3% of instructional supervisors believed teachers became more innovative in their practices. Also, 56.2% of instructional supervisors believed that teachers collaborated more with them and with the rest of the learning community. In comparison, 37.5% of instructional supervisors were noticed to rate a little on the item that says that teachers became more confident in taking the initiative in their classes. The qualitative results confirmed what was found in the quantitative data, as the impact of professional learning on teachers' performance was perceived to enhance teachers' leadership capacities and create positive interactions and relationships between teachers and students.

It can be interpreted from the findings that using PPL enhances teachers' professional learning environment, represented by a set of affirmed practices. These findings are coherent with the theoretical framework of this study, particularly with the Vygotskian Socio-Cultural Constructivism Theory, which relates learning to social encounters influenced by social and cultural factors within a particular context to achieve the desired learning for the learner (Steiner & Mahn 1996). Thus, with more positive interaction, more learning can happen. Similarly, the

findings are coherent with what exists in the related literature; Wang and Zhang (2021) emphasized that although the relationship between the school environment and teachers' professional learning was not linear, they significantly impact each other. The Canadian case study by Grierson and Woloshyn (2013) explored an urban private school using qualitative data on how providing PPL through individualized instructional coaching influenced teachers' instructional practices. Findings revealed that PPL positively impacted teachers' professional capabilities. Also, Hirschy (2016) reviewed in her article the new dimensional possibilities that can be offered within the unrestricted boundaries of PPL. She revealed how integrating technology into teachers' professional learning via PLNs can guide and enrich the learning experience with unlimited resources. The PLN offerings created a prosperous learning environment particular to every teacher's interests. Passmore and Hart (2019) stressed the importance of understanding that a teacher's professional identity is a learning process that needs to develop and evolve within a personalized path that can facilitate its learning acquisition in any mode (group/ individual) and authorize its practices to meet the needs of each teacher.

#### **5.4.2.3 Promoting Effectiveness in the Learner's Application**

The third construct in the questionnaire investigated the impact of PPL on teachers' application concerning becoming more engaged in their PPL, becoming more skillful in using students' achievement data to measure their performance, becoming more effective in differentiating learning for their students, developing professional learning goals that can be translated into classroom objectives, and becoming more competent in using the students' data to make informed instructional decisions. The quantitative findings showed that almost 47% of instructional supervisors believed that PPL impacted teachers in differentiation and engagement. In comparison, 18% believed PPL was a little impactful on teachers becoming more competent in using the

students' data to make informed instructional decisions. The qualitative findings witnessed changes and improvements in teachers' performance, especially in their classroom instructions and skills as lesson planning. Also, the findings revealed that instructional supervisors believed they started to see progress and engagement between teachers and students, especially in meetings students' needs.

The results showed positive changes in teachers' applications and relationships with students. This conclusion relates to what Vygotsky formulated. The Vygotskian learning theory stresses the belief that learning occurs when more social interaction happens between the teacher and the student. The theory also focuses on what individuals might do under supportive guidance from a more knowledgeable 'other,' which can better indicate their cognitive abilities than what they can do alone. From this perspective, scaffolding becomes an assistive developmental system to promote more learning than the real developed cycle in the form of interactions between a more knowledgeable other and a learner to have students naturally do the cognitive work (Irby 2013). In the same line of findings, studies by researchers like Hall and Trespalacios (2019), Jarvis et al. (2012), Fok and Ip (2006), and Dennis and Hemmings (2019) found how using PPL can impact teachers' skills and applications with students. For instance, Hall and Trespalacios (2019) investigated the effectiveness of PPL concerning teachers' self-efficacy and comfort zone toward ICT in a public school in Arizona, USA. The program study was conducted on 480 K-12 public school teachers, and from the pre-and post-tests, it was found that PPL was significantly effective on teachers' self-efficacy in using ICT and improved their comfort level in using ICT skills.

Similarly, in the UK, Jarvis et al. (2012) explored the effectiveness of a personalized needs-led approach on a group of experienced educators as part of an induction process at a University School of Education. The qualitative research showed that the self-study approach effectively

developed the professionals, particularly in showing more confidence in working in complex contexts and facilitating learning in researching, writing, and teaching. Likewise, Fok and Ip (2006) discussed how the richness of information with the great body of e-learning materials could be integrated into education to lead to PPL that can identify and support the diverse needs of learners. Additionally, Dennis and Hemmings (2019) explored how a Year 1 teacher engaged in job-embedded professional learning passed his developing expertise in guided reading lessons which impacted how he became more responsive to students' learning needs.

#### **5.4.3 The Difference between Educators' Perceptions and their Demographics**

The third research question measured the statistically significant difference between teachers' and instructional supervisors' perceptions and gender, experience, grade level, and subjects taught or supervised. To answer this question, the researcher collected data using two self-administered questionnaires designed in their first sections with demographical questions that targeted the participants' related background information and demographics. The quantitative data were analyzed using the SPSS, where the means and standard deviations for teachers' and instructional supervisors' perceptions were measured and compared using various statistical tests. A one-way ANOVA test was used to compare the relationship mean between variables of more than two groups (years of experience, level of teaching/supervising/ subjects taught or supervised). Another was the independent t-test to measure the statistical difference between two independent groups (males and females).

The quantitative results for the teachers' questionnaire showed no statistically significant difference ( $\alpha=0.05$ ) in teachers' perceptions of theme one and years of teaching experience, subjects taught, and grade level. Whereas the results for theme 2 showed that there was a statistical difference at a significant level of ( $0.000<0.05$ ) in teachers' perceptions and years of teaching

experience; similarly, there was a statistical difference at a significant level of ( $0.001 > 0.05$ ) in teachers' perceptions and grade level of teaching, yet no statistical significance ( $0.407 > 0.05$ ) was found across subjects taught for this theme. Theme 3 shows no statistically significant difference at ( $\alpha=0.05$ ) in teachers' perceptions and years of teaching experience, subjects taught, and grade level. For gender, no significant statistical differences ( $\alpha=0.05$ ) were observed in teachers' perceptions of the effectiveness of instructional supervisors in promoting PPL.

The quantitative results for the instructional supervisors' questionnaire showed no statistically significant difference at ( $\alpha=0.05$ ) in instructional supervisors' perceptions for theme one and years of experience, subjects supervised, and grade level. Whereas the results for theme 2 showed that there was no statistical difference at a significant level of ( $0.05$ ) in instructional supervisors' perceptions and years of supervising experience; similarly, there was no statistical difference at a significant level of ( $0.05$ ) in instructional supervisors' perceptions and grade level of supervising, and no statistical significance was found across subjects supervised for this theme. Theme 3 showed no statistically significant difference ( $\alpha=0.05$ ) in instructional supervisors' perceptions, years of experience, supervised subjects, and grade level. For gender, no significant statistical differences at ( $\alpha=0.05$ ) were observed in instructional supervisors' perceptions of the impact of PPL on teachers' performance.

The theories that informed the study's theoretical framework (i.e., instructional leadership theory, transformational leadership theory, adult learning theory, and socio-cultural constructivism theory) do not directly imply the relationship between the theory and the demographics of individuals. Nevertheless, it was worth examining whether the participant's perceptions significantly differed for their demographics on the one hand and the main concepts and theoretical models on the other. According to the Socio-Cultural Constructivism Theory, Vygotsky related

learning to social encounters influenced by social and cultural factors within a particular context to achieve the desired learning for the learner (Steiner & Mahn 1996). In light of the theory, any significant difference in participants' perceptions and gender, experience, grade level, and subjects taught or supervised when socially and culturally interact can control their professional learning, and more learning can happen. That can justify the significant statistical difference at a significant level of ( $0.000 < 0.05$ ) in theme 2 for the quantitative findings in teachers' perceptions and years of teaching experience and the statistical difference at a significant level of ( $0.001 > 0.05$ ) in teachers' perceptions and grade level of teaching. It is worth remembering that the quantitative studies in the literature on personalized professional learning are limited, especially in the UAE. Still, this finding aligns with the literature on PPL, which has revealed no significant difference in educators' perceptions and demographics. For instance, Carpenter and MacFarlane (2018) investigated educators' perceptions of the impact of Edcamp teacher-driven practices on their professional learning. Using the mixed-method research on 252 participants, the researchers revealed that most participants believed the experience positively impacted their professional learning. Despite that, the study showed no significant difference in the educators' perceptions based on gender, prior experience with Edcamps, or years of experience. Whereas in the literature on professional learning, there are inconsistencies among studies where some have indicated significant differences among demographics and others found no significant variations. For example, Amanulla and Aruna (2014) conducted a study in India to determine the impact of teacher efficacy on the professional learning of 350 higher-secondary teachers. The t-test results revealed significant differences among teachers concerning gender, level of experience, and type of school teachers, whether public or private. Another example was Badri et al. (2016), who investigated teachers' perceptions of professional learning to identify their needs, challenges, and impacts

across the professional offerings. The mixed-method study examined 4,941 secondary teachers from Abu Dhabi public, private, vocational, or regular schools. It compared different variables: age, gender, and school type (public or private) and analyzed its data statistically through individual ANOVAs. According to the findings, a notable difference between public and private schools revealed an apparent need for professional learning activities. Also, it was notable that male and female teachers significantly differed in their perceptions. For instance, male teachers revealed a higher perception of the effectiveness of those activities than female teachers. On the other hand, female teachers showed a significantly higher perception of listing and rating barriers to participating in professional learning activities. Therefore, such inconsistencies in the findings implicate that more future studies should be conducted on PPL and investigate the demographical differences that can lead to a new conclusion within the context of the UAE.

#### **5.4.4 The Contextual School Factors**

The fourth research question targeted teachers' and instructional supervisors' perceptions of the contextual school factors that might enhance or hinder the effectiveness of teachers' PPL experience. To answer this question, the researcher collected data using semi-structured and focus group interviews designed with various questions to collect qualitative data from participants' perceptions and experiences alongside school documents for document analysis and open-ended questions in the two self-administrated questionnaires. The qualitative data were analyzed using the NVivo, where thematic analysis was employed using phases from an approach recommended by (Braun & Clarke 2006). The qualitative findings revealed two main themes and six subthemes. The first theme was the promotive school factors, where leadership support through instructional supervisors' availability, encouragement, and proper communication with teachers was the first important subtheme. Also, it was deduced that having sufficient funding and resources played a



significant role in the success of the PPL program. These two subthemes were synthesized from teachers' and instructional supervisors' perceptions of the possible contextual factors that enhanced the promotion of the PPL.

On the other hand, it was found that the absence or inadequacy of bottom-up professional learning strategies substantially impeded teachers' professional learning. Also, it was inferred that the lack of leadership guidance, internally or externally, inhibited teachers' PPL. Finally, it was found that workload and the lack, or wrong timing of professional learning at the given schools, significantly limited the PPL program's success. These three subthemes were combined from teachers' and instructional supervisors' perceptions to form the possible contextual factors impeding the PPL promotion.

#### **5.4.4.1 Promotive School Factors**

##### ***The Usefulness of Leadership Support***

Participants viewed that leadership supports through their availability, encouragement, and proper communication was among the significant promotive school factors that enhanced PPL at the sample schools.

All the leadership and learning theories that guided the theoretical framework of the current study have emphasized the role of leadership support as a catalyst to ensure effectiveness in leadership and learning. For instance, the instructional leadership theory in Patterson's model (1993) records how supporting instructional practices can be one of the most effective instructional supervisory practices in schools (cited in DiPaola & Wagner 2018). Likewise, the transformational leadership theory centers around creating a supportive leadership environment in its leadership process by which a leader interacts with teachers and establishes a relationship that increases motivation and morale. This type of leader is aware of teachers' needs and motivations and strives to help them

reach their full potential (Northouse 2016, p.164). In addition to the leadership theories, learning theories presented in the theoretical framework have focused on the role of support to unleash the learner's potential and expand learning to a new level. For instance, the adult learning theory demonstrates support in various aspects. Knowles, in his model, emphasized how support can start with leading learners to know why they need to learn prior to their learning; another aspect includes supporting individual differences in cognition, personality, and prior knowledge; the last aspect is through motivating learners to extend their learning (Knowles, Holton & Swanson 2005). Similarly, Vygotsky, in the Socio-Cultural Constructivism Theory, emphasized the role of scaffolding as a sort of supportive guidance exerted by a more knowledgeable 'other' to reach the learner at a level beyond their actual zone. From this perspective, scaffolding becomes an assistive developmental system that promotes more learning than the developed cycle (Irby 2013).

Additionally, there is a consensus in the literature on professional learning that the instructional supervisor's role is to be supportive of their teachers (Campbell et al. 2017; Cordingley et al. 2015; Darling-Hammond 2005; Day et al. 2006; Hawley & Valli 2000; Reitzug 2002; Timperley 2008). For example, Campbell et al. (2017) illustrated how instructional supervisors could support teachers' professional learning by engaging them, identifying and advocating their needs, and formally celebrating their successes. Such leadership support was highly appreciated and appraised by teachers in Canadian schools.

Leadership support as a promoting factor to effective teachers' professional learning demonstrates a strong and consistent association with results from earlier studies. For instance, Sandholtz and Ringstaff (2016) conducted a case study to explore what contextual factors might impact K-2 teachers' professional learning at five elementary schools in the United States of America. It was found that the influence of the principal's ongoing support is a contextual factor that can support

or impede effectiveness in professional learning outcomes. Also, Silva, Amante, and Morgado (2017) conducted another study in Portugal on 234 teachers from middle and secondary schools to find that school leadership support could predict and impact teachers' collaboration in professional learning. The types of leadership support in the study varied from emotional, informational, and professional support. The researchers found that with more supportive school leadership comes more teachers' effectiveness, engagement, collaboration engagement, and participation in recreational and interdisciplinary activities. Furthermore, Wang and Zhang (2021) conducted another recent study in China to examine the relationship between leaders' support and teachers' professional skills to find a significant positive correlation between the variables. The results indicated that school principals directly influenced teachers' professional skills and learning.

### ***Sufficient Funding and Resources***

Cotton (2003) asserted that in phenomenally successful schools, only effective instructional supervisors are the ones who provide teachers with varied resources to secure the schools' improvement. The availability of sufficient funding and resources from materials and online resources was among the qualitative findings. Finding funding and providing adequate resources are cited in the literature as effective features of professional learning. The participants deemed these requirements critical for successfully implementing the PPL program.

Participants believed that having sufficient funding and resources impacted the PPL at their schools. In their perceptions, adequate funding was a vital catalyst for development, and its shortage can limit teachers' professional learning. Getting sufficient resources was also considered an essential contextual factor in facilitating professional learning practices. The existing funding patterns in the responses were mainly directed toward external professional learning, where

teachers are offered money to attend professional learning opportunities outside the school premises or to hire external professional learning expertise to provide it at the schools. Nevertheless, funding challenges remain, as one of the school participants revealed that the funding was mainly available yet challenging regarding professional learning. For resources, instructional supervisors had budgets for their departments that could afford what was needed for teachers from internal and external resources, even those schools that depended on hiring external professional learning expertise. It can be interpreted from the findings that funding and resources are promotive school contextual factors that can enhance the effectiveness of the professional learning offerings. Additionally, it can be further illustrated that instructional supervisors have no excuse for funding and resourcing their schools and providing their teachers an entry point to a unique personalized professional learning experience.

Internal and external resources need funding, which can draw back on the relationship between teachers and their instructional supervisors. This is in line with what the socio-cultural constructivism theory focuses on when explaining how learning increases when the individual socially interacts within the school learning community. In this sense, teachers professionally engage in their professional learning activities due to the availability of multiple resources, mainly when educators use them well (Steiner & Mahn 1996).

The relationship between funding and resources and professional learning is evident in the prior literature (Desimone 2002; Elliott 2017; Hord and Roy 2013; Jensen et al. 2016; Wei, Darling-Hammond and Adamson 2010). For instance, Desimone (2002) proposed that the leader's role is to supplement their schools with adequate resources from funding, materials, and Human Resources, as any lack of resources will inhibit reforms. The results also agree with what Campbell et al. (2017) stated about the accessibility to professional resources of expertise "alongside

adequate funding, therefore, is also the importance of access to the professional resources of expertise.” Moreover, Ringstaff (2016) explored in their case study how school contextual factors can have long-term effects on KG-2 teachers’ professional learning in 5 American elementary schools. Findings have indicated the availability of resources as contextual factors that can promote and support the effectiveness of professional learning outcomes. Likewise, Hirschy (2016) found that providing professional learning resources, especially those involving PLNs, can promote and enhance teachers’ professional learning. PLNs can enable the teacher user to connect with teachers and resources inside and outside their schools from all over the world and gain comprehensive knowledge about any relevant topic they need to understand. The social media network can be one example of such PLNs where professional online resources are available and explicitly targetting any teachers’ interests and needs.

#### **5.4.4.2 Hindering School Factors**

##### ***The Absence or Inadequate Bottom-Up Professional Learning Strategies***

In the quantitative and qualitative data, the researcher focused on the PPL practices provided for teachers by their instructional supervisors. For this aim, the last question in the first section of the two questionnaires targeted the bottom-up practices concluded from the literature as the best set of bottom-up professional learning strategies. Results showed inadequate bottom-up professional learning strategies absent in some targeted schools. For instance, teachers confirmed the presence of workshops and online professional learning in high percentages (87%-100%), yet in peer coaching, the percentage dropped drastically to 26% and 22.3% in mentoring, while only 4.7% confirmed the existence of action research. Consistently, instructional supervisors confirmed the high percentage of online professional learning and workshops and peer-coaching 83.3% and 50% in mentoring. The high percentage of peer coaching and mentoring for instructional supervisors

was almost consistent with the teachers due to the difference in the number of participants. The quantitative results from the questionnaires and the qualitative findings from the interviews with teachers and instructional supervisors reflected similar inadequacy in the existence of some bottom-up professional learning strategies. Participants were mostly negative in their perception of the bottom-up professional learning practices and considered the existing traditional top-down professional learning as unhelpful disconnected practices, even depending on external providers. Thus, the prevailing traditional practices were hindering compared to the purposeful practices that sought their interests and needs. Far from the top-down practices that limited its offerings to workshops and training sessions, there were vague references for peer coaching, mentoring, differentiated sessions, and personalized professional learning. However, it is worth noting that such practices were not the standard professional learning strategies at the sample school, as some were offered as an alternative to face-to-face.

The findings indicate that even though some of the bottom-up professional learning strategies existed in a limited manner, there is solid evidence signaling the absence of many other bottom-up strategies that can change the offerings to become more personalized, relevant, and empowering for teachers' professional learning. This is a significant weakness in the system of professional learning. For instance, the lack of reported identification or use of Action Research (AR) in instructional supervisors' approach to professional learning while bearing in mind the recurring themes in the data where teachers repeatedly referred to how much they valued practical and functional approaches to their professional learning appears not only to be a key finding and a weakness in the system but also a potentially powerful engine for increasing the momentum of the shift towards more ground-up models of educational change and improvement. Equally important, this shows that effective models of instructional supervision and approaches to PPL for teachers

are the ones that focus on real problems in educational practice and do not rely on one size fits all professional learning events.

It is worth noting that the only exception highlighted in the data was online professional learning, yet the concern still exists as this strategy was similarly offered for all teachers to that in the face-to-face workshops, and the result is inevitably mutual. Also, the findings imply three instructional supervisory practices featuring top-downness. First, selecting professional learning activities was based on the instructional supervisors' decision, and teachers had little to do with that. Another relates to how the selection of professional learning was unresponsive to teachers' needs and more based on inspection reports and other school demands. The last supervisory practice was the ignorance of any awareness of the diverse types of learners among teachers, evident in the general professional learning workshops for all teachers. The results further inferred that the inadequate provision of ongoing professional learning and disconnection in its offerings are some of the features associated with the top-down professional learning offerings at the sample schools.

The professional learning offerings at the sample school are incoherently linked with the adult learning theory that formed the theoretical framework of the current study. The adult learning theory emphasizes individualizing the adults' learning strategies. The theory acknowledges that "any group of adults will be more heterogeneous in terms of background, learning style, motivation, needs, interests, and goals than is true of a group of youths" (Knowles, Holton & Swanson 2005 p.66) and that is overlooked when instructional supervisors were not tailoring professional learning for their teachers. Another incoherence between the theory and the findings is presented in the disconnection of professional learning. The fragmented nature of the professional learning offerings in the results opposes what the adult learning theory confirms about the importance of continuity in learning for adults as their learning is grounded in experience and

relearning (Knowles, Holton & Swanson 2005). Thus, instructional supervisors who believe that ongoing professional learning can be exhausting for teachers should rethink such a conclusion as they are mistakenly preventing teachers from expanding their repertoire of knowledge and experience that can benefit the whole school community. To add more theoretical depth to the discussion, the bottom-up approach that was mostly ignored, absent, or inadequate in the findings of the study is incongruent with what is grounded in the Socio-Cultural Constructivist Theory, which explicates learning in terms of bottom-up processes constructed by teachers in their contexts when they socially and culturally interact with their instructional supervisors, colleagues and even students (Steiner & Mahn 1996). Also, the theory emphasizes the role of scaffolding that was limited to a few effective practices within the context of the current study due to instructional supervisors' inadequate provision of PPL practices. According to the theory, scaffolding plays a functional and developmental cognitive role in boosting more learning than the actual developed cycle in the form of interactions between a more knowledgeable other (instructional supervisor) and a learner (teacher) (Irby 2013). In this sense, the role of the instructional supervisor is to facilitate knowledge and scaffold the learning experiences for their teachers, not just to assign and mandate a few sets of workshop sessions where teachers sit and hit or miss their professional learning goals. Even the transformational leadership theory induces the ineffectiveness of leadership practices that lack ongoing contribution from all followers (teachers) in the decision-making process, and the leaders (instructional supervisors) benefit from their inputs to target the common goals of the team (Northouse 2016). Eventually, the top-down practices that seek compliance in their essence rather than aiming at making shared decisions and bottom-up participation do not inspire teachers to transform their professional learning and grow effectively.



The findings from the professional learning offerings are further inconsistent with the new trend in the pertinent literature that enlisted many researchers who reached a series set of bottom-up professional learning strategies counted as more effective than the inhibiting traditional top-down professional learning offerings. The main reason is that they meet the main characteristics of effective features of professional learning defined and agreed upon among researchers (Gregory 2013; Heller 2004; Maggioli 2004; Priestley, Biesta & Robinson 2015; Rodman 2019). Internationally, bottom-up professional learning strategies are found to empower teachers, lift their professional learning voice, and give them space and choice to own their professional learning based on pre-assessment for their needs and interests (Macias 2017; Murray 2013; Rodman 2018). In a similar vein, it is demonstrated from the findings that instructional supervisors' limited awareness and responsiveness to teachers' distinctive learning styles and preferences restricted their professional learning at the sample schools. This finding confirms what the researchers have advocated for in the bottom-up professional learning model in the literature. They have expounded on the focused nature of such strategies and explicated their effectiveness in personalizing and customizing the learning specifications to suit each type of adult learner away from the generalized, randomized, and unfocused nature of the traditional top-down professional learning (Alawani & Singh 2017; Clark, Schoepf & Hatch 2018; Hall & Trespalacios 2019; Hairoon 2017; Hathorn & Dillon 2018; Karami-Akkary 2019). Likewise, the absence of bottom-up professional learning offerings at the sample schools goes hand in hand with the local research findings of Azaza, Litz and Hourani (2021) found when they stated:

Given the context of Abu Dhabi public schools; in terms of the fact that schools are typically managed in a top-down manner, teachers' PD faces hurdles pertaining to the design and content of the PD to be offered, where the macro management has the upper hand and professional learning is often delivered as a "one-size fits all" model (p. 49).

On the grounds of this, it is pretty critical for instructional supervisors to show more awareness toward teachers' diverse learning preferences and styles and respond individually to them, taking into account that their role involves facilitating and scaffolding learning, not just imposing it and waiting for changes to happen. Instructional supervisors should participate in these bottom-up strategies by allowing teachers to build capacities, following through, and empowering them to select and design their own professional learning, which is discussed in detail in the recommendations.

Similarly, the inadequacy of the bottom-up professional learning strategies was also found to impede teachers' professional learning. This agrees with findings in the literature that reported that the inadequate offerings for mentoring impedes the desired improvements in teachers' and mentors' pedagogical knowledge, communication skills, and leadership practices, as in building competency and problem-solving skills (Hudson 2013). The previous international literature has confirmed that the presence of bottom-up strategies promotes effectiveness in teachers' professional learning as it is teacher-centered learning, coupled with ongoing participation, and tailored to teachers' needs. For example, Macias (2017) conducted a qualitative study to explore participants' perceptions of the benefits of a bottom-up structure in professional learning. Participants embraced the proposed bottom-up model, and results revealed that educators' flexibility increased, and teachers' efficacy progressed. Also, the inadequacy of bottom-up practices as a hindering factor to professional learning is consistent with Lohman's findings on inhibitors to informal professional learning among teachers, where one of the four hindering conditions was limited decision-making (Lohman 2000). The findings also are confirmed by what McChesney and Aldridge (2021) found in the local literature, particularly in Abu Dhabi. The researchers developed a model to identify contextual factors and barriers hindering teachers'

professional learning. The study revealed a few barriers, some of which were school-related or access-related barriers to effective implementation of professional learning portrayed by how school leaders could either facilitate or hinder teachers' accessibility to professional learning. In this sense, the study found a need among teachers to be recognized as adult learners and be offered agency in their professional learning activities. It was concluded that one-size-fits-all professional learning models that ignore teachers' voices and choices lead to their rejection and frustration.

### ***The Lack of Leadership Guidance***

Another hindering school factor was portrayed through the need for internal and external leadership guidance reported as limited and absent at most sample schools. Internally, this lack of leadership guidance was expressed by different participants during the interviews as a hindering factor due to the absence of the follow-through process of PPL. Along with the external guidance, the participants focused on the need for a unified professional learning framework in the schools. First, the teachers' participants perceived there was a limited follow-through to their PPL goals and practices as there was no accurate follow-up to track their learning progress continuously. What was perceived is relatively consistent with what Cordingley et al. (2015) found and specified regarding the nature of internal leadership guidance that should be an ongoing follow-up to provoke the needed change with a frequency that depends on the required outcomes and the standard practices. The finding ensures that the internal leadership guidance can be a hindering contextual factor that impedes the implementation stage of PPL when there is a lack or absence of follow-through from instructional supervisors when starting up professional learning activities and not constantly following through with attempts. Consequently, the results indicate that the school and the professional learning vision will never be met, and teachers' professional learning needs will be left behind unaddressed, negatively impacting the whole learning community.

What teachers perceived in the internal leadership guidance as a contextual school barrier that impeded their PPL is mirrored in two theories that informed the current study's theoretical frameworks. The socio-cultural constructivism theory suggests that learning occurs due to social encounters that social and cultural factors may influence within a specific context for individuals to acquire the desired learning. Therefore, the instructional supervisor's role is to facilitate, scaffold, and guide the learning process and not impede it with a lack of follow-through. Similarly, in the Transformational Leadership Theory, the role of the instructional supervisor is to inspire teachers to learn, lead from the side, and follow through with all the individual learning to ensure that the implementation of their learning is met.

The perceived barrier is as well consistent with the literature on professional learning that considers leadership follow-up to be a contextual factor that has a significant impact on knowledge and the professional community; thus, its absence impedes teachers' learning which will ultimately influence the whole learning community (Ingvarson, Meiers & Beavis 2005). Likewise, some researchers have ensured that inefficient instructional supervisory practices lead to insufficient transfer in the professional learning experiences once they dismiss providing follow-up or real support to teachers (Guskey & Yoon 2009). Another has studied how the contextual factors influenced sustainability in professional learning outcomes on teachers' performance to find out that having more follow-up sessions can add more collegial ongoing support for teachers and sustain long-term effects on K-2 teachers' professional learning in 5 elementary schools in a rural school in the USA (Sandholtz & Ringstaff 2016). Also, the findings are consistent with other researchers who have found that the lack of follow-up can hinder effectiveness in professional learning (Yoon et al., 2007). At the local level, the findings regarding the absence of internal leadership guidance represented by a fragmented follow-through as a contextual school barrier that

impedes teachers' professional learning agree with what Bond (2013) found about the lack of follow-up visits to the existing professional learning programs in Abu Dhabi.

The other form of professional learning guidance detected as a hindering contextual factor was the absence of external leadership guidance portrayed by the lack of a unified research-based professional learning framework to be followed by all schools in the UAE to meet the high standards of personalized professional learning in the country. The participants revealed the need for a unified PPL framework that might include standards to measure effectiveness in the provision practices similar to the Irtiqaa school inspection framework; eventually, this can create direction and guidance for instructional supervisors and teachers. The need for a unified professional learning framework advocated by participants in the study is mirrored in the literature when Hawley and Valli (2000) stipulated that leadership support takes the form of external leadership guidance for teachers' professional learning. It involves the internal system and external governmental entities, which can offer essential resources, guidance, policies, and perspectives. Also, the result agrees with what Darling-Hammond et al. (2017) detailed about the importance of policy in supporting evidence-based professional learning in many ways, including adopting common standards for professional learning. Passmore and Hart (2019) responded to such a need, established a PPL framework, and linked it to calls for reform in restructuring professional learning. Also, the findings are consistent with Campbell et al. (2017), who emphasized the value of understanding policies and having a legislative framework in professional learning that can lead to effective professional learning practices in the Canadian educational system. Overall, internal and external leadership guidance is critical to implementing professional learning and crucial to determining the effectiveness of instructional supervisors in promoting and supporting teachers' PPL.

### ***Workload and Lack or Wrong Timing***

Based on the given findings, the workload during the school day and the lack or wrong timing was perceived as critical school contextual factors that impede teachers' ability to focus on their PPL. The school's excessive workload was reported to have diverse pressing demands throughout the day. The shortage or wrong timing for the professional learning offerings was also reported, where teachers ought to attend their professional learning at the wrong time or merely when they can not focus or have to attend to other family obligations. The two constraints were important contextual school inhibitors that impeded the success of the provided professional learning at the sample schools.

According to the Transformational Leadership Theory, followers (teachers) need the motivation to inspire them to learn, and the workload and the lack of time can be significant barriers to such a desire for growth (Northouse 2016); therefore, the existence of such impediments found in the study is not in agreement with some elements of the theory because transformational instructional supervisors are expected to create energetic learning environments for their teachers and increase their commitments toward their own professional growth. Likewise, in the Adult Learning Theory, where sustaining adult learning is a pillar in theory and to sustain teachers' professional learning, the instructional supervisor should be careful with all the challenges that might come from logistics as the presence of any difficulty in the logistics from resources, time, the nature of the work can risk the whole the long-term effects of the offerings.

The finding of workload and time as inhibitors to PPL is consistent with several studies by Day et al. (2006), who found similar constraints impeding the effectiveness of professional learning. Similarly, in the international literature, Fang, Chan, and Kalogeropoulos (2021) found that work schedule was a critical barrier to Australian and Shanghai teachers' participation in professional

learning. Bubb and Earley (2013) also investigated how instructional supervisors could use the time factor productively to address their teachers' professional learning. They found that workload and time were prevalent and required close attention as they can restrain the effectiveness of professional learning. To address these challenges efficiently, the researchers suggested that a personalized professional learning approach could be used to alter the existing squeezed sessions to address teachers' individual and school-based needs. In several case studies in Canada, Campbell et al. (2007) also suggested that time and workload were found to be concerning issues for engaging teachers in professional learning. The researchers noted a need to develop approaches to sustain professional learning, which can be achieved through a flexible series of professional learning activities. However, since time and workload were found to be limiting and absorbing teachers' professional growth, they focused on balancing time and workload rather than further expanding them for teachers and ensuring that professional learning was integrated into teachers' school working hours. Locally, Buckner, Chedda and Kindreich (2016) found that the second most significant barrier to teachers' professional learning in the UAE was that the offerings conflicted with teachers' work schedules which agrees with the study regarding how teachers perceived that professional learning opportunities were offered in the wrong timing. Another study consistent with how workload and timing can hinder teachers' professional learning is what Azaza (2018) found in his investigation of teachers' professional learning by focusing on practices and policies related to the New School Model in the UAE context. Results showed that the lack of time in the offered professional learning was "compressing teachers' schedules, causing fatigue and exhaustion, especially that the teachers already have heavy workloads" (p.272). He suggested lowering the workload to allow teachers enough time to learn. Also, the school should promote informal learning opportunities in which teachers learn and reflect at their convenience and pace.

## **5.5 Contribution of the Research**

The current research provides a proper investigation into the effectiveness of instructional supervisors in promoting PPL at four private schools in Abu Dhabi. The study contributes differently to literature, theory, methodology, practice, and policy.

### ***Contribution to Literature***

The new deep knowledge the study is bringing to the literature is inequitable with any other study in the local context as the local literature review reveals that the research around professional learning has focused on different perspectives and aims in professional learning (Alneyadi 2021; Azaza, Litz & Hourani 2021; Hourani, Litz & Smith 2020; McChesney & Aldridge 2021). Nevertheless, they did not tackle the effectiveness of instructional supervisors' practices in promoting the PPL and did not consider the pragmatic model of change presented in this study. Thus, this investigation into the effectiveness of instructional supervisors in promoting PPL enriches research in the local context, as the findings ensure what can be achieved when PPL is put into practice effectively. It is worth remembering that the 'virtue' of education is internally inherent in its practices by practitioners aspiring to meet the standards of excellence that are pivotal to any given practice (Dunne 2021). Thus engaging teachers in practice-based professional learning practices through bottom-up works rather than top-down fashions and involving them in decision-making can reveal a genuine intention and willingness to enter the core reality of change in practice and form a holistic system of personalized professional learning for all educators.

The study contributes to the literature on effective professional learning because, based on it, researchers determine the type of professional learning teachers need in the UAE. It maps what instructional supervisory practices are needed and what school factors enhance or impede the PPL in Abu Dhabi. The study contributes to the existing local literature by shedding more light on how



instructional supervisors can effectively empower teachers' voices, choices, and self-directedness in professional learning. The findings offer empirical data to fill what was gaped in the local literature as it shifts focus in professional learning from the previous top-down model, where only partial gains are possible within its current paradigm, into a precise bottom-up system where instructional supervisors can tailor teachers' growth needs and interests to foster an adaptive PPL experience. Therefore, when published, the findings will add to the publications in the UAE and possibly inspire more research in the field.

### ***Contribution To Theory***

The study is theoretically driven in its scope and what it contributes to theory emphasizing that the theoretical framework employed in the study is rigorous in its vision and structure; hence four theories from leadership and learning were cautiously chosen based on the research objectives, questions, the conceptualization of the literature review, the research design, and the analysis plan of the investigation. The instructional leadership theory was employed in its shared version due to its significant impact on linking leadership and effective school practices, such as engaging teachers in a practical professional learning experience at their schools. Also, the transformational leadership theory presented in Bass's model was selected to complete the missing part of underscoring the role of the instructional supervisors in motivating teachers, giving them a sense of purpose, and inspiring them to learn and work. Equally important were the learning theories as the Sociocultural Constructivism Theory, where Vygotsky emphasized the guiding role of the 'more knowledgeable other' through social interaction, the zone of proximal development, and scaffolding. Also, Knowles' adult learning theory which formed the fourth theoretical pillar for the current study, underlines self-directed learning principles that never exist without empowering adult learners or teachers to design their own professional learning experiences in job-embedded

learning environments. Each integrated theory in the framework complements the other so that the missing aspect in anyone continues the other. All put their hands together to establish the foundation where all the knowledge related to instructional supervision and professional learning is constructed. The study's findings support this theoretical framework in all its theories and models that enrich the investigation and find a ground base for how instructional supervisors can effectively promote PPL for their teachers. Thus, the study contributes to the theory by supporting what the theories have emphasized in their models, recommending that any researcher undertaking similar research in a similar context adopts the same theoretical framework.

### ***Contribution to Methodology***

The study uses the convergent concurrent mix-method research to investigate teachers' and instructional supervisors' perspectives on the effectiveness of instructional supervisors in promoting PPL. The methodological approach thrives due to its flexibility, strength, and ease and contributes to the methodology by supporting methodological choices in similar contexts.

The study's objectives demanded diversity in methodological techniques to fully attain a clear understanding of the different perspectives of participants (teachers and instructional supervisors). Using the mix-method research approach provides the researcher flexibility in operating and utilizing methods to collect data from different sources. The existence of two research methods, i.e., the quantitative and qualitative, has allowed more research tools to exist and assess how the different voices of participants can overlap on a particular understanding. Thus, it effectively gives both instructional supervisors and teachers an equal chance to add their voices to the current research. For instance, the quantitative research method enables the researcher to examine two different perceptions numerically and assess to what extent the participants believe what they perceive about the related research questions. At the same time, the qualitative research method

offers the researcher instruments that permit in-depth investigation and exploration of the participant's perceptions. The paper reaps benefits from quantitatively using two self-administered questionnaires to assess teachers' and instructional supervisors' perceptions of the effectiveness of instructional supervisors in promoting PPL. Also, the qualitative method adds and complements the quantitative part in its usage of semi-structured, focus-group interviews and document analysis to give a holistic picture of perceptions toward the investigation. Then the methodological triangulation confirms the findings and strengthens their credibility, eventually impacting the results' generalizability. Overall, using the mixed-method research approach eases the complexity of the investigation in the social context of Abu Dhabi, where such an approach is suitable to cope with challenges related to workload and lack of timing among participants.

It is worth noting that mixing the quantitative and qualitative research methods also goes hand in hand with pragmatism, i.e., the study's prime philosophical paradigm. It calls for a complementary balance between the mixed methods while examining participants' perceptions and exploring their beliefs in-depth. Therefore, the study contributes to methodology by supporting the methodological approach for similar research in similar contexts.

### ***Contribution to Policy and Practice***

The study is valuable to policymakers because insightful upgrades for professional learning policies and frameworks with standards and criteria that provide more detailed descriptions and support for job-embedded practices as in the bottom-up model can be achieved. Eventually, this can develop the traditional top-down professional learning practices in Abu Dhabi schools to more bottom-up practices that rely on the essential teachers' need for self-directedness in adult learning. This can also increase the momentum of the shift towards more ground-up models of educational change that invite teachers to focus on real problems in educational practice and do not rely on one

size fits all professional learning events. Also, the study contributes to practitioners with helpful and clear guidelines on instructional and professional learning enhancements as the results provide more motivation and inspiration for educators to start acquiring relevant concepts and customized skills needed for their professional experience. Additionally, the findings of this research provide instructional supervisors with a stepping stone for refining and refocusing the instructional supervisory practices that can foster more aligned and personalized professional growth for their teachers based on a research-driven decision. Finally, the findings contribute to all Emirati schools with the PPL model as it can open an opportunity to refine schools' current practices.

### **5.6 Implications for Practice and Policy**

Being the first mixed-method study to use a PPL model to investigate the effectiveness of instructional supervisors in promoting PPL carries numerous implications for practice and policy in professional learning.

Results have shown broad deviations in effectiveness among instructional supervisors; still, some procedures are effective once well implemented. These findings benefit practitioners and policymakers and relieve doubts that more can be done to enhance the effectiveness of instructional supervisors to promote effective PPL at practice and policy levels. Thus, there are a few possibilities for how effective instructional supervisors' practices can be manifested in PPL.

The existence of a vision is among the best practices that carry significant benefits for educators, so instructional supervisors must start by creating a clear and unified professional learning vision that includes guiding statements for all the features and components of an effective PPL. This helps teachers create suitably engaging PPL strategies and clarify how their learning will be expanded and measured. The key is that instructional supervisors ensure that all teachers clearly follow the same shared vision.

Another practical implication drawn from the findings that can be relevant for practitioners is that teachers yearn for more chances to feel empowered and trusted with their knowledge during their professional learning. Teachers should sit with their peers and instructional supervisors to design their professional learning, whereas instructional supervisors should lead from the side, not from the top, to facilitate teachers' learning and not impose professional learning on them. The key is that instructional supervisors accept teachers as adult learners who can practice learning without direct control. Another relates to trust, where teachers should feel trust toward instructional supervisors' practices in promoting what is beneficial and effective for their needs and interests, not just for ticking the box or documentation. In return, instructional supervisors should show genuine trust towards teachers who trust them with students' learning and should be equally trusted in their own learning.

The results have shown that many bottom-up professional learning strategies, such as Action Research (AR), Lesson Study, Professional Learning Networks (PLNs), Critical Friends Groups (CFGs), and School Rounds, are still missing. Others, such as Mentoring and Peer Coaching, are reported to be effective yet insufficient in the sample schools. This finding holds implications for practitioners that these practices are effective once implemented well and reflect teachers' desire to have more bottom-up professional learning that can be more personalized in addressing their different professional learning needs and interests. It also means that teachers need more relevancy in their learning to what matters to them. A key implication for instructional supervisors is that they should be encouraged to actively engage teachers in different bottom-up professional learning activities that prove their effectiveness. It also implies that instructional supervisors seriously consider these strategies to personalize teachers' learning, elevate their voices, and empower their choice to decide how to expand their learning. For instance, encouraging teachers to conduct action

research as part of their professional learning is highly recommended as it exposes teachers to collaborate on a problem-solving approach to learning, as suggested in Deweyan's theory of inquiry (Biesta & Burbules 2003). It also permits valuing self-realization and personalization, which are principles of self-directed learning (Knowles, Holton & Swanson 2005).

The findings have also carried out a few important implications for policymakers in professional learning. The ineffectiveness of the top-down professional learning paradigm demands immediate attention to flipping it with a bottom-up professional learning approach that accommodates teachers' needs, interests, learning preferences, and styles. That can never happen unless policymakers upgrade the schools' professional learning policies to support bottom-up practices. Also, legislative actions and frameworks can encourage and direct schools to use the latter-mentioned strategies to create a bottom-up professional learning system that nurtures teachers' needs and avoids generic content for generic participants.

Additionally, the findings have revealed a lack of leadership guidance that reflects an insightful implication of the need for a unified professional learning framework in the study context. In the current Irtiqa'a Framework for schools' inspection, PPL is precisely addressed under the performance standard of leadership and management to indicate an outstanding/very good rating on a scale of six descriptors only if "the staff member suitably benefits from extensive/regular personalised professional learning" (ADEK 2018, p. 109). However, there is seemingly more to be done at the policy level, especially if policymakers upgrade the professional learning policy and school inspection framework with standards and criteria that provide more detailed descriptions of personalized professional learning.

To sum up, the study is significant to all Emirati schools as the findings uniquely provide a PPL model to investigate the effectiveness of instructional supervisors in promoting PPL and an opportunity to refine schools' current professional learning practices and policies.

## **5.7 Strengths, Limitations, Recommendations and Proposals for Future Research**

This section discusses the strengths, limitations, recommendations, and scope with proposals for future research.

### **5.7.1 Research Strengths**

The study achieves a few points that strengthen its stance among its peers globally and position itself uniquely in the local research context. First, the researcher employed a practical, theoretical framework that proves its fluidity and rigor for approaching the research aims and questions grounded on four leadership and learning pillars in the literature. The second research strength is the PPL model, conceptualized to serve the study's main parameters. The PPL model proposed in the conceptual framework of this study was uniquely established under the andragogical tenet to examine the effectiveness of instructional supervisors in promoting PPL in all the relevant concepts that include voice, choice, process, and content adopted from the literature. The third research strength is mixed-method research, where the researcher used quantitative and qualitative research methods via various instruments. This gives the study richness in data and findings. Also, the researcher constructed two self-administrated questionnaires to collect quantitative data from two different types of participants. These two self-constructed surveys proved their reliability and validity, which can be used in similar research contexts. In addition to that, two types of interviews complemented the quantitative data by using semi-structured and focus group interviews. Using two types of interviews gives more chances for participants to share their perceptions, whether collectively or individually. The document analysis also was used to add more emphasis and

validity to the perceptions. All these research instruments worked together to strengthen the study and ensure its originality.

The adequate sampling size and the various sampling techniques add to the study's research strengths. Also, the data triangulation gives more credibility and validity to the findings. The pilot study is another strength, as the researcher tested and assessed all the procedures and tools before conducting the study. Additionally, the analytical tests that went beyond the descriptive data to study differences among groups, as in ANOVA and T-Tests, or to study the relationship and validate instruments, as in Cronbach's Alfa, discriminant validity, and factor analysis or the thematic approach that depends on the inductive and deductive approach are all advantageous. Finally, the highlights drawn from the findings are promising to reform instructional supervisory practices and promote an effective PPL in the local context of the study. All these points contribute to the strength of the research and support its generalizability.

### **5.7.2 Limitations of the Study**

The study gathered the correct data and found exciting answers to the research questions. It fulfilled its aim and objective, yet there were also some concerns and limitations that the researcher could not overlook.

An ethical concern warranted attention during one of the focus group interviews where the instructional supervisor wanted to stay with the teachers and monitor what they would speak about the school. The researcher interfered and asked the instructional supervisor to leave a space for them to speak, and then he noticed that leaving revealed respect for the request, so he left. Another challenge was related to meeting teachers during constrained conditions; where some schools preferred the interviews to be face-to-face in the meetings room at their schools, so a COVID-19 PCR test 96 hours had to be taken every week to be allowed to visit the designated school and



interview the participants on time within a hectic schedule. In the literature, there were also some limitations. Though the study deepens its significance in filling a gap in the literature, the first limitation relates to the limited number of studies on personalized professional learning, especially in the local context of the study. Another limitation relates to the study's sample as it was limited to teachers and instructional supervisors working at private schools in Abu Dhabi during the academic year 2021-2022. Even the sampling technique used in the surveys could be strengthened if convenience sampling is replaced by randomization to ensure its generalizability.

Moreover, the study depended on instruments of questionnaires, semi-structured and focus-group interviews, and document analysis; however, it is worth remembering that all results were limited to participants' integrity, openness, honesty, and job satisfaction. The last limitation relates to the nature and short period of implementation for the PPL in private schools in Abu Dhabi. From the researcher's experience in the field, the offered professional learning opportunities varied in their approaches and models, yet all are synonymous with what is known as top-down models. Recently and specifically during the global pandemic of COVID-19, instructional supervisors started shifting their practices toward offering PPL. However, no two schools offer the same PPL as there is no unified framework for all schools to follow, so each school offers what they think is effective. Thus, more time must be invested in this PPL model than in replicating the study. Finally, these limitations constrain the conclusiveness of the current study.

### **5.7.3 Recommendations**

The study into the effectiveness of instructional supervisors in promoting PPL reveals numerous recommendations. Participants, during the interviews, suggested various concepts, which are considered due to their significance to personalized professional learning.

The study records that the most significant factor hindering teachers' PPL is the absence or insufficient bottom-up professional learning practices. Both participants, teachers, and instructional supervisors suggested having more bottom-up professional learning offerings that are more personalized and job-embedded in their daily practices. Thus, it is recommended that instructional supervisors at the school level instill more personalization and job-embedded opportunities in teachers' learning experiences, invest more time in knowing their teachers' learning needs and interests, and recognize their different learning styles. They can then prioritize their high needs and interests in a shareable decision-making process. One of the efficient tools suggested here for enhancing personalization in teachers' professional learning is using a digital system or platform that features assessing teachers' needs and interests and suggesting topics for professional learning based on their daily activities on the platform. Teachers can collaborate, inquire, share experiences, and present their findings and best practices. Based on the analyzed data, instructional supervisors can monitor and supervise the platform to facilitate and scaffold their professional learning. Teachers might receive digital badges that motivate them to exchange these badges with incentives. The system can organize teachers' professional learning and facilitates instructional supervisors' tracking of teachers' growth and progress. Nevertheless, it is worth noting that designing such online courses for teachers without a prior learning assessment that involves their (needs, interests, preferences, and styles) is not personalized. They are just another brick in the wall of top-down professional learning practices where the choice in the content of professional learning is limited to those at the top of the leadership paradigm with little to share with the teacher.

Similarly, during the interviews, the importance of offering teachers job-embedded professional learning opportunities were revealed and even favored by the instructional supervisors; however,

the inadequate presence of such strategies was justified due to the lack of time and workload. Thus, it is suggested that instructional supervisors consciously balance teachers' time and workload rather than excusing themselves with professional learning sessions that dismiss teachers' diverse learning goals and needs. Also, the offerings should be integrated into teachers' school working hours to ensure that professional learning is job-embedded and not dependent on external providers. That can never happen without restructuring the old top-down with bottom-up professional learning strategies. Eventually, implementations follow once the barriers are removed.

Also, it is recommended that instructional supervisors develop coaching and mentoring programs that activate teachers' voices and liberate their choice as they set personalized goals for their instructional needs. These two suggested strategies are consistent with the adult learning theory in how teachers can practice a job-embedded professional learning experience with the frame of self-directedness.

It is suggested that practitioners rely on a common and unified PPL roadmap for teachers to know they will expand their professional learning within their daily work hours. A PPL plan is also highly recommended for all teachers as it permits instructional supervisors to closely align teachers' PPL goals to the school's priorities. Also, setting a clear and unified vision for teachers that clearly defines what and how to expand their PPL is another recommendation to guide and promote PPL effectively. Teachers must share their voices and participate in designing PPL's unified vision and guiding statements. Also, instructional supervisors are recommended under the PPL model to facilitate, scaffold, and follow through with teachers' PPL plans, goals, and topics that teachers choose. A commitment to following through with PPL can be made when instructional supervisors hold teachers accountable for their PPL outcomes.

The results also revealed that workload and timing were inhibiting the effective implementation of PPL. This finding implies that educators need a balance system that considers their health and well-being to sustain teaching and learning. It is recommended that policymakers create a transparent workload policy for teachers and a time limit where no schools sacrifice teachers' professional learning, well-being, and other essential aspects of their lives for an excessive workload beyond the regular balance system. At the school level, instructional supervisors should coordinate and balance teachers' workload and time to ensure they leave adequate space to excel in their professional learning. It is also recommended that the policymakers no longer designate protected hours for professional learning because that deprives professional learning of continuity and signals that the offerings are disconnected. Finally, it is also suggested that ADEK adopts a PPL model for instructional supervisors to be followed in the schools to meet the ministry's expectations. That can ensure that instructional supervisors understand how to effectively promote PPL and transfer it to their teachers.

#### **5.7.4 Proposals for Further Studies**

Despite the latter limitations, the study investigating the effectiveness of instructional supervisors in promoting PPL contributes to the current literature on effective professional learning, especially in Abu Dhabi, where there is a dearth of research on the bottom-up professional learning model.

As a scope for future studies, the following recommendations are proposed:

1. The context of the UAE is in great need of more attention to researching personalized professional learning as this can be very insightful for the literature in general and policymaking in particular.
2. More investigations into the PPL model are recommended to strengthen an understanding of how the proposed model can significantly improve teachers' performance in the UAE.

3. Another proposal can be to expand the study to include a larger sample from public schools and then conduct a comparison to provide a comprehensive perspective of personalized professional learning across the private and public schools in the region.
4. Also, a longitudinal study can be a great addition to the research where the PPL model can be tested over 3 to 5 years, and more research instruments can be added, such as classroom observations, to test the PPL on students' achievement or teachers' efficacy.
5. Understanding the relationship between teachers' PPL and classroom practices can also be a wise recommendation that benefits professional learning research in the UAE.
6. It is also suggested to replicate the study at an international level to investigate the PPL effectiveness across different contexts and demographics.
7. Investigating the impact of bottom-up strategies on teachers' effectiveness and student achievement can be a further proposal for future studies.

### **5.8 Conclusion of the Study**

Instructional supervisors are integral in promoting personalized professional learning at any school. The effectiveness of their instructional supervisory practices was worth investigating. The study followed Dewey's pragmatic philosophical stance where reality only "uncovers" itself in the activities and doings of educational practitioners. In its inquiry process, knowledge exists as a potential relationship between choices and consequences that feed back into the experimental approach to problem-solving. In this sense, knowledge may impact our actions (Biesta & Burbules 2003). The investigation as well employed several theories to inform its theoretical framework. The instructional leadership theory accentuated in all its given models, including the shared instructional leadership model, the link between leadership and effective school practices, among which comes in relevance and importance for the current investigation, is the activity of engaging

teachers in an effective professional learning experience at their schools. This role is also mirrored in the transformational leadership theory with Bass's model, which underscores the role of the instructional supervisors in motivating teachers, giving them a sense of purpose, and inspiring them to learn and work.

Similarly, in the learning theories as the Socio-cultural Constructivism Theory, Vygotsky emphasizes the guiding role of the 'more knowledgeable other' through social interaction, the zone of proximal development, and scaffolding. Even in the adult learning theory that formed a theoretical pillar for the current study, Knowles underlines principles that can never exist without empowering instructional supervisors who are structuring and facilitating learning opportunities that resonate with adult learners and empower them in job-embedded learning environments. From the above, all the theorists put their hands together to foreshadow the significant role of instructional supervisors in promoting effective professional learning where only through its insiders (teachers) practices evolve collaboratively and cooperatively incrementally over time and in context as Dunne (2021) articulate it "for through real engagement with, and in, a practice a person's powers are released, directed and enlarged" (p. 153).

Further to what the theorists highlighted in their theories and models, the literature on professional learning has extensive research papers published to investigate the effective practices of professional learning (Badri et al. 2016; Darling-Hammond et al. 2009; El Afi 2019; Fullan 2015; Hourani & Litz 2019; Tesfaw & Hofman 2014). However, research concerning professional learning has taken two divergent paths. The first solely focused on the top-down approach due to the top-downness in its decision and learning orientation.

In contrast to this traditional model, a new trend started to emerge in the literature with researchers who examined new features in professional learning and found that the bottom-up professional

learning paradigm not only competes with the old model but is also more effective due to its inclusive and shareable orientation to learning that takes into account the nature of teachers as adult learners (Baird & Clark 2018; Darling-Hammond et al. 2009; Knight 2007; Maggioli 2004; Reeves 2010; Rodman 2019; Zepeda & Ponticell 2018). Thus the current study into professional learning aimed to investigate the effectiveness of instructional supervisors in promoting PPL at four private schools in Abu Dhabi. Guided by a conceptual framework, the research questions were the following:

RQ1. From teachers' perceptions, how effective are instructional supervisors' practices in promoting personalized professional learning?

RQ2. From instructional supervisors' perceptions, how does the personalized professional learning model impact teachers' performance?

RQ3. Do teachers and instructional supervisors of different gender, experience, grade level, and subjects taught or supervised significantly differ in their investigated perceptions?

RQ4. From teachers' and instructional supervisors' perceptions, what contextual school factors might enhance or hinder the effectiveness of teachers' personalized professional learning experience?

The researcher approached the investigation with mixed-research methods in its methodological triangulation design and depended on research instruments ranging from self-administered questionnaires to semi-structured and focus group interviews and document analysis. The data were analyzed concurrently and triangulated to develop solid evidence for the investigation. The study's findings offered insightful revelations into understanding personalized professional learning in the context of the UAE. What was clear from the investigation is that instructional

supervisors and teachers do not share the same experience and perception of the effectiveness of the PPL practices. Instructional supervisors had positive perceptions toward the provided professional learning practices that impacted teachers' performance in different domains such as learner's development, application, and professional learning environment.

Nevertheless, teachers generally perceived that the instructional supervisory practices lacked focus and coherence in what was provided. For instance, teachers expressed dissatisfaction with the current disconnected practices where their voice was not heard or shared in the PPL; top-down decisions restricted their choice in PPL, and above all, the content of PPL was not tailored to their professional learning needs or diverse, relevant interests. It was also concluded that there was no statistically significant difference between teachers' and instructional supervisors' perceptions and gender, experience, grade level, and subjects taught or supervised except in minor examples for limited items that can not be generalized. Another conclusion that could be drawn from the data was that leadership support and sufficient funding and resources are two promotive school factors. In contrast, the absence or inadequate bottom-up professional learning, lack of leadership guidance and workload, and lack or wrong timing were deduced as contextual factors hindering professional learning at the sample schools. Overall, the study was a transparent and clear investigation to show what instructional supervisory practices might promote effectiveness in the PPL and what might impede it in the context of the UAE.

## **5.9 A Final Reflection**

Over the past two years, the topic of investigating the effectiveness of instructional supervisors in promoting PPL at the four sample schools in Abu Dhabi constantly accompanied the researcher to offer opportunities to academically, professionally, and personally expand learning about personalized professional learning. The study opened a window into the leadership role of



instructional supervisors and teachers in the schools' professional learning with a unique spotlight on the teacher as a personalized adult learner and educator. At the same time, it illuminated traditional conceptions about the locus of control and power in teachers' professional learning. Though the study might not be perfect, the researcher hopes that the PPL model will continue to grow and change with more academic and practical input from researchers, policymakers, and educators across the UAE.

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## APPENDICES

### Appendix 1 Teachers' Questionnaire

Dear teachers,

I wish to invite you to participate in this research that aims to understand your perception of the effectiveness of instructional supervisors (coordinators, heads of departments, heads of sections, academic advisors, principals, and vice-principals) in promoting personalized professional learning (PPL) at your school.

Personalized professional learning (PPL) is a job-embedded professional learning approach that stands for a relevant set of targeted strategies designed to address precisely teachers' personalized learning needs and diverse growth interests in a supportive adult learning context.

The survey will take approximately 4 minutes to complete. I hope you will support this study, as your opinion will give me insights to understand what can be done to enhance teachers' experience in professional learning.

I will not ask you about your name or the name of your school, and your answers will not be shared with others without your permission. To me, adding your voice to this questionnaire is crucial and helpful, but you can choose not to participate. You can also withdraw at any time you want.

If you have any questions, you can kindly communicate them to the researcher through:  
20191960@buid.student.ac.ae

Thank you very much for your time and support. Please start with the survey by answering the below questions.

#### **Agreement**

Having read the information above, I agree to participate in the study, declaring that the information provided herein is accurate to the best of my knowledge and belief.

I agree

**Section A: Teacher’s Background**

a. What is your gender?

Male		female	
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b. How many years have you been working as a teacher?

0-2 years	3-5 years	6-10 years	Above 10 years
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c. What is the grade level that you are teaching?

Kindergarten	Primary	Middle	Secondary
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d. What subject do you teach at your school?

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e. Which of the following strategies for professional learning is most commonly used at your school?

1. Action Research
2. Mentoring
3. Peer Coaching
4. Professional Learning Networks
5. Online Professional Learning
6. Lesson Study
7. School Rounds
8. Critical Friends Groups
9. School Workshops

**Section B: Instructional Supervisor’s Practices**

**State whether you agree or disagree with the following statements about your instructional supervisors.**

		Strongly disagree	Disagree	Neutral	agree	Strongly agree
	<b>Theme 1: vision, voice and choice</b>					
1	My instructional supervisor has established a professional learning vision that clearly defines how to expand my professional learning.					
2	My instructional supervisor recognizes my professional voice and encourages me to elevate it via sharing my new identifiable learning outcomes.					
3	My instructional supervisor offers me space to choose, try and adjust any instructional methods and tools in my class.					
4	My instructional supervisor offers me the freedom to design my learning path tailored to my growth needs and readiness.					
5	My instructional supervisor offers me opportunities to reflect and suggest ideas on my professional learning.					
	<b>Theme 2: content</b>					
6	My instructional supervisor is well aware of my learning preferences, needs, and points of strength and targets them with the suggested PPL topics.					
7	My instructional supervisor individualizes instructional feedbacks and differentiates entry points into my personalized professional learning.					
8	My instructional supervisor uses evaluation data to determine the content of my personalized professional learning.					
9	My instructional supervisor follows up the learning goals, targets, and areas of focus for my personalized professional learning.					
10	My instructional supervisor aligns my professional learning needs and interests to the school's common professional standards and goals.					
	<b>Theme 3: Process</b>					
11	My instructional supervisor uses a needs assessment plan to personalize my professional learning.					

<b>12</b>	My instructional supervisor suggests a personalized professional learning calendar, format, and timing that best suits me.					
<b>13</b>	My instructional supervisor collaborates with me to determine how my professional growth will be measured.					
<b>14</b>	My instructional supervisor provides me with all the sufficient time and resources to expand my professional learning.					
<b>15</b>	My instructional supervisor has executed a personalized professional learning plan for me.					

**Section C: Teacher’s Final Word**

1. How do you know that your instructional supervisor is satisfied with your performance?
2. If you were given a chance to modify the practices of personalized professional learning at your school, what changes would you make?
3. In what way was the personalized professional learning beneficial to you at your school?

*Thank you. Your participation is highly appreciated.*

## Appendix 2 Instructional Supervisor’s Questionnaire

Dear instructional supervisor/leader,

I wish to invite you to participate in my study to understand how personalized professional learning (PPL) promotes effectiveness in teachers’ practices at your school.

Personalized professional learning (PPL) is a job-embedded professional learning approach that stands for a relevant set of targeted strategies designed to address precisely teachers’ personalized learning needs and diverse growth interests in a supportive adult learning context.

The survey will take approximately 4 minutes to complete. I appreciate your opinion as it will give insight into what can be done to enhance teachers’ experience in professional learning.

I will not ask your name or the name of your school, and your answers will not be shared with others. Your voice in this questionnaire is crucial, but you can choose not to participate. You can also withdraw at any time you want.

If you have any questions, you can communicate them to the researcher through:

20191960@buid.student.ac.ae

Thank you very much for your time and support. Please start with the survey now by answering the below questions.

### Agreement

Having read the information above, I agree to participate in the study declaring that the information provided herein is to the best of my knowledge and belief accurate.

### I agree

#### Section:1 Background Information

- a. What is your gender?

Male		female	
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- b. How many years have you been working as an instructional supervisor?



0-2 years	3-5 years	6-10 years	Above 10 years
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c. Which grade level teachers are you academically instructing and supervising at your school?

Kindergarten	Primary	Middle	Secondary
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d. What subject do you academically instruct and supervise at your school?

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e. Which of the following strategies for professional learning is most commonly used at your school?

1. Action Research
2. Mentoring
3. Peer Coaching
4. Professional Learning Networks
5. Online Professional Learning
6. Lesson Study
7. School Rounds
8. Critical Friends Groups
9. School Workshops

### Section B: Teachers' performance in PPL

Rate the performance of your teachers based on your evaluation.

		Not at all	A little	A fair amount	Quite a bit	A great deal
	<b>Theme1: Learner's Development</b>					
<b>1</b>	My teachers have become more competent in identifying the appropriate strategies to meet the needs of their students.					

2	My teachers have become more independent to assess that a particular teaching method or tool should be changed					
3	My teachers have become more independent to identify and solve any academic and behavioral challenges without getting back to me					
4	My teachers can set short and long-term growth goals without my help.					
5	My teachers take ownership of their professional learning through involvement in its process.					
	<b>Theme 2: Professional Learning Environment</b>					
6	My teachers have become more collaborative with me and the rest of the learning community.					
7	My teachers have become more innovative in their practices.					
8	My teachers have become more curious about new ideas.					
9	My teachers have become more confident in taking initiatives in their classes.					
10	My teachers have become more flexible with me in making professional decisions.					
	<b>Theme 3: Learner's Application</b>					
11	My teachers have become more engaged in their personalized professional learning.					
12	My teachers have become more skillful in using students' achievement data to measure their performance.					
13	My teachers have become more effective in differentiating learning for their students.					
14	My teachers can easily develop professional learning goals that are translated into classroom objectives.					
15	My teachers have become more competent in using the students' data to make informed instructional decisions.					

### Section C: Final Word

- Do you believe that teachers' performance can be enhanced by using the personalized professional learning model, and what should be done to sustain teachers' growth learning?

5. How does the use of the personalized professional learning model influence teachers' performance?
6. How is the conflict that might exist between teachers' needs on the one hand and the local/global needs on the other best addressed at your school?

***Thank you. Your participation is highly appreciated.***

### **Appendix 3 Semi-structured Interview Questions**

1. Could you tell us a bit about the professional learning process you use with your teachers at your department/school? In your opinion, how do you think instructional supervisors differ in promoting the personalized professional learning process at your school?
2. How do you feel about the instructional leadership at your school? To what extent does the leadership team influence the personalized learning experience?
3. To what degree do you believe that the school's conditions and traits (such as funding, time, and school culture) enable the success of the PPL program? How can that affect your response to the PPL program?
4. Do you consider your daily practices/learning improved as a result of using the PPL approach? How could the instructions you use/ receive in your meetings affect the PPL experience?
5. From your experience, do you think schools in the UAE in general and Abu Dhabi in specific should adopt or shift into using a PPL model? Why do you believe that such a model is more effective than the others?

***Your contribution is highly appreciated.***

## **Appendix 4 Suggested Open-ended Questions for the Focus Group Interview**

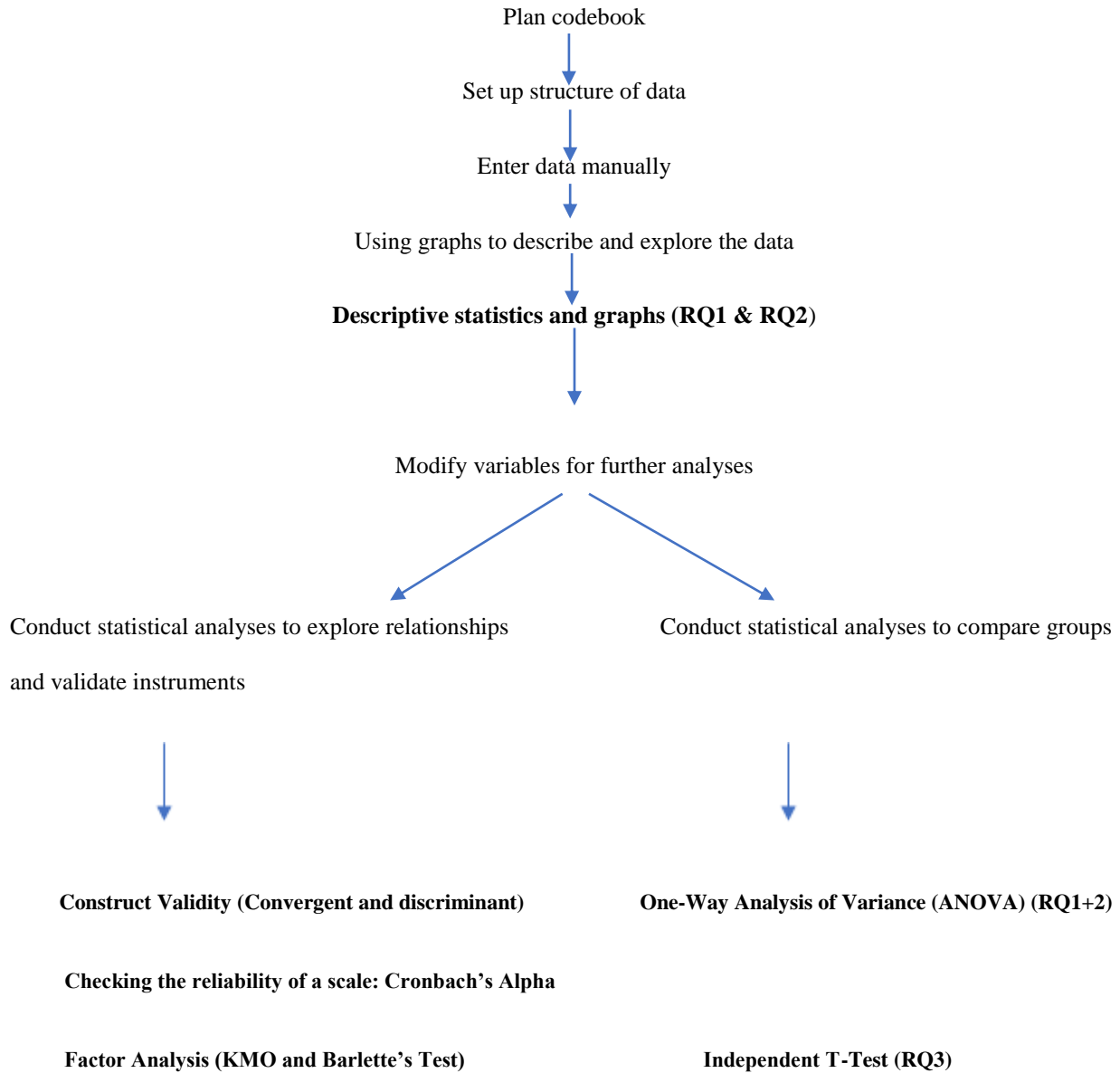
Dear participants,

I am Salim El Mamlouk, a doctoral student at the Faculty of Education of the British University in Dubai. As part of my thesis, I wish to invite you to participate in a one-to-one interview at your convenience. The interview is expected to last 20-30 minutes, audio-recorded under your approval, and guided by the following questions. Your participation will be anonymous, and your answers will be confidential. Feel free to withdraw at any point in the interview without any questioning.

1. Describe the personalized professional learning experience at your school?
2. In what way does the PPL enhance your performance?
3. Can you describe a situation where your instructional supervisor was supportive and flexible?
4. Tell me about something that might impede your growth/progress at any point in the personalized professional learning process?
5. How does the school's cultural background contribute to the success of the PPL experience?
6. What was it like for you to have your instructional supervisor as a motivational one?
7. In your opinion, what factors lead to the success of the personalized professional learning model at the school?
8. In what ways do you think that the current professional learning approach contrasts with the previous one?
9. What are some of the possible school conditions and activities that enhanced your personalized professional learning at your school?
10. What should be more offered to better enhance the PPL process at your school?

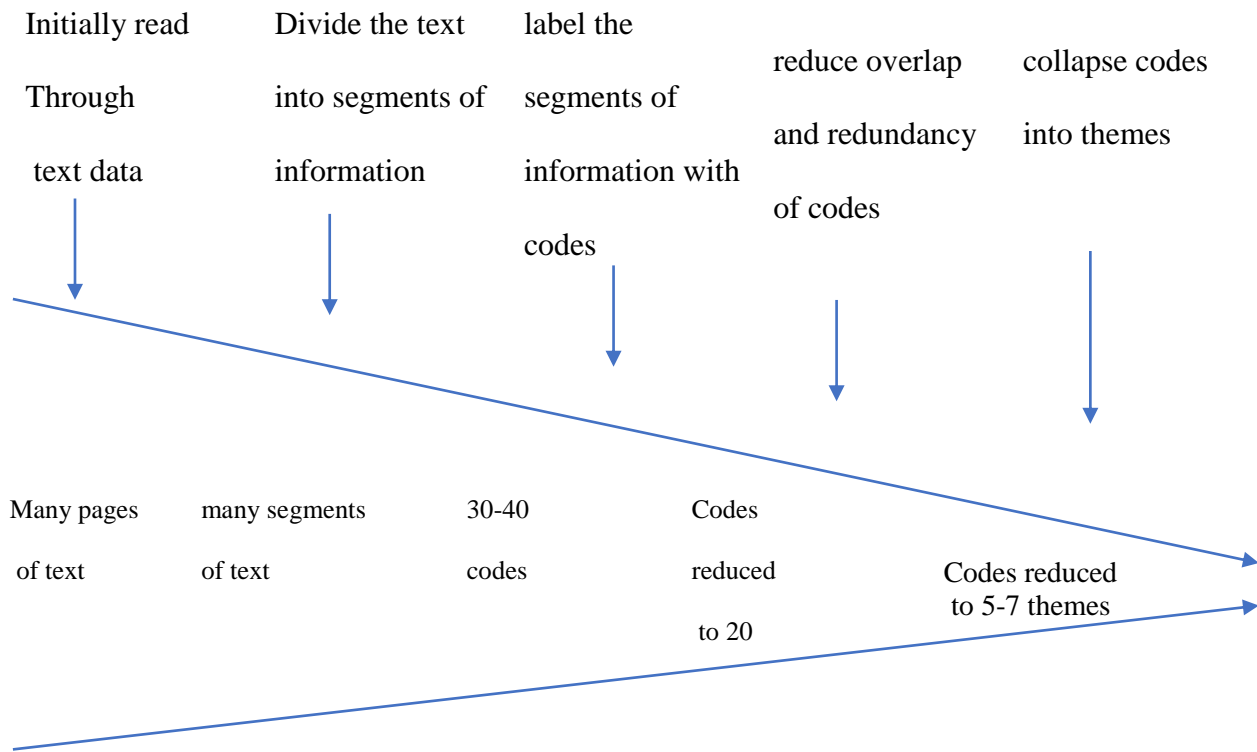
***Your input is highly appreciated.***

## Appendix 5 A Map of Data Analysis Process



A Map of Data Analysis Process (Adapted from Pallant, p.28)

## Appendix 6 A Visual Model of the Coding Process



A Visual Model of the Coding Process (Adapted from Creswell 2012, p. 244).

## Appendix 7 Consent Letter

Dear participants,

This is to consent that you voluntarily participate in a research study that investigates the effectiveness of instructional supervisors in promoting personalized professional learning at your school.

Kindly read the following information carefully before you sign.

All the provided information is based on my beliefs, experience and relevant to the questions.

The right not to answer any questions in the interviews is preserved.

The researcher has told me about the purpose of the study ahead.

The researcher has informed me that all responses will be protected safely and never shared without my permission.

*On this, I sign: -----*

### **Appendix 8 Permission Email Letter**

Dear Principal,

Good day and I hope my email find you well.

My name is Salim El Mamlouk, a doctoral researcher in the field of Education at the British University in Dubai (BuiD). I'm writing to request a permission to conduct a research study at your school if this is possible.

My aim is to investigate the effectiveness of instructional supervisors in promoting personalized professional learning (PPL) to their teachers at your school. I trust the outstanding leadership that your school operate at worth studying from teachers' and instructional supervisors' perceptions.

Additionally, your contribution will add and ensure that more knowledge will be granted for the benefit of research in the UAE. Also, your approval will assist the community, students and teachers and the policy makers in understanding what is still needed in teachers' professional learning.

My final note is that if you approved is that all the information including the name of the school and the respondents will remain confidential and anonymous. All participants have the freedom to withdraw from the study at any time.

Please note that this email letter is just a preliminary request permission, but hopefully, if you approved to contribute in the study, you will receive an official letter from the university with all the detailed descriptions about the needed data.

*Thanks for your time and best regards,*

*Salim*

#### **Appendix 9 The Signed Part of the Ethical Research Form**

<b>Risk level identified</b>	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
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**The researcher undertakes not to deviate from the original consent granted by the University’s Research Ethics Committee. The researcher bears full and sole responsibility for any deviation from this consent and all consequences arising from such deviation. The researcher waives all right of appeal in the event of any penalties applied by the University arising from such deviation.**


#### **Declaration by the Researcher:**

Having read the University’s Research Policy I declare that the information contained herein is to the best of my knowledge and belief accurate.

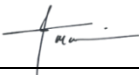
I am satisfied that I have attempted to identify all risks that may arise in conducting this research and acknowledge my obligations as researcher and the rights of participants. I am satisfied that all researchers (including myself) working on the project have the appropriate qualifications, experience and facilities to conduct the research set out in the attached document and that I, as the lead researcher, take full responsibility for the ethical conduct of the research in accordance with subject-specific and University Ethical Guidelines (Policies and Procedures Manual), as well as any other condition laid down by the Research Ethics Committee. I am fully aware of the timelines and content for participants’ information and consent.


**Name: Salim El Mamlouk**



Signature:  \_\_\_\_\_ Date: **09. Sep. 2021**

**FOR OFFICE USE ONLY  
LOW RISK RESEARCH**

Staff	
<b>Chair of Ethics Committee</b> Name: Dr. Khalid Al Marri	
<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not approved	
Signature: 	Date: 20/09/2021

Students	
<b>Dean of Faculty</b> Name: Professor Eman Gaad	
<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not approved	
Signature: 	Date: 20/09/2021

Authorisation for conducting research (only if approval is obtained):

*The Committee has confirmed that this project fits within the University's Policies for Research and I authorise the low risk research proposal on behalf of BUiD's Research Ethics Committee.*

Print name: **Dr. Khalid Al Marri** \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ 20/09/2021 \_\_\_\_\_  
(Chair of the Research Ethics Committee)

## Appendix 10 Official Data Collection Letter

29 November 2021

### *To Whom It May Concern*


This is to certify that Mr. Salim Ghaleb Mamlouk with Student ID number 20191960 is a registered student on the Doctor of Education programme at The British University in Dubai since September 2019.

Mr. Mamlouk has successfully completed the taught stage of the programme. He is currently working on his research titled “Investigating the Effectiveness of Instructional Supervisors in Promoting Personalised Professional Learning”. He is required to gather data through surveys, interviews and document analysis.

Your permission for him to conduct his research in your organisation is hereby requested. Any support provided to him in this regard will be highly appreciated.

This letter is issued at Mr. Mamlouk’s request

Yours sincerely,

**Dr. Amer Alaya**

**Head of Student Administration**

**Appendix 11 Sample from Leader’s Support for the Research**

Dear Colleagues,

A doctoral student at the British University in Dubai is asking for 15 minute interviews with 3 or 4 teachers. His research is around professional development. Our school has been selected because of our Very Good rating by ADEK and positive reputation in the Emirate of Abu Dhabi. So great to be recognized by local universities!

The interview would be done around your schedule and by Zoom. Only 15 minutes to support a fellow educator.

If you can reply to me before the weekend, I can connect you to the student who will happily coordinate from there.

Thanks in advance,

**Appendix 12 Selected Part from the Guiding Assumptions to Validating Questionnaires**

Adopted Theories & Findings from literature Review	Construct/concept	Brief explanation	Sample Items	Original item	Adapted item
Knowles’ Theory of Adult learning	Self-directedness	Knowles emphasizes that adults are self-directed and expect to take responsibility for decisions. Adults need to be involved in the planning and evaluation of their instruction. Experience (including mistakes) provides the basis for learning activities. Adults are most interested in	<p>Item 4. My teachers can set short and long-term growth goals without my help.</p> <p>Item 5. My teachers take ownership of their professional learning (Instructional supervisor’s questionnaire)</p> <p>Item 3 My instructional supervisor offers me space to choose, try and adjust any instructional methods and tools in my class.</p> <p>Item 4 My instructional supervisor offers me the</p>		

		<p>learning subjects that have immediate relevance to their job or personal life.</p> <p>Adult learning is problem-centered rather than content-oriented.</p>	<p>freedom to design my learning path tailored to my growth needs and readiness.</p> <p>(Teacher's Questionnaire)</p>		
<p><b>Vygotsky's Theory of Learning</b></p>	<p>the zone of proximal development (ZPD) collaboration Scaffolding culture and social interaction</p>	<p>In 1978, Lev Vygotsky formulated the learning theory based on the belief that learning occurs when there is a social interaction between the teacher and the student. It has many principles that impact the learning process, among which comes (a) culture and social interaction, (b) the zone of proximal development (ZPD), (c) the more knowledgeable other, and (d) scaffolding. Vygotsky (1978) defines the zone of proximal development as the distance between the actual development level and the level of potential development. Hence, the zone of proximal development (ZPD) links that which is known to that which is unknown. In order to develop the ZPD,</p>	<p>Item 6 How collaborative do your teachers become with you and the rest of the learning community? (Instructional supervisor's questionnaire)</p> <p>Item 11 How engaged do your teachers become in their personalized professional learning? (Instructional supervisor's questionnaire)</p> <p>Question 9. What are some of the possible school conditions/activities that enhanced your personalized professional learning at your school? (The focus group interview)</p> <p>To what degree do you believe that the school's conditions and traits (such as funding, structure, and school's culture) impact the success of the PPL program? How can that affect teachers'/ instructional supervisors' response to the PPL program?</p>		

		<p>learners must actively interact socially with a knowledgeable adult or capable peers.</p> <p>The theorist also focused on the potentials of the individual learner rather than on achievements, and what individuals might do under supportive guidance from a more knowledgeable 'other' can better indicate their cognitive abilities than what they can do alone.</p> <p>From this perspective, scaffolding became an assistive developmental system to promote more learning than the actual developed cycle (Irby 2013).</p> <p>Vygotsky stresses that the learner's prior experience and is mediated by the social and cultural aspects that shaped the individual's learning experience (Steiner &amp; Mahn 1996).</p>			
<b>Instructional Leadership</b>	Effective Instructional supervisory practices	Leithwood (1994) asserts that "instructional leadership is a series of actions with the aim of impacting classroom instruction unswervingly through staff development, modeling, coaching, supervision, and	From your experience, do you consider your daily actions/behaviors/routines to enhance teachers'/ instructional supervisors' performance in the PPL? How could the instructions you use in your meetings affect your teachers'/ instructional supervisors' personalized learning experience?		

		<p>additional means of persuading teachers' practice and thinking. The theory has witnessed several models. The instrument in hand based the instructional supervisory practices on the the PIMRS instrument. PIMRS is grounded in a conceptual framework developed by Hallinger and Murphy (1985). The framework incorporates three dimensions and 10 job functions. The first dimension, Defines the School Mission, is comprised of two functions, Frames and Communicates the School Goals. This dimension recognizes the frequently discussed role of leaders in helping to define the purpose and setting direction for the organization (Leithwood et al., 2008). Developing a shared vision and mission for the school is without question a requisite foundation for school improvement (Murphy and Torre, 2014).</p> <p>The second dimension, Manages the Instructional</p>			
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		<p>Program, is comprised of three job functions concerned with ‘managing the technical core’ of the school. Relevant job functions concern the role of school leadership in developing the quality of teaching and learning through direct supervision of teachers, coordinating of curriculum activities, and monitoring progress towards shared learning goals.</p> <p>The third dimension, Promotes a Positive School Learning Climate, is comprised of five job functions that together help to create an ‘academic press’ for learning in the school. Through these job functions the principal provides normative support for the school’s mission and maintains positive pressure and support for shared commitments to improve the quality of teaching and learning.</p>			
<b>Transformational Leadership Theory</b>	Motivation and Support	In its concise meaning, the theory can be well-defined as the act of transforming people, entirely associated with evaluating their motives, meeting	<p>Item 3 Can you describe a situation where your instructional supervisor /teacher was supportive and flexible? open-ended questions</p> <p>Question 6. What was it like for you to have your instructional supervisor</p>		

		<p>their needs, and treating followers in a way that influences them to accomplish more than expected (Northouse 2016). The theory has three central concepts centered around the organizational mission, performance, and culture. However, unlike the instructional theory that emphasized the principal's pivotal exclusiveness in the school's effectiveness, the transformational model extends its boundaries to include teachers as partners in leadership effectiveness. As Bass declared in 1985, the theory's significant contribution lies in the transformational nature of its process represented in how leaders can inspire followers to put the organization's interest above every other interest (cited in Northouse 2016).</p>	/teacher as a motivational one? (The focus group interview)		
<b>OECD Teaching and Learning International Survey (TALIS)</b>	Professional development	<p>The first Teaching and Learning International Survey (TALIS) is an international survey that offers the opportunity for teachers and principals to provide input into education analysis and policy</p>		<p>Item 3. Use needs assessment or other systematic methods to secure staff input on goal development Item 4. Use data on student</p>	<p>Item 14 My instructional supervisor uses a needs assessment plan to personalize my professional learning. (Teachers' questionnaire) Item12 How well do your</p>



		<p>development. TALIS is being conducted by the Organisation for Economic Cooperation and Development (OECD) along with some 23 other countries, is taking part in the survey. Cross-country analysis of this data will allow countries to identify other countries facing similar challenges and to learn from other policy approaches. School principals and teachers will provide information about issues such as the professional development they have received; their teaching beliefs and practices; the review of teachers' work and the feedback and recognition they receive about their work; and various other school leadership, management and workplace issues.</p>		<p>academic performance when developing the school's academic goals Item 5. Develop goals that are easily translated into classroom objectives by teachers</p>	<p>teachers use the students' achievement data to measure their performance? Item 13 How effective have your teachers become in personalizing learning for their students? Item 14 How effective do your teachers become in developing professional learning goals that are easily translated into classroom objectives? Item 15 How competent do your teachers become in using the students' data to make informed instructional decisions? (Instructional supervisor's questionnaire)</p>
<p><b>Survey by Tesfaw and Hofman (2014)</b></p>	<p>Instructional supervision Professional development</p>	<p>Tesfaw, T. A. &amp; Hofman, R. H. (2014). Relationship between instructional supervision and professional development. International Education Journal: Comparative Perspectives, vol. 13(1), pp. 82-99.</p>		<p>Thinking of your own professional development needs, please indicate the extent to which you have such needs in each of the areas listed.</p>	<p>Item 4 My instructional supervisor offers me the freedom to design my learning path tailored to my growth needs and readiness.  Item 6 My instructional supervisor is well aware of my learning styles, needs, and points of strength.</p>

					Item 14 My instructional supervisor uses a needs assessment plan to personalize my professional learning.
				<p>The supervision I receive meets my individual professional needs</p> <p>Professional development opportunities should be chosen by the teacher.</p> <p>My classroom instruction has improved as a result of supervision.</p> <p>Supervisors have the knowledge and ability to select</p>	<p>Item 4 My instructional supervisor offers me the freedom to design my learning path tailored to my growth needs and readiness.</p> <p>Item 4 My teachers can set short and long-term growth goals without my help.</p> <p>Item 15. How competent do your teachers become in using the students' data to make informed instructional decisions? Item 9 How innovative do your teachers become in their practices?</p> <p>Item 6. My instructional supervisor is well aware of my learning styles, needs, and points of strength.</p>

					professional activities for teachers.	<p>Item 7. My instructional supervisor individualizes instructional feedbacks and differentiates entry points into my personalized professional learning.</p> <p>Item 8. My instructional supervisor has executed a personalized professional plan for me.</p> <p>Item 13 My instructional supervisor collaborates with me to determine how my professional growth will be measured.</p>
					Supervision should be a collaborative effort between teacher and supervisor.	

## Appendix 13 The Test of Normality

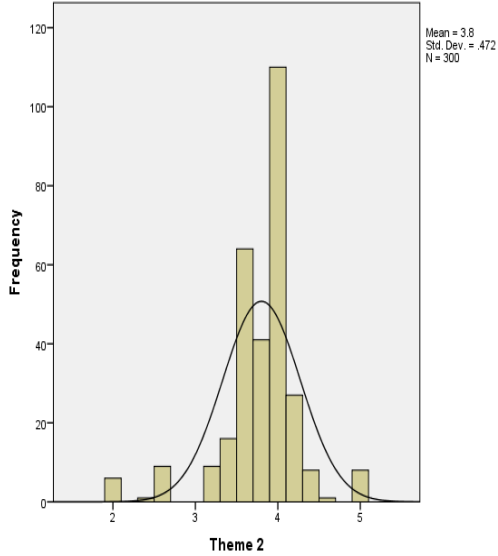
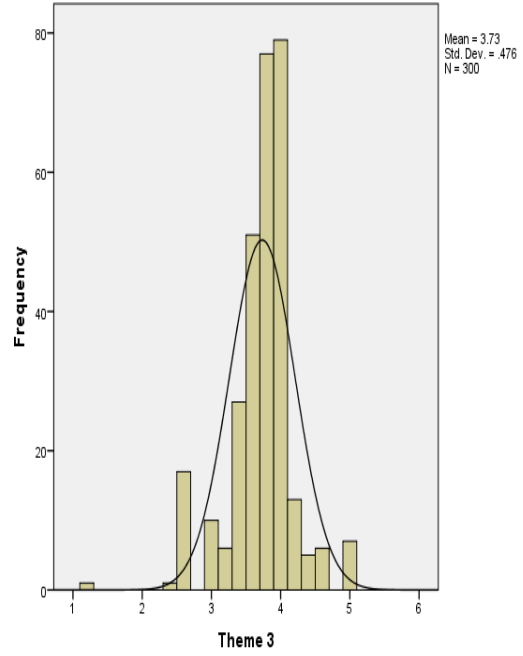
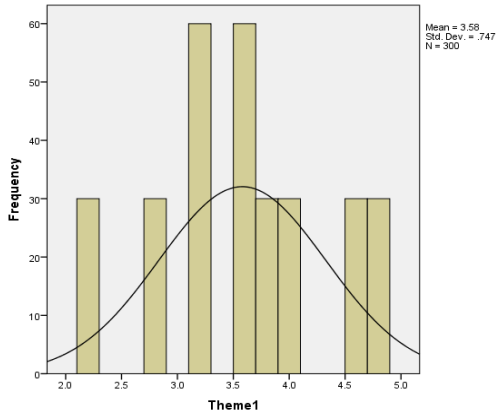
### Teacher's Questionnaire

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Theme 1 My instructional supervisor has established a professional learning vision that clearly defines what and how to expand my professional learning.	300	1	5	2.80	1.168	<b>0.395</b>	0.141	<b>-0.847</b>	0.281

My instructional supervisor recognizes my professional voice and encourages me to elevate it via sharing my new identifiable learning outcomes.	300	2	5	4.00	0.896	<b>-0.843</b>	0.141	<b>0.147</b>	0.281
My instructional supervisor offers me space to choose, try and adjust any instructional methods and tools in my class.	300	2	5	3.90	0.945	<b>-0.517</b>	0.141	<b>-0.625</b>	0.281
My instructional supervisor offers me the freedom to design my learning path tailored to my growth needs and readiness.	300	2	5	3.90	0.832	<b>-0.863</b>	0.141	<b>0.519</b>	0.281
My instructional supervisor offers me opportunities to reflect and suggest topics for my professional learning.	300	2	5	3.30	0.902	<b>0.199</b>	0.141	<b>-0.734</b>	0.281

Theme 2	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
My instructional supervisor is well aware of my learning preferences, needs, and points of strength and targets them with the suggested PPL topics.	300	1	5	3.79	0.734	<b>-1.543</b>	0.141	<b>3.946</b>	0.281
My instructional supervisor individualizes instructional feedbacks and differentiates entry points into my PPL.	300	2	5	3.89	0.623	<b>-0.669</b>	0.141	<b>1.429</b>	0.281
My instructional supervisor uses evaluation data to propose the content of my personalized professional learning.	300	1	5	3.71	0.690	<b>-1.820</b>	0.141	<b>4.459</b>	0.281
My instructional supervisor follows up the professional learning goals, targets, and focus areas for my PPL.	300	2	5	3.90	0.546	<b>-0.933</b>	0.141	<b>2.848</b>	0.281
My instructional supervisor aligns my professional learning needs and interests to the school's common professional standards and goals.	300	1	5	3.72	0.835	<b>-0.858</b>	0.141	<b>1.532</b>	0.281

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
theme 3	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
My instructional supervisor uses a needs assessment plan to personalize my professional learning.	300	2	5	3.78	0.698	<b>0.151</b>	0.141	<b>-0.631</b>	0.281
My instructional supervisor suggests a PPL calendar, format, and timing that best suits me.	300	1	5	3.55	0.793	<b>-1.358</b>	0.141	<b>1.973</b>	0.281
My instructional supervisor collaborates with me to determine how my professional growth will be measured.	300	1	5	3.88	0.655	<b>-0.800</b>	0.141	<b>1.929</b>	0.281
My instructional supervisor provides me with all the sufficient time and resources to expand my professional learning.	300	1	5	3.80	0.700	<b>-0.932</b>	0.141	<b>1.864</b>	0.281
My instructional supervisor has executed a PPL plan for me.	300	1	5	3.67	0.651	<b>-1.151</b>	0.141	<b>1.423</b>	0.281



## Instructional Supervisor's Questionnaire

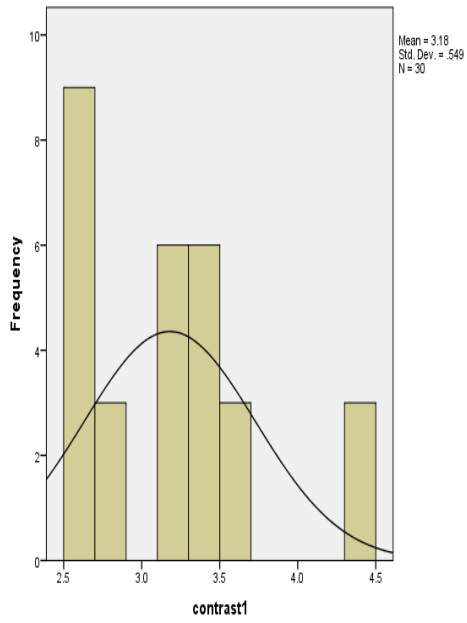
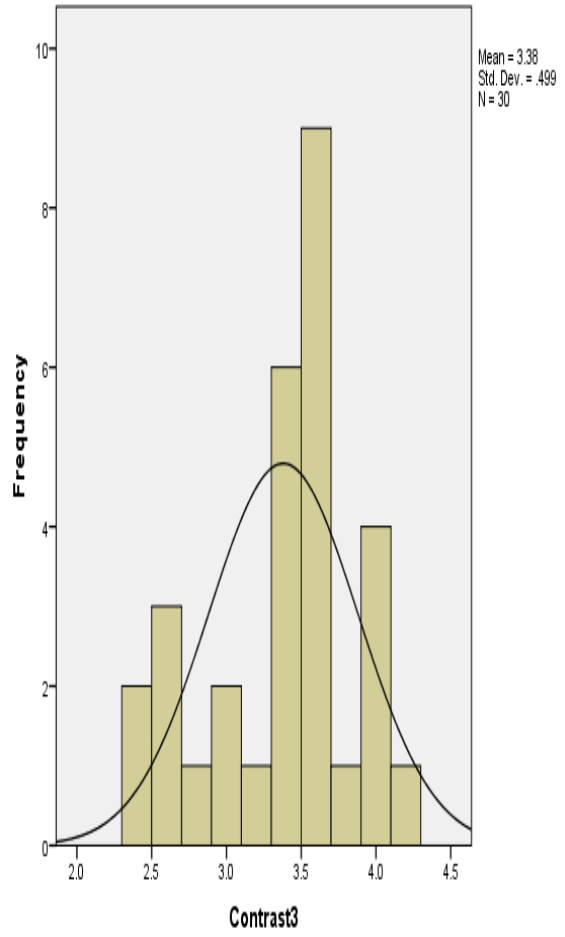
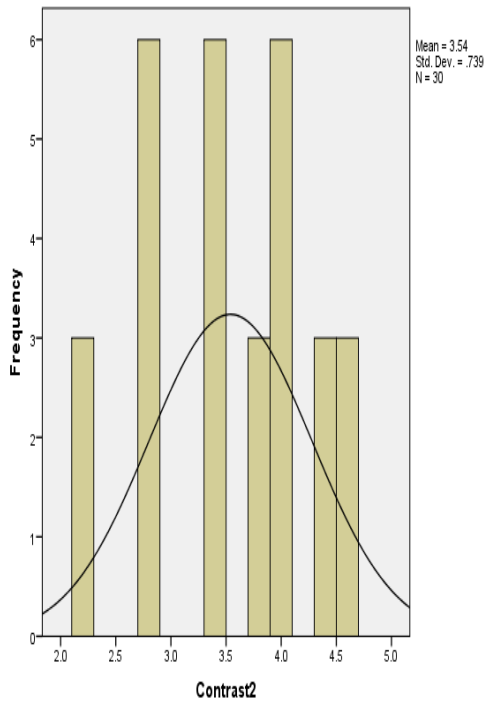
theme 1		Mean	95% Confidence Interval for Mean		5% Trimmed Mean	Median	Variance	Std. Deviation	Minimum	Maximum	Skewness	Kurtosis
			Lower Bound	Upper Bound								
My teachers have become competent in identifying the appropriate strategies to meet the needs of their students.	Statistic	3.30	2.96	3.64	3.28	3.00	0.838	0.915	2	5	<b>0.208</b>	<b>-0.652</b>
	Std. Error	0.167									0.427	0.833
My teachers have become independent to assess that a particular teaching method or tool should be changed.	Statistic	3.50	3.25	3.75	3.56	4.00	0.466	0.682	2	4	<b>-1.047</b>	<b>-0.034</b>
	Std. Error	0.125									0.427	0.833
My teachers have become more independent to identify and solve any academic and behavioral challenges without getting back to me	Statistic	2.80	2.57	3.03	2.78	3.00	0.372	0.610	2	4	<b>0.117</b>	<b>-0.298</b>
	Std. Error	0.111									0.427	0.833
My teachers can set short and long-term growth goals without my help.	Statistic	3.00	2.71	3.29	2.94	3.00	0.621	0.788	2	5	<b>1.360</b>	<b>2.608</b>
	Std. Error	0.144									0.427	0.833
My teachers take ownership of their professional learning through involvement in its process.	Statistic	3.30	3.06	3.54	3.33	3.00	0.424	0.651	2	4	<b>-0.385</b>	<b>-0.609</b>
	Std. Error	0.119									0.427	0.833

		Mean	95% Confidence Interval for Mean		5% Trimmed Mean	Median	Variance	Std. Deviation	Minimum	Maximum	Skewness	Kurtosis
			Lower Bound	Upper Bound								
<b>theme 2</b>												
My teachers have become more collaborative with me and the rest of the learning community.	Statistic	3.90	3.58	4.22	3.89	4.00	0.714	0.845	3	5	<b>0.198</b>	<b>-1.585</b>
	Std. Error	0.154									0.427	0.833
My teachers have become more innovative in their practices.	Statistic	3.60	3.30	3.90	3.61	4.00	0.662	0.814	2	5	<b>-0.346</b>	<b>-0.169</b>
	Std. Error	0.149									0.427	0.833
My teachers have become more curious about new ideas.	Statistic	3.70	3.36	4.04	3.72	4.00	0.838	0.915	2	5	<b>-0.208</b>	<b>-0.652</b>
	Std. Error	0.167									0.427	0.833
My teachers have become more confident in taking initiatives in their classes.	Statistic	3.20	2.79	3.61	3.17	3.50	1.200	1.095	2	5	<b>0.081</b>	<b>-1.532</b>
	Std. Error	0.200									0.427	0.833



My teachers have become more flexible with me in making professional decisions.	Statistic	3.30	3.00	3.60	3.33	3.50	0.631	0.794	2	4	<b>-0.610</b>	<b>-1.120</b>
	Std. Error	0.145									0.427	0.833

		Mean	95% Confidence Interval for Mean		5% Trimmed Mean	Median	Variance	Std. Deviation	Minimum	Maximum	Skewness	Kurtosis
			Lower Bound	Upper Bound								
<b>theme 3</b>												
My teachers have become more engaged in their personalized professional learning.	Statistic	3.60	3.39	3.81	3.57	4.00	0.317	0.563	3	5	<b>0.198</b>	<b>-0.835</b>
	Std. Error	0.103									0.427	0.833
My teachers have become more skillful in using students' achievement data to measure their performance.	Statistic	3.30	3.06	3.54	3.33	3.00	0.424	0.651	2	4	<b>-0.385</b>	<b>-0.609</b>
	Std. Error	0.119									0.427	0.833
My teacher has become more effective in differentiating learning for their students.	Statistic	3.50	3.19	3.81	3.50	3.50	0.672	0.820	2	5	<b>0.000</b>	<b>-0.347</b>
	Std. Error	0.150									0.427	0.833
My teachers can easily develop professional learning goals that are translated into classroom objectives.	Statistic	3.30	3.00	3.60	3.33	3.50	0.631	0.794	2	4	<b>-0.610</b>	<b>-1.120</b>
	Std. Error	0.145									0.427	0.833
My teachers have become more competent in using the students' data to make informed instructional decisions.	Statistic	3.20	2.92	3.48	3.22	3.00	0.579	0.761	2	4	<b>-0.362</b>	<b>-1.141</b>
	Std. Error	0.139									0.427	0.833



## Appendix 14 Discriminant validity

### Teacher's Questionnaire

<b>Theme 1 ad 2</b>		My instructional supervisor is well aware of my learning preferences, needs, and points of strength and targets them with the suggested PPL topics.	My instructional supervisor individualizes instructional feedbacks and differentiates entry points into my PPL.	My instructional supervisor uses evaluation data to propose the content of my personalized professional learning.	My instructional supervisor follows up the professional learning goals, targets, and focus areas for my PPL.	My instructional supervisor aligns my professional learning needs and interests to the school's common professional standards and goals.
My instructional supervisor has established a professional learning vision that clearly defines what and how to expand my professional learning.	Pearson Correlation	<b>-0.048</b>	<b>-0.050</b>	<b>-0.032</b>	<b>-0.005</b>	<b>-0.013</b>
	Sig. (2-tailed)	0.404	0.392	0.586	0.928	0.822
	N	300	300	300	300	300
My instructional supervisor recognizes my professional voice and encourages me to elevate it via sharing my new identifiable learning outcomes.	Pearson Correlation	<b>0.056</b>	<b>0.108</b>	<b>0.005</b>	<b>-0.068</b>	<b>0.036</b>
	Sig. (2-tailed)	0.334	0.062	0.926	0.237	0.537
	N	300	300	300	300	300
My instructional supervisor offers me space to choose, try and adjust any instructional methods and tools in my class.	Pearson Correlation	<b>0.052</b>	<b>0.066</b>	<b>0.022</b>	<b>-0.071</b>	<b>0.045</b>
	Sig. (2-tailed)	0.369	0.255	0.710	0.218	0.438
	N	300	300	300	300	300
My instructional supervisor offers me the freedom to design my learning path tailored to my growth needs and readiness.	Pearson Correlation	<b>0.103</b>	<b>.146*</b>	<b>0.036</b>	<b>-0.096</b>	<b>0.056</b>
	Sig. (2-tailed)	0.075	0.011	0.533	0.098	0.335
	N	300	300	300	300	300
My instructional supervisor offers me opportunities to reflect and suggest topics for my professional learning.	Pearson Correlation	<b>-0.012</b>	<b>-0.046</b>	<b>-0.003</b>	<b>0.000</b>	<b>-0.012</b>
	Sig. (2-tailed)	0.834	0.423	0.956	1.000	0.830
	N	300	300	300	300	300

Theme 1 and 3		My instructional supervisor uses a needs assessment plan to personalize my professional learning.	My instructional supervisor suggests a PPL calendar, format, and timing that best suits me.	My instructional supervisor collaborates with me to determine how my professional growth will be measured.	My instructional supervisor provides me with all the sufficient time and resources to expand my professional learning.	My instructional supervisor has executed a PPL plan for me.
My instructional supervisor has established a professional learning vision that clearly defines what and how to expand my professional learning.	Pearson Correlation	<b>0.040</b>	<b>0.029</b>	<b>-0.010</b>	<b>0.003</b>	<b>-0.004</b>
	Sig. (2-tailed)	0.488	0.618	0.856	0.955	0.940
	N	300	300	300	300	300
My instructional supervisor recognizes my professional voice and encourages me to elevate it via sharing my new identifiable learning outcomes.	Pearson Correlation	<b>0.059</b>	<b>0.038</b>	<b>0.074</b>	<b>0.053</b>	<b>0.057</b>
	Sig. (2-tailed)	0.310	0.516	0.201	0.357	0.322
	N	300	300	300	300	300
My instructional supervisor offers me space to choose, try and adjust any instructional methods and tools in my class.	Pearson Correlation	<b>0.104</b>	<b>0.056</b>	<b>0.056</b>	<b>0.096</b>	<b>0.049</b>
	Sig. (2-tailed)	0.073	0.336	0.337	0.099	0.398
	N	300	300	300	300	300
My instructional supervisor offers me the freedom to design my learning path tailored to my growth needs and readiness.	Pearson Correlation	<b>0.083</b>	<b>0.033</b>	<b>0.082</b>	<b>0.108</b>	<b>0.068</b>
	Sig. (2-tailed)	0.152	0.570	0.159	0.061	0.241
	N	300	300	300	300	300
My instructional supervisor offers me opportunities to reflect and suggest topics for my professional learning.	Pearson Correlation	<b>0.031</b>	<b>0.021</b>	<b>0.018</b>	<b>0.012</b>	<b>-0.011</b>
	Sig. (2-tailed)	0.595	0.717	0.762	0.834	0.844
	N	300	300	300	300	300

Themes 2 and 3		My instructional supervisor uses a needs assessment plan to personalize my professional learning.	My instructional supervisor suggests a PPL calendar, format, and timing that best suits me.	My instructional supervisor collaborates with me to determine how my professional growth will be measured.	My instructional supervisor provides me with all the sufficient time and resources to expand my professional learning.	My instructional supervisor has executed a PPL plan for me.
My instructional supervisor is well aware of my learning preferences, needs, and points of strength and targets them with the suggested PPL topics.	Pearson Correlation	<b>0.087</b>	<b>0.006</b>	<b>0.051</b>	<b>0.074</b>	<b>0.037</b>
	Sig. (2-tailed)	0.132	0.913	0.378	0.200	0.520
	N	300	300	300	300	300
My instructional supervisor individualizes instructional feedbacks and differentiates entry points into my PPL.	Pearson Correlation	<b>0.050</b>	<b>-0.016</b>	<b>0.064</b>	<b>0.093</b>	<b>-0.003</b>
	Sig. (2-tailed)	0.387	0.788	0.270	0.109	0.962
	N	300	300	300	300	300
My instructional supervisor uses evaluation data to propose the content of my personalized professional learning.	Pearson Correlation	<b>-0.016</b>	<b>0.064</b>	<b>-0.036</b>	<b>0.035</b>	<b>0.065</b>
	Sig. (2-tailed)	0.777	0.272	0.535	0.542	0.265
	N	300	300	300	300	300
My instructional supervisor follows up the professional learning goals, targets, and focus areas for my PPL.	Pearson Correlation	<b>0.021</b>	<b>0.081</b>	<b>-0.016</b>	<b>-0.010</b>	<b>0.009</b>
	Sig. (2-tailed)	0.716	0.161	0.784	0.868	0.871
	N	300	300	300	300	300
My instructional supervisor aligns my professional learning needs and interests to the school's common professional standards and goals.	Pearson Correlation	.118*	0.036	0.102	.148*	0.092
	Sig. (2-tailed)	<b>0.041</b>	<b>0.531</b>	<b>0.079</b>	<b>0.010</b>	<b>0.111</b>
	N	300	300	300	300	300

## Instructional Supervisor's Questionnaire

theme 1 *theme 2		My teachers have become more collaborative with me and the rest of the learning community.	My teachers have become more innovative in their practices.	My teachers have become more curious about new ideas.	My teachers have become more confident in taking initiatives in their classes.	My teachers have become more flexible with me in making professional decisions.
My teachers have become competent in identifying the appropriate strategies to meet the needs of their students.	Pearson Correlation	<b>.441*</b>	.722**	.728**	<b>.557**</b>	<b>.441*</b>
	Sig. (2-tailed)	0.015	0.000	0.000	0.001	0.015
	N	30	30	30	30	30
My teachers have become independent to assess that a particular teaching method or tool should be changed.	Pearson Correlation	<b>0.090</b>	.559**	<b>.414*</b>	<b>0.277</b>	<b>0.286</b>
	Sig. (2-tailed)	0.637	0.001	0.023	0.139	0.125
	N	30	30	30	30	30
My teachers have become more independent to identify and solve any academic and behavioral challenges without getting back to me	Pearson Correlation	<b>0.161</b>	<b>0.250</b>	<b>.444*</b>	<b>.371*</b>	<b>0.128</b>
	Sig. (2-tailed)	0.397	0.183	0.014	0.043	0.500
	N	30	30	30	30	30
My teachers can set short and long-term growth goals without my help.	Pearson Correlation	<b>0.311</b>	<b>.484**</b>	.717**	<b>.479**</b>	<b>0.331</b>
	Sig. (2-tailed)	0.095	0.007	0.000	0.007	0.074
	N	30	30	30	30	30
My teachers take ownership of their professional learning through involvement in its process.	Pearson Correlation	<b>-0.132</b>	.625**	.503**	<b>.493**</b>	<b>-0.180</b>
	Sig. (2-tailed)	0.488	0.000	0.005	0.006	0.341
	N	30	30	30	30	30

theme1* theme 3		My teachers have become more engaged in their personalized professional learning.	My teachers have become more skillful in using students' achievement data to measure their performance.	My teachers have become more effective in differentiating learning for their students.	My teachers can easily develop professional learning goals that are translated into classroom objectives.	My teachers have become more competent in using the students' data to make informed instructional decisions.
My teachers have become competent in identifying the appropriate strategies to meet the needs of their students.	Pearson Correlation	<b>.441*</b>	<b>0.017</b>	.758**	.583**	.653**
	Sig. (2-tailed)	0.015	0.927	0.000	0.001	0.000
	N	30	30	30	30	30
My teachers have become independent to assess that a particular teaching method or tool should be changed.	Pearson Correlation	<b>0.269</b>	<b>-0.349</b>	<b>.462*</b>	<b>0.286</b>	<b>0.000</b>
	Sig. (2-tailed)	0.150	0.059	0.010	0.125	1.000
	N	30	30	30	30	30
My teachers have become more independent to identify and solve any academic and behavioral challenges without	Pearson Correlation	<b>0.261</b>	<b>0.156</b>	<b>.413*</b>	.555**	.535**
	Sig. (2-tailed)	0.164	0.410	0.023	0.001	0.002
	N	30	30	30	30	30

getting back to me						
My teachers can set short and long-term growth goals without my help.	Pearson Correlation	<b>.466**</b>	<b>0.202</b>	.801**	.496**	.690**
	Sig. (2-tailed)	0.009	0.285	0.000	0.005	0.000
	N	30	30	30	30	30
My teachers take ownership of their professional learning through involvement in its process.	Pearson Correlation	<b>.432*</b>	<b>0.268</b>	.678**	.820**	.501**
	Sig. (2-tailed)	0.017	0.152	0.000	0.000	0.005
	N	30	30	30	30	30



Theme 2* theme 3		My teachers have become more engaged in their personalized professional learning.	My teachers have become more skillful in using students' achievement data to measure their performance.	My teacher has become more effective in differentiating learning for their students.	My teachers can easily develop professional learning goals that are translated into classroom objectives.	My teachers have become more competent in using the students' data to make informed instructional decisions.
My teachers have become more collaborative with me and the rest of the learning community.	Pearson Correlation	<b>0.203</b>	<b>-0.132</b>	<b>0.224</b>	<b>-0.108</b>	<b>0.354</b>
	Sig. (2-tailed)	0.282	0.488	0.234	0.570	0.055
	N	30	30	30	30	30
My teachers have become more innovative in their practices.	Pearson Correlation	<b>0.316</b>	<b>0.234</b>	.775**	.672**	.635**
	Sig. (2-tailed)	0.089	0.213	0.000	0.000	0.000
	N	30	30	30	30	30
My teachers have become more curious about new ideas.	Pearson Correlation	<b>.361*</b>	<b>0.330</b>	<b>.758**</b>	<b>.555**</b>	<b>.831**</b>
	Sig. (2-tailed)	0.050	0.075	0.000	0.001	0.000
	N	30	30	30	30	30
My teachers have become more confident in taking initiative in their classes.	Pearson Correlation	<b>0.302</b>	<b>.493**</b>	<b>.461*</b>	<b>.523**</b>	<b>.819**</b>
	Sig. (2-tailed)	0.105	0.006	0.010	0.003	0.000
	N	30	30	30	30	30
My teachers have become more flexible with me in making professional decisions.	Pearson Correlation	<b>0.123</b>	<b>0.220</b>	<b>0.238</b>	<b>-0.148</b>	.582**
	Sig. (2-tailed)	0.516	0.243	0.205	0.437	0.001
	N	30	30	30	30	30

## Appendix 15 Sample School Documents

22<sup>nd</sup> to 27<sup>th</sup> of August

Module	Module Title
Module 1	Parent Communication - Meeting
Module 2	Parent Communication - Email
Module 3	Student Communication
Module 4	Students' Safeguarding
Module 5	Feedback on Students' Work
Module 6	Lesson Observation
Module 7	Differentiated Activities
Module 8	Questioning Techniques
Module 9	Technology to serve learning activities
Module 10	Teachers' Guide
Module 11	LSD Session
Module 12	Department Meeting
Module 13	Classroom Preparation

Orientation Program Schedule – Secondary School					
Time	August 22	August 23	August 24	August 25	August 26
9:00 - 10:15	Module 1	Module 2	Module 6	Module 5	Module 9
10:15 - 10:30	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
10:30 - 12:00	Module 3	Module 4	Module 7	Module 11	Module 9
12:00 – 12:30	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break
12:30 – 1:30	Module 12	Module 12	Module 12	Module 8	Module 10
1:30 – 2:30	Module 12	Module 12	Module 13	Module 13	Module 12

## الملحق 1: استبيان المعلمين Appendix 16

المعلمين الأعضاء،

أود أن أدعوك للمشاركة في هذه الدراسة التي تهدف إلى فهم تصورك للدور الذي يقوم به المشرفون التربويون (المنسقون، رؤساء الأقسام، المرشدون الأكاديميون، المدراء، نواب المدراء) في الترويج للتعلم المهني المخصص في مدرستك.

التعلم المهني المخصص (PPL) هو نهج تعليمي مهني مدمج في الوظيفة يمثل مجموعة ذات صلة من الاستراتيجيات المستهدفة المصممة بدقة لتلبية احتياجات التعلم المخصص للمعلمين واهتمامات النمو المتنوعة في السياق الداعم لتعلم الكبار .

سيستغرق الاستبيان حوالي 4 دقائق لإكماله. أمل أن تشاركوا لأن رأيك سيمنحني رؤى لفهم ما يمكن فعله لتعزيز تجربة المعلمين في التعلم المهني.

لن أسألك عن اسمك أو اسم مدرستك، ولن يتم مشاركة إجاباتك مع الآخرين دون إذنك.

بالنسبة لي، تعد إضافة صوتك إلى هذا الاستبيان أمرًا بالغ الأهمية ومفيدًا، ولكن يمكنك اختيار عدم المشاركة. يمكنك أيضًا الانسحاب في أي وقت تريده.

في حالة وجود أي استفسار يمكنك التواصل مع الباحث من خلال: [buid.student.ac.ae@20191960](mailto:buid.student.ac.ae@20191960)

شكرا جزيلًا على وقتك ودعمك. يرجى البدء بالاستبيان بالإجابة على الأسئلة التالية:

الموافقة

بعد قراءة المعلومات أعلاه ، أوافق على المشاركة في الدراسة التي تعلن أن المعلومات المقدمة هنا هي على حد علمي واعتقادي دقيقة .

أوافق

القسم أ: البيانات الديموغرافية

أ. الجنس

ذكر	أنثى
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ب. عدد سنوات الخبرة

2-0 سنوات	3-5 سنوات	6-10 سنوات	فوق 10 سنوات
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ج. ما هو مستوى الصف الذي تقوم بتدريسه؟

روضة اطفال	الابتدائية	المتوسطة	ثانوي
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د. ما المادة/ المواد الدراسية التي تدرسها في المدرسة؟

ه. أي من الاستراتيجيات التالية للتعليم المهني هي الأكثر استخداما في مدرستك؟

1. البحث العملي
2. التوجيه
3. تدريب الزملاء
4. شبكات التعلم المهني
5. التعلم المهني عبر الإنترنت
6. درس الدراسة
7. الجولات المدرسية
8. مجموعات الأصدقاء المركزة
9. ورش العمل المدرسية

**القسم ب: ممارسات المشرف التعليمي**

حدد ما إذا كنت توافق أو لا توافق على العبارات التالية حول المشرفين التعليميين.

أرفض بشدة	لا أوافق	محايد	لا أوافق	أوافق بشدة		
						<b>المحور الأول: الرؤية والاختيار المهني</b>
						1. لقد وضع المشرف التعليمي رؤية تعليمية مهنية تحدد بوضوح كيف يمكنني توسيع نطاق تعليمي المهني.
						2. يتعرف المشرف التعليمي على صوتي المهني ويشجعني على رفعه من خلال مشاركة نتائج التعلم الجديدة التي يمكن تحديدها.
						3. يوفر لي المشرف التعليمي المساحة لاختيار أو لتعديل أي طرق وأدوات تعليمية في صفّي.
						4. يمنحني المشرف التعليمي الحرية في تصميم مسار التعلم المصمم خصيصاً لاحتياجات النمو والاستعداد الخاصة بي.
						5. يقدم لي المشرف التعليمي فرصاً للتفكير

واقترح الأفكار حول تعليمي المهني.					
أوافق بشدة	لا أوافق	محايد	لا أوافق	أوافق بشدة	
<b>المحور 2: المحتوى</b>					
					6. إن المشرف التعليمي الخاص بي على دراية جيدة باحتياجات التعلم ونقاط القوة الخاصة بي ويستهدفهم بمواضيع مقترحة للتعلم المهني المخصص.
					7. يقوم المشرف التعليمي بإضفاء الطابع الفردي على التعليقات التعليمية ويميز نقاط الدخول في التعلم المهني المخصص لي.
					8. يستخدم المشرف التعليمي بيانات التقييم لاقتراح محتوى للتعليم المهني المخصص.
					9. يتابع مشرفي التعليمي أهداف التعلم المهني والغايات ومجالات التركيز للتعليم المهني المخصص.
					10. يقوم مشرفي التعليمي بمواءمة احتياجات التعلم المهنية واهتماماتي مع المعايير والأهداف المهنية المشتركة للمدرسة.
أرفض بشدة	لا أوافق	محايد	لا أوافق	أوافق بشدة	
<b>المحور 3: العملية</b>					
					11. يستخدم المشرف التعليمي خطة تقييم الاحتياجات لإضفاء الطابع الشخصي على التعلم المهني المخصص.
					12. يقترح المشرف التعليمي تقويمًا تعليميًا احترافيًا مخصصًا وتنسيقًا وتوقيتًا يناسبني على أفضل وجه.
					13. يتعاون المشرف التعليمي معي لتحديد كيفية قياس تطوري المهني.

						14. يوفر لي مشرفي التعليمي ما يكفي من الوقت والموارد لتوسيع نطاق تعلمي المهني.
						15. قام المشرف التعليمي بتنفيذ خطة تعليمية مهنية مخصصة لي.

القسم ج:

1. كيف تعرف أن مشرفك التعليمي راضٍ عن أدائك؟
  2. إذا أتاحت لك الفرصة لتعديل ممارسات التعلم المهني المخصص في مدرستك ، فما هي التغييرات التي ستجريها؟
  3. بأي طريقة كان التعلم المهني المخصص مفيداً لك في مدرستك؟
- شكرا جزيلا. مشاركتك محل تقدير كبير.

## الملحق 2: استبيان المشرف التعليمي Appendix 17

السادة المشرفون التربويون الأفاضل،

أود أن أدعوك للمشاركة في دراستي لفهم الممارسات التي تنفذها لتعزيز الفعالية في التعلم المهني المخصص (PPL) في مدرستك.

التعلم المهني المخصص (PPL) هو نهج تعليمي مهني مدمج في الوظيفة يمثل مجموعة ذات صلة من الاستراتيجيات المستهدفة المصممة بدقة لتلبية احتياجات التعلم المخصص للمعلمين واهتمامات النمو المتنوعة في السياق الداعم لتعلم الكبار .

أقدر رأيك لأنه سيعطي رؤى لفهم ما يمكن فعله لتحسين تجربة المعلمين في التعلم المهني.

لن أسألك عن اسمك أو اسم مدرستك ، ولن يتم مشاركة إجاباتك مع الآخرين. لا توجد إجابات صحيحة أو خاطئة ، وسوف يستغرق الأمر حوالي 5 دقائق لإكمال الاستبيان. يُعد صوتك في هذا الاستبيان أمراً بالغ الأهمية ، ولكن يمكنك اختيار عدم المشاركة. يمكنك أيضاً السحب في أي وقت تريده.

إذا كان لديك أي أسئلة يمكنك التواصل معها من خلال: 20191960@buid.student.ac.ae

شكرا جزيلا على وقتك ودعمك. يرجى البدء بالاستبيان الآن بالإجابة على الأسئلة التالية.

الموافقة

بعد قراءة المعلومات أعلاه ، أوافق على المشاركة في الدراسة التي تعلن أن المعلومات المقدمة هنا هي على حد علمي واعتقادي دقيقة .

أوافق

القسم أ: المعلومات الأساسية

أ. الجنس

ذكر	أنثى
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ب. سنوات الخبرة كمشرف تعليمي

فوق 10 سنوات	10-6 سنوات	5-3 سنوات	سنوات 2-0
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ج. ما هو مستوى المدرسين الذين تقوم بتوجيههم والإشراف عليهم أكاديميًا؟

روضة اطفال	الابتدائية	المتوسطة	ثانوي
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د. المادة / المواد الدراسية المسؤول عن الإشراف عليها

ه. أي من الاستراتيجيات التالية للتعلم المهني هي الأكثر استخداما في مدرستك؟

1. البحث العملي
2. التوجيه
3. تدريب الزملاء
4. شبكات التعلم المهني
5. التعلم المهني عبر الإنترنت
6. درس الدراسة
7. الجولات المدرسية
8. مجموعات الأصدقاء المركزة
9. ورش العمل المدرسية

القسم ب: أداء المدرسين في التعلم المهني المخصص

قيم أداء معلميك بناءً على تقييمك.

بقدر كبير	بعض الشيء	بقدر لا بأس به	قليلا	لا على الإطلاق		
						<b>المحور الأول: تنمية المتعلم</b>
						1. أصبح المدرسين أكثر كفاءة في تحديد الاستراتيجيات المناسبة لتلبية احتياجات طلابهم.
						2. أصبح المدرسين أكثر استقلالية لتقييم أنه يجب تغيير طريقة أو أداة تدريس معينة.
						3. أصبح المدرسين أكثر استقلالية لتحديد وحل

						أي تحديات أكاديمية وسلوكية دون العودة إلي.	
						4. يمكن للمدرسين تحديد أهداف النمو على المدى القصير والطويل دون مساعدتي.	
						5. أصبح المدرسين أكثر شعوراً بالملكية لتعلمهم المخصص	
بقدر كبير	بعض الشيء	بقدر لا بأس به	قليلا	لا على الاطلاق			
						<b>المحور 2: بيئة المتعلمين</b>	
						6. أصبح المدرسين أكثر تعاوناً معي و مع بقية الكادر التعليمي	
						7. أصبح المدرسين أكثر ابتكاراً في ممارساتهم التعليمية	
						8. أصبح المدرسين أكثر فضولاً حول الأفكار الجديدة	
						9. أصبح المدرسين أكثر ثقة في اتخاذ مبادرات داخل صفهم	
						10. أصبح المدرسين أكثر مرونة معي في اتخاذ القرارات المهنية	
بقدر كبير	بعض الشيء	بقدر لا بأس به	قليلا	لا على الاطلاق			
						<b>المحور 3: تطبيق المتعلم</b>	
						11. أصبح المدرسين أكثر انخراطاً في تعلمهم المهني المخصص	
						12. أصبح المدرسين أكثر مهارة في استخدام بيانات تحصيل الطلاب لقياس أدائهم	
						13. أصبح المدرسين أكثر فعالية في تمييز التعلم لطلابهم.	
						14. أصبح المدرسين أكثر فعالية في تطوير أهداف التعلم المهني التي يمكن ترجمتها بسهولة إلى أهداف الفصل الدراسي	



						15. أصبح المدرسين أكثر كفاءة في استخدام بيانات الطلاب لاتخاذ قرارات تعليمية مدروسة
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### القسم ج: الكلمة الأخيرة

1. هل تعتقد أنه يمكن تحسين أداء المدرسين باستخدام نموذج التعلم المهني المخصص ، و ما الذي يجب فعله للحفاظ على التعلم المستدام للمعلمين؟

2. كيف يؤثر استخدام نموذج التعلم المهني المخصص على أداء المدرسين ؟

3. كيف يتم التعامل مع التعارض الذي قد يوجد بين احتياجات المدرسين من ناحية والاحتياجات المحلية / العالمية من ناحية أخرى بشكل أفضل في مدرستك؟

شكرا لك. مشاركتك محل تقدير كبير.

### الملحق 3: الأسئلة المفتوحة المقترحة لمقابلة مجموعة التركيز Appendix 18

أعزائي المشاركون،

أنا سليم، طالب دكتوراه في كلية التربية في الجامعة البريطانية في دبي. كجزء من أطروحتي ، أود أن أدعوكم للمشاركة في مقابلة فردية على راحتكم. من المتوقع أن تستمر المقابلة من 20 إلى 30 دقيقة ، ويتم تسجيلها صوتيا بموافقتك ، وتسترشد بالأسئلة التالية. ستكون مشاركتك مجهولة الهوية وستكون إجاباتك سرية. لا تتردد في الانسحاب في أي وقت من المقابلة دون أي استجواب.

1. كيف يمكنك وصف تجربة التعلم المهني المخصص في مدرستك؟
2. بأي طريقة يعزز التعلم المهني المخصص أدائك؟
3. هل يمكنك وصف موقف كان فيه مشرفك التعليمي داعما ومرن؟
4. أخبرني عن شيء قد يعيق نموك / تقدمك في أي مرحلة من مراحل عملية التعلم المهني المخصص ؟
5. كيف تساهم خلفيتك الثقافية في نجاح تجربة التعلم المهني المخصص ؟
6. كيف كان الأمر بالنسبة لك أن يكون مشرفك التعليمي كمشرف تحفيزي؟
7. في رأيك ، ما هي العوامل التي تؤدي إلى نجاح نموذج التعلم المهني المخصص في المدرسة؟
8. ما هي الطرق التي تعتقد أن نهج التعلم المهني الحالي يتناقض مع النهج السابق؟
9. ما هي بعض الظروف / الأنشطة المدرسية المحتملة التي عززت تعلمك المهني المخصص في مدرستك؟
10. ما الذي ينبغي تقديمه أكثر لتعزيز عملية التعلم المهني المخصص بشكل أفضل في مدرستك؟

تعاونكم هو موضع تقدير كبير.

#### الملحق 4: أسئلة المقابلة شبه المنظمة Appendix 19

1. هل يمكن أن نخبرنا قليلا عن عملية التعلم المهني التي تستخدمها مع معلميك في قسمك / مدرستك؟ في رأيك ، كيف تعتقد أن المشرفين التربويين يختلفون في تعزيز عملية التعلم المهني المخصص في مدرستك؟
2. ما هو شعورك تجاه القيادة التعليمية في مدرستك؟ إلى أي مدى يؤثر فريق القيادة على تجربة التعلم المهني المخصص؟
3. إلى أي درجة تعتقد أن ظروف المدرسة وسماتها (مثل التمويل والوقت والثقافة) تمكن من نجاح برنامج التعلم المهني المخصص؟ كيف يمكن أن يؤثر ذلك على استجابتك لبرنامج التعلم المهني المخصص؟
4. هل تعتبر ممارساتك / تعلمك اليومي قد تحسن نتيجة لاستخدام نهج التعلم المهني المخصص؟ كيف يمكن أن تؤثر التعليمات التي تستخدمها / تتلقاها في اجتماعاتك على تجربتك في التعلم المهني المخصص؟
5. من تجربتك، هل تعتقد أن المدارس في دولة الإمارات العربية المتحدة بشكل عام وأبوظبي بشكل خاص يجب أن تتبنى أو تتحول إلى استخدام نموذج التعلم المهني المخصص؟ لماذا تعتقد أن مثل هذا النموذج أكثر فعالية من غيره؟

#### الملحق 5: خطاب الموافقة Appendix 20

أعزائي المشاركين ،

هذا هو الموافقة على مشاركتك طوعية في دراستي التي تبحث في فعالية المشرفين التعليميين في تعزيز التعلم المهني المخصص في مدرستك. يرجى قراءة المعلومات التالية بعناية قبل التوقيع.

تستند جميع المعلومات المقدمة إلى معتقداتي وخبراتي وذات صلة بالأسئلة.

يتم الاحتفاظ بالحق في عدم الإجابة على أي أسئلة في المقابلات.

أخبرني الباحث عن الغرض من الدراسة المقبلة.

أبلغني الباحث أن جميع الردود ستكون محمية بأمان ولن تتم مشاركتها أبداً بدون إذني.

على هذا أوقع: -----