

**EXPERIENCES AND REFLECTIONS OF FIRST-YEAR TEACHERS IN A
PROFESSIONAL DEVELOPMENT PROGRAM BASED ON COMMUNITY
OF INQUIRY FRAMEWORK**



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**EXPERIENCES AND REFLECTIONS OF FIRST-YEAR TEACHERS IN A
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OF INQUIRY FRAMEWORK**

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ABSTRACT

EXPERIENCES AND REFLECTIONS OF FIRST-YEAR TEACHERS IN A PROFESSIONAL DEVELOPMENT PROGRAM BASED ON COMMUNITY OF INQUIRY FRAMEWORK

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Educational Technology PhD Program

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The purpose of the instrumental case study was to evaluate the effectiveness of the professional development (PD) program through exploring the CoI experiences and reflections of first-year language teachers in the learning (PD program) and teaching contexts. The present study, employing a concurrent and sequential mixed-methods approach (collecting largely qualitative data complemented with quantitative data), was outlined in two phases.

Phase I of the study holistically entailed an analysis of the professional needs of the first-year language teachers in three different forms, designing the PD program, developing instructional materials, and concluding the design step with performing a connoisseur-based and the development step with one-to-one formative evaluation to improve the designed PD program. Phase II, which is regarded as the extension of the formative evaluation through small group evaluation, used three data sources and four data collection tools aiming at investigating language teacher candidates' experiences regarding their CoI presences, as well as the aspects of the professional development program reflected in the performance context. Phase II, being based on the work aggregated in phase I, therefore, was performed with different samples and different data collection methods.

The findings and results reveal the critical role of systematic planning, incorporation of interactivity and reflectivity as well as the formation of risk-free environments into the design of PD programs to enhance the effectiveness in terms of attaining the

designated learning objectives as well as shape first-year language teachers' experiences and reflections of the CoI presences. The first-year language teachers were found to experience high levels of social, cognitive, and teaching presences stemming from such characteristics with regard to the design and facilitation of the PD program in the present study. Additionally, the data revealed a strong resemblance between their experiences and reflections in their teaching contexts (i.e., interactivity, planning, and personalization) despite some limitations with regard to the direct instruction and facilitation categories of the teaching presence.

Keywords: CoI, Cognitive Presence, Teaching Presence, Social Presence, Professional Development

ÖZ

SORGULAMA TOPLULUĞU MODELİ UNSURLARINA GÖRE TASARLANMIŞ ADAY DİL ÖĞRETMENLERİNE YÖNELİK BİR MESLEKİ GELİŞİM PROGRAMININ TASARIMI, UYGULANMASI VE DOĞRULANMASI

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Aday öğretmenlerin Araştırma Topluluğu modeli çerçevesine göre tasarlanmış bir mesleki gelişim programındaki süreç ve uygulama deneyimleri

Bu tez çalışmasında uygulanmış olan enstrümantal vaka çalışmasının amacı Araştırma Topluluğu (ATM) modeline göre tasarlanmış olan mesleki gelişim programının aday öğretmenlerin mesleki gelişim ve uygulama süreçlerindeki etkinliğini ölçmektir. Eşzamanlı ve sıralı karma yöntem tasarımı kullanan mevcut araştırma, iki aşamada özetlenmiştir.

Çalışmadaki 1. Faz aday dil öğretmenlerinin mesleki ihtiyaçlarının üç farklı formda analizini, mesleki gelişim programının tasarlanmasını, öğretim matertallerinin geliştirilmesini ve tasarım adımının uzman tabanlı formatif değerlendirme ve geliştirme adımını temsili bir örneklem ile gerçekleştirilen bire-bir formatif değerlendirmesi ile tamamlanmasını kapsamaktadır. Formatif değerlendirmenin küçük grup değerlendirmesi ile genişletilmiş detaylı bir değerlendirmesi olan Faz 2’de, aday öğretmenlerin mesleki gelişim programına yönelik toplumsal, bilişsel ve öğretimsel buradalıklarını ve uygulama deneyimlerini derinlemesine inceleyebilmek amacıyla, üç veri kaynağı ve dört veri toplama aracı kullanılmıştır. Bu sebeple, Faz 1’deki çalışmalara dayalı olarak geliştirilen Faz 2 farklı örneklem ve veri toplama yöntemleriyle yürütülmüştür.

Çalışmadaki bulgular ve sonuçlar sistematik planlamanın, etkileşim ve yansıtmanın

mesleki gelişim programları tasarımında dahil edilmesinin ve güven ortamının oluşturulmasının belirlenen öğrenme hedeflerine ulaşmada ve aday dil öğretmenlerinin toplumsal, bilişsel ve öğretimsel buradalık deneyimlerinin niteliğini arttırma hususundaki etkinliğini kanıtlamaktadır. Bu çalışma aday dil öğretmenlerinin, mesleki gelişim programı tasarım ve kolaylaştırma boyutlarında algılanan tasarımsal özellikler sebebiyle yüksek düzeylerde toplumsal, bilişsel ve öğretimsel buradalık algıları olduğunu göstermiştir. Ayrıca, mesleki gelişim programındaki süreç ve deneyimleri ile kendi bağlamlarındaki uygulama deneyimleri arasında, öğretimsel buradalığın yönetim ve kolaylaştırma boyutlarına ilişkin tespit edilen bazı sınırlılıklara rağmen, genel anlamda güçlü bir benzerlik olduğunu (ör. etkileşim, tasarım ve kişiselleştirme boyutları) ortaya çıkarmıştır.

Anahtar Kelimeler: ATM, Bilişsel Buradalık, Öğretimsel Buradalık, Toplumsal Buradalık, Mesleki Gelişim



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LIST OF ABBREVIATIONS

CoI	Community of inquiry
CP	Cognitive presence
PDP	Professional development program
SME	Subject matter expert
SP	Social presence
TDC	Teacher development course
TP	Teaching presence

Chapter 1

Introduction

1.1 Statement of the Problem

The teaching practice has undergone a drastic change in accordance with the epistemological shifts (Johnson, 2009) in the field of education. While the focus in professional development (PD) programs was merely on transmitting the knowledge to teachers treating them as passive recipients of knowledge from a behavioristic lens, the focus shifted away from teachers' role as passive recipients of knowledge towards reflective practitioners (Crandall, 2000) with the burgeoning impact of constructivism. Along with this shift, professional development programs have also undergone a drastic shift with regard to epistemology. The structure of PD programs has placed an emphasis on teachers' collaborative knowledge building and offers a wide array of activities such as *seminars, peer coaching, cooperative development, lesson study groups, critical friend groups, teacher study groups and virtual networks* (Zhang, Liu, Wang, 2015; Dewan Türüdü, 2020; Charteris & Smardon, 2013). Research studies on PD programs for teachers emphasize the importance of teacher collaboration. These studies indicate that this should be key in the design of PD programs for the sake of sustainable learning not only for teachers themselves but also for students and the school as well as the community they are involved in (Forte & Flores, 2014).

Even though such changes and reflective elements seem to be promising in terms of providing effectiveness and sustainability in professional development programs, one of the main criticisms towards PD programs is the lack of theoretical grounding (Mishra and Koehler, 2006). Furthermore, teacher development programs struggle to maintain the congruence and coherence with classroom practice (Kennedy, 2016; Mendez & Pérez-Gómez, 2017; Reeves & Pedulla, 2013; Sariçoban, 2016; Songül, 2019; Yıldırım and Seferoğlu, 2021). Due to lack of clarity and alignment with the classroom practices, the sustainability of teacher developmental programs can neither be effectively maintained nor accurately measured (Gore, Smith, Bowe, Ellis, & Lubans, 2017). Additionally, research studies focused on professional development for teachers pinpoint the lack of facilitation, follow up, sufficient scaffolding, resources and guidance (Hertz et al., 2022). Thus, it can be asserted that PD programs

having such limitations may not lead teachers to attain higher levels of learning (i.e., resulting in content transmission mode where teachers simply copy and paste activities and/or strategies without addressing the needs and requirements of their learners in a grounded manner). Such practices ultimately result in lack of transfer in the performance context (Mendez & Pérez-Gómez, 2017; Wiliam & Leahy, 2014). When pedagogically ungrounded approaches to PD programs, those with limited scope and specific affordance are adopted, the potential for high quality of teacher learning, and transfer are not evident (Harris, Mishra and Koehler, 2009).

Several PD studies highlight the critical role of incorporating interactive experiences (Parsons, Hutchison, Parsons, & Ives, 2019), authentic tasks and relevant content that can be easily transferred to the performance context (Reeves & Pedulla, 2013) to foster deep and meaningful learning for teachers. Additionally, collaborative knowledge construction, reflection and feedback, and the design of collaborative environments (Darling-Hammond et al., 2017; Desimone et al., 2002; Dewan, 2020; Kabilan & Veratharaju, 2013; Kuusisaari, 2014) should be considered in the design of PD programs. As per the collaborative environments in the field of teacher education, designing such environments has proven its critical role to promote higher levels of learning and enhancing transfer. This is established through the incorporation of socially and cognitively engaging designs (Kuusisaari, 2014; Yıldırım and Seferoğlu, 2021) to alleviate such limitations evident in the field of professional development for teachers. Considering the design aspects of high-quality professional development programs for first-year language teachers is also critical as the current and prospective attitudes of teachers are shaped at the onset of their careers (Borekci & Uyangor, 2021; Flores & Day, 2006; Yüksel & Başaran, 2019). It can be asserted therefore, that ungrounded designs and unreflective adoptions of theoretical approaches in PD programs should be avoided.

Community of Inquiry model (CoI) is a conceptual framework developed by Garrison, Anderson, and Archer (2000), which helps raise the effectiveness and maintain sustainability in the design of online and face to face learning environments. The CoI model is based on the fundamentals of collaborative constructivism to realize deep and meaningful learning in a critical community (Garrison & Anderson, 2003). As well as presenting the details of the teaching and learning engagement in a systematic manner (Perry & Edwards, 2005), the CoI framework engenders and

consolidates deep and meaningful inquiry of the subject matter. The three interactive presences are social presence (SP), cognitive presence (CP) and teaching presence (TP). Community of practice and CoI approaches in the field of teacher professional development emphasize the importance of bringing teachers together in a collaborative learning environment to promote deeper levels of engagement and transfer (Dufour, Dufour, Eaker & Karhanek, 2004). Thus, this framework has been widely adopted to foster the quality of teaching and learning due to its grounded theoretical lens and merits (Garrison and Akyol, 2013).

1.2 Purpose of the Study

The present study consists of two phases. The analysis step in phase I aims to establish the perceptions of what subject matter experts, pre-service and in-service language teachers consider an effective PD programme with reference to supporting research and literature (Dick, Carey, & Carey, 2015). Additionally, the design, development, implementation, and evaluation steps in phase I aim to design and develop a PD program, based on the formative evaluation at each step resonating with the cyclical and iterative nature of the ADDIE framework (Gustafson & Branch, 2007). Phase II of the present study will ascertain and evaluate first-year language teachers' perceptions of social, cognitive, and teaching presence as well the reflections of the three presences in their teaching contexts using a small group evaluation of the designed PD program. To put simply, phase II of the present study is based on the work aggregated in phase I. Therefore, different samples and a range of data collection methods were used in both phases as well as employing the ADDIE cyclical framework to structure the formation of the PD program. Phase I entailed (1) conducting a thorough analysis of the professional needs of first year language teachers in three different forms: in-service language teachers, pre-service language teachers and teacher trainers as subject matter experts, (2) designing the PD program through specifying learning objectives and instructional strategies as well as determining the sequence of the content of the training, (3) developing instructional materials and (4) performing a connoisseur-based and one-to-one formative evaluation to improve the designed PD program. Upon the completion of phase I of the study, the steps of which were cyclically completed through a systematic approach, the PD program was

formed. Then, phase II of the study took place with different samples and different data collection methods (see Figure I).



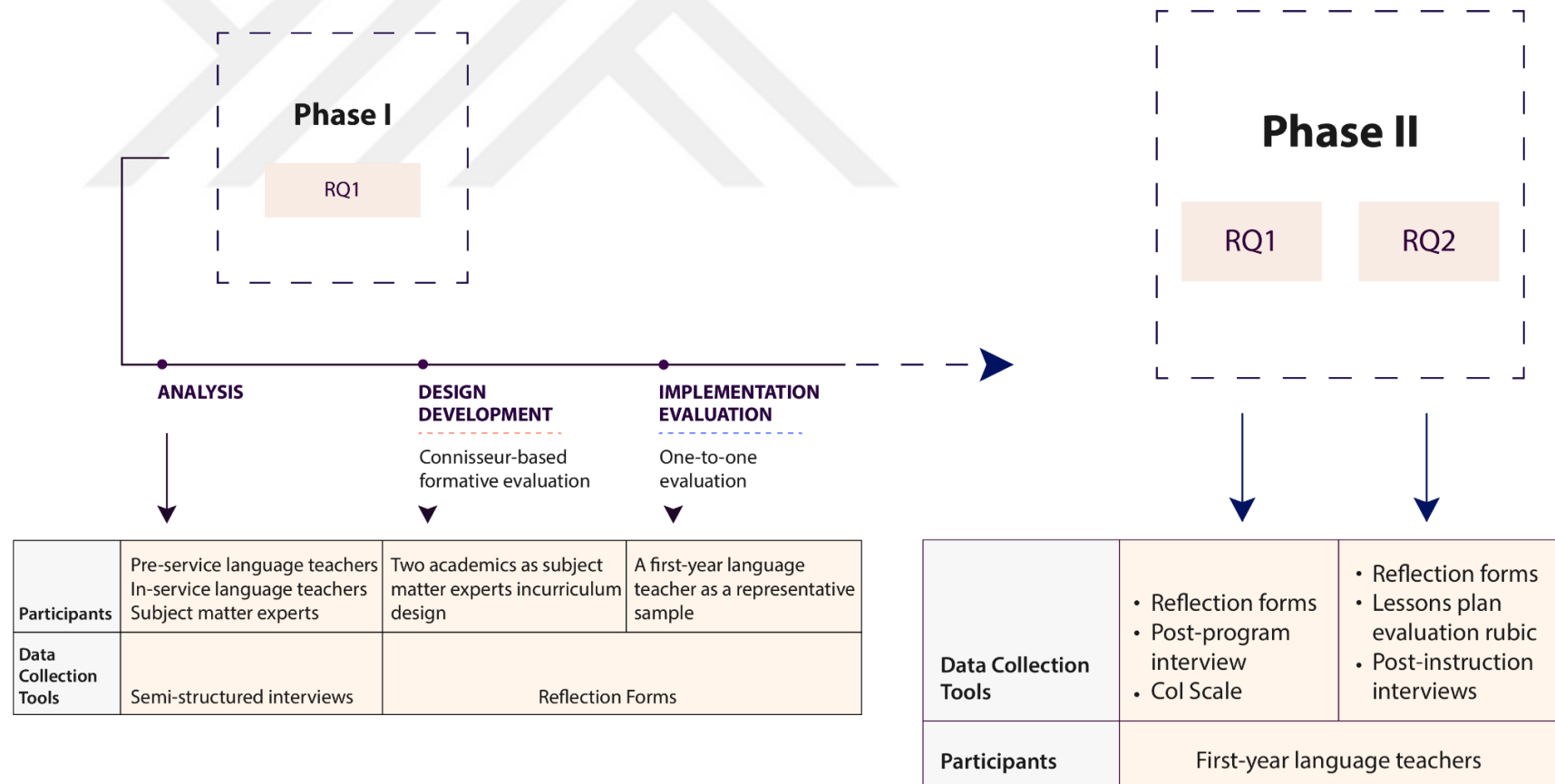


Figure 1 Research design and steps of phase I and phase II

1.3 Research Questions

The present study adopts a concurrent and sequential mixed method approach in that largely qualitative data (supported with quantitative evidence) are collected to address the research questions. Three different data sources, namely: the first-year language teachers' opinions, reflection forms and lesson plans of the classroom implementations and four different data collection tools, namely: CoI scale, reflections, the first post instruction meetings and post-program interviews are utilized aligned with the research questions.

The present study aims to address the following research questions:

RQ1. What will be the first draft PD program to address the professional needs of first-year language teachers?

This research question seeks to addresses justifications, findings, and discussions regarding the steps of phase I. This will provide a basis for phase II; and is covered in the methodology section.

RQ2. How do first-year language teachers experience the professional development program designed for enhancing social, cognitive and teaching presences in their teaching contexts?

The PD program with a community of inquiry model design was implemented using an online learning environment. First-year language teachers of different grade levels in state schools from several cities across Türkiye were invited to participate.

RQ3. What aspects of the professional development program are reflected in the performance context?

The participating first-year language teachers designed and performed lessons to alleviate issues at hand in their own teaching contexts utilizing the elements of the CoI framework, which was at the center of the theoretical framework of the PD training they were involved in.

1.4 Significance of the Study

Despite the growing awareness of the importance of collaborative constructivist approaches in the design of PD programs, there have not been many research studies addressing this gap in the field of teacher development (Kuusisaari, 2014; Dewan Türüdü, 2020). The issues encountered in the field of teacher

development programs (i.e., lack of theoretical grounding and professional learning communities, emergence of techno-centric approaches, incoherence between theory and practice and lack of transfer) is addressed through a grounded design of a professional development program through the CoI framework given its dynamic, inquiry stimulating and complementary nature in face to face and online learning environments (Garrison et al., 2000). These aspects pertaining to the CoI model are evident in the designed PD program in the present study. The ADDIE cycle rooted in the design of the PD program coming from phase I of the study led the design and the content to be professionally relevant, applicable, and transferable for its intended audience: first-year language teachers. The reason for the perceived high degrees of social, cognitive and teaching presences as well as the satisfactory transfer of the first-year language teachers' take away from the PD program to their teaching contexts (despite some limitations) in the present study may be the rigorous data collection process and extensive literature review to analyze the professional needs of the target audience, design, development and formative evaluation procedures performed in the phase I of the study. The thick descriptions regarding the needs of the intended audience from three different perspectives (pre-service language teachers, in-service language teachers and subject matter experts) reflected in a robust design leads to higher cognitive and social engagement of the first-year language teachers in the PD program. Higher engagement and transfer levels are reported to be due to addressing the professional needs of teachers (Krzyszkowska & Mavrommati, 2020); such robust, data-driven design process for language teachers is scarce in the field of teacher development.

The revisions and refinements in essence with the iterative and coherent nature of the ADDIE framework (Peterson, 2003) in each and every step of phase I (respectively the connoisseur-based formative evaluation and one-to-one evaluation with a representative sample) also may have contributed to this alignment between the needs of the first-year language teachers and the intended audience's expectations. The cyclical nature and data driven refinements in the design process addresses the gap pertaining to the lack of structure in the field of teacher development. To conclude, the data-driven instructional design lens rooted in the present study may guide researchers in pursuing research studies within the scope of professional development programs in a grounded manner addressing the alignment gap in the relevant literature.

Considering the review of the findings in light of the CoI research studies in the field of professional development for teachers and the issues encountered in the field of teacher development, the CoI model may come across as a promising and effective solution as it leads to meaningful learning through critical thinking and collaboration. The application of the CoI model in professional development training is scarce in the field and the implementation of a training framework within this framework may be promising to set the path for more pedagogically driven, meaningful and integrated professional development programs, which may result in better effectiveness and sustainability. As per the content of the PD programs, Knudsen (2019) emphasizes that more research studies should be conducted to explore the benefits of the CoI model in the development of instructional technology training for teachers. Additionally, Knudsen (2019) reports the need for further research studies focusing on valid and transferable educational experiences in online professional development studies emphasizing the robustness of the course design. Similarly, Hilden & Pressley's (2007) research reveals the need to conduct PD studies to explore how teachers bridge planning and reflecting to making situated and responsive changes in the performance context. Striving to make such situated changes in the classrooms, the forming of meaningful collaboration among teacher participants has been reported as a gap in the field of teacher development (Good & Schumack, 2013). Focusing on the implementation of the CoI framework in PD research studies, the role and extent of facilitation as well as the processes lending to collegial learning that leverages cognitive presence should be deeply explored due to its close link to the forming of a trusting atmosphere (Harvey & Teledahl, 2019).

An identified research gap on CoI studies in the field of teacher professional development has also been shared regarding the methodological lens. For instance, Butler, Schnellert, & Cartier (2013) report the need to include more diverse sample to explore the impacts of PD programs on a larger scale. Similarly, Wynants & Dennis (2018) stress the importance of including diverse sample as well employing qualitative and quantitative measures as complementary to one another to obtain results with greater validity and depth. The heterogeneity of the PD context with the addition of experienced language teachers and first-year language teachers coming from diverse departments and cities across Turkey constitutes a unique setting in the present study referring to the research gap regarding the need for diverse sample. Additionally,

Akyol (2009) stated that several studies on the CoI model employ merely quantitative or qualitative designs. The concurrent and sequential mixed method employed in the present study addresses the research gap voiced by Akyol (2009).

Even though the CoI model is an established and widely accepted model, more research is needed to shed light on its efficacy and applicability in different contexts and approaches (Annamalai, 2017). The rigorous instructional design approach rooted in the present study and the presence of first-year language teachers with diverse majors addresses this gap voiced by Annamalai (2017). Garrison (2018) reports the need to investigate the practical aspects of the CoI model to guide teacher practitioners as well as researchers. The rich descriptions provided while addressing RQ2 and RQ3 in the present study shed light on the practical implications of the CoI model for designers, researchers and practitioners. The excerpts from the PD program materials (see APPENDIX X) may also be considered as the significance of the present study from this lens as it addresses the research gap regarding the practical implications of the CoI model voiced by Garrison.

Swan, Garrison, & Richardson (2009) indicate that the research on CoI model mostly centers around single courses and single institutions and stresses the importance of conducting inter- and intra-institutional research to see the impacts of courses based on the CoI framework as well as having a thorough understanding of the dynamics of social, cognitive and teaching presences. The participation of first-year language teachers from diverse schools (i.e., imam hatip high school, Anatolian high school, and secondary school) across different cities in Turkey enhances the axiology of the present study due to its diverse and rich social context addressing the gap pertaining to the narrow context research studies on the CoI model. Finally, the concurrent and sequential mixed method employed in the present study addresses the research gap voiced by Akyol (2009) that several studies on the CoI model employ merely quantitative or qualitative designs.

To sum up, the present study offers practical insights and details for the use of the CoI model in the field of teacher development for first-year language teachers addressing the research gap pertaining to the lack of practical insights of the CoI model. Deriving from the data-driven decisions taking place in the phase I of the present study, the PD content involves a wide array of PD topics aimed at enhancing first-year teachers' professional development and addressing their arising needs. The

iterative data-driven process that shaped the course design in phase I of the present study also contributes to the robustness of the PD program. The instructional design approach employed in phase I also addresses the research gap on the transferability aspect of the PD programs due to the close link between participant teachers' needs and the PD program. Finally, having teacher participants from several institutions and employing qualitative and quantitative data collection procedures may potentially enhance the axiology of the proposed research from the methodological perspective.

1.5 Definitions

Community of Inquiry Framework: Community of Inquiry model (CoI) is a conceptual framework developed by Garrison et al. (2000) which helps raise the effectiveness and maintain sustainability in inherent to online courses. The CoI model represents a framework based on a collaborative constructivist approach.

Teaching Presence: It refers to “the design, facilitation and direction of the cognitive and social processes” in the learning environment to facilitate and realize learning outcomes which are meaningful and worthwhile (Anderson, Rourke, Garrison, & Archer, 2001, p. 5).

Cognitive Presence: Garrison et al. (2001) define cognitive presence as “the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse” (p. 11).

Social Presence: It refers to the ability of participants to be able to identify themselves with their communities, engage in communication in a trusting atmosphere and enhance interpersonal relationships through the projection of their individual personalities (Garrison, 2009).

Practical Inquiry Model: The Practical Inquiry Model (PIM) operationalizes the cognitive presence, the progressive phases of which are reflected in the following stages respectively: (a) triggering event (b) exploration (c) integration and (d) resolution (Garrison, 2009).

Triggering Event: Triggering event is marked by emergence, recognition or definition of a problem, which requires exploration by the participants (Garrison et al., 2000; Garrison, 2009).

Exploration: It refers to the stage when participants try to explore and make sense of the problem or the task (Garrison, 2011) through collaboration (discourse) or individual searches (Garrison, 2009).

Integration: Integration refers to the phase where participants connect their ideas integrating it with their prior knowledge and experience (Garrison, 2011).

Resolution: The resolution refers to the phase where learners apply what they have learned in different contexts (Garrison, 2011).



Chapter 2

Literature Review

2.1 Introduction

In this chapter, the CoI (Community of Inquiry) model, the interplay between the three forms of the presences in the CoI model, limitations and strong aspects of the research on professional development studies along with professional development studies using the CoI framework are reviewed and linked to the present study. First, the CoI model and the presences are explained in depth depicting the interplay between the presences to constitute an effective learning environment. Then, the research studies on the professional development of language teachers are analyzed elaborating on the features of high-quality professional development programs as well as the limitations and needs in the field of professional development for language teachers. Finally, research studies on teacher professional development with the CoI framework are presented to inform how the present study addresses the limitations in the literature review.

2.2 Community of Inquiry Model

CoI (Community of Inquiry) model was firstly developed by Garrison, Anderson and Archer (2000) as a conceptual framework with the goal of identifying critical elements to attain a successful educational experience. CoI framework enhances the effectiveness and sustainability of online learning environments through the facilitation of critical thinking, critical inquiry, and discourse (Garrison, Anderson, and Archer, 2000). The underlying theoretical assumption of the CoI framework is collaboration and constructivist learning rooted in Dewey's philosophy putting inquiry and community at the forefront of teaching and learning considering the community to be fundamental to the individual development (Swan, Garrison, and Richardson, 2009). Reflecting the Dewian perspective, Shea (2006) emphasizes that effectiveness of online learning is dependent upon the emergence of communities. CoI Framework supports and consolidates *deep* and *meaningful learning* through the interplay among

three forms of presences: social presence (SP), cognitive presence (CP) and teaching presence (TP) (see Figure 2).

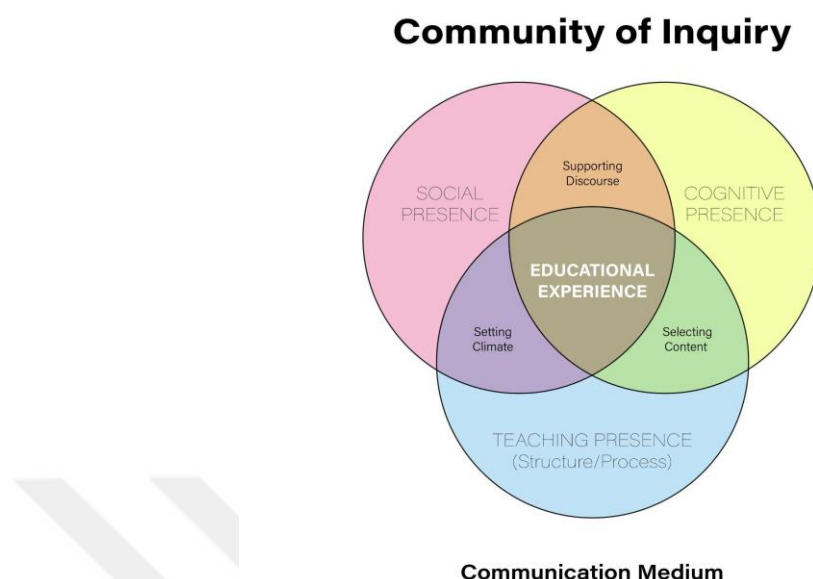


Figure 2 Community of inquiry framework

Teaching presence, serving as a binding element in terms of the sustainability of a successful educational experience (Garrison et al., 2000), offers practical implications for a community of inquiry. It consolidates and engenders social and cognitive presence (Garrison, 2019) through exercised leadership and direction (Hiltz & Turoff, 1993) adding structure to the process in online learning environments. Cognitive presence resonates with the intellectual climate set in a community of inquiry (Garrison, 2003) and is fundamental to the establishment of the cyclical nature of community of inquiries where questioning and seeking knowledge takes place both in the personal and shared worlds iteratively (Garrison, 2003). Social presence is defined as one's ability to project themselves and develop personal and purposeful relationships within a community of inquiry directed towards learning goals (Garrison, 2019). Social presence helps create an online learning environment conducive to exchanging ideas and purposeful collaboration (Wicks, Craft, Mason, Gritter, & Bolding, 2015). Garrison (2009) presents details of the three essential elements to form a meaningful collaboration and the essence of the community of inquiry (see Table 1):

Table 1

Elements, Categories and Indicator (Examples) of the COI Model (Garrison, 2009)

Elements	Categories	Examples of Indicators
Social Presence	Open communication Group cohesion Personal/affective	Learning climate/risk-free expression Group identity/ collaboration Self-projection/expressing emotions
Cognitive Presence	Triggering event Exploration Integration Resolution	Sense of puzzlement Information exchange Connecting ideas Applying new ideas
Teaching Presence	Design & organization Facilitating discourse Direct instruction	Setting curriculum & methods Shaping constructive exchange Focusing and resolving issues

The CoI model has been extensively adopted in the field of online learning (Garrison & Akyol, 2013) as it helps researchers conceptualize the complex interactions among learners in online environments. The framework provides a theoretical basis and best practices for designing and evaluating online learning experiences. It has been recognized as a valuable tool for researchers and practitioners alike in understanding the dynamics of online learning and improving the effectiveness of these experiences. The interplay among these three presences is regarded as predictors of effective learning processes and learning outcomes within online learning communities (Garrison et al., 2000). The CoI theoretical lens provides a coherent perspective for studying the dynamics of online learning environments by examining the interplay between cognitive presence, social presence, and teaching presence (Akyol, 2009). Swan et al., (2009) reports that the CoI framework could be a precursor of higher-order learning in online learning environments and potentially move online learning significantly further through the dynamic, multidimensional and interdependent relationships cognitive, social and teaching presence have to offer. The collaborative constructivist nature of the CoI framework grounded in John Dewey's idea that individual development is dependent on a community (Swan et al., 2009) has the potential to lead to promising results in terms of effectiveness and sustainability in the field of teacher development. Grounded teacher development programs taking the elements of CoI into account in their design processes potentially hold great value for

the professional development of teachers since collaboration within a learning environment is identified as absolute importance (Snow-Gerono, 2005).

2.2.1 Teaching presence. Teaching presence refers to “*the design, facilitation and direction of the cognitive and social processes*” in the learning environment to facilitate and realize learning outcomes which are meaningful and worthwhile (Anderson, Rourke, Garrison, & Archer, 2001, p. 5). According to Wicks et al. (2015), the existence of teaching presence in a program indicates that the program is attentive to the requirements of the participants. Teaching presence may take place in various forms during the course such as the development of the curriculum, the facilitation of learning and activities, the content delivery through direct instructional methods aligned with the learning outcomes (Anderson et al., 2001; Wicks et al., 2015) as well as timely use of group and/or independent study activities (Yıldırım and Seferoğlu, 2021). It is also crucial to highlight that the teaching presence occurs not only throughout the course, but also at various stages where the teacher acts as the instructional designer planning and preparing the structure of the course before the course even begins (Anderson et al., 2001).

There is emerging evidence that teaching presence is critical for the development of a community of inquiry (Akyol & Garrison, 2008; Anderson et al., 2001). The conceptual framework of CoI requires new ways of approaching the role of teachers and students in blended learning environments (Garrison, 2017). Garrison (2017) continues to add that the responsibilities of teaching presence are distributed among the learning community. When participants acquire the metacognitive knowledge approaching issues and problems at hand in a strategic manner (Garrison et al., 2000), they are encouraged to take greater responsibility and control over their learning processes. In this regard, overt instructor engagement to help students become more aware of their cognitive presence stages may enhance students’ metacognitive awareness as well as help them attain higher levels of learning (i.e., resolution) (Pawan, Paulus, Yalcin, & Chang, 2003). The concept of shared responsibility emphasizes the critical role of each community member’s accepting responsibility for their social, cognitive and teaching presence. Thus, it is referred to as teaching presence rather than teacher presence (Garrison, 2017).

Of all the three forms of CoI presences working in tandem throughout the educational experience, teaching presence stems from instructor's attempts to shape the learning processes. Teaching presence interacts dynamically with cognitive presence in the selection of topics and social presence in establishing the climate of the community (Nolan-Grant, 2019). Teaching presence has been found to have an integral role in the community of inquiry and the enhancement of social and cognitive presence by various studies (Garrison et al., 2000; Akyol, 2009; Mirabolghasemi et al., 2011; Lee et al., 2021; Yang, 2020). Garrison et al. (2010) and Mirabolghasemi et al., (2011) found that the teaching presence acted as a core predictor of establishing and maintaining social and cognitive presence. The critical role of teaching presence is also emphasized by Kanuka and Garrison (2004) in terms of managing the learning environment and the facilitation of learning experiences through the combination of synchronous (verbal) and asynchronous channels (i.e., adjunct means of communication). Garrison et al., (2010) reports the integral role of the teaching presence to sustain an online learning environment as well as realizing the intended learning outcomes in their structural equation modelling.

2.2.2 Social presence. Social presence refers to the ability of participants to be able to identify themselves with their communities, engage in communication in a trusting atmosphere and enhance interpersonal relationships through the projection of their individual personalities (Garrison, 2009). Arising from the concerns of communication experts that computer-mediated communication may hinder students from building the sense of belonging with their peers and teachers, social presence has been the longest researched presence in online learning research studies (Garrison, 2007; Swan, et al., 2009). In this regard, social presence is a key aspect of online learning and has been decided as one of the key factors in determining the success of virtual learning environments. The existence of social presence within a learning community may help mitigate the effects of isolation through the provision of open communication channels and collaboration with others on the subject matter (Wicks et al., 2015).

The definition of social presence has evolved over time, with a focus on aligning it with academic purposes and educational objectives (Garrison, 2007). The constructs of social presence are open communication, group cohesion and personal/

affective expression. Swan, Garrison, & Richardson (2009) state that open communication refers to the construct through which learners develop and maintain a sense of group commitment. Group cohesion, emphasizing the role of social presence in the nurturing of cognitive objectives, refers to the interaction of learners around common intellectual activities and tasks within the community of inquiry. Finally, affective expression involves the expression of emotions, feelings and beliefs within a community.

The two core aspects, closely associated with social presence, are intimacy and immediacy (Short et al., 1976). While immediacy refers to psychological distance set between the communicators in an online learning environment, intimacy is related to the sense of togetherness learners experience during their experience in the online environments. Non-verbal parameters such as physical proximity, eye contact, gestures and smiling contribute to the notion of intimacy (Gunawardena and Zittle, 1997). Referring to the affordances and limitations of media, Short et al., (1976) elaborate on the matter asserting that the delivery of non-verbal cues in online learning environments contribute to intimacy and, as a result, social presence. Non-verbal cues help create a sense of co-presence, personalization, and humanization in online learning environments, making it easier for learners to connect with one another, create bonds and build relationships in a community of inquiry.

The focus of theory and research has shifted from evaluating the impact of the medium on social presence (Short, Williams, & Christie, 1976) to examining how students experience the notion of connectedness through mediated communication (Swan & Shih, 2005). The examination of social presence and social role identity through instructional methods to support critical thinking and critical discourse has also gained attention in the field of education (Maddrell, Morrison, & Watson, 2017). With reference to the relationship between social presence and teaching presence, Tu (2000) and Tu and McIsaac (2002) related the growth of social presence in online courses to course design, emphasizing the relationship between perceived presence and success in online learning environments. Based on components of social learning theory, Tu (2000) identified three characteristics of course design that promoted the development of social presence: social context (i.e., social processes and relationships), online communication (i.e., exchange of messages and information), and interactivity (i.e., reciprocal communication patterns and timely responses

contributing to higher degrees of salience in the interaction). Furthermore, Tu and McIsaac (2002) and Richardson, Maeda, Lv, & Caskurlu (2017) emphasized the importance of trust building and incorporation of feelings and personalization in the design of activities to engender social presence. The impact of instructional design on perceived social presence is also in line with Swan and Shih's findings (2005) since their study showed significant differences in perceived social presence between courses that varied in their instructional design in terms of supporting the development of social presence. According to Richardson et al. (2017) aspects and design elements such as limited class size, structured learning activities allocating room for personalisation, welcome messages, student profiles support the establishment of social presence in learning environments. Such elements are critical to create a learning environment that fosters a sense of community, which in turn is important for supporting and establishing cognitive presence.

Social presence is considered as an integral component for collaboration and critical discourse to take place (Garrison & Anderson, 2003) as social presence encourages and sustains the culture of critical thinking within a learning community. Furthermore, social presence is considered as a critical element to affect learning outcomes positively as well as students and instructors' satisfaction with their courses (Richardson and Swan, 2003). Social presence may also be considered as the core element in the development of a community of inquiry since the course participants may not be able to share their ideas, exchange information and receive peer support without high degrees of social presence in a learning environment (Yıldırım and Seferoğlu, 2021). The degree of social presence is crucial in an online learning environment as one of the primary challenges with regard to online environments is limited interaction opportunities (Akyol, 2009). The critical role of social presence is emphasized with regard to the development and sustainability of cognitive presence and has a critical role on the facilitation of higher-order thinking skills and collaboration among participants (Garrison et al., 2000).

2.2.3 Cognitive presence. Cognitive presence is referred to as making sense of and constructing knowledge through collaboration and reflection (Garrison, 2019) grounded in the work of Dewey on reflective thinking. Cognitive presence goes to the heart of community and refers to the extent where learners are able to construct and

confirm understanding with the help of sustained reflection and discourse within a critical community of inquiry (Garrison et al., 2000; Garrison, 2009). The PIM (practical inquiry model) operationalizes the cognitive presence, the progressive phases of which are listed in the following stages respectively: (a) triggering event (b) exploration (c) integration and (d) resolution (Garrison, 2009). The practical inquiry model operationalizes this concept, based on Dewey's work on reflective thinking.

The PIM outlines a series of stages that learners typically go through while attempting to solve a problem or complete a task. Triggering event is marked by emergence, recognition or definition of a problem, which requires exploration by the participants (Garrison et al., 2000; Garrison, 2009). The exploration process refers to the stage when participants try to explore and make sense of the problem or the task (Garrison, 2011) through collaboration (discourse) or individual searches (Garrison, 2009). Integration refers to the phase where participants connect their ideas and integrate the information and resources they have gathered into a cohesive solution or strategy for a particular problem. Eventually the resolution phase is where learners apply the strategies based on what they have learned, refined and reconceptualized in different contexts (Garrison, 2011). The final stage of the PIM is where the learner can demonstrate their understanding and mastery of the problem or task at hand, as well as their ability to transfer their learning to new situations and contexts (Garrison, 2011). The four phases of the PIM are not immutable; learners may return to a previous phase in their inquiry processes (Swan et al., 2009).

Cognitive presence is regarded as a predictor of social presence (Mirabolghasemi et al., 2011) since the level of interaction and collaboration in the learning process can impact the sense of community among participants in a community of inquiry. Reflecting the two way-relationship between the social and teaching presence in the CoI model, research has shown that perceptions of social presence can also significantly predict perceptions of cognitive presence of learners in online learning environments (Garrison, & Cleveland-Innes, & Fung, 2010). In other words, a strong sense of community and connectedness among participants in an online learning environment can positively contribute to engagement and exploration of ideas, which can lead to higher levels of cognitive presence. Both teaching presence and social presence have been found to have an impact on cognitive presence (Garrison et al., 2010). Akyol (2009) emphasizes the prominent role of cognitive presence with

regard to its contribution to the facilitation of deep learning and stresses the importance of learning activities in e-learning courses. Cognitive presence is also considered to correlate positively with participants' satisfaction regarding their e-learning experiences (Lee and Faulkner, 2011; Lee et al., 2021) and is conceptualized as a crucial element with regard to the facilitation of critical thinking (Garrison et al., 2000).

2.3 Research on Professional Development: Weak and Strong Aspects

Professional development programs for teachers have shifted towards a more active and participatory approach where teachers are encouraged to engage in reflective practices (Crandall, 2000). This is achieved through collaboration, meaningful interaction and engagement, and a shared focus on common goals to promote teacher growth and development (Sheppard and Brown, 2014). Professional development for teachers must be purposeful, ongoing, and integrated within the educational system. This approach helps to enhance teachers' content knowledge and positively impact student learning outcomes in the performance context (Ndongfack, 2015). Along with the benefits offered by the qualities of such online learning environments, teacher development programs can offer valuable benefits for teachers through collaboration, reflection, feedback, and building of learning communities (Scott & Scott, 2010; Zhang, Liu & Wang, 2016). These PD studies signal the importance of forming collaborative environments, building learning communities, employing pedagogically grounded approaches, performing effective facilitation, incorporating interactive experiences in different forms, using peer review, aligning the PD content with teachers' educational needs and performance context, and incorporating reflection to promote teachers' professional growth. These studies also report lack of theoretical grounding, facilitation and follow up, incoherence between the PD programs and the performance context, techno-centric approaches as identified issues in the field of teacher development.

The literature review reveals various challenges and areas for improvement in the field of teacher professional development. Professional development programs have faced criticism for lacking a strong theoretical foundation and having an over reliance on techno-centric approaches (Mishra & Koehler, 2006). This is problematic as instructors view pedagogically grounded approaches as critical and complementary

to online and blended learning. (Yıldırım and Seferoğlu, 2021). Such professional development programs without a strong theoretical foundation may not result in higher order of learning and participants may not effectively transfer to the performance context. As a result of such professional development programs, teachers may simply copy and paste activities and strategies without fully considering the needs and requirements of their learners (Mendez & Pérez-Gómez, 2017; Wiliam & Leahy, 2014), which is known as the content transmission mode from the lens of instructional design and technology. Furthermore, several studies within the scope of professional development have identified a lack of facilitation as a key issue. This can include insufficient follow-up between stages of professional development programs, a lack of scaffolding, incoherence between theory and practice, and a lack of resources and guidance (Garet, Desimone, Birman, & Yoon, 2001; Hertz, Clemson, Hansen, Laurillard, Murray, & Fernandes, 2022). The research studies revealing these aspects of professional development highlight the importance of effective facilitation in professional development programs to ensure success and effectiveness in promoting teacher growth and development and to overcome potential barriers such as short supply of resources, access, and lack of time (van der Klink et al. 2017).

Many studies have emphasized the importance of incorporating interactive experiences, authentic tasks and content, peer review, and other effective teaching and learning strategies in order to address the challenges arising in professional development programs. For instance, Parsons, Hutchison, Hall, Parsons, Ives, & Leggett (2019) highlight the importance of incorporating interactive experiences into the design of professional development programs to create engaging and meaningful learning experiences for teachers. Interactive experiences can include group discussions, role-playing, simulations, and other hands-on activities that allow teachers to actively engage with the content of the professional development program. Furthermore, incorporating authentic tasks and content that can easily be transferred to the classroom can help to ensure and leverage the relevance and practicality of professional development programs (Reeves & Pedulla, 2013). This may be attained through incorporating real-world scenarios, cases, and authentic problems into the program, or designing activities that directly relate to the teacher's issues in the real classroom (performance context). Peer review, where teachers receive feedback from their colleagues based on a set of standards, is another effective strategy that has been

shown to improve teacher growth and development (Gamage, Whiting, Rajapakshe, Thilakarathne, Perera, & Fernando, 2017). Peer review may involve teachers working together to review each other's work and provide constructive feedback on designated areas. Finally, incorporating active learning components, reflection, and feedback, and supporting teacher collaboration, are also important strategies for promoting teacher growth and development in professional development communities. Active learning strategies, such as group discussions, and simulations, can help teachers to engage with the content of the program and apply what they have learned to their own practice (Desimone, Porter, Garet, Yoon, & Birman, 2002). Reflection and feedback, including self-reflection and peer review, can help teachers to reflect on their own practice and identify areas for their own professional development. Supporting teacher collaboration, through activities such as team-teaching, joint planning and co-teaching, can help teachers to build professional networks and learn from each other's experiences (Darling-Hammond, Hyler, & Gardner, 2017; Dewan Türüdü, 2020; Kabilan and Veratharaju, 2013; Kuusisaari, 2014).

Online professional development (OPD) programs offer an alternative to traditional face-to-face professional development for teachers in terms of addressing challenges such as cost and access (Suppo & Mayton, 2014), and providing effective elements of face-to-face professional development such as fostering teacher expertise, improving content knowledge and pedagogical content knowledge (PCK), promoting collaboration and teacher retention in online learning environments (Erickson, Noonan, & Mccall, 2012; MacDonald and Campbell, 2012). In this regard, it is also important to note that the lack of professional learning communities can be a contributing factor to the challenges faced in online learning programs (Farahian, Parhamnia, & Maleki, 2022). OPD programs that foster a sense of community among participants have also been shown to be valuable to practitioners. Such professional development communities can facilitate collaboration, questioning, and learning among teachers, leading to greater professional growth and development (Snow-Gerono, 2005). According to the research studies by Cordingley et al. (2015) and Farris (2015), OPD programs may be more effective in enhancing teachers' critical thinking and learning skills compared to traditional face-to-face PD programs. This is especially true when the program is tailored to meet the teachers' professional needs and expectations, emphasizes social aspects of learning, provides content that can be

practically applied in the classroom (Reeves and Pedulla, 2013), and encourages self-reflection (Darling-Hammond, Hylar, & Gardner, 2017).

With regard to the characteristics of high-quality PD programs, Desimone (2009) revealed that five characteristics are critical to effective professional development for educators. Firstly, by focusing on subject matter content, professional development programs can ensure that teachers are acquiring the knowledge and skills they need to be effective in the performance context. Secondly, the extended duration of professional development programs allows teachers to dive deeper into the content and develop a more comprehensive and holistic understanding of the subject matter. Thirdly, coherence refers to the alignment of professional development activities with teachers' professional needs and issues at hand, which can help ensure that the training is relevant and directly applicable to teachers' performance contexts. Additionally, opportunities for active learning, such as group discussions, can help teachers internalize the information and skills they are acquiring. Finally, collective participation, where teachers work together to learn and solve problems, can foster a sense of community and collaboration among educators. Establishing a sense of community and providing support and training are crucial for successful online learning programs for both teachers and their learners. Research has shown that learners feeling a strong sense of connection to their peers and instructors are more likely to be engaged and motivated, and to show perseverance in their studies (Guo, Zeng, & Zhang, 2022; Moschovis, Dinesh, Boguraev, & Nelson, 2022). Thus, it is important to provide teachers with adequate instructional support and incentivization by redesigning the courses for online delivery. Such grounded work may lead to professional development opportunities for teachers through equipping them with necessary skills and resources to create engaging and deep learning experiences for their learners (Garrison, 2017).

Jaworski (2008) and Garrison (2016) emphasize that simply interacting in a learning environment or sharing experiences do not suffice for deep and meaningful learning. This very much resonates with Garrison and Cleveland's (2005) elaboration on the notion of interaction that while interaction may be a key component of a successful learning community, the presence of interaction and idea exchanges do not guarantee that learners are cognitively engaged and invested in meaningful learning. High levels of interaction may indicate a strong sense of group cohesion and social

connectedness in a community of inquiry; however, they do not necessarily translate into cognitive development or meaningful learning. Collective, critical, and systematic analysis and review of experiences and practices are essential for building new collective knowledge and promoting effective learning rooted in collaborative constructivist approaches in the field of teacher development. Desimone (2009) emphasizes the need for coherence in the design of teacher professional development (TPD) programs by focusing on the congruence between TPD content and growing demands. Having such close connections with the performance context and the community of teachers, effective teacher learning is tied to instructional and curriculum practices (Gaytan and McEwen, 2010), and that professional development programs need to be integrated into professional contexts of teachers in order to bring about pedagogical change (Reinhart, Thomas, & Toriskie, 2011). Job-embedded PD programs, where teachers can apply new knowledge and skills directly in the classroom, have been shown to be an effective way to support teachers in developing their instructional practices. Likewise, Garrison (2016) postulates that learners are inseparable from their contexts and this close link should be reflected in the framework of professional development programs.

An inquiry-based approach to teacher professional development emphasizes the need for teachers to successfully implement inquiry-based teaching practices in their classrooms and considers this need in the course design. The need for an immersion approach to professional development, which involves teachers engaging in inquiry learning themselves, and improving their teaching practices based on a set of standards is emphasized in the field of professional development for teachers (Nichols, Burgh, & Kennedy, 2017; Tseng, Tuan, & Chin, 2012). Learning communities formed around shared professional needs and goals offer valuable insights in terms of authentic and personalized learning for teacher practitioners (Duncan-Howell, 2010). Pramastiwi, Lie, Widiati, & Lie (2018) implemented a professional development program incorporating many of the key components of inquiry-based approach and found that the participant teachers identified positive changes to their practices in alignment with an inquiry approach to teaching and learning.

Social constructivism is the fundamental foundation of creating a personal learning environment, and engaging with other community members, either locally or

virtually. This shift may be traced examining the constructivist approaches in the field of professional development for teachers. According to Dewey (1916), new information is formed by experience, and learners learn best through real learning and meaningful experiences that serve as the infrastructure for knowledge. Building knowledge is the foundation of all professional development, but many programs simply instruct teachers what they need to know rather than providing them with opportunities to learn the process from the bottom up (Knudsen, 2019). The formation of communities in the field of teacher development for first-year teachers is particularly important as novice teachers develop beliefs, attitudes and ideas about the notion of ideal teaching through combining their experiences as observers in the teaching practicum period (Kane, Sandretto, & Heath, 2002) and through their professional communities (Brookfield, 2006). First-year teachers may tend to adopt teaching approaches without critically and carefully examining their merits and limitations, signaling that early teaching experiences may have a long-term impact on an individual's beliefs about good teaching (McQuiggan, 2012). Thus, the course design and the foundation of professional communities should be meticulously formed in the field of teacher professional development. Butler, Schnellert, & Macneil (2015) discovered that inquiry communities may be formed inside teacher professional development programs in order to engender deep and meaningful learning and to promote the transfer of teachers' takeaway in the classroom.

2.3.1 Professional development studies on community of inquiry model.

Despite the many professional benefits of PD programs that particularly focus on reflectivity, authenticity, and support systems, it may still be challenging for teachers to apply new understandings and practices in their performance contexts (Schnellert, 2011). Thus, the integration of reflective and collaborative practices through the CoI approach may be noteworthy to foster deeper understanding and higher-order learning outcomes (Garrison & Vaughan, 2008). A discernible feature of CoP (community of practice) and CoI approaches to teacher professional developments are that they bring the members of community together to discuss and reflect on job-embedded matters (Dufour, Dufour, Eaker & Karhanek, 2004). Teachers are able to construct meaning together and benefit from the diverse perspectives and experiences of their peers by engaging in a community of inquiry. Devotion to shared goals and interacting around

intellectual tasks help teachers overcome the challenges of integrating new understandings and practices into their performance contexts.

Pramastiwi et al., (2018) conducted a study to examine the perceived positive influence of engaging in a community of inquiry for in-service teachers. Their study revealed positive perceptions of in-service teachers to confirm the effectiveness of integrating novel ideas and digital tools in teacher professional development programs. Furthermore, their study also revealed that the CoI approach to teachers' continuing professional development (CPD) contributed to their construction of understanding through collegial discussions within a diverse professional network. In line with the critical role of collegial discussions for teachers' professional growth, Harvey, & Teledahl (2019) report in their systematic review of teacher development and collegial learning that numerous key elements, including trust and risk-free, open communication, must be established and ensured for collegial learning to be effective and successful.

Examining the merits of online discussions (i.e., providing opportunities for scaffolding through hints, prompts, explanations and critical thinking), Arnold and Ducate (2006) implemented asynchronous computer-mediated communication (ACMC) following the framework of CoI in online discussions with foreign language teachers. The results revealed a high percentage of satisfaction, professional benefits in terms of cognitive and social interaction and higher levels of learning in the community of inquiry. The participating foreign language teachers reported that they were likely to use ACMCs in their own teaching in the future, indicating this method's potential to be used in the field of professional development for teachers. Similarly, Tamah, Dewi, Annawati (2022) examined the impact of an online learning community of inquiry among young learner teachers through online discussions, indicating high levels of cognitive presence and social presence through heterogeneous scaffolding categories and teaching presence through the variations in the social context, which are reflected in the online interactions.

Apart from ACMC studies and online discussions structured using the CoI framework, the literature review also reveals that professional development programs incorporating the CoI framework could be an effective approach to improve learning outcomes for students. Butler, Schnellert, & Cartier (2013) aimed to examine the impact of teachers working within a community of inquiry on students' self-regulated

learning through reading in subject-area classrooms. The concept of co-regulation was used to describe the nature of teachers' collaborative inquiry within professional development initiatives. The findings suggested that when both student and teacher self- and co-regulation are considered and nurtured, desired links may be established between practice changes and positive outcomes for students. These findings indicate that teacher collaboration within a community of inquiry is a powerful tool for advancing student learning in the performance context.

With reference to the PD research studies of CoI to further investigate designated aspects of teacher development, Theodosiadou, Konstantinidis, Pappos, Papadopoulos, & Marna (2017) conducted a research study designing a blended course about digital storytelling for in-service teachers and the use of web 2.0 tools through the CoI model. The findings of their study as per cognitive presence revealed high levels of cognitive presence through interactions and the systematic design of the online discussions, which were also reflected in the performance context of the in-service teachers. High levels of social presence were established through high levels of interactions in the online discussions aligned with the objectives of the course. Teaching presence was established by means of a meticulous instructional design of the course and facilitation. The careful selection of materials and the provision of open and systematic resources for in-service teachers were reported to contribute to the teaching presence of the participants. A different example of the use of CoI framework on designated aspects of teachers' professional development is the research study conducted by Wynants & Dennis (2018), which explores the advantages and disadvantages of evidence-based instructional strategies in an online learning environment on the notion of disability awareness and the enhancement of teaching practices through (UDI) universal design for instruction and the CoI. Their study revealed that OPD contributed to the instructional climate and teachers' professional development through the flexibility, convenience and the diversity it provided, signaling the importance of employing evidence-based approaches in course design in the field of teacher development.

The literature review also reveals professional development studies on the CoI framework that examine teachers' perceptions of the CoI framework in blended professional development programs on technology integration as well as their transfer in their teaching contexts. Knudsen's study (2019) aimed to investigate how teachers

perceive the CoI framework, how it relates to the transfer of knowledge in professional development programs, and which aspects of the framework are used in both formal and informal professional development. Knudsen's study revealed that teachers' high perceptions of the CoI presences were associated with the advantages of the blended professional development program in CoI model such as flexibility and convenience, easy transfer to the classroom. Besides, the blended nature of the PD program allowed teachers to reflect, exchange ideas, explore and collaborate with others on designated tasks. Overall, the study concluded that the combination of an instructional technology and a CoI framework in a professional development program can provide teachers with the skills, strategies and support they need to effectively integrate technology into their teaching and improve the teaching quality by improving student learning outcomes.

The CoI model was also used to enhance teachers' research practices with the aim of contributing to their professional development. Schnellert (2011) examined how the CoI approach in co-teaching contributed to the professional development of teachers in terms of bridging the gap between research and practice. His study revealed the positive impact of the CoI approach on extending and enriching opportunities for teachers' professional development through collaborative action, reflection and learning cycles. Similarly, Sağlam and Dikilitaş (2020) examined the community of inquiry presences of teachers in an online training into teacher research. The high levels of cognitive, social, and teaching presence perceptions of teachers in their study indicated that the online research community was able to foster a supportive and engaging professional development environment. Their findings regarding the correlation between perceived CoI presences and perceived course satisfaction showed that the use of the CoI framework was effective in enhancing the overall quality of the online training experience for teachers.

Despite the positive findings arising from the CoI research studies, the resolution stage of the PIM cycle has been found to be the least fulfilled of all in many of the CoI studies (deNoyelles, Zydney, & Chen, 2014; Kaul, Aksela, & Wu, 2018; Richardson & Ice, 2010). The resolution stage of the PIM cycle requires reflection of the participants; time is addressed as a main barrier for learners' to attain epistemic growth (Akyol, & Garrison, 2011). In this regard, reflective online environments consolidated by effective course design may contribute to learners' epistemic growth (Krzyszowska & Mavrommati, 2020) through the help of formative feedback and

facilitation (i.e., the provision of diverse discussion topics centered around the learning objectives) (Vaughan, Cleveland-Innes, & Garrison, 2013). Several factors may inhibit learners from reaching higher levels in the PIM cycle: the length of the learning program (Akyol & Garrison, 2011), gender (i.e., the multiple responsibilities of women) (Müller, 2008), the design of learning activities (i.e., assigning the learner a role in a debate aligned with their existing perspective) (Akyol, 2009; Darabi, Arrastia, Nelson, Cornille, & Liang, 2011), the facilitation of the moderator in the discussion (i.e. being too dominant or absent) (Dennen, 2005), and the nature of the course content (i.e., being too narrow or specific) (Garrison, Anderson and Archer, 2001), limited access to course materials (Wynants & Dennis, 2018). Thus, CoI research studies with robust course design in the field of professional development for teachers should be emphasized to ensure more effective and sustainable learning.

2.4 Summary

The paradigms formed as a result of the gradual societal changes have an impact on the field of education. The continuum that moves from behaviorism and connectivism manifested itself in the formation and implementation of PD programs through the shift from teachers, whose minds are seen as a clean slate (*tabula rasa*), as passive recipients to those who learn through collaborative and constructivist approaches within a meaningful inquiry. Considering the essence of social constructivism, which views the role of community as fundamental to individual learning and development, several models (i.e., collaborative learning, community of practice, community of inquiry, professional learning networks, and experiential learning) have emerged as approaches to teacher professional development programs. The CoI model has been one of the most widely employed approaches in the field of teacher development since its impact on learning has been largely confirmed by several studies. In essence with this, the literature review section drew attention to how PD programs with a CoI model helped teachers enhance their teaching practices and improve their students' learning outcomes in diverse subject areas (i.e., self-regulation, special education, foreign language teaching, teacher research and technology integration). Even though the CoI model emerged as a response to the need for grounded online learning environments with the burgeoning impact of web-based technologies, the model also offers valuable insights for blended learning and face-to-

face learning environments and these benefits are also documented in the field of teacher development.

The major issues encountered in the field of teacher development are lack of facilitation, transfer and higher levels of learning. The CoI model offers an effective framework through the unity it offers between the three forms of presences with their distinguished characteristics, features and recommendations. The interplay in three forms of presences resonates with the cyclical nature of teaching and professional development, since these notions are situated, context-bound and interwoven with several factors that should be considered to be able to understand and explore issues at hand. The use of the CoI model in the field of teacher education leads to changes in teachers' practice, building effective communities that feed teachers professionally, and transfer. Despite the advantages of the CoI model on teacher education, resolution (in the PIM cycle) has been found to be the least fulfilled stage; therefore, research studies that document the processes to attain higher levels of learning and shed light on the teaching practices are valuable.

The research studies on the use of CoI model offers valuable insights into the notion of teaching and contributes to higher levels of learning putting cognitive presence at its center. The model provides an effective guideline on critical dynamics that enhance the quality of teaching and learning. For instance, the role of social presence within a community of inquiry is strongly emphasized with regard to its close relationship to learning objectives and that cognitive presence should not be overlooked for the sake of social presence involving purely social exchanges and interactions. However, the critical role of open communication conducive to learning serves as a useful reminder for practitioners during the course of their teaching as well as their design processes. Another striking example would be the detailed results of the CoI studies emphasizing the critical role of course design (the design dimension in the teaching presence) on teachers' learning and effective envisioning, utilization, and reflections of what they have learned. Facilitation dimension in the teaching presence gives rise to a detailed consideration on the content and quality of the prompts and question stems that may enhance or diminish (if deemed inappropriately) cognitive presence. Finally, the cyclical and iterative nature of the practical inquiry model offers valuable insights into how effective and long-term learning takes place in shared and common worlds of learners. Given that novice teachers are likely to form attitudes to

the notion of teaching and tend to take their community as an exemplary role-model while shaping their teaching practices and identity in their early years, the use of such grounded approaches such as the CoI framework in the field of teacher education is also critical for this particular group.



Chapter 3

Methodology

3.1 Research Design

The study consists of two phases. Phase I was dedicated to the analysis, design, development of the professional development program (PDP), followed by implementation and formative evaluation -the connoisseur-based and one-to-one evaluation respectively. Phase II entails the extension of the formative evaluation through small group evaluation, and it will be referred to as “the present study”.

Phase I of the study followed a systematic approach grounded in its instructional design. It employed a set of procedures to design and develop a professional development program in a reliable and consistent manner (Gustafson & Branch, 2007). One of the *sine-qua-non* principles of ID models is the *system* approach, which may be defined as the meaningful interaction between and among elements, which are existent in a particular system (Banathy, 1987). This was reflected through the iterations, revisions and refinements based on data between and among the steps the Phase I entailed.

Phase II of the present study mainly aims at validating the designed professional development program through exploring and understanding the CoI experiences of cases from diverse backgrounds and their implementations through the lens of CoI in the performance context. Thus, phase II employs instrumental case study since it aims at presenting insights into an issue or a phenomenon (Stake, 1995), which are the teachers’ CoI experiences in the learning context and the reflections of the CoI model in the performance context in the present study to attain this validation in terms of participating teachers’ achieving intended learning objectives. Several instrumental bounded cases are selected so as to generate a more thorough understanding (Creswell, 2007: 73); the reflection of this is that the cases selected in the phase II of the present study came from diverse backgrounds. Though the primary drive behind employing an instrumental case study is to better explore aspects pertaining to a particular phenomenon (Stake, 1995), it also allows the researchers to discover implications for the examined issue or phenomenon in diverse settings. Employing instrumental case study in the present study, likewise, helped the researcher to explore several

implications underpinning the CoI model both in the learning and performance context through the small group evaluation conducted in phase II of the present study.

The research phases and accompanying data collection instruments are presented line by line (see Table 2).

Table 2

Research Phases and Data Collection Sources & Instruments

Research Phases and Steps	Data Sources & Data Collection Instruments
Phase I: - Analysis	- Semi-structured interviews with pre-service teachers, in-service language teachers and subject matter experts
- Design - Development - Implementation and Evaluation	- Observation form & interaction notes - Observation form & interaction notes
Phase II: - Small group evaluation of the designed PDP	- Reflection forms - Lesson plans - Post instruction interviews - Post program interviews - CoI scale (Ozturk, 2012)

3.2 Phase I

The aims of phase I were to conduct needs analysis for the target audience, design a professional development program, develop instructional materials, implement the professional development program designed based on the data coming from the previous stages and evaluate. The steps in the phase I of the study were concluded with different forms of formative evaluation to be able to make necessary refinements and revisions for the subsequent steps. Phase I of the study was contemplated and conducted considering the aspects of the instructional design lens.

Several instructional design models have emerged over the course of years along with epistemological changes in learning paradigms and they all reflect this essence. These several models possess some certain core elements even though they differ from another on some levels. ADDIE (which stands for *analyze, design, develop, implement, and evaluate*) should be considered as a framework (rather than a model) that holds these core elements together. By the same token, one should not approach ADDIE in a rigid and linear manner as it possesses an iterative and self-correcting

nature through its recursive steps such as revision and formative evaluation (Gustafson & Branch, 2007).

The ADDIE framework provided the researcher with an iterative approach that helped her cover fundamental steps to develop an effective professional development program (Peterson, 2003) for first-year language teachers thereby assisting the researcher in taking a learner-centered approach. This helped the designed professional development program become more applicable and meaningful for its intended consumers. Thus, the researcher conducted the analysis step by collecting data through semi-structured interviews in three different forms, the findings of which were tied with justifications from the relevant literature review, and completed the design and development steps concluding each one of them with formative evaluation, the data of which fed the subsequent steps to allow room for necessary alterations and refinements, implementation, and evaluation in phase I.

The analysis step in phase I entailed the needs analysis, which helped the researcher explore instructional deficits and performance problems of the target audience, specify learning goals and objectives, determine possible solutions (Gustafson & Branch, 2007; McGriff, 2000) pertaining to the target audience (Peterson, 2003). The analysis step required a thorough analysis of the target audience, which was conducted by the researcher through semi-structured interviews with pre-service language teachers, in-service language teachers and subject matter experts. The themes arising from the interviews findings were complemented with the themes deduced from the relevant literature review (within the scope of teacher professional development) to analyze and combine the results in a grounded manner.

The design step aimed at creating learning objectives, determining instructional strategies and the sequence of the PDP content following the data collection in the analysis step. The design step was concluded with the connoisseur-based formative evaluation (Gagné and Briggs, 1979; Morrison et al., 2013) to reflect the revisions on the subsequent step.

Following the revisions from the design step along with the formative evaluation, the researcher's aim in the development step was to develop instructional materials based on the data collected in the previous stages. Reflecting the essence of the cyclical nature of the ADDIE framework, the development step, likewise, concluded with a formative evaluation in the form a one-to-one evaluation. The

analysis, design and development steps were all performed through an instructional design lens abiding by the nature of the ADDIE Framework; thus utilising the framework as a guide (Aldoobe, 2015).

3.2.1 Analysis. The analysis step was conducted to explore the professional needs of the pre-service teachers through conducting research literature and a qualitative study by means of interviews in three different forms (pre-service language teachers, in-service language teachers and subject matter experts), the findings of which were complemented with the justifications from an extensive literature review within the scope of professional development.

The rationale behind conducting relevant literature review at the onset of the analysis step is that the research literature may help the designer gain insights into intended learners' needs and characteristics that may potentially shape the outcome of the instruction (Dick, Carey, & Carey, 2015). Therefore, the researcher started with literature review at the onset to set a framework for the analysis step, conducted needs analysis in three different forms, later on complemented the themes arising from the needs analysis with the relevant research findings to consolidate and strengthen the robustness of the analysis step to gain better insights into the professional needs of the pre-service language teachers.

Upon the completion of the literature review with the aim of exploring first-year language teachers' needs, the researcher conducted semi-structured interviews with pre-service language teachers, in-service language teachers and subject matter experts. The researcher, later on, complemented the findings arising from the interviews with the themes in the literature.

A needs assessment may be simply defined as the difference between what a learner knows and should know upon the completion of a training. In other words, it refers to the discrepancy between the current state of performance and the desired level of performance (Altschuld & Kumar, 2010); the need lies in this discrepancy. A needs assessment should be utilized to specify and determine learners' instructional and performance needs (DeSimone & Werner, 2012) and it is a critical stage in all instructional design models. For instance, if the needs assessment reveals a *jagged* profile of the target audience, the design should have a flexible nature to provide room

for learners who need, say, a different instruction method to be able to reach the same goal (Seels & Glasgow, 1998).

Thus, it is highly important to explore the needs of the target audience that truly represents the population through multiple means. Following this, the researcher conducted a qualitative study through conducting interviews with three different groups with the intention of obtaining the most relevant data to reveal the professional needs of the target audience, since the target audience is one of the most important considerations for the designer at this stage (Peterson, 2003). The data collected in the analysis step served as a useful guide in terms of learning objectives, instructional strategies, tasks, sequence, and content of the professional development program to be designed (see Table 3).

Table 3

Phase I Outline

Research Question 1	Data Sources	Data Collection Procedures	Participants
What will be the first draft PD program to address the professional needs of first-year language teachers?	Teachers' opinions	Semi-structured interview forms - eight open ended questions in three different forms - having the same constructs to explore pre-service teachers' expectations of an effective teacher development course (TDC) design.	Teacher trainers as subject matter experts
			In-service language teachers
	Reflection forms	Connoisseur-based formative Evaluation	Pre-service language teachers
	Reflection forms	One-one evaluation	Two academics in the field of curriculum design as subject matter experts
			A first-year language teacher as the representative sample

3.2.1.1 Sampling and participants. It should be noted that *appropriateness* and *adequacy* are two underlying mechanisms that are behind qualitative sampling (Morse & Field, 1996). Since it is critical to ensure the congruence between the extent of the research inquiry and the right sample that truly represents the population with

designated characteristics, purposeful sampling is used in qualitative research studies (Creswell & Poth, 2018). Quantitative research aims to generalize findings from sample to population through probability sampling; simply put, that means each and every member of the population holds an equal chance of being incorporated into the study (McCombes, 2022). Whereas qualitative research purposefully seeks individuals that can provide the most relevant data within the scope of the research problem being examined (Creswell & Poth, 2018). Therefore, a purposeful sampling technique was employed at this stage for nonprobability sampling.

To satisfy the appropriateness aspect pertaining to the analysis step, the researcher decided to conduct interviews with three different groups: pre-service language teachers, in-service language teachers and subject matter experts with the intention of capturing the most relevant data pertaining to the needs of first-year language teachers.

As the relevant research regarding pre-service teachers reveals, the teaching practicum period (taking place in their senior years of college) shapes pre-service teachers' professional needs and attitudes towards *the notion of teaching* (Farrell, 2008; Randall, 1992; Yuan & Lee, 2014; Yüksel & Başaran, 2019). The impressions and the attitudes pre-service teachers acquire throughout this process affects their current and future impressions, and even their career decisions in the teaching profession. Aligned with the literature, understanding the needs and characteristics of pre-service teachers is a pivotal step in understanding the needs and characteristics of first-year language teachers; therefore, conducting interviews with pre-service teachers was incorporated into the analysis step.

By the same token, conducting interviews with in-service language teachers is useful for the analysis step as it would serve as a guide to understand potentially emerging needs of first-year language teachers to be able to equip them with the appropriate set of strategies and skills they may need as they enter the field of teaching. By the same token, conducting interviews with subject matter experts, who have experience in the teacher development field, particularly working first-year language teachers would be useful to explore the needs of the target audience from several perspectives to reach a more comprehensive understanding of the phenomenon being examined.

Aligning with the literature and justifications, the sample in the analysis step was chosen based on the criteria below:

- Pre-service language teachers (senior year students)
- In-service language teachers (working in the field of teaching more than 4+ years and having attended at least two PD sessions throughout their teaching careers)
- Subject matter experts (academics as teacher trainers, who have experience in designing and implementing PD programs with and for novice language teachers).

In qualitative research, sample size is determined by data saturation, which simply means that the data collection method brings no more different perspectives and insights to the researcher. In their original treatise on Grounded Theory, Glaser and Strauss (1967: p. 61) define data saturation as the following:

“The criterion for judging when to stop sampling the different groups pertinent to a category is the category’s theoretical saturation. Saturation means that no additional data are being found whereby the sociologist can develop properties of the category. As he sees similar instances over and over again, the researcher becomes empirically confident that a category is saturated. He goes out of his way to look for groups that stretch diversity of data as far as possible, just to make certain that saturation is based on the widest possible range of data on the category.”

Following this principle on data saturation as quoted above, the researcher decided on the sample size depending on the purpose of the inquiry (Cohen, Manion and Morrison, 2007) and the variety of the data range (Glaser and Strauss, 1967); these two factors determined the extent of the needs analysis process in this research. The participants in phase I are shown below (see Table 3).

All the names of the participating teachers and subject matter experts have been changed to pseudonyms for the sake of confidentiality. Pre-service language teachers in phase I were referred to as Emre, Deniz, Esra, Kerem and Dilara. They were all senior year students in the department of language teaching in foundation and state universities. Emre reported not having a fruitful practicum period experience and added that he had serious concerns over technology use in his prospective classes. Therefore, he reported his need for scaffolding to be equipped for his first year of

teaching. Likewise, Deniz expressed the need for individualized feedback to be able to improve her techno-pedagogical and pedagogical knowledge due to the fact that she had no classroom experience before. Esra expressed her readiness in terms of entering into the field of teaching; however, reported that it was important to bridge the gap between theory and practice since she did not exactly know and learn how to do it. Esra had two months of teaching experience in a language school. Kerem and Dilara reported the same need and expressed that they did not feel ready to start teaching because of this incoherence. Kerem strongly emphasized the need to experience pedagogical subjects first without being directly taught to be able to learn effectively and transfer them to their prospective classes. Dilara expressed that she was watching videos from Youtube to gain some practical knowledge for her prospective classes as she was not particularly satisfied with the practicum experience. Dilara added that her weak relationship with her coordinating teacher might have contributed to this incoherence.

Table 4

Phase I Participants

Participants	Roles	Years of Experience
1-5	pre-service	0-1
6	in-service	9
7	in-service	19
8	in-service	30
9	in-service	15
10	in-service	6
11	subject matter expert	30
12	subject matter expert	37
13	subject matter expert	10
14	subject matter expert	20
15	subject matter expert	8
16	subject matter expert	10

In-service language teachers were referred to as Hakan, Melda, Asrın, Ozden and Zeynep. Melda and Asrın reported working in state secondary schools and high schools as well as foundation universities while the rest worked in private secondary

schools, high schools and foundation universities. Hakan, who attended more than 10 teacher development programs in his teaching career, expressed reluctance in terms of professional development training as the content generally did not fit into his practical classroom needs and reported that it was critical to understand the needs of the target audience and reflect this on the content of the PD programs. Melda believed that it was important to strengthen relationships with students through various techniques to cognitively engage students. Asrin expressed a general boredom for professional development training which did not allow room for meaningful interaction within a community and added that “...*this is why I will be very selective when I decide to enrol in a teacher development program...*”. Ozden strongly advocated the importance of guided discussions to expose first-year language teachers to diverse perspectives. Finally, Zeynep expressed the importance of letting first-year language teachers experience the PD program as consumers and added that “*I do not respect any of the professional development training if the content is not evidence-based or does not come from the real classroom settings*”; therefore, she did not prefer to join any unless they had such qualities.

All the subject matter experts in phase I had experience working as teacher trainers with first-year language teachers and in-service language teachers in K12, foundation and state universities. Additionally, all the SMEs reported currently working in foundation universities across Turkey. The participants were referred to as Defne, Ayda, Ece, Sevil, İbrahim and Nihan. Defne who had 30 years of experience working with language teachers in state and private schools emphasized the importance of creating a sustainable community adding that “*the real professional development starts with their own interaction amongst themselves and the trainers... it should never be confined to the duration of the PD programs*”. Ayda also had vast experience (37 years) in the field of teacher development with language teachers from diverse departments emphasizing the critical of loop input in that teachers transfer what they experience as consumers in PD programs. Ece emphasized the importance of equipping first-year language teachers with appropriate classroom management skills since this could even cause them to develop negative attitudes towards the notion of teaching; thus, reported its crucial role for the first-year teachers. Sevil strongly advocated the importance of maintaining learner engagement in terms of cognitive engagement as well as classroom management for first-year teachers and added that

“...first-year language teachers should be prepared to tackle real-life challenges...”. Ibrahim, who reported working with first-year language teachers as a part of one of his PhD projects and as a requirement of his position, warned the designers not to inundate first-year language teachers with loads of information but rather let them implement through scaffolding and reflect on their own practices for the sake of transfer. Finally, Nihan emphasized the critical role of tying technology integration with pedagogy, rather than employing “...a bag of tricks...” approach. Nihan reported working with first-year language teachers in several training programs.

3.2.1.2 Data collection instrument. The researcher conducted semi-structured focus group interviews with pre-service language teachers, in-service language teachers and teacher trainers (referred to as subject matter experts) to gather data in phase I in the analysis step. The rationale behind using semi-structured interviews is that it is not a prescriptive data collection tool, rather a flexible one, allowing the researcher to modify the questions as they evolve turning the interview into a conversation where the interviewer focuses on central themes and the interviewee has the freedom to make account of their subjective experiences and interpretations (Cook, 2008). Semi-structured interviews are suitable data collection tools whilst investigating a phenomenon in the field of education and one aspect of the articulation of this phenomenon relies on participants’ opinions, experiences, and beliefs (Datko, 2015).

The flexible nature of semi structured interviews, being an adaptive data collection tool rather than being a rigid one, brings advantages in terms of (a) rephrasing or reformulating question items (b) asking for further examples, extensions or clarifications when needed (c) provide more precise verbal clues when needs arise (d) modifying the flow and/of the questions depending on the extent of the answers (Cohen et al., 2007).

Prior to preparing the interview questions, the researcher conducted extensive literature review within the scope of teacher development, the essence of which was reflected in the preparation of the interview questions as well as in the design step. Conducting literature review within the scope of professional development programs in the analysis stage also helped the researcher form an informed opinion and lens on

the data coming from the interviews to help create the PDP design grounded in congruence with the research findings.

The researcher prepared the semi-structured interview questions in line with the core themes pertaining to the design of teacher development programs in the relevant literature. The interview questions in the analysis step aim at exploring the participants' expectancy of an existing teacher development course in terms of content, design, organization aspects, their understanding of an ideal learning community, factors that ease transferring what has been learned in the TDCs to the performance context as well as investigating their needs and perceptions deriving from their experiences, the latter of which was a pre-established criteria in their selection.

The interviews consisted of eight questions aiming at exploring these aspects. For instance, Question 6 pertaining to the interview with in-service language teachers aimed at exploring the factors that ease transfer. Question 6 is "What factors help teachers carry what they have learned in a TDC into their own classrooms?". The interview questions were reviewed by an expert who holds a PhD Degree in the field of educational science. The researcher also piloted the questions with a representative sample from three groups prior to data collection. Refinements were reflected as a result of both stages to ensure validity. This review process helped the research design more appropriate questions for the sample the semi-structured interview questions were intended for.

3.2.1.3 Data collection and analysis. The researcher conducted 16 semi-structured interviews in total with pre-service language teachers ($n = 5$), in-service language teachers ($n = 5$) and teacher trainers as subject matter experts ($n = 6$) to gather data in the analysis step (see Appendix C for interview questions). The researcher contacted several language teaching departments in state and foundation universities across Turkey to be able to reach out senior year pre-service language teachers. The researcher used her network to reach out in-service language teachers and subject matter experts as she had more than 15 years of experience in the field of teaching at several institutions. The whole data collection process took 3 months. At the onset, the researcher did pilot with the interview questions, made refinements, and later on strived to find the appropriate sample based on the pre-set criteria. The researcher communicated with every participant on an individual basis to

communicate the aim of the study and the scope as well as the semi-structured nature of the interview. Due to the pandemic and the geographical distance between the researcher and the participants, the meetings were conducted via Zoom. The duration of the semi-structured interviews was between 30 to 70 minutes. There were 16 semi-structured interviews in total. The interviewees were guaranteed confidentiality by means of consent forms (see Appendix B), the meetings were recorded and later transcribed verbatim. After the completion of the transcriptions, the total word count was 29,482 in total.

Data analysis stage, being closely tied to the data collection process, should be treated as inseparable from the latter. This interaction between data collection and analysis requires continuous refinements and revisions so as to obtain rich data, which will constitute the basis for shared constructions of a particular phenomenon (Erlandson, Harris, Skipper, and Allen, 1993). The concurrent nature of data analysis in phase I along with the data collection processes (Morrison, Halet, Sheehan & Taylor, 2002) allowed the researcher to reach more through and deeper interpretations of the data through ongoing reflections, interpretations as well as revisiting data and doing the necessary groupings as needs arose to go further beyond a basic form of qualitative analysis (Creswell, 2009).

The data analysis consisted of three stages: (a) open coding to identify the codes and concepts (2) axial coding to refine and categorize the emerging themes to unite the open codes from the previous stage (3) selective coding to attain the unity of the data (Creswell, 2009).

The researcher performed the following two procedures to add credibility and leverage the trustworthiness of the data analysis process. *Member checks* was performed to ensure whether the findings reflected the core messages the participants intended to convey (Merriam, 1995) through convening a focus group meeting (Creswell & Miller, 2000) with pre-service language teachers and in-service teachers as two separate groups as well as passing on the raw data along with the researcher's interpretations to subject matter experts to ensure credibility (Lincoln and Guba, 1985). The researcher performed peer debriefing to leverage the accuracy of the emerging findings and to build credibility to the research (Creswell, 2009; Erlandson et al., 1993) with a language teaching expert who is a PhD candidate in the field of English language teaching. Sharing the raw data with the expert, the emerging codes

and interpretations were discussed. The inconsistencies among the researcher and the coder were discussed iteratively since the process pertaining to understanding the interpretations is regarded as more valuable than the findings themselves (MacPhail, Khoza, and Ranganathan, 2016) to add and leverage the credibility of phase I analysis step, the output of which served as the input for the subsequent step: design.

3.2.1.4. Findings and discussion in phase I. The central theme of the interviews conducted with pre-service language teachers, in-service language teachers and subject matter experts was to understand their expectations of a teacher development course (TDC) based on their own experiences, insights, and interpretations.

3.2.1.4.1 Findings from the interviews with pre-service language teachers. Five participants studying in language teaching departments across Turkey participated in the semi-structured interviews. The themes and sub-themes that emerged from the semi-structured interviews are presented in Table 5 below.

Table 5

Pre-Service Language Teachers' Perceptions of an Effective TDC Design

Themes	Layers/ Codes	Frequency
Social Aspects	Building positive relationships	5
	Open communication channel	3
Cognitive Aspects	Constructive feedback	5
	Bridging Practice with theory	4
	Individualized feedback	3
Field-Related Competencies	Techno-pedagogical knowledge	5
	Learner engagement	4
	Classroom management	3

As it may be deduced from Table 5, all the participating pre-service language teachers expressed preference towards a positive atmosphere in Teacher Development Courses accompanied by emotional support. Building positive relationships means building good relationships with trainers (5 participants) and with other community members (3 participants).

The interview findings that fall into the theme of “building positive relationships” all indicate the need for pre-service language teachers to engage in

communication in a trusting atmosphere. A quotation from a participating pre-service teacher illustrates this essence: “...*I need to be myself without trying hard to be myself so that I can be the best of myself and make the most out of it in a TDC Setting...*” (Kerem). This quotation aligns with the essence of *social presence* (SP), which allows participants to engage in communication in a trusting atmosphere and enhance interpersonal relationships through projecting their individual personalities (Garrison, 2009).

Apart from this, one other salient finding was pertinent to *techno-pedagogical knowledge* within the scope of “field-related competencies in a TDC”. It was observed that the participants were fully aware of the importance of learning how to incorporate pedagogy while integrating technology into their prospective classes: “...*I would like to be able to use technology in my prospective classes...I need to know their* (referring to technological tools and devices) *uses and when and how I can and should implement them. It* (referring to TDC) *should not be only about simply having a list of tools...*” (Emre)

Three of the participants also expressed the need to incorporate *individualized feedback* to acquire a deeper approach of techno-pedagogical knowledge in a TDC Setting: “...*I need to be able to use at least a couple of technological tools with mastery; I need to know tools, which serve different functions.... I need to practice and experience them in a setting where I can receive individualized feedback...*” (Deniz)

It is also worth noting that *bridging practice with theory* was a salient dimension in pre-service teachers’ interview findings as this was complemented with in-service language teachers’ and SME’s interview findings: “...*I would like to learn by experiencing and practicing. Through aligning its functions with educational objectives and the theoretical foundations we have discussed in all our courses until now.... Plus, I can also apply those in my future classes learning from my experiences...*” (Kerem)

3.2.1.4.2 Findings from the interviews with in-service language teachers. Five in-service language teachers across Turkey participated in the semi-structured interviews. The themes and sub-themes that emerged from these interviews are presented (see Table 6).

Table 6

In-Service Teachers' Perceptions of an Effective TDC Design

Themes	Sub-themes	Frequency
Social Aspects	Building positive relationships	5
	Sustainable community	4
Cognitive Aspects	Bridging practice with theory	5
	Individualised feedback	5
	Reflections	4
Methodological Aspects	Having clear goals and objectives	2
	Having guest speakers	4
	Quality time to digest the content	4
	Timely-efficient sessions	3
Field-Related Competencies	Classroom Management	4
	Material creation	4
	Techno-pedagogical knowledge	4

One of the salient categories that emerge from the focus group interviews with in-service language teachers is building positive relationships, in which the essence of social presence lies, similar to the interview findings with pre-service language teachers :“...*I still remember one class vividly from my pre-service years. We were able to communicate with one professor very easily... We used to share our concerns and listen to what s/he had to say about it. You know what? This warmth was more important than the content itself. Now that I am a teacher myself working in the field, I understand more and more how important and valuable it was...*” (Melda)

Similar to the focus group interview findings with pre-service language teachers, *bridging practice with theory* was a common finding based on the data coming from the in-service language teachers. All the participating in-service language teachers expressed a preference for “loop input”. *Loop input* refers to a method used in teacher training where the participating teachers experience the target content or teaching practices, which may result in deeper learning and transfer, as the target practices are experienced from a number of different angles and the alignment between content and process is ensured (Woodward, 2003). The quotation from Zeynep below reflects the essence of this loop input and its benefit on retrieval and transfer: “...*I’ve attended a PD course where one of our instructors presented new topics through new techniques. For example, in one session an infographic was used to present a new topic, another session it was colours... We learned the content by implementing it as*

learners... We were given abundant opportunities to practise what we have preached...The discussion then reverted back to the theoretical grounds... And I still do remember some of these presentation techniques with their justifications...". Reflecting the constructs of the loop input, Asrin also emphasizes the critical role of the coherence between theory and practise through a dynamic model, which allows teachers to practise and reflect on the content: "... At the end of the day, it is all about giving teachers room for practice and tying it with the theory... As long as the session makes sense (the participant here refers to the relevancy of the training content to teachers' needs), you can be sure that teachers will understand it and carry whatever they have learned to their own classrooms. It is actually that simple...".

Within the scope of an effective TDC, four of the participants expressed the critical role of working collaboratively in a community as a predictor for an effective TDC as well as for success in language teachers' professional practices. The quotation below reflects the important role of *planning* to ignite the spirit of a community in TDCs: "...Community members' keeping in touch with one another is very important. This community should accompany these teachers throughout their professional lives. Also, throughout the course, there should be a flow that allows meaningful interaction among teachers... Planning should be done accordingly... This is how one becomes successful... Through learning from one another and keeping the spirit of the community alive..." (Asrin).

As for the field-related competencies, there was a consensus on the critical role of material creation, techno-pedagogical knowledge and classroom management. The findings pertinent to "material creation" revealed data on how TDCs may help language teachers transfer what they have learned to their classrooms. The need for techno-pedagogical (TPACK) knowledge results from the inclination of some language teachers towards more techno-centric approaches based on in-service teachers' perceptions. Classroom management (CM), on the other hand, is a critical area that needs to be dealt with in PDPs since it is indispensable for teachers to create an engaging, safe, and effective learning environment for students (Stevenson, VanLone, and Barber, 2020). There is reciprocity between the quality of instruction and effective classroom management. When teachers are equipped with the right set of strategies, instruction may become highly engaging thereby causing *disruptive* or *off-task* behaviors to diminish (Gage & MacSugaGage, 2017). Simply put, students

may not be able to learn effectively unless there is effective classroom management (Marzano, Marzano, and Pickering, 2003), which should be considered while determining the content and the sequence of PD program designs.

3.2.1.4.3 Findings from the interviews with subject matter experts. Six subject matter experts participated in the semi-structured interviews. The themes and layers/codes that arise from these interviews are presented in Table 7 below.

Table 7

Subject Matter Experts' Perceptions of an Effective TDC Design

Themes	Codes/Layers	Frequency
Cognitive Aspects	Bridging practice with theory	6
	Reflection	6
Field-Related Competencies	Techno-pedagogical knowledge	6
	Classroom management	4
	Learner engagement	4
	Effective lesson planning	3
	Material creation	3
	Language awareness and analysis	2
	Learning strategies	2
Methodological Aspects	Having clear goals and objectives	5
	Conducting needs analysis	3
	Systematic resource support	2
	Synchronic coherence	1
Social Aspects	Forming a community	6
	Having guest speakers	4

Interview findings with SMEs reveal that bridging practice with theory, practice opportunities and reflections come across as patterns in terms of the cognitive aspects. As for the field-related competencies, techno-pedagogical knowledge and classroom management come across as the salient findings of the interviews. For the methodological aspects, the importance of having clear goals and objectives is most frequently reported by the SMEs; and finally the benefits of forming a community are reported in terms of their expectations of a TDC on a social level.

“Bridging practice with theory” is approached by SMEs from the retrieval and transfer aspect similar to the findings with in-service language teachers. A quotation below emphasizes this aspect strongly: “... Yes, the content is very important. I am not denying it. However, I can risk trimming off the content for the sake of implementation.

All they have had so far is theory, anyway. Teachers should definitely implement whatever it is they are learning, observing, discussing or reflecting upon so that they will understand. Otherwise, it will just be forgotten and there will be no transfer at all...” (Ibrahim)

As for the “field-related competencies”, the critical role of techno-pedagogical knowledge is emphasized by all the participating SMEs. All participants agreed on the notion that techno-centric approaches should be avoided, meaning that there should be a pedagogical approach behind technology education. Likewise, there was a consensus on a selective approach towards technology education in the sense that the trainer should not be employing “*a bag of tricks*” approach and should be very selective while incorporating technology in education in TDCs for pre-service teachers through presenting each and every technological tool along with their functions, purposes, pedagogical insights and practical implications.

Similar to the interview findings of pre-service language teachers and in-service language teachers, learner engagement was a frequent dimension arising from the interview findings of SMEs within the scope of “field-related competencies”. SMEs reported that students’ lack of motivation is one of the biggest challenges they have encountered in their lesson observations and added that language teachers’ preparing to tackle real-life challenges (in terms of learner engagement) could be an important dimension to enhance student learning. İbrahim emphasized that learner engagement is a predictor of student learning; therefore, language teachers should be equipped with the necessary set of skills to handle such challenges. Along with this aspect, the quotation below also emphasizes the importance of loop input in PD programs, in this particular example *through sustainable engagement*, while introducing the concept of engagement to language teachers : “...*The biggest problem in classes is lack of motivation.... Learner engagement and motivation are extremely critical subjects. Teachers should definitely be prepared for this trajectory. They should be trained on how to tackle real-life challenges in terms of these.... When there is no cognitive engagement, there is no learning. This is how important it is...Teachers should be prepared to understand this through exploiting it and experiencing it...*” (Sevil)

Since the analysis step aimed to gather data and insights into not only for the TDC content but also the methodology behind the TDC, it is also worth mentioning

that engagement should be approached within three categories for both of the purposes of the analysis stage as described. Fredericks, Blumenfeld, & Paris (2004) report (1) *behavioral engagement* is referred to as the observable “on-task behavior”; thus, draws on the idea of participation (2) cognitive engagement refers to deeper understanding of the target objectives (3) affective/ emotional engagement, on the other hand, encompasses emotional reactions related to the surrounding in the learning environment (i.e., teachers, peers and tasks).

In terms of the methodological aspect, there was a consensus on the importance of *planning* in TDCs. The majority of SMEs emphasized the critical role of having clear goals and objectives from the planning stance. The SMEs reported that the TDC sessions should start with clear goals and objectives to set a clear path for language teachers. This is important for learners as the expectations of classroom norms may not always be explicit and salient for learners and teachers use; therefore, there lies a need to be more transparent and direct about goals and objectives. This component is referred to as *design and organization* in the teaching presence of the CoI framework (Anderson et al., 2001).

All the participating SMEs expressed that forming a community is vital for the success and effectiveness of TDCs. The necessity of forming a community in TDCs was expressed for varying reasons. The reasons are listed along with the frequencies below:

- learning how to work as a team to enhance language teachers’ professional careers (2);
- to help language teachers appreciate diversity (2);
- to provide language teachers with opportunities to learn from one another (3);
- to lessen the feeling of “*isolation*” individual work may potentially bring about (3)

In line with the sustainability of professional communities in the field of teacher development, one of the subject matter experts expressed that technology should complement the sustainability of such communities during and after the TDCs: “...*A technological platform could be created to let them share their experiences and learning points during and after the completion of this course. At least, I believe, it is essential that the community continues to exist and function as teachers keep working in the field.... This will help them a lot in their struggles and will motivate them to try*

out their peers' ideas when they see them fit.... This could be in the form of an alumni group..." (Defne).

3.2.1.4.4 Interpretations of the literature review within the scope of teacher education. In addition to conducting focus group interviews, phase I also entailed conducting literature review on teacher development to complement the interview findings with empirical evidence. The literature review conducted within this scope was aimed at finding out important parameters to bear in mind in terms of design and implementation of such PD programs. As the scope of the present study, which is "Experiences and reflections of first-year teachers in a professional development program based on Community of Inquiry framework", the literature review specifically focused on the PD research studies that aim to shed light on the effectiveness of PD programs for teachers at the onset of their teaching careers to capture deeper insights into learners' needs and characteristics that may provide useful data to shape the outcome of the instruction (Dick, Carey, & Carey, 2015). The literature review justifications aligning with the themes deduced from the interview findings may be found below.

Table 8

Justifications of Common Interview Findings with the Research Studies on Teacher Education

Interview Findings	Justifications from the Literature Review
Bridging practice with theory	De Corte, 2000; Ferraz et al., 2020; Nuthall, 2004; Seferoğlu, 2007; Mergler & Tangen, 2010; Eröz-Tuğa, 2013; Payant, 2014; Posada & Garzón, 2014; Postholm, 2016; Sarıçoban, 2016; Teräs and Kartoglu, 2017; Mendez & Pérez-Gómez, 2017
Constructive and Collaborative Environment	Akiba et al., 2019; Ansyari, 2015; James et al., 2007; Jimoyiannis et al., 2011; Jong et al., 2019; Mishra & Koehler, 2006; Pourmandnia & Behfrouz, 2014; OECD, 2009; Öngel & Tabancalı, 2022; Polly et al., 2010; Simmie, 2007; Williams, 2010
Forming a community	DeKramer et al., 2012; Forte & Flores, 2014; Garrison et al., 2000; Garrison, 2009; Richards, 2008; Singh & Richards, 2012; Snow-Gerono, 2005; Songül, 2019; Swan et al., 2009; Wenström & Kuorti, 2022; Wicks et al., 2015
Feedback and Follow-up	Akalin, S. & Sucuoğlu, N., 2015; Algahtani, 2021; Ansyari, 2015; Darling-Hammond et al., 2017; Demir & Ozmen, 2018; Jimoyiannis, 2010; Löfström & Eisenschmidt, 2009; Sandrock, 2010; Sparks and Loucks-Horsley, 1989; Wallace, 2018; Yun & Bennett, 2018
Reflections	Avcı et al., 2020; Coimbra et al., 2014; Garrison et al., 2000; Garrison, 2009; Giraldo, 2021; Harris, 2016; Mathew et al., 2017; Pardo & Téllez, 2015; Šarić & Šteh, 2017; Syslová, 2019
Techno-pedagogical knowledge	Ansyari, 2015; Foulger et al., 2012; Gore et al., 2017; Harris et al., 2009; Mishra & Koehler, 2006; Polly et al., 2010; Tondeur et al., 2017; Wallace, 2018; Wetzol et al., 2014; Yıldırım and Seferoğlu, 2021

3.2.2 Design. The aim of this step is to develop learning objectives, specify instructional strategies, determine the sequence of the content of the training and design the PD program deriving from the data collected in the analysis step as well as basing the common emerging themes on the extensive literature review conducted within the scope of teacher education. Due to the iterative nature of the ADDIE framework and the systematicity and flexibility it provides for designing programs for intended audiences (Gustafson & Branch, 2007; Wibawa, Ashrianto and Pambudi, 2021) the design stage in phase I was concluded with the connoisseur-based formative evaluation so as to reflect the output of this formative evaluation for the subsequent step: development.

Design step is a critical one that has several key facets, such as writing measurable objectives, determining and specifying learning activities, media and instructional strategies that will be effective in addressing the delivery of the designated objectives, determining the sequence of objectives to be achieved, delivery mode and setting appropriate testing methods (Branch, 2009; Dick & Carey, 1996; FAO, 2011; Seels & Glasgow, 1998; Smith & Ragan, 1998). The critical nature of the design step derives from the notion that this is the stage that bridges the gap between analysis and implementation stages; and is a constituent of the implementation step as it fundamentally functions as a guide for implementation (Branch, 2009).

Branch (2009) draws an analogy on the design step depicting this as “*the line of sight*” since this stage ensures alignment of needs, purpose, objectives, instructional strategies and assessment methods in the ADDIE process. To ensure its congruence with the implementation stage, it is critical to consider the data coming from the analysis step to make informed decisions. The details in the analysis step assist instructional designers in selecting appropriate instructional and assessment strategies (FAO 2011; Peterson, 2003). Should goals, objectives and assessment not align, the designed course may not be able to reach its intended objectives thereby impacting the instructional quality in the program adversely. This may even result in participants’ losing interest in the designed PD program (Peterson, 2003). Thus, it is critical to comply with the *magic triangle* (the alignment and unity among *assessment*, *instructional strategies* and *objectives*); and this can be realized in the design step.

3.2.2.1 Framework of the PDP. As the researcher conducted literature review at the onset within the scope of effective professional development research literature, she closely examined research studies conducted within the scope of CoI model as the research literature revealed that CoI provides several opportunities for more learner-centered design, more sustainable learning, transfer of knowledge and effectiveness in learning environments (Garrison et al., 2010; Kim & Gurtvich, 2020) through the interplay between the social, cognitive and teaching presences. The qualitative findings in the needs analysis step also revealed the need for first-year language teachers to work in a community to work towards common shared goals, attain higher levels of learning, experience the content of the training as the consumers themselves, to receive abundant practice opportunities and so on. To satisfy the needs arising from the needs assessment, the CoI model was adopted as the framework of the PDP in the design step.

The CoI framework helps designers by providing a solid theoretical basis and provides opportunities for best practices in online learning environments (Garrison & Akyol, 2013); the instructional strategies were, therefore, determined by the nature and frame of the CoI model in the design step. The coherent and iterative design CoI model offers allows learners to explore topics suited for their professional developmental needs through affirming understanding in reciprocation, collaboration, reflection, and abundant practice opportunities (Garrison, 2011). Social, cognitive, and teaching presence dimensions are deemed as critically important for the sake of effectiveness for an effective community of inquiry (Garrison et al., 2000). The nature of the elements of Practical Inquiry Model (PIM), whose stages are *triggering event*, *exploration*, *integration*, and *resolution* (Garrison et al., 2000), centering around exploring, elaborating and reflecting on PD topics through collaborative methods aligns with the emerging PD needs of the target audience. The aspects of the CoI model ultimately lead to bridging the gap between practice and theory due to its reflective and inquiry stimulating nature.

3.2.2.2 Writing objectives for the PDP. Writing instructional objectives is an iterative and developmental activity that may require alterations as the instruction is developed (Morrison et al., 2011) as well as the assessment tools to establish the unity of the magic triangle. They state that learning objectives may go through alterations

and revisions as the designers develop and refine their instructional approaches along the way. It should be carefully noted that Table 9, which displays the formulated learning objectives and the assessment methods in the design step were previewed by subject matter experts, apart from the researcher herself, as a part of the formative evaluation component in the design step.

Table 9

PDP Learning Objectives and Assessment Tools

	PDP Learning Objectives	Assessment
Session I&II	Initial Component of Session I: -to identify learner engagement and levels of interaction -to establish a theoretical framework for learner engagement (LE) -to create a repertoire of activities, strategies, and (e-) tools to enhance interaction and engagement across different levels -to recognize Social Presence (SP) -to identify strategies to enhance SP in classes Complementary Component of Session I: -to reflect on a repertoire of activities, strategies, and tools to enhance interaction and engagement across different levels	Initial Component of Session I: -Reflection forms -Post instruction meetings -Post program interviews Complementary Component of Session I: -Reflection forms -Post instruction meetings -Post program interviews
Session III & IV	Initial Component of Session II: - to establish a theoretical ground for technology integration (TI) -to create a repertoire of activities, strategies, and e-tools for TI - to reflect on diverse approaches on TI through guest speakers - to recognize cognitive presence (CP) - to identify strategies to enhance CP in classrooms Complementary Component I of Session II: -to implement a micro design so as to enhance SP and/or CP in classes through the theoretical lens acquired in the PDP	Initial Component of Session II: -Reflection forms -Post instruction meetings -Post program interviews Complementary Component I of Session II: -Reflection forms -Post instruction interviews
Session V & VI	Initial Component of Session III: -to create a repertoire of activities to facilitate the <i>integration</i> and <i>resolution</i> stages of CP -to recognize different discussion question types on various ranges on Bloom's taxonomy to enhance CP -to explore the relationship between LE and CM Complementary Component of Session II: - to reflect on activities and discussion questions to enhance CP -to reflect on the reciprocity between LE and CM - to establish a theoretical ground for classroom management (CM) - to create a repertoire of activities, strategies, and tools in terms of CM - to reflect on diverse approaches on CM through guest speakers -to create a repertoire of diverse feedback activities and tools -to recognize teaching presence (TP) - to identify strategies to enhance CP in classrooms	Initial Component of Session III: -Reflection forms -Post program interviews Complementary Component of Session II: -Reflection forms -CoI scale (Ozturk, 2012) -Post program interviews

3.2.2.3 Content of the PDP. The PD topics deriving from the analysis step (through interview findings and justifications from the literature) were fused with the stages of the CoI model in the design step. As well as incorporating the PD areas of focus emerging from the analysis step through the lens of the CoI framework, the researcher also embedded the CoI model itself into content of the PDP due to its merits in the learning context based on her decision at the very onset.

It should be noted that the synchronous and the asynchronous components in the PDP served as *complementary* to one another and the sequence of the activities reflected the suggested sequence in the literature review within the scope of the targeted topics. Therefore, “*the initial component*” refers to the first session content; whereas the second session refers to its “complementary” component, which means the latter. Depending on the nature of topics, one session may be an initial component of the subsequent one while it is also a complementary component of the previous one. This was done deliberately to satisfy one emerging interview finding “sequential coherence” as well as to abide by the iterative and coherent nature of the CoI model. Finally, clustering of the objectives was done considering the nature and the complexity of the topics, intended users’ learning comfort taking the aforementioned aspects into account, and the unity of the content spread out in the PDP. The content and the sequence of the PDP sessions is seen below (see Table 10):

Table 10

The Content and the Sequence of the PDP Sessions

	Synchronous Mode	Asynchronous Mode
Session I & II	Initial Component of Session I: Definition of learner engagement (LE) Levels of LE Social presence (SP) Strategies to enhance SP	Complementary Component of Session I: Activities, strategies, and e-tools to enhance interaction and engagement across different levels
Session III & IV	Initial Component of Session II: Definition and theoretical grounds behind technology integration (TI) in classrooms Cognitive presence (CP) Strategies to enhance CP	Complementary Component 1 of Session II: First-year language teachers’ class implementation bearing CP and SP in mind targeting effective LE and TI
Session V & VI	Complementary Component of Session III: Methods to maintain effective CM through the lens of theoretical grounds Understanding the reciprocity between LE and CM Exploring teaching presence (TP) through participants’ perceptions and experiences in the PDP Strategies to enhance TP	Initial Component of Session III: Discussion question types on various ranges of taxonomy to enhance CP Exploration of methods to maintain effective classroom management (CM) through TI and LE

3.2.2.4 The connoisseur-based formative evaluation. Formative evaluation in the form of subject matter expert review was conducted to leverage the quality of the designed PD program aiming at meeting the instructional needs of the target audience it was intended for (Seels & Glasgow, 1998). Upon the completion of the design step, The PD program was evaluated in terms of analysis and design steps by two academicians, who had more than fifteen years of experience in the field of curriculum development and design.

Table 11

The Connoisseur-Based Formative Evaluation

Stage of the Design	Feedback
Conducting needs analysis through interviews	Satisfactory
Complementing interview findings with relevant literature review	Satisfactory
Determining learning objectives of the PDP	Needs revision
Identifying instructional strategies	Satisfactory
Determining the content and sequence of the PDP	Needs revision
Determining formative and summative assessment evaluation	Satisfactory

The subject matter experts were content with the needs analysis stage (on both levels: interviews and themes and justifications arising from the literature review) and reported that a thorough analysis was conducted so as to understand the PD needs of the target audience in a grounded manner. Some of the PD learning objectives were reported to be vague and indefinite; therefore, the researcher revised them using appropriate verbs from the targeted taxonomy levels. For instance, the researcher initially put down a learning objective as “*to understand learner engagement*”. Following the feedback from the connoisseur-based formative evaluation, this verb was changed with “*identify*” since the learning objective for that particular session corresponded with the “remembering” stage based on Bloom’s taxonomy. As for the PD learning objectives, the second feedback was regarding the lack of PD learning objectives in line with the content. As a response to this feedback, the researcher added the learning objectives to address the content that is aimed at being delivered in the PDP. For instance, the rationale behind incorporating guest speakers was exposing teachers to diverse approaches within the scope of technology integration. However, the objective corresponding to this was missing; therefore, the learning objective entitled “*to reflect on diverse approaches on technology integration through guest speakers*” was incorporated into the relevant week in the PDP.

Instructional strategies were found to be effective considering the findings from the analysis step. The inquiry stimulating nature of the CoI model as a framework for the instructional strategies in the PD program was found to be satisfactory. To attain the unity of the *magic triangle*, the researcher ensured that she incorporated relevant assessment tools and instructional activities in the PDP. For example, aligning with the learning objective “to reflect on diverse approaches on technology integration through guest speakers”, the researcher created a mini scenario to allow room for exchanging diverse approaches on technology integration after teachers’ exposure. The researcher, then, incorporated reflection forms that would allow the participating teachers to reflect. As for the content of the PDP session, the SMEs reported that the learner engagement module was not satisfactory as the levels of learner engagement should have been incorporated into the program. Therefore, the levels of learner engagement were added into the PD program; that part was also revisited in the cognitive presence section later on for the sake of retrieval and sequential coherence. The formative and summative assessment methods were found to be satisfactory. The researcher was advised to collect data from various sources as much as possible so long as the conditions allowed.

3.2.3 Development. The aim of this step was to develop instructional materials based on the data collected in the former analysis and design steps including the connoisseur-based formative evaluation leading to data-driven revisions and refinements in the PD program design. The development step concluded with formative evaluation through *one-to-one evaluation* with a representative sample (first-year language teacher) with the intention of addressing the needs of the target audience by making necessary adjustments and refinements (Seels & Glasgow, 1998).

Development refers to the stage where the designer realizes a product to deliver the information resulting from the two steps: analysis and design. This is the stage where the designer transitions from being the researcher and the planner to the *producer* (Peterson, 2003). The development step entails three major areas: drafting, production and formative evaluation. The purpose of the formative evaluation in the development step is to increase the quality standards of the product and explore how the product may be improved to address the needs of the target audience (Seels & Glasgow, 1998) before the actual implementation takes place.

Following the principles of the practical inquiry model (PIM), the researcher began to create a draft design document the design and content of which aims to help first-year language teachers feel highly engaged to explore the content, integrate it with their previous knowledge (bearing the target audience's needs and expectations in mind) and apply in their own teaching contexts. The strategies and activities to establish SP was reflected in the design and facilitation of the course in line with the content of the PDP. Finally, TP was established through elements that helped contribute to the design and administration, facilitating discourse and direct instruction in the PD Program.

A major consideration the researcher had whilst putting forward the development plan was to establish a design that continues to facilitate the learning process for first-year language teachers through *creating sustainable curiosity*. As put forward by Dewey (1897) attention, emotion, and curiosity (emotional dimension) is a major component that contributes to the complex learning phenomenon. Thus, the researcher drafted, then developed such activities to serve the target content abiding by the nature of the CoI model through changing the rhythm of the activities, adding information gap elements, providing room for interaction and debates, and stimulating questions whose answers may vary depending on certain parameters and/or approaches.

To reflect the essence of the CoI model in line with the target content, the researcher would like to provide an example of one of the several activities that was created through this lens: *working stations*. Firstly, the activity was designed to cause mystery among the participants as they did not know what the stations were about at the onset. Curiosity was also established in the design of activities across stations (i.e., questions with information gap, challenging content within the activities which the participants had to figure out themselves using some clues from the sessions taking place in the *triggering event* stage of the PIM). Secondly, the questions embedded in the activity were designed in a stimulating way to trigger participants to explore some aspects and issues in line with the PDP content (*exploration*). Thirdly, the sequential coherence the researcher bore in mind was established in a way in that particular activity that would potentially necessitate participants' referring to their previous knowledge in the PDP content as well as their personal and academic background to be able to generate and communicate answers on designated questions (*integration*).

Finally, the subsequent PDP session was designed to provide room for participants to reflect on what they have learned through this activity and come up with their own plans to transfer that knowledge into their own classrooms by making necessary modifications and alterations. Thus, the reflection and elaboration sessions took place before the first-year language teachers' actual classroom implementation (*resolution*). A representation of working stations activity is seen below (see Figure 3) and more examples may be found in Appendix I.

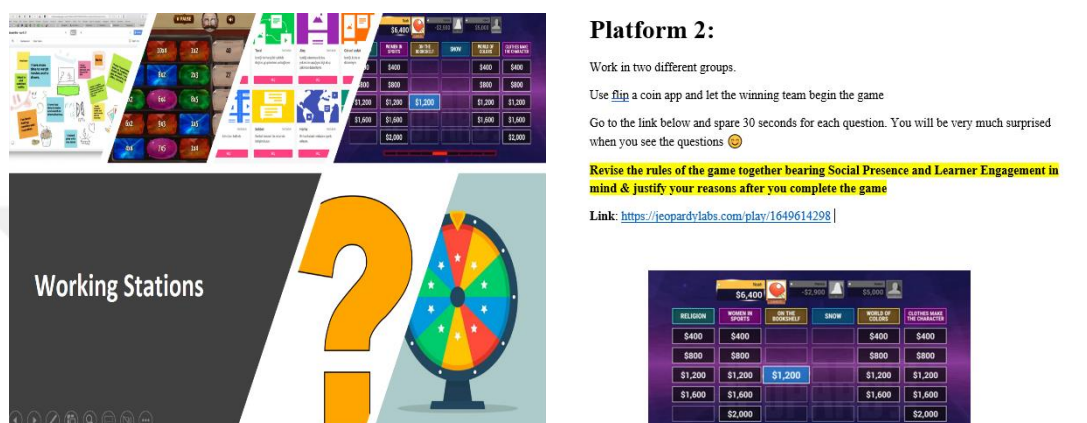


Figure 3 Excerpts from an activity in the designed PD program

3.2.3.1 One-to-one evaluation with a representative sample. Having reflected the data collected in the analysis step on the design step and having reflected the data coming from the connoisseur based formative evaluation on the development step, the researcher developed instructional materials aligned with the stated objectives. The researcher conducted *one-to-one evaluation* with a first-year language teacher through samples from the PD program in different modes (online synchronous and asynchronous modes) to conclude the development phase prior to conducting small group evaluation (see Appendix D).

The first-year language teacher graduated from the department of English language teaching (ELT) and had 3-month teaching experience in a secondary school. The results of the one-to-one evaluation are seen below in Table 12.

Table 12

One-to-One Evaluation with a First-Year Language Teacher

Stage of the Design	Feedback
The appropriacy of learning objectives to teachers' needs	Satisfactory
Relevance of the PDP content to teachers' needs	Satisfactory
The intelligibility of the discussion questions	Satisfactory
The intelligibility of the materials in the PDP	Satisfactory
The intriguing nature of the PDP materials	Satisfactory
Transferability to the actual classroom	Satisfactory
The comprehensibility of the PDP content	Needs revision
The complexity of the materials and instructional strategies	Needs revision

Studying the PD program materials pertaining to different weeks and modes and experiencing the training at first hand delivered by the researcher, the first-year language teacher provided feedback to the researcher on the designated areas as shown above. The learning objectives and competencies (they were explicitly stated in the PDP content for the sake of TP) were found to be appropriate to first-year language teachers' needs. Likewise, the content of the PDP (topics such as learner engagement, classroom management and so on) were found to be relevant to first-year language teachers' needs and was referred to as "... *exactly what we need in this year...*". Thus, the first-year language teacher reported that "*such topics were very motivating as they addressed a salient need*". The content and instructional aims of the materials were found to be comprehensible since they included easy-to follow instructions and were placed well in the PD program. For instance, an exploratory task including a number of strategies to enhance learners' motivation and social engagement were found to be useful by the first-year language teacher since they were introduced after the introduction and exploration of learner engagement; therefore, "*that fit well after we have explored the essence of the topic and provided me with some practical insights.*"

The first-year language teacher also reported that the design of the components in the PD program were intriguing in nature. For instance, when the trainer introduced the concept of "riddles", the activities entailed a task including riddles for teachers themselves to solve; therefore, the first-year language teacher stated that "*Such activities allowed me to experience as I am learning... The materials make me want to explore more...*". The first-year language teacher then added "*experiencing an intriguing activity as the learner helps you understand its pedagogical merits as well*"; in this particular case the essence of the activity was aligned with social and cognitive presence. Elements of the PD program including information gap, personalization,

reflective elements (i.e., cases, scenarios) were referred to as “*having potential for valuable learning points for first-year language teachers*”. The participant reported positive feedback on the reciprocity between practice and theory adding that “...*the theory was almost never explicitly there but actually the sequence, and the content of the PDP helps you digest it without even noticing it...*”. It was reported that such reciprocity helped the content easily to be transferred to the classrooms. The teacher stated that the coherence between practice and theory was an important incentive for the transfer; however, unless relevance of the topics were suited to first-year language teachers’ needs the transferability aspect would not be there. Lastly, the first-year language teacher reported that such intriguing activities led to upside down, critical and deep thinking.

As for the simplicity of the PD program, the first-year language teacher reported that the content (content of the activities referring to the transitory stage to the subsequent activities requiring critical and deeper thinking) should have been simpler. A different form of feedback within the scope of this was regarding the terms in the English language. The researcher kept some small sections in their original language with the intention of not disrupting the authentic meaning it intends to convey. The first-year language teacher reported that translations should be conducted (not verbatim but for meaning) since the PDP is intended for first-year language teachers from different disciplines, not only specifically for English language teachers. This feedback was addressed through refining the initial stages of activities through incorporating more simple language and easier tasks (to help ease the transition to achieve intended objectives) as well as designing and/or adding supplemental materials as they fit into the learning objectives. Finally, the participant expressed the need for *more scaffolding* in activities intending to help first-year language teachers transfer knowledge. This feedback was addressed through refinements in instructional strategies as well as creating *cheat sheets* for all materials to be shared with participants throughout the PDP.

3.2.3.2 Revised PD program. The design of the PD program was constituted through the data coming from each and every step of the ADDIE framework leading to data-driven revisions and refinements. The data collected in the analysis step constituted the basis for the design step. The design step, in which design-related

aspects such as the learning objectives, instructional strategies, the sequence of the content were specified based on the data coming from the former step, was concluded with the connoisseur-based formative evaluation that fed into the subsequent step. The development step, in which instructional materials were developed reflecting the former refinements, were concluded with the one-to-one evaluation. Each session in the PD program was designed to last 60-75 minutes and the whole program was designed to be implemented in an online learning environment. The final version of the PD content may be found below in Table 13.

Table 13

Detailed Content of the Professional Development Program

Training Week 1	
Session 1 May 10, 2022 Learner Engagement (LE) Exploring theoretical foundations of LE to create a constructive atmosphere in the classroom. Differentiating different levels of LE. Integrating this theoretical lens with activities, strategies, and e-tools to enhance LE on behavioral, cognitive, emotional, and social levels.	Session 2 May 10, 2022 Social Presence (SP) Exploring and experiencing the concept of SP. Exploring and experiencing activities, strategies, and e-tools to enhance interaction and engagement across different levels.
Training Week 2	
Asynchronous Task on LE and SP May 16-20, 2022 Teachers' exploring, conducting, and experiencing "working stations" group activity that comprises various e-tools, strategies, and reading input aligned with the objectives of Session 1 and 3 embedding cognitive presence stimulating discussion questions throughout the group activity, followed by teachers' self-reflection.	
Training Week 3	
Session 3 May 24, 2022 Technology Integration (TI) Exploring the definition, extent, and theoretical grounds of (TI). Integrating this theoretical lens with activities, strategies, and e-tools to attain different levels in TI through reflections and experiences. A guest speaker sharing her approach on TI to achieve transfer.	Session 4 May 24, 2022 Cognitive Presence (CP) Exploring and experiencing the concept of CP. Exploring and experiencing activities, strategies, and e-tools to enhance CP on the levels of the Practical Inquiry Model. Conducting a whole-class reflection that aims at fusing TI with CP through the lens gained in Session 3, 4, and integrating them with teachers' prior knowledge and classroom experiences.

Table 1. (cont.d)

Training Week 4	
Submission of Lesson Plans, Classroom Implementations and Post Instruction Interviews May 30- June 3, 2022	
First-year language teachers' crafting and submitting lesson plans that aim at enhancing CP and SP through their design and facilitations. First-year language teachers' interacting with the researcher to receive consultancy on their crafted lesson plans when needed. First-year language teachers' implementation in classrooms bearing CP and SP in mind targeting effective LE and/or TI. Conducting post instruction interviews upon the completion of the implementations in the performance context.	
Training Week 5	
Session 5 June 8, 2022	Session 6 June 8, 2022
Classroom Management through LE and TI	Teaching Presence (TP)
Reflecting on classroom implementations Exploring the definition, extent, and theoretical grounds of (CM), exploring, and elaborating on the two-way relationship between CM and LE; integrating CM with previous inputs of the PDP, teachers' prior knowledge and classroom experiences to solve an ill-structured task.	Exploring the concept of TP. Exploring and experiencing TP pertaining to the aspects of design and organization, facilitating discourse and direct instruction.

In session 1 of week 1, the trainer administers a getting to know activity to: (a) enhance the social presence in the learning context (Garrison, 2017) (b) to understand the first-year language teachers' expectations of the PD Program. The trainer gets teachers to explore the concepts of learner engagement on behavioral, cognitive, emotional, and social level by getting them to experience several activities, strategies, and e-tools aligned with this purpose. In session 2 of week 1, the trainer gets the first-year language teachers to explore the concept of social presence and gets teachers to integrate their takeaways from sessions 1 & 2 with their personal experiences within the scope of enhancing social presence in the classroom. Upon the completion of session 2, first-year language teachers are assigned the task of completing a group activity to: (a) complement with the objectives of Session 1 & 2 (learner engagement and social presence) (b) explore and investigate their perceptions and experiences on their social presences in the learning context.

In the asynchronous component of week 2, the trainer assigns the first-year language teachers a group activity aligned with the objectives of session 1 & 2. As well as the trainer communicating with the teachers, the teachers also communicate

with other community members to exchange ideas, experiences, concerns, suggestions, and reflections on the assigned task.

In session 3 of week 3, the trainer gets teachers to explore the concept of technology integration through case-based scenarios, classroom discussions, debates, and the approach of a guest speaker on the designated topic. In session 4 of week 3, the trainer gets the first-year language teachers to explore the concept of cognitive presence and gets teachers to regulate a fusion of technology integration and cognitive presence by holding a classroom discussion for three reasons, the first two of which are intertwined to a certain extent: (a) to help them explore the subject matter deeply through different lenses in a safe environment (b) to enhance their social and cognitive presences in the learning context (c) to explore first-year language teachers' perceptions and experiences on their cognitive and social presences. Upon the completion of session 4, first-year language teachers are assigned to create a lesson plan and implement teaching strategies and designed activities in the performance context.

Upon the completion of Session 4, in weeks 3, 4 and 5, first-year language teachers asynchronously create their lesson plans for their classroom implementations and share them with the researcher and the community members. At this stage, first-year language teachers interact with the trainer and other community members when they need assistance in (a) crafting their lesson plans (b) techno pedagogical areas. These interactions also serve as formative data to address emerging needs in an agile fashion. The trainer creates an activity on different discussion question types to enhance CP to complement with the objectives of Session 3 & 4 to address an emerging need. This activity is shared with the first-year language teachers prior to Session 5.

In session 5 of week 5, the first-year language teachers reflect on their lesson plans evaluating the strengths and areas for improvement as well as the discussion question types to enhance cognitive presence in the classroom. The trainer gets teachers to explore the dynamics of classroom management through the administration of an ill-structured task. The trainer gets the teachers to reflect on the reciprocity between classroom management and learner engagement through integration of prior knowledge gained from the previous sessions as well as teachers' own classroom experiences. In session 6 of week 5, the trainer gets the teachers to explore the concept and dimensions of teaching presence by the help of guiding questions to help teachers

refer to their own learning experiences in the PD program. The trainer gets teachers to self-reflect on concepts in relation to the classroom management and technology integration through cases to (a) help them fuse CM with TI in design and organization, facilitating discourse and direct instruction stages (TP) (b) enhance social, cognitive and teaching presence in the learning context (c) explore and gain insights into first-year language teachers' perceptions on social, cognitive and teaching presences in the learning context.

3.3 Phase II

The purpose of the implementation and evaluation steps in the ADDIE framework was to roll out the training and assessment materials developed based on the data coming from the previous steps to continue making further revisions and improvements for the betterment of the design, which results in improved instructional strategies to ensure the attainment of the learning objectives (Wilson, Sahay & Calhoun, 2014). Extending the formative evaluation further in the implementation step (followed by the connoisseur formative evaluation and one-to-one evaluation from the previous steps) provides useful and rich data to revise and improve the entire instructional system established so far (Gagné and Briggs, 1979; Morrison et al., 2013). Therefore, in this phase, the researcher conducted a small group evaluation that is consolidated with formative evaluation highlighting the cyclical feature of the ADDIE framework (Welty, 2008) with the purpose of documenting the effectiveness of the program as well as its shortcomings for its betterment through incorporating a variety of data sources (Wilson et al., 2014).

Implementation step refers to the actual delivery of instruction in the context(s) it was specifically designed for (Smith & Ragan, 1998). The purpose of this stage in phase I was to facilitate and promote students' making sense of the material(s), completion of designed instructional materials by learners, attainment of learners' mastery of the intended objectives and ensure the transfer of knowledge to the settings it is intended for (Arkün & Akkoyunlu, 2008; McGriff, 2000) as learners consume the instructional materials delivered through designated instructional strategies in line with a particular sequence, all of which are designed and developed based on data in the previous stages. These stages were realized through the small group evaluation that took place in an online setting with first-year language teachers.

Even though there is a general inclination towards viewing the ADDIE framework as linear, rigid, and even confining, the ADDIE framework offers systematicity and flexibility in terms of developing training for particular audiences (Wibawa, Ashrianto and Pambudi, 2021). ADDIE framework should be approached as a continuous one, through the lens of a system approach (Banathy, 1987), since each phase has interaction with one another in turn (Allen, 2006). Based on the essence of this system approach, “implementation” should not be viewed as a discrete and a separate step (Nichols Hess & Greer, 2016) rather a complementary one interacting with other components of the ADDIE framework. Thus, it is critical to document learners’ performance, attitudes and learning behaviors in the implementation step (Yeh & Tseng, 2019). These constitute valuable resources for the final step of the ADDIE framework: evaluation. This concludes that designers should have an *active* role in this step rather than a passive one (Peterson, 2003) since it provides several opportunities for evaluation to enhance the designed product.

Wilson et al. (2014) explain that small group evaluations is an important step to measure the effectiveness of the changes in a designed program following the connoisseur formative evaluation and one-to-one evaluation. Small group evaluations entail the implementation of the program in the manner it was designed for to obtain data about the instructional processes. Through this lens, the research does not approach these two steps as “finalized rollout” (Welty, 2008), rather views them as the continuation for the betterment of the design.

Following the essence of the small group evaluations in the literature review within the scope of instructional design, the researcher performed the PD program in an online setting with the intended audience, had them consume the materials prepared based on the data collected throughout phase I and collected data from various methods to validate the effectiveness of the program aligned with the instructional objectives.

3.3.1 Sampling and participants. In line with the nature and purpose of phase I, phase II is the stage where the small group evaluation takes place with the intended audience, which in the present study, is first-year language teachers. Purposeful sampling is employed to find and select individual participants and/or a group of participants who may provide information-rich cases or thorough experiences with regard to a phenomenon of particular interest (Cresswell & Plano Clark, 2011; Patton,

2002) taking *typicality, variety, accessibility* and *opportunity* dimensions into account (Stake, 2005). Due to this reason, the use of purposeful sampling technique enabled the researcher to capture wider insights and perspectives into the phenomenon being explored.

Palinkas et al. (2015) report that there are several types of purposeful sampling strategies employed in qualitative inquiry, one of which is *criterion sampling*. Criterion sampling simply means the selection of the sample based on *pre-established criteria* that serves the purpose of the research inquiry. The pre-established criterion for the present study is for participating teachers to have a maximum 1 year of teaching experience since the data coming from the analysis, design and development steps reflected the needs of that particular sample. To sum up the reason why first-year language teachers were incorporated into the evaluation step are as follows: this particular sample (first-year language teachers) (1) aligns with the aims and the scope of the present study (2) complements the data coming from the previous steps (3) helps reach maximum efficiency and validity in the research inquiry (Morse & Niehaus, 2009).

Bearing these major considerations in mind within the scope of the current research and the amount of data to be analyzed, the researcher worked with 18 first-year language teachers with diverse majors and contexts to ensure variety in the small group evaluation of the PD program (see Table 14).

Table 14

Phase II Sample Spread in the Sessions of the PD Program

Majors	Session 1 & 2	Session 3 & 4	Session 5 & 6
English	9	7	6
Turkish	8	7	3
Arabic	1	1	1
Total	18	15	10

There was a drop in the number of teachers attending the small group evaluation in phase II due to the end of the year hustle and the expectations of the PD program to be met by first-year language teachers. Due to this, the number of participants in the PD program dropped from 18 to 10. Thus, the data coming from ten first-year language teachers were taken into account in the present study. As a result,

there were 4 female 2 male English teachers; 2 female and 1 male Turkish teacher and a female Arabic teacher whose data was taken into account in the present study.

The majority of non-experimental research studies are in favour of large sample sizes for the sake of transferability and generalizability, whereas this is not the case in qualitative research. Since the underlying rationale for employing case studies is mostly the drive to examine the data within a particular context and/or setting, a limited number of participants are selected to serve its true purpose: exploration of events, conditions, interactions and/or relationships. When it is not possible to observe a phenomenon within its natural context, the case study research method uses multiple methods to obtain data (Yin, 1984). Deriving from this, the current research collected first-year language teachers' reflections, post instruction meetings, post program interviews, and the CoI scale (Öztürk, 2012) to obtain data in depth.

Aybüke works as a Turkish teacher in İmam Hatip High School. She was appointed as a Turkish teacher by the Ministry of Education 4 months ago prior to the PD Program. She is very open to professional development and has participated in several workshops and training led by the Ministry of Education, some of which involved technology in education and vocabulary teaching for two consecutive terms upon her graduation. Her major considerations are her students' not using their own native language as meticulously as they should and low student engagement (on cognitive level) in her classrooms. Her aim in participating in the designed PD program is to equip herself with a set of strategies to help her students become more engaged in lessons, learn deeply and transfer their knowledge into other aspects of their lives.

Derya works as an English teacher in an Anatolian High School. She was appointed nine months ago prior to the PDP. She has participated in two workshops, which involve technology training. Her major motive and concern is to bridge the gap between practice and theory; she expresses this as follows “...*I can never be sure of what I am doing in the classroom...I feel like it could be all wrong and I am just getting by... I need guidance to bridge these two...*”. Her aim in participating in the PDP is to combine theory and practice and enrich her repertoire of teaching skills.

Erguvan works as an Arabic teacher in İmam Hatip High School. She has 9 months of teaching experience in the school she was appointed by the Ministry of Education. Her major concern is her students' lack of interest in the Arabic classes and their inability to comprehend and produce in the Arabic language. Her aim in

participating in the PDP is to enrich her repertoire of teaching skills and increase her students' cognitive engagement in the lessons. She expresses her purpose as follows: *"...Since the name of the PDP is 'Engaging (students) in the learning itself' (translated into Turkish as 'öğrenmeye bağla(n)ma'), I am attending this PDP with great enthusiasm and hopes since I have serious concerns over my students' academic engagement..."*.

Fikret has been working as an English teacher for three months in a secondary school. He is very open to professional development and describes himself as one with a growth mindset. He has attended a vocabulary training prior to this PDP and reports that he is willing to attend more as the content of the PD programs align with his needs. One of his major concerns is classroom management as he puts it himself *"...There is great reciprocity between learners' engaging in lessons and classroom management. This is a mutual relationship moving from both directions towards one another..."*. His aim in particular is to increase learners' emotional engagement and sharpen his classroom management skills and strategies.

Demet, with nine months of teaching experience, was appointed as a Turkish teacher in a secondary school. She wishes to enrich her teaching repertoire through several strategies and activities. She reports having attended workshops that involve educational technologies in teaching. One of the major reasons why she attended this PDP is to have an enriched repertoire of teaching strategies and e-tools to *"make her lessons more appealing and student-friendly"*.

Aylin is an English teacher appointed in a secondary school nine months ago. She reported feeling insecure about her teaching practices as she could not be sure about whether what she did in the classroom was appropriate or not. She has not participated in any workshops or training prior to the PDP. Her major purpose to participate in this PDP is to bridge practice with theory and to sharpen her teaching skills through learning several activities and strategies in terms of learner engagement and educational technologies as well as to learn the theoretical rationale behind her teaching practices, *"...if there is any..."*.

Berkan, who was appointed to İmam Hatip High School three months ago, is an English teacher. Berkan has concerns about his own pedagogy knowledge since he did not graduate from a teaching department and the pedagogical formation training he received was *"on a very theoretical level"*. The main reason why he preferred to

participate in the designed PDP was his interest in the program objectives, particularly, to enhance the interplay between and among social, cognitive and teaching presences in the classrooms. He reported that he did a quick reading on the CoI model when he saw the flyer of the designed PDP and decided that a PD designed through this framework could aid him in helping his current and prospective students attain meaningful and deep learning.

Havva is an English teacher, appointed in an Anatolian High School. She has had 9 months of teaching experience in the field. She reported having major issues in engaging her students in the classrooms. Havva expressed that she found it very conflicting when her students expressed boredom as she was striving to achieve the curricular objectives, which she called “*an unpleasant dilemma*”. In addition, she also added that she did not feel competent enough to integrate technology into her classrooms. Her professional goal is to equip herself with a set of skills and strategies as well as e-tools that will help her students feel engaged and motivated to learn. Havva stated that she decided to take part in the designed PDP after reviewing the program objectives that centred around learner engagement and social presence.

Burak is a Turkish teacher, who works in İmam Hatip High School. He has had 3 months of teaching experience in the field. He reported that he has felt like “*a fish out of water*” since his graduation and added that he needed guidance especially in terms of classroom management and putting his theoretical knowledge into practice. Burak stated that he decided to participate in this particular PD program mainly because of the objectives that centred around classroom management. He wished to achieve classroom rapport through engaging his students to the lessons as the name of the PDP promised. Furthermore, he added that he contemplated applying a CoI model in his own teaching (based on the program objectives that centered around the CoI model) could remedy the situation regarding engagement and classroom management issues in his own teaching context.

Merve is an English teacher who is appointed in a secondary school. She has had nine months of teaching experience. Merve reported that she was confident about her own profession due to the fruitful practicum experience she had prior to her graduation as well as her strong relationships with her professors. She stated that she was very open to professional development and added that the terms “*teaching, cognitive and social presences*” in the PD program objectives were “*very intriguing*”;

therefore, she decided to participate in the PD program to expand her knowledge on new teaching methodologies. She wishes to be more adept at integrating technology into her classes through expanding her repertoire of instructional technologies.

3.3.2 Data collection. The current research employs a concurrent and sequential mixed method design since largely qualitative data (complemented with quantitative data) are collected to explore three research questions. There are three different data collection sources (first-year language teachers' opinions, reflection forms and lesson plans of the classroom implementation) and four different data collection tools aligned with the research questions (CoI scale, reflection forms, post instruction meetings and post program interviews) (see Appendix E, F, G and H respectively).

The researcher designed particular questions and question stems to measure participating teachers' reflections on designated areas in the PDP. While some of the reflection activities intended to explore first-year language teachers' perceptions and experiences regarding their own social, cognitive and teaching presences in the learning context, some of them served as the data to measure teachers' take away from the session for their own professional development with the aim of enhancing social, cognitive and teaching presences in the performance context. Post instruction meetings were completed after the first-year language teachers implemented instructional activities and strategies through the lens they have gained in the PDP to explore their perceptions and opinions on the impact of these teaching practices on students' social and cognitive presences; and language teachers' reflections on their own lessons (*whether they were able to achieve their intended objectives or not, how their planning behind the implementation contributed to their lessons; in what ways their roles as teachers changed; in what ways they would modify what they implemented if they were to implement such activity(ies) again in the future*); and finally, to explore their students' reflections in terms of their own social and cognitive presences. A four-point Likert type CoI scale (Öztürk, 2012) was used upon the completion of the PD Program to explore teachers' perceived SP, CP and TP in the learning context (the PD program). Finally, post program interviews were conducted to explore first-year language teachers' experiences and reflections on the CoI elements in the learning context; the effective elements of the PD program that address

their professional development needs; their takeaways from the PD session in the performance context; how the PD program may be further improved and refined to cater for the first-year language teachers' needs. Table 15 shows the data sources, data collection instruments and data analysis aligned with the research questions of the current study.

Table 15

Research Outline of Phase II

Research Questions 2 & 3	Data Sources	Data Collection	Participants
How do first-year language teachers experience the professional development program designed for enhancing social, cognitive and teaching presences in their teaching contexts?	Teachers' reflections	Reflection forms including fourteen reflection questions including guiding question stems to explore teachers' experiences and perceptions of the social, cognitive, and teaching presences in the PD program. Conducted during the PD sessions in weeks of 1, 2, 3 and 5.	In-service language teachers in their first year at public schools (referred to as first-year language teachers in the present study)
	Teachers' opinions	Ten open ended questions leading to a semi-structured interview (post program interviews) to explore first-year language teachers' experiences and interactions on social, cognitive, and teaching presences in the PD program. Conducted upon the completion of the PD program. A four-point Likert scale with 34 items to explore teachers' social, cognitive, and teaching presences in the PD program. Conducted upon the completion of the PD program.	
What aspects of the professional development program are reflected in the performance context?	Lesson plans	Lesson plans that display the extent and the sequence of designed elements and/or materials to enhance SP, CP and/or TP in the classrooms (performance context). Conducted in weeks of 3, 4 and 5.	First-year language teachers
	Teachers' opinions	Five guiding questions (in the post instruction interviews) to explore a) teachers' enhancement of SP, CP, and/or TP in the performance context; b) their students' perceptions of SP, CP, and/or TP in their teaching contexts. Conducted individually with first-year language teachers in weeks of 4 and 5.	
	Teachers' reflections	Reflection forms including overarching reflection questions to explore teachers' enhancement of SP, CP, and/or TP in the performance context and their reflections on their implementation experiences. Conducted as a whole group in week 3 and 5.	

3.3.2.1 Data collection tools. Due to the evolving and cyclical nature of the ADDIE Framework (Peterson, 2003), the researcher collected formative data in the small group evaluation so as to make necessary revisions and refinements to improve the product, ensure the quality and continued progress of the designed PD program (Allen, 2006). Thus, data collection tools that took place during this stage of the present study are explained in detail as follows:

3.3.2.1.1 Reflection forms. Since the aim of the PDP is not only to help first-year language teachers explore CP, apply it, and create new ways to enhance it in their own classrooms but also to help them experience CP within the context of the PDP, the enhancement of participating teachers' CP was a major consideration in the design and implementation of the PDP. Since CP plays a vital role in critical thinking and constructing meaning (Garrison et al., 2000), the researcher created room in the actual implementation of the PDP to facilitate and allow room for reflection all throughout the course to initiate and continue members' inquiry processes. The construct behind the reflective questions utilized in the PDP were carefully selected and designed reflecting the essence of three presences coming from an extensive literature review on the utilisation of the CoI model in various contexts.

The researcher prepared reflection questions and embedded them in the PDP Content aligning with the objectives of the PD sessions and the essence of the presences in the CoI model to explore teachers' experiences and perceptions of the social, cognitive, and teaching presences in the learning context (the PD program). The questions were created by the main driving constructs of the presences in the CoI model (Garrison, 2017).

Questions 1-4 were embedded to explore first-year language teachers' social presences. To illustrate, question 4 is "Share a moment when you felt you were being yourself (as if you are in a physical environment) in the PD session". Questions 5-9 aimed to explore first-year language teachers' perceptions on their cognitive presences. To give an example, question 9 is "How can you apply the core ideas learned from this discussion to your classrooms?". Finally Question 10-14 were designed to investigate the perceptions and experiences of first-year language teachers on the teaching presences existent in the PDP. For example, question 13 is "What is one thing from today's session that gives you a sense of control over your own

learning?”. In the process of preparing reflection questions, the researcher worked with an expert who holds a PhD degree in the field of educational technology and has had experience working in K-12 Setting and high school. After reviewing the content and the objectives of the PDP, the researcher and the expert went over the reflection questions one by one. This review process helped the research design more appropriate questions for the target audience the PDP was intended for.

3.3.2.1.2 Post instruction interviews. The researcher held interviews with first-year language teachers upon the submission of the lesson plans and the completion of their implementation in their own classrooms in weeks of 4 and 5 so as to explore: (a) teachers’ enhancement of SP, CP, and/or TP in the performance context (b) their students’ perceptions of SP, CP, and/or TP in the performance context. To illustrate an example that serves the aim of the first category, question 3 is “In what ways did this particular activity contribute to enhancing CP in your lesson?”. Whilst conducting the post instruction interview, activities and strategies from the lesson plan were asked to the first-year language teachers one by one depending on the nature of the question. To give an example of a question that serves the second purpose of post instruction meetings, question 4 is “In what ways did your students think this particular activity/teaching strategy enhanced SP?”. Likewise, the questions were made specific to the components of the lesson plan designating the activity or the strategy that was being employed in the lesson. A very important note on question 4 is that teachers measured the SP, CP and TP through simplified questions in their lessons. For example, question 4 aiming at understanding students CP was measured through a guiding question “share a thing that helped you understand X topic easily”. A guidance to measure presences through simplified questions were prepared based on the guiding principles of the CoI Model (Garrison, 2017) and was shared with teachers asynchronously prior to the classroom implementation. The questions in the post instruction interview were reviewed with the thesis adviser. Following this review, a pilot interview was conducted with a representative sample. Revisions were applied after the completion of both steps prior to conducting these interviews.

Due to the cyclical nature of the ADDIE framework, formative evaluation took place in each step of the current research. Aligned with the essence of the ADDIE framework, the interview, as a means to complement other data sources, were held in

a semi-structured manner to allow room for first-year language teachers to share their reflections, needs and suggestions as they arose. A pattern of interview findings during the administration of post instruction meetings revealed the need of first-year language teachers to explore, and practice several discussion question types to enhance CP in their own classrooms. Thus, this dimension was addressed through preparing an activity on discussion question types to enhance CP based on different taxonomy levels; and this activity was incorporated into the PDP program to address this emerging need.

3.3.2.1.3 Post program interviews. The researcher conducted interviews with first-year language teachers upon the completion of the PD program in week 6 to investigate (a) their perceptions of social, cognitive and teaching presences in the learning context (b) areas and aspects of the PD program that address their professional needs (c) aspects of the PD program that need revision and refinements for the betterment of the design. The post program interview consisted of ten questions. Questions 5-7 were formulated with the purpose of exploring teachers' perceptions of the presences in the learning context. To illustrate, Question 6 is "What are your thoughts and opinions on the cognitive presence in this PD program?" Follow up question: What aspects of the PD program were useful to you in helping you understand the material, content deeply as well as transfer your knowledge into different settings?". A very important note to make with regard to the questions aimed at exploring teachers' felt presences is that the researcher was ready to extend on the definition of presences if need be. However, since the content of the PDP also entailed the CoI model, the teachers were on the same page as the researcher, when she referred to the types of presences. The researcher used key words pertaining to the presences, though, in her follow up questions to elicit answers in depth. Questions 1-4 and Question 8 aimed at exploring the areas and aspects of the PD program that addressed their needs and expectations. For instance, Question 3 is "In what ways did this PD program address your professional needs? Question 9 and 10 aimed at exploring the aspects of the PD program that need further improvement. For instance, Question 9 is "What would be your suggestions to enhance the effectiveness of this PD program?".

Prior to conducting post instructing interviews, the questions in the post instruction interview were reviewed with a PhD candidate in the field of English

language teaching. Following this review, the researcher conducted a pilot interview with a first-year language teacher. The researcher applied the revisions before she conducted the post-program interviews.

3.3.2.1.4 *CoI scale.* The researcher administered the CoI scale upon the completion of the PD program to explore first-year language teachers' social, cognitive and teaching experiences in the learning context, which is the PD program itself, in the present study. The CoI scale developed by Arbaugh et al. (2008) was translated into Turkish by Ozturk (2012). The scale consists of 34 items with three dimensions (social presence, cognitive presence and teaching presence). 13 items belong to TP, 9 items belong to SP, and 12 items belong to CP.. The Cronbach Alpha coefficients calculated are .92 for TP, .88 for SP and .75 for CP when administered to a group of university students ($n = 140$). This a four-point Likert type scale ranging from “strongly disagree” to “strongly agree” with no reverse items in the scale. The scale was used upon the completion of the PD program to explore first-year language teachers' perceptions of their own social, cognitive and teaching presences in the learning context with Dr. Ozturk's permission.

3.3.2.1.5 *Lesson plan evaluation rubric.* The researcher adapted the Online Community of Inquiry Syllabus Rubric (developed by Rogers & Haneghan, 2016) and detailed it with the constructs coming from the literature on the CoI Model (Richardson, Arbaugh, Cleveland-Innes, Ice, Swan, & Garrison, 2014). Lesson plan evaluation rubric consisted of 5 dimensions entitled *cognitive presence for instructional design, educational technology, learner support, social presence, and teaching presence*. Each dimension entailed descriptors capturing the main constructs pertaining to the dimension it belonged to. There were 5 descriptors in each dimension from 1 to 5, 1 corresponding to *low*, 2 corresponding to *fundamental*, 3 corresponding to *satisfactory*, 4 corresponding to *above average*, and finally 5 corresponding to *excellent*. The researcher invited two reviewers to examine the descriptors pertaining to the dimensions of the CoI Scale. The feedback obtained from the reviewers were regarding (a) vagueness in how the descriptors in the social and teaching presence dimensions were worded (i.e., “necessary refinements were reflected in *the implementation of the lesson*” was suggested by the reviewers instead of “*the flow of the lesson*” as the latter was found to be fuzzy and indefinite) (b) confining terms (i.e.

the descriptor pertaining to the teaching presence “*the instructor makes comments, raises questions, observes and changes the scope of the activity aligned with the learning objectives*” was found to be rather confining since an organic lesson may not necessarily encompass all these elements; however, “*it might still contain a high degree of teaching presence*”. Therefore, the fusion of such several elements of a lesson were connected with the conjunctions “and/or”). The aim of using the lesson plan evaluation rubric was to analyze the lesson plans and post-instruction meetings to reveal the first-year language teachers’ transfer of the CoI model in the performance context as standardized and accurately as possible. The peer debriefing performed in the compilation and design of the lesson plan rubric as well as in the utilization of the rubric to analyze the relevant data contributed to the robustness of the data analysis stage.

3.3.2.2 Procedures. The professional development program based on the elements of the CoI consisting of online synchronous and asynchronous sessions that complement each other based on sequential coherence lasted five weeks. Table 16 displays the flow of the PDP throughout the weeks along with the data collection tools aligned with the research questions spread in the relevant weeks.

Table 16

The Flow of the Professional Development Program Along with the Data Collection Tools

Modules	Modes	Weeks in the Module	The Professional Development Program based on the elements of the CoI (Community of Inquiry Model)
1	Online Synchronous	1 May 9-13, 2022	1. Administration of demographic information questionnaire 2. Training session 1 3. Reflection forms (RQ2) 4. Training session 2 5. Reflection forms (RQ2)
1	Asynchronous	2 May 16-20, 2022	6. Administration of a group activity to complement training sessions 1 & 2 7. Reflection forms (RQ2) 8. Training session 3 9. Reflection forms (RQ2)
2	Online Synchronous	3 May 23-27, 2022	10. Training session 4 11. Reflection forms (RQ 2)
2	Asynchronous	4 May 30- June 3, 2022	12. Submission of lesson plans (RQ 3) 13. Interactions with the trainer and/or community members on the created lesson plans (RQ 3) 14. Post instruction meetings (RQ 3) 15. Administration of an activity to complement training sessions 3 & 4
3	Online Synchronous	5 June 7-11, 2022	16. Training session 5 17. Reflection forms (RQ 2 & 3) 18. Training session 6
		6 June 13-17, 2022	19. Reflection forms (RQ 2 & 3) 20. Administration of the CoI scale (RQ 2) 21. Post program interviews (RQ 2)

In week 1, the researcher administered a demographic information questionnaire. In weeks 1,2,3 and 5 the researcher collected language teachers' reflections in the PD sessions through guiding questions and question stems to explore the social, cognitive, and teaching presences in the learning context (RQ 2).

In weeks 3, 4 and 5 lesson plans created by first-year language teachers were collected and analyzed to explore what aspects of the PD program are reflected in the performance context (RQ3). Following the submission of lesson plans and classroom implementations, in weeks 4 and 5, post instruction meetings were conducted to explore (a) teachers' enhancement of SP, CP, and/or TP in the performance context (b) their students' perceptions of SP, CP, and/or TP in the performance context (RQ3).

Upon the completion of the PD program, the CoI scale (Ozturk, 2012) was administered (a four-point Likert scale with 34 items) to explore teachers' social, cognitive, and teaching presences in the learning context (RQ2). Post program interviews were conducted with the first-year language teachers in weeks 5 and 6 so as to to explore: (a) their experiences, interpretations and perceptions regarding SP, CP and TP in the learning context (b) areas and aspects in the PD program that address their PD needs (c) how the designed PDP may be further improved for such particular audience. (RQ2).

Throughout the PDP, the researcher had the role of a tutor and closely interacted with the community members individually or in groups asynchronously. In addition, the researcher had the role of a facilitator to (a) ignite the spirit of the community (b) to enhance cognitive and social presences in the learning context by crafting the design and facilitation stages accordingly (Garrison, 2017). The researcher and the community members actively used their Telegram group, called "öğrenciyi öğrenmeye bağlama" (translated into English as '*engaging students in the learning itself*') to ensure communication among the first-year language teachers and the researcher.

3.3.3 Data analysis. The qualitative data (coming from reflection forms and semi-structured interviews entitled as post-instruction interviews and post-program interviews) in the small group evaluation were analyzed using content analysis through open, axial, and selective coding. The qualitative data analysis was not left at the end of the study, rather conducted concurrently along with data collection in the analysis

stage (Morrison, Halet, Sheehan & Taylor, 2002) to be able to do the regroupings as needed and revisiting the data as well as to incorporate continual reflection, and make interpretations about the data (Creswell, 2007). This iterative and cyclical process made the data analysis stage go much more beyond “*a generic form of analysis*” (Creswell, 2009).

The quantitative data (coming from the CoI scale) were analyzed through descriptive statistics. Three factors present in the CoI Scale (Öztürk, 2012) are calculated separately. These factors (teaching presence, social presence and cognitive presence), whose minimum and maximum values are respectively 13-52, 9-36, and 12-48.

Taking a grounded approach to the analysis of data (Creswell, 2009), the data analysis stage entailed (1) open coding: the generation of categories of information to identify concepts (Williams & Moser, 2019) by continuously comparing and contrasting similar patterns in data to align coding and create codes to label them (Saldafia, 2009) (2) axial coding: refining, sifting, aligning and categorizing the themes intending to develop core codes to unite and aggregate open codes (Strauss, 1998) whilst creating thematic categorizations for selective coding simultaneously (Williams & Moser, 2019) (3) selective coding: connecting all categories from the axial coding in a cohesive manner to convey the unity of the data from the interconnection of all three categories (Creswell, 2009).

Validity in qualitative research refers to the researcher's striving to ensure the accuracy of findings by employing certain procedures (Gibbs, 2007). Several procedures were followed in the current study to ensure credibility whilst investigating and elaborating on the phenomenon through the description of distinct cases.

- a. *Triangulation*: Triangulation refers to a validity procedure where researchers strive to find “*convergence among multiple and different sources of information to form themes or categories*” (Creswell & Miller, 2000, p. 126) to convey the essence of the events taking place in the data collection process “*as truthfully as possible*” (Merriam, 1995). Based on the distinction made by Denzin (1978), four types of triangulation are possible across: (a) different data sources (b) different theories (c) different methods to collect data, and (d) different investigators. The researcher

performed triangulation through employing multiple data collection tools (reflection forms, post instruction interviews, post program interviews and the CoI scale) to triangulate the data from different methods to ensure the truthfulness of the themes, sub-themes and codes that arose from the data collection process.

- b. *Member Checks*: Depicted as the most significant technique to ensure credibility (Lincoln and Guba, 1985), this process refers to systematically checking the data with participants to review the findings to ensure that the interpretations reflect the core messages of the participant(s) (Merriam, 1995). One of the common strategies for member check is to convene a group meeting to discuss the accuracy of the interpretations of the qualitative findings. Alternatively, the researcher may also present the raw data to the participants (i.e., reflections) to get them to comment on its accuracy (Creswell & Miller, 2000). The researcher compiled several excerpts from the transcripts including her interpretations in a written format for individual participants and called for an individual meaning to eliminate any potential inhibition a group meeting may lead to. The comments and refinements from these meetings were incorporated into the final narrative with the aim of adding credibility to the current research through providing participants with opportunities to confirm the meaning as well as to reach to both the data and the interpretations in case of any misinterpretations that may have taken place in the transcription and data analysis process.
- c. *Peer Debriefing*: Merriam (1995) defines peer debriefing as the process where the researcher asks their peers or colleagues to comment on the plausibility of the findings through examining the data. This process is performed to enhance the accuracy of the emerging findings (Creswell, 2009). The researcher shared several excerpts from the current research findings collected through different data collection tools along with her interpretations to add credibility to the data analysis process. The first peer debriefer is an expert in Instructional Design and holds a PhD degree in the field of educational technology. The second peer debriefer is an instructor in the field of English language teaching and holds a PhD degree in the

field of educational technology. The researcher passed the raw data to the peer debriefers to discuss their interpretations. Inconsistencies among the coders were discussed reflecting the refinements in the coding frame to add credibility (Joffe & Yardley, 2003) and foster reflexivity among different coders.

- d. *Thick and Rich Descriptions*: This is another procedure performed in the present study to ensure credibility whilst describing the context, participants and the findings (Lincoln and Guba 1985; Denzin, 1989) within the scope of the present study. Stemming from a constructivist perspective, describing the dynamics (Denzin, 1989) in the present study are added to leverage the credibility of the present study with vivid details. Creswell & Miller (2000) report that the incorporation of rich findings help readers determine the applicability of the research findings to other contexts; thus, such vivid descriptions pertaining to the participants, data collection procedures, ADDIE steps regarding the formation of the designed PD program in phase I of the present study, the PD program itself, participants' experiences and reflections in the PD program as well as their teaching contexts have been added in this study.

3.4 Limitations of the Study

The present study is not without its limitations. First of all, there was a drop out in the small group evaluation in phase II due to the end of the year hustle and the expectations of the PD program to be met by first-year language teachers. Therefore, the number of participants in the PD program dropped from 18 to 10. Thus, the quantitative measures in the study regarding the CoI scale cannot be generalized and should only be approached as a complementary aid to the qualitative findings. Second of all, the researcher was able to conduct the small group evaluation in an online setting due to the fact that the participating language teachers were from different cities across Turkey. Despite the richness and variety it adds to the characteristics of the sample, this situation prevented the researcher from conducting lesson observations in the performance settings, which hurts the authenticity and variety of data sources to be documented in the small group evaluation. Thirdly, the generalizability of the study is limited to the participants' honesty in their responses in the reflection sessions, lesson

plans, post-instruction interviews, and post-program interviews. Furthermore, four first-year language teachers reported that they could not implement their lesson plans due to their end of the year responsibilities; therefore, the data coming from their lesson plans were excluded from the present study. Finally, a future study with the same methodological framework should be conducted with a control group to be able to compare the findings addressing research questions 1 and 2 since the current study does not have one.

3.5 Research Positionality

The researcher did not know any of the participating first-year language teachers before commencing the present study. Due to the sampling technique she has used deriving from the nature of the present study, she prioritized teachers' majors and teachers' having 0 to 1 year of experience as the pre-established criteria. Since all the participating teachers were working at state schools and given merits for participating in such professional development programs as a part of the system run by the Ministry of Education, their motivation to join the present study may not purely have been completely internal, in other words, may not have been totally for the sake of professional development. The PD program evident in the present study may be considered as a rigorous one in terms of the intensity of the program due to the evidence-based content, the amount of readings as complementary to the PD program (even though not all of them were mandatory, some participating teachers reported their workload and other responsibilities as obstacles to read and internalize them), the active role teachers had to take in the PD program as opposed to being passive recipients of knowledge, and finally the requirement of teachers to do a classroom implementation to enhance the CoI presences of their learners. Some participants may have dropped out of the PD program to pursue other PD programs with lighter workload and/or join one-shot seminars for the sake of obtaining merits for their records due to these reasons.

The majority of the remaining teachers showed perseverance in the PD program and reported that this was mainly attributed to the characteristics of the trainer. For instance, a participating teacher reported "*being glued to the PD program*" to the extent that she was thinking of the PD program even when she used breaks to pray, and so on. In this regard, it may be important to note that the trainer in the PD

program is a very enthusiastic and idealistic teacher and she has had more than 5 years of experience in the field of teacher development as well as her 18 years of teaching experience at several institutions. Personally, the trainer puts having strong bonds with learners and taking care of individual needs of her learners at the centre of her teaching philosophy, which almost perfectly aligns with the attributions of social presence towards the attainment of cognitive goals. The results that reflect such aspects (i.e., instructor intimacy and trusting atmosphere) may have been a reflection of the trainer's own characteristics, wide experience and teaching philosophy. Additionally, the trainer always prioritizes lesson preparation and design to raise the effectiveness of her teaching and employs several facilitation techniques in her teaching, which aligns with the categories of teaching presence. In this particular study, this was no longer different. However, the ADDIE framework used in phase I and employing the CoI framework in the design and implementation of the PD program may have added an additional dimension to the grounded nature of her work. Furthermore, the trainer in the present study normally does not communicate with every single of her students/trainees upon the completion of courses and/or modules; however, stays in touch with them so long as the conditions allow. However, in the present study, the trainer had to be more meticulous about communicating with every single participant to be able to follow up on their progress in line with the aims of the PD program and to complete her data collection procedures. This close follow-up may have also impacted the results regarding the first-year language teachers' experiences of all CoI presences in the PD program.

Chapter 4

Results

This chapter presents the findings and results of research question 2 and 3. Research question 2, whose scope is to explore the experiences of the first-year language teachers regarding in the professional development program designed for enhancing social, cognitive and teaching presences in their teaching contexts, employs a concurrent and sequential mixed method design in that largely qualitative data (obtained from the post-program interviews and reflection forms) were analyzed along with the quantitative data (obtained from the CoI scale) to address it. Research question 3, whose scope is to explore the aspects of the professional development program reflected in the performance context, utilizes the data coming from the lesson plans, post instruction meetings and reflection forms. The expectations of the first-year language teachers prior to their enrolment in the PD program and how these expectations are addressed by the designed PD program are critical to understand. They provide useful insights into exploring the two research questions since the CoI elements experienced in the learning context and reflected in the performance context by the first-year language teachers are analyzed, interpreted, and depicted through this lens. Then, the findings and results regarding the two research questions are respectively presented.

4.1 Addressing the First-Year Language Teachers' Expectations

The data coming from the post-program interviews revealed that the reasons why the first-year language teachers decided to enrol in the PD program mainly derived from two categories, one of which is their self-assessment of their professional development knowledge based on their pre-service teacher education, and the latter of which is their experiences with students in their teaching contexts.

The first-year language teachers' self-assessment of their own professional development prior to their enrolment in the PD program entailed: incoherence between practice and theory ($n = 8$), which manifested itself in lack of planning the steps of a lesson in a coherent manner ($n = 3$), insufficiency in technology integration ($n = 4$), lack of repertoire to enhance students' language skills ($n = 4$), not graduating from a

teaching department (that the pedagogical formation program did not meet professional developmental needs) ($n = 1$). The main drive behind all these self-assessment aspects was that the first-year language teachers reported studying major aspects pertaining to lesson planning, technology integration, and teaching strategies and techniques “to a certain extent” and “on purely a theoretical level” in their pre-education program: “we had not had practice opportunities in the pre-education program” (Aylin); due to this, they reported that they could not be sure if their practices in the classrooms were pedagogically appropriate. Aylin reported “...maybe what I am doing is completely useless...would like to learn the theoretical basis behind them... if there is any...” and that incoherence between practice and theory makes her feel “...as if I am trying to walk in a crowded room with no light...”. The data revealed that the first-year language teachers reported to have low self-efficacy due to the incoherence between practice and theory ($n = 4$): two quotations that reflect the low self-efficacy expressed by the first-year language teachers are as follows: “...maybe that I am a hopeless case...” (Fikret), “...I never have satisfaction and the feeling of relief at the end of my classes...I started doubting myself...” (Aybüke). One first-year language teacher reported that she enrolled in the PD program due to the pressure of the school management “...that is why I thought an online PD program would be the best to serve this purpose... thinking that I could just open Zoom and disappear... the trainer would simply read the slides anyway... my absence would not even be noticed...” (Erguvan).

The constructs pertaining to the first-year language teachers’ self-assessment of their pre-education program were also largely found to manifest themselves in their adverse experiences in their schools ($n = 8$) prior to their enrolment in the PD program. The first year language teachers expressed that there was a lack of social and cognitive engagement in their classrooms ($n = 6$); and that students’ motivation to learn was low ($n = 4$). Demet reported “...My students never ever get deeper in any of the topics we study...” and that she was “intrigued by the name of the training: *öğrenmeye bağla(n)ma* (translated into English as “engaging (students) into the learning process”) in that it promised teaching strategies and methods to engage students into the learning process”. The lack of engagement exerted itself in the performance context as rote learning ($n = 2$), indifference to learning ($n = 1$), silence and reluctance of students during the administration of production tasks ($n = 2$) and resistance to learning

(manifesting itself in the form of disruptive behaviors) ($n = 3$) based on the data coming from the post-program interviews.

As per how the PD program addresses the first-year language teachers' needs, eight first-year language teachers provided affirmative responses, which can be categorised as (a) the transferability of the training to the classrooms ($n = 4$); and (b) the alignment between their professional developmental needs and the content of the training ($n = 7$). The first-year language teachers reported that exchanging professional experiences through collaboration and classroom discussions ($n = 6$), open resources (of articles and resources used in the program) ($n = 3$), and the flexible nature of the CoI model (i.e., moving back and forth between the stages of the PIM) ($n = 2$) contributed to their professional developmental needs and helped them transfer the content of the training easily to their classrooms. Burak reported the benefit of exchanging experiences on his professional development as follows: *"...I cannot tell you how desperately I needed to learn more about classroom management. Our group activities provided me with lots of useful insights I'd never imagined..."*. Additionally, the first year language teachers reported that their takeaways from the content of the PD program and exchanging professional experiences in a heterogeneous setting (that the PD program had experienced language teachers and the language teachers had different majors i.e., Turkish, English and Arabic) helped them feel *"more secure"* about the field of teaching. Burak reported *"...I must have turned the notion of classroom management into a monster for myself. I feel more ready now to fight it..."* referring to his learning points regarding the reciprocity between learner engagement and classroom management, which constituted a large portion of the PD program. Fikret reported the similarity of his concerns with those of other language teachers' helped him feel more secure and *"less alone"*. Aylin reported that elaborating on the TPACK helped her ward off her prejudices and biases towards technology integration: *"... it is okay if I do not know all the tools... as long as I know a couple of them with their pedagogical implications into what I am teaching..."* as this indicates the impact of the PD program content on how secure she felt towards integrating technology. Finally, the data from the post instruction meetings revealed that the first-year language teachers self-assessed their professional knowledge at the end of the PD program ($n = 3$). Erguvan, who reported enrolling in the PD program involuntarily due to the school management, reported *"... seeing how the content was relevant to my*

needs... noticing how little I actually knew of all these... I was glued... I could not even leave it for a second wondering what would be the next to come...”. Demet reported “...This program showed me that there was a treasure that needed to be explored... and that I knew so little about it...I definitely should continue to explore it since the trainer gave us lots of resources and categories to look into...”.

4.2 The First-Year Language Teachers’ CoI Experiences in the PD Program

The qualitative data coming from the post-program interviews and reflection forms to address RQ2 are categorized as elements pertaining to the CoI presences and organized aligned with the characteristics of those. The data reveals that the majority of the first-year language teachers experience a high degree of social, cognitive, and teaching presences in the PD program (see Table 17), which is also confirmed with the quantitative data obtained from the CoI scale (see Table 18 and 19). The individual items of the CoI Scale pertaining to the TP, SP and CP dimensions are also shown in Table 19 along with their means and SDs.

Table 17

The CoI Presences Experienced by the Participants in the PD Program

Presences	Forms of Expressed Presences	Frequency
SP	Intimacy	9
	Interactivity	6
CP	Open resources	6
	Personal relevance	7
	Diversity of instructional strategies	9
TP	Instructional planning	9
	Facilitation	6

Table 18

Mean and SD of the CoI Presences of the First-Year Language Teachers

Factors	N	$\bar{X}$	SD
Teaching Presence	10	3.87	.26
Social Presence	10	3.54	.56
Cognitive Presence	10	3.82	.36

Table 19

Means and SDs of the Items in the CoI Scale

Category	Item	$\bar{X}$	SD
TP1	The instructor clearly communicated important course topics.	4.0	.00
TP2	The instructor clearly communicated important course goals.	4.0	.00
TP3	The instructor provided clear instructions on how to participate in course learning activities.	3.8	.42
TP4	The instructor clearly communicated important due dates/time frames for learning activities.	3.7	.44
TP5	The instructor was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn.	4.0	.00
TP6	The instructor was helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking.	3.8	.42
TP7	The instructor helped to keep course participants engaged and participating in productive dialogue.	4.0	.00
TP8	The instructor helped keep the course participants on task in a way that helped me to learn.	4.0	.00
TP9	The instructor encouraged course participants to explore new concepts in this course.	4.0	.00
TP10	Instructor actions reinforced the development of a sense of community among course participants.	3.8	.42
TP11	The instructor helped to focus discussion on relevant issues in a way that helped me to learn.	3.8	.42
TP12	The instructor provided feedback that helped me understand my strengths and weaknesses relative to the course's goals and objectives.	3.7	.46
TP13	The instructor provided feedback in a timely fashion.	3.7	.48
SP14	Getting to know other course participants gave me a sense of belonging in the course.	3.8	.42
SP15	I was able to form distinct impressions of some course participants.	3.7	.48
SP16	Online or web-based communication is an excellent medium for social interaction.	3.2	.63
SP17	I felt comfortable conversing through the online medium.	3.6	.51
SP18	I felt comfortable participating in the course discussions.	3.5	.52
SP19	I felt comfortable interacting with other course participants.	3.6	.51
SP20	I felt comfortable disagreeing with other course participants while still maintaining a sense of trust.	3.6	.51
SP21	I felt that my point of view was acknowledged by other course participants.	3.4	.72
SP22	Online discussions help me to develop a sense of collaboration.	3.4	.72
CP23	Problems posed increased my interest in course issues.	3.7	.48
CP24	Course activities piqued my curiosity.	3.9	.31
CP25	I felt motivated to explore content related questions.	3.9	.31
CP26	I utilised a variety of information sources to explore problems posed in this course.	3.8	.42
CP27	Brainstorming and finding relevant information helped me resolve content related questions.	3.8	.42
CP28	Online discussions were valuable in helping me appreciate different perspectives.	3.8	.42
CP29	Combining new information helped me answer questions raised in course activities.	3.8	.42
CP30	Learning activities helped me construct explanations/solutions.	3.9	.31
CP31	Reflection on course content and discussions helped me understand fundamental concepts in this class.	4.0	.00
CP32	I can describe ways to test and apply the knowledge created in this course.	3.7	.48
CP33	I have developed solutions to course problems that can be applied in practice.	3.7	.48
CP34	I can apply the knowledge created in this course to my work or other non-class related activities.	3.9	.31

4.2.1 Teaching presence experiences of the first-year language teachers in the PD program. The data coming from the post instruction meetings and reflection forms revealed that the first-year language teachers perceived a high degree of teaching presence to positively contribute to their learning processes in the form of instructional design and planning of the PD program, which unfold itself as the planning of instructional activities embedded in the program ($n = 9$), the sequence of the PD content and activities suited to the participants' needs ($n = 3$), the methodology of the PD model rooted in the CoI framework allowing teachers to experience the content themselves ($n = 4$), and communication of goals and competencies at the beginning and the end of the session(s) ($n = 5$). The data revealed that teaching presence was also perceived by the first-year language teachers in the form of facilitation ($n = 6$) where the following factors were found to function as moderators to enhance the effectiveness of the learning process: instructor intimacy ($n = 3$), humor ($n = 3$), scaffolding and feedback ($n = 5$), and the unstructured nature of the questions that allowed multiple perspectives thereby enhancing interaction ($n = 4$). The data indicated that teachers needed more time to make more sense of the materials ($n = 6$) and that teachers perceived that there should be more group activities to facilitate the learning process of the participants ($n = 3$). Based on the CoI survey, TP was the highest perceived CoI dimension by the participants. TP items 1-13 in the CoI scale were found to complement the qualitative findings with regard to the dimension and facilitation categories.

4.2.1.1 Instructional Planning to leverage the level of learning. The design and organization pertaining to the TP was perceived by the majority of the participants. Despite some limitations, the planning of instructional activities embedded in the PD program were found to be effective to help the participants construct meaning, make sense of the materials, capture a holistic understanding of the content, and reach exploration and integration stages moderated by (a) a heterogeneous PD context where the experienced participants (i.e. experienced language teachers and guest speakers) interact with the first-year language teachers (b) the diversity created by the presence of language teachers with diverse majors in the PD program.

Havva reported that seeing the essence of the subject matter through different activities helped her “*visualize what can be done to meet the needs of her students*”

indicating the impact of this diversity on her exploration and integration levels. Erguvan, referring to the diversity notion, focused on the contribution of the diversity of the presentation and assessment techniques adding that *“I do not feel good about my own”*. She continued *“seeing how teachers from different majors approached this diversity and hearing how they planned to implement them in their own schools gave me inspiration”* referring to the positive impact of the heterogeneous context on her exploration of the subject matter.

Referring to the methodology of the CoI model in which the participants experienced the PD content themselves, Erguvan reported that experiencing the content during the PD program helped her develop empathy for her students' learning processes. Likewise, Berkan expressed *“a picture is worth one thousand words”*, drawing an analogy to describe the notion of experiencing the content himself in the PD program *“what I learned would have never sunk in if it was otherwise”*. Berkan referred to this aspect *“as the most valuable learning experience”* he had in the PD program. Aylin, similarly, shared *“we literally learned through experiencing... it would have never sunk in otherwise”*, referring to the contribution of this implementation on her perceived SP as well. Erguvan, Berkan, Aylin and Aybüke shared that participants' experiencing the PD content, rather than being passively shown of the activities *“in a typical powerpoint slide”* (Aylin), helped them explore new topics smoothly, and kept them engaged in tasks. TP Items 8 and 9 in the CoI Scale ($\bar{X}$ = 4 and 4), focusing on engagement in tasks and exploration of new topics, complemented the qualitative findings.

The data revealed that the sequence of the PD content was suited to the participants' needs ($n = 3$). Demet perceived that the sequence of the PD content *“allowed us to build the knowledge on top of another in a logical flow”*. Referring to the synchronic coherence of the PD program, Demet continued *“the sessions complemented one another... had we started from the last session and reverted back to the first ones, the impact would not have been the same”*. Aybüke also appreciated the sequence of the PD content and shared that the spread of the content and activities helped her integrate the topics with one another and her own experiences to a certain degree.

Post instruction meetings and reflection forms ($n = 5$) revealed the impact of the trainer's communicating session goals and competencies on the participants'

making sense of the material. Fikret indicated that the communication of goals and competencies in the PD program increased his motivation. Strikingly, he shared *“I did research to prepare myself for the next PD sessions”* referring to the goals shared prior to the subsequent sessions. The PD program contained the communication of goals at the beginning; learned competencies at the end as well as the goals of the subsequent sessions. Berkan also referred to them as *“check points”* for himself and added that these helped him regulate his studies during the PD program. Merve stated that the competency slides gave her *“...satisfaction as these served as sort of an accomplishment list at the end...”*. TP items 1,2, and 4 focusing on the communication of course topics, goals, and frames for learning activities ($\bar{X} = 4, 4, \text{ and } 3.7$) also complemented the qualitative findings.

As per the design and organization aspect of the PD program, 6 participants expressed that they needed more time to make sense of the materials due to the depth of the topics in the program. Demet, appreciating the CoI model in that she could experience the content herself to explore and integrate expressed *“we could not experience all the content due to time limitations... the trainer did not want to interrupt us as we were sharing opinions...this (experiencing the content) was the most striking feature of the program, which makes me think the whole program should have lasted longer...”*. 3 participants expressed that more group activities could be incorporated to facilitate their learning processes of the first-year language teachers. Berkan added *“the allocated time in the group activities should also have been longer”* referring to the time limitations of the PD program. As per the asynchronous group activities, Demet critiqued the group work in the asynchronous tasks expressing that *“...I would actually prefer to work alone as I go back and forth between the steps in the materials you shared with us...It could be just me...”*. 4 participants expressed their preference towards the incorporation of a face-to-face component in the PD program to enhance the establishment of CP and TP *“it could lead to even more sharing and we could create a stronger bond”* (Berkan). Merve scrutinizing the implementation process in the PD program where teachers had to create their own plans in their classroom to enhance the CoI presences of their students expressed that this component should have been mandatory, not voluntary. She added *“there could have been more lesson plans for us to benefit from and teachers would have understood the significance of the program better this way”*. Finally, Aylin shared her concerns over the discussion

questions raised in online synchronous sessions stating that “...*Sometimes I needed more time to think and reorganize my thoughts...*” despite the advantages she has perceived.

4.2.1.2 Facilitation of the trainer to support the learning processes. The data showed that the first-year language teachers perceived a high degree of teacher facilitation in the support and encouragement they perceived throughout the PD program. Intimacy was found to enhance the effectiveness of the facilitation in the program ($n = 3$). Berkan, referring to the trainer’s intimacy as a moderating factor to enhance the effectiveness of the PD program, shared “*had encouragement from the trainer been done with a frowning face, the dialogues would not have been that deep*”. Aylin’s response also complemented the importance of the intimacy in the facilitation perceived by the participants: “*nobody received a hurtful comment... our only aim was exploring and understanding...*”. Humor was also found to be a moderating factor to enhance the quality of facilitation in the PD program ($n = 3$). Aylin continued “*the fun moments in the PD program kept us going further in the discussions*” emphasizing the importance of the delivery of the PD program in participants’ native tongue. She concluded that “*If the training had been done in English, we may not have experienced these subtle jokes and word plays*”.

The presence of scaffolding and feedback was also found to facilitate the learning processes of the participants ($n = 5$). Derya and Fikret expressed the importance of receiving feedback on the PD components on their understanding of the materials. The data also revealed that the systematic organization of the PD materials in an open platform contributed to the exploration and integration stages of learning allowing the participants to discover and study the materials at their convenience. The cheat sheets and the open resources were perceived as scaffolds of the PD program on the organization level. Derya referred to the latter as “*something to hold onto as I was trying to discover the topics*”. The gradual complexity of the materials ($n = 1$), the clarity of instructions delivered prior to the administration of exploration tasks ($n = 3$), the ICQs (instruction checking questions) upon the delivery of instructions ($n = 2$) were perceived as scaffolds by the first-year language teachers. Items 3, 6, 12 and 13 in the CoI Scale (respectively $\bar{X} = 3.8, 3.8, 3.7$ and 3.7), focusing on the role of

feedback as well as the trainer's guidance and support on the learners' constructing meaning, complemented the qualitative findings.

The first-year language teachers reported the positive impact of unstructured questions on facilitating interaction and construction of meaning ($n = 4$). Demet reported that she "*felt*" the planning in terms of facilitating the participants' exploration processes in the choice of questions spread in the PD program: "*the posed questions caused a natural shift and helped us engage in fruitful dialogues*". Havva, referring to the controversial questions on cognitive load, expressed that they helped her identify areas for improvement for her own professional knowledge. Finally, Aylin shared: "...*The questions were really powerful... They helped me dive into deeper aspects regarding what we have been discussing...*" adding that "...*helped us engage in meaningful interactions...*". Item 5, 7, 10 and 11 ($\bar{X} = 4, 4, 3.8$ and 3.8) focusing on the role of discussions and dialogues on the construction of meaning and facilitation of learning confirmed the qualitative findings.

4.2.2 Social presence experiences of the first-year language teachers in the PD program. The data coming from the post program interviews and reflection forms revealed that the social presence experience of the first-year language teachers manifested itself in the form of *intimacy* and *interactivity*. The categories that unfold themselves under these themes are also complemented with the quantitative findings. Overall, the high degree of TP perceived by the first-year language teachers was found to be a catalyst for the establishment of the perceived SP in the learning context.

4.2.2.1 Intimacy to engender a trusting atmosphere, self-projection and open communication. Intimacy was found to be a common theme based on the post-program interviews ($n = 7$) and reflection forms ($n = 4$). The data revealed that the trainer's positive attitude towards the first-year language teachers ($n = 3$), close monitoring in the sense of addressing first-year language teachers' needs and concerns during the PD sessions ($n = 4$) and frequent asynchronous communication ($n = 3$) contributed to the establishment of the SP in the learning context. It was found that the intimacy served as a moderating factor in the establishment of a trusting atmosphere, which the data indicated to be a sine qua non based on the perceptions of the first-year language teachers to learn effectively ($n = 6$).

“I believe in the power of smiling” a quote from Aybüke’s interview was found to indicate the impact of intimacy in that she continued to share *“it just makes you engaged in the material, helps you get rid of your anxiety, pre-set prejudices...only a smile can do that...”*. Aybüke, having observed *“to her surprise”* that the teachers in her school *“had high resistance to learning”* added that *“the positive atmosphere created by this situation left everyone unarmed”* referring to the openness of the experienced language teachers who participated in the PD program. Likewise, Erguvan reported *“but for this warmth, I would have just left Zoom running pretending I was there”* elaborating on the importance of this intimacy on her cognitive engagement. Aylin shared that the positive attitude of the trainer made her *“I was literally in a physical classroom... not actually alone in my living room...”* which indicated that the positive attitude in the PD program lessened the potential transactional distance for Aylin. Six first-year language teachers indicated that instructor immediacy was a prerequisite for the establishment of a trusting atmosphere in the PD program. Demet reported *“I would have never turned on my camera on my commute if I had not felt this warmth from the trainer”* and drew an analogy of the PD program depicting it as *“a feast”*: *“...If there was no sincerity, nobody would have the appetite to eat.”*

Four first-year language teachers referred to the importance of close monitoring on the establishment of the SP. Fikret shared *“my questions were always addressed in the sessions”*, adding that *“I felt very special and included”* referring to the impact of this on her sense of belonging in the PD program. Merve observed that the trainer *“made use of the getting to know activities”* for the sake of the establishment of the SP in the classroom. She continued *“I felt pleasantly surprised when the trainer referred to what we shared about ourselves in the subsequent sessions”* referring to the trainer’s mentioning of Dostoyevski, one of Merve’s favorite authors, in the following week. Erguvan shared *“your attention to even the tiniest details created a sharing atmosphere in that I started to hear personalized comments about myself from other teachers too”* reporting that *“these felt warm and cozy”* as the PD program was conducted in an online environment. Finally, Aybüke reported feeling *“very special”* when the trainer used the break times between the sessions to create conversations with the first-year language teachers and exchange ideas adding that *“it was very important that these exchanges were revisited later on by the trainer... it felt like I really was*

being heard". Aybüke and Erguvan added that *"it felt special"* when the trainer used the first names of the first-year language teachers in the PD program.

Three first-year language teachers indicated the importance of frequent asynchronous communication for their perceived SP. Derya reported *"I was thrilled when the trainer contacted me regarding the cheat sheet"* adding that this communication exchange *"made"* her *"want to come back to the PD the following week"* as she felt *"valued"*. Fikret stated that being able to contact the trainer outside the PD program and knowing that *"this would not be frowned upon"* made him feel *"at ease and comfortable while sharing his ideas and thoughts"*, which lessened *"the feeling of isolation"* he thought he *"would definitely experience"* prior to the PD program. Demet expressed her appreciation of being able to contact the trainer as needs emerged *"this was not mandatory, but I found myself doing it to explore more"*.

Reflection reports ($n = 4$) also confirmed the impact of the intimacy on the establishment of the SP. The quote by Merve *"I felt respected and valued when the trainer asked what we needed at the beginning of the session and revisited these points throughout the session"* indicated the impact of close monitoring of the trainer on the SP. Berkan shared *"I felt I was in a safe environment from the first minute seeing the trainer's smile. I knew there would be no judgement at all"* indicating the impact of the intimacy on Berkan's perceived SP. Four reflection forms of the first-year language teachers revealed the impact of humour on group cohesion: *"If there had not been these contagious smiles, we would not have had that much fun as a group as we were working on tasks and exchanging ideas."* (Burak) indicating the impact of the trainers' and participants' positive attitudes on the establishment of the SP through the presence of humour.

4.2.2.2 Interactivity to foster communication. Interactivity element contributing to the establishment of the SP in the learning context was found to have its roots in the nature of the tasks ($n = 5$) as well as in the nature of the social context in the PD program ($n = 4$) based on the data coming from the post-program interviews and reflection forms. The aspects emerging in the qualitative data with regard to the positive impacts of interactivity on the first-year language teachers' perceived SP was also confirmed with the quantitative data. Finally, the qualitative data revealed that the

aspects pertaining to the interactivity contributed to the perceived SP of the first-year language teachers ($n = 6$).

As per the nature of the tasks, Fikret, Erguvan, Aybüke, Havva and Burak indicated the importance of the incorporation of getting to know activities on their feeling at ease in terms of expressing themselves and communicating with the group members. Fikret drew an analogy on incorporating getting to know activities, describing it as “*killing two birds with one stone*” in that it helped him understand the importance of sustaining interaction among learners and feel “*at ease*” while communicating with other members in the PD program. Similarly, Burak shared “*getting to know activities accelerated our adaptation.... we were just laughing together as we were doing our common task before we knew what was going on*”. Erguvan shared that “*the getting to know activity we administered in groups was a click moment for me as I felt that connection with others...*”. Item 14, specifically focusing on the impact of getting to know activities on participants’ sense of belonging complemented this finding ($\bar{X} = 3.8$). Furthermore, item 15, 17, 18, 19 and 20 in the CoI scale, the highest SP items in the CoI Scale based on the perceptions of the first-year language teachers ($\bar{X} = 3.7, 3.6, 3.5, 3.6$ and 3.6) also confirmed the establishment of the SP among the participants, indicating that the participants were at ease expressing themselves in the online environment and that interpersonal relationships emerged in the PD program.

Incorporation of the information gap through case-based scenarios ($n = 3$) and the administration of classroom discussions ($n = 4$) were also found to contribute to the establishment of the SP based on the data. The use of personalization (mainly in the form of referring to the struggles of the first-year language teachers) were found to have an impact on their expressions of ideas and interaction ($n = 3$). Three first-year language teachers indicated that the planning behind the case-based scenarios (referring to the nature of them as having no definitive right or wrong answers) lessened their anxiety and made them feel at ease expressing their own experiences, thoughts and interpretations. The post-program interview data coming from two first-year language teachers expressed that the activities rooted in such a design helped them create their own identities. Aybüke, referring to her moments as she “*freely*” shared her own experiences and ideas in the PD program, shared “*reflecting on my pre-education education, we were all equal...is it always good to be equal?...maybe not...*

being equal takes away your identity because you are just somebody with no name... ”. Referring to the task design, she continued “*you started with an intriguing scenario saying that the answers would change...*” and added that this meant “*there would be no judgement*” for her. Aybüke concluded that her expression of ideas through such activities helped her create her own identity: “*I was not just somebody, passively listening to the trainer. I was Aybüke (pronouncing her name) feeling comfortable to share my experiences, ask questions, explore some insightful teaching-related questions knowing that answers may vary...*”. The impact of task design on learners’ social presence, particularly creating a learning environment where learners feel their views acknowledged by others, is also reflected in item 21 ($\bar{X} = 3.4$)

Regarding the utilisation of the information gap through classroom discussions, four first-year language teachers shared positive experiences indicating the impact of the nature of the questions on their perceived SP in the PD program: “*The trainer rarely asked us if we had any questions. Instead, she made us interact through the intriguing nature of the questions you posed*” (Berkan). The data showed the impact of the nature of the questions on participants’ interaction with one another and the trainer. Three first-year language teachers reported that personalization piqued the interaction triggered by the nature of the questions. Derya shared an example referring to the engagement session elaborating on the cognitive load “*I sometimes felt gullible as I easily fell into the trap of agreeing with some statements based on my experiences... We had fun trying to convince one another...*”. Merve reported “*these questions were actually quite simple but contained something from our lives*” referring to one of the inputs of the PD program where the trainer referred to a relevant principle on cognitive load adding that “*I felt the urge to express what I thought*”. Aylin, referring to the impact of her personalization on her perceived SP, expressed “*This was our training. We were in every part of it. The challenges described were our challenges... The questions posed... We were actually the hidden characters of these questions*”. Aylin continued “*I am not a very shy person... But I would never picture myself being so relaxed and comfortable in an online PD program*”, concluding her remarks repeating what she had previously said “*this was our training*”.

As for the social context in the PD program, data coming from the post program interviews and reflection forms revealed that the heterogeneous nature of the PD program in terms of having (1) the mixture of experienced language teachers as well

as the first-year language teachers (2) language teachers from diverse backgrounds (imam hatip high school, secondary school and anatolian high school) and diverse majors (English, Turkish and Arabic) contributed to the establishment of open communication for the first-year language teachers ($n = 4$). The notion of heterogeneity of the training was approached by the first-year language teachers through the interactivity lens. Fikret, who reported having anxiety over the field of teaching due to his lack of experience, stated “...*I never knew that experienced teachers and other first-year language teachers would also have similar struggles like I do... That was a relief for me as I noticed I was not the only one...I actually was not alone...*”. Merve reported she felt “*more encouraged to share my own hearing the struggles of the experienced teachers*” and “*got inspired by their rich experiences*” concluding her remarks as “*this added to the richness of our context*”. Derya shared that the presence of language teachers from diverse majors and backgrounds broadened her horizon, and that richness helped her express her worries and concerns “*without being self-conscious*” adding “*in the hope of finding a remedy*” in online discussions. Finally, Burak reported “*when problems are shared, they are no longer problems*”. The data all indicated the impact of this variety on the first-year language teachers’ self-projection and the establishment of a risk-free environment in the PD program. The qualitative data was also complemented with Item 22 ($\bar{X} = 3.4$), which focused on the impact of online discussions on enhancing social presence.

The data revealed that the first-year language teachers would prefer a hybrid PD program, despite their positive experiences in the PD program ($n = 4$) in terms of the establishment of the SP. Aylin, Fikret, Aybüke and Merve reported that they would prefer to have at least one face to face session incorporated in the PD program. Fikret suggested “*the final session could have been face to face so that we would be more interactive sharing our experiences*”. Aylin, Aybüke and Berkan suggested that the first session of the PD program could have been face to face. Aylin suggested “*this would ease the adaptation process as we mostly worked together in the tasks spread out in the PD program*”. The data revealed that the first-year language teachers approached this from the lens of personal/ affective communication pertaining to the SP. Item 16 in the CoI scale, the lowest of all ($\bar{X} = 3.2$), also confirmed the preferences and tendencies of the first-year language teachers regarding the medium of instruction

in that they perceived online communication was not the best medium of instruction in terms of enhancing social presence.

4.2.3 Cognitive presence experiences of the first-year language teachers in the PD program. The post program interviews, and reflection forms revealed that the establishment of the SP and TP was a contributing factor to the establishment of the CP. The data revealed that provision of open resources to foster the construction of meaning ($n = 6$), personal relevance of the PD program to the participants' needs ($n = 7$) and the diversity of instructional strategies ($n = 9$) led to higher degrees of learning despite some limitations and facilitated the transfer of the first-year language teachers' takeaway to the performance context. The first-year language teachers expressed that they needed more time to internalize the topic, due to the depth of the content ($n = 2$); and that they needed more synchronous time to interact with the guest speakers in the PD program ($n = 3$) to make sense of the relatable experiences guest speakers offered from their expertise and field knowledge. The constructs pertaining to the qualitative data were also confirmed with the relevant items of the CoI scale.

4.2.3.1 Provision of open resources to foster the construction of meaning through scaffolding. Six first-year language teachers reported that the provision of open resources (i.e., materials, cheat sheets, lesson plans, articles, and activities) helped them make sense of the PD content in a deeper manner and increased their motivation to explore the content facilitating the learning process. Berkan, referring to the potential adverse impact of open resources on procrastination, reported that *"I would not have immediately tried out the hidden game activity, if I had not been provided with the cheat sheets and the guidance...I would probably postpone it to the next academic term"*. Similarly, Derya expressed that being provided with the cheat sheets prepared aligned with the objectives of the PD program helped her *"explore the previous content at a convenient time"* adding that she felt *"more ready and satisfied"* as she *"actually understood the materials binding it with the theoretical base being discussed in the PD program"*. Derya concluded *"if such resources had not been provided in such an organized way, I would not have taken such immediate action"*. Referring to the systematicity of the open resources, Aylin, Aybüke, and Erguvan also expressed their appreciation of the repository created by the trainer. Erguvan and Aybüke, appreciating the altruistic nature of the sharing materials, expressed that they

had already shared these materials with their colleagues in their personal networks. Item 26 in the CoI scale regarding utilizing a variety of resources to help explore the topics further also complement the qualitative findings regarding the provision of resources ($\bar{X} = 3.8$).

The data revealed that the provision of open resources had an impact on teachers' constructing meaning of the materials. Aylin, referring to the materials on Gagne's steps and binding it with the theoretical lens she learned in the technology integration session, reported: "*referring to recordings would not have created the same impact*" adding "*I benefited a lot from looking into these steps offered in the materials... They also caused me to be more ready for the classroom discussions to come...*". Furthermore, Aylin expressed that she had prepared questions to enhance the cognitive presence by modelling the material provided by the trainer "*to see if she could do it herself*". Aybüke shared "*the articles aligned with the PD objectives helped me understand our discussions more thoroughly*" referring to binding the practice with the theory. Finally, Fikret shared "*I gained practical insights and ideas by looking at the lesson plans created by the first-year language teachers*" adding that she got inspired and motivated to try out new ideas for his prospective classes.

4.2.3.2 Personal relevance of the PD program to pique interest and integrate knowledge with prior experiences. The data coming from the post program interviews and post reflection forms revealed that the relevance of the PD program materials to the first-year language teachers' own needs contributed to the establishment of the CP ($n = 7$) through increasing their interest in the subject matter ($n = 5$) and helping them explore the content and integrate it with their own experiences and prior knowledge ($n = 2$). Four participants reported that they needed more time to internalize the topics due to the depth of the content ($n = 2$) and to interact more with the guest speakers synchronously in the PD program ($n = 3$).

Merve expressed the impact of the personal relevance to her professional needs as "*...I suffer lack of engagement in my teaching context... That's why I was all ears...*" depicting her curiosity as she was referring to the content in session I and II as well as the asynchronous task assigned upon the completion of these sessions. Burak expressed his appreciation of the classroom management session indicating "*it is one of my weakest spots*". Burak added "*it was very interesting for me to hear a diverse*

approach to classroom management through an experienced guest speaker". Berkan, referring to his perceived incoherence between practice and theory due to graduating from a non-teaching department, expressed that the practical nature of the PD program *"...helped me understand the rationale behind the practices...exactly what I needed..."*.

Aylin, referring to the reciprocity between her professional needs and the content of the PD program expressed *"seeing my own challenges in the scenarios, I could easily integrate the new knowledge with my own experiences"* indicating the impact of the personal relevance on her integration. Similarly, Aybüke expressed *"familiar topics with fresh perspectives"* had an impact on her reconceptualization of certain concepts: *"the mini scenarios in the technology integration session made me revisit some of my classroom experiences in a different light..."*. Finally, Merve approached personal relevance concepts through the lens of the appropriate complexity of the materials for the level of the participants. Merve, referring to Krashen's Input hypothesis delivered in the PD program referring to the levels of engagement, reported *"it is important that the complexity level of the materials creates the urge for us to explore the content"*.

Two reflection forms, respectively from Derya and Erguvan, indicated the impact of personal relevance on the participants' interest level: *"Anything that can be realized in a classroom piqued my interest"*, *"I was very interested when relatable classroom experiences were shared"*. Four participants (Aylin, Aybüke, Havva and Burak) reported that the personal relevance of the PD program to their personal needs increased the likelihood of the transfer to the performance context. Item 23, 24 and 25 in the CoI Scale, which centred around the contribution of the relevance of the content on the participants' motivation and transfer, ($\bar{X} = 3.7, 3.9, \text{ and } 3.9$ respectively), indicates that quantitative data confirmed the qualitative data that emerged in light of these findings. Furthermore, the personal relevance of the PD content was found to ease the transferability for the teacher participants; item 32, 33 and 34 confirm this qualitative finding ($\bar{X} = 3.7, 3.7, \text{ and } 3.9$).

Aybüke and Berkan expressed their need for more time *"to digest the topics"* despite their personal relevance to their professional needs. Aybüke stated that *"the topics were so deep... I need more time on my own to internalise them, to try them out through trial and error"*. Berkan, Merve and Erguvan expressing their appreciation of

the guest speakers in that the perspectives coming from them were relatable stated that longer sessions would help them understand the content deeply and would allow more room for online synchronous discussions. Erguvan shared *“They have kindly shared with us that we could contact them through their emails.... I would actually prefer to be given more time to ask them questions in the actual program...”*.

4.2.3.3 Diversity of instructional strategies to promote higher levels of learning. Post-program interviews and reflection forms revealed that the diversity of instructional strategies utilised in the PD program contributed to the higher levels of learning ($n = 9$) through the establishment of the SP and TP. Utilisation of debates, classroom discussions, case-based scenarios were found to lead the participants naturally to the exploration and integration stages ($n = 4$); the cyclical implementation of the PIM led to sustainable curiosity ($n = 4$); and finally the incorporation of reflectivity was found to help the participants move towards the integration stage preparing them for the resolution stage ($n = 5$). Despite the benefits the diversity of instructional strategies had on the successful triggering event, exploration and integration stages, the data did not particularly indicate the impact of this diversity on the resolution stage. Item 27, 28, 29, 30 and 31 in the CoI scale confirmed the constructs emerging from the qualitative data ($\bar{X} = 3.8, 3.8, 3.8, 3.9$ and 4.0 respectively).

Demet referred to the impact of the debates, class discussions and case-based scenarios in the PD program on her construction of meaning as *“critical”* stating that they helped her understand how to approach situations rather than being provided with merely the right answers. She continued *“...I remember the trainer turning the questions back to us... when we were discussing a situation in which the teacher was using the colours to signify disruptive behaviour...”*, referring to a class discussion in the program, *“...the trainer, rather than simply giving us the recipe right away... asked us whether it is a good idea to emphasize the good or the poor examples...then, we continued to explore the pygmalion effect through a story with blanks...got to explore how much of an impact a teacher can potentially create on students...”*. Demet shared *“...all of these were happening in a natural way”* referring to her learning experience as *“a flow”* happening due to the interactive exchanges ignited by debates, class discussions and case-based scenarios based on her perceptions. She emphasized the

critical role of these activities for her learning process as they taught her *“how to think deeply and approach classroom situations from diverse perspectives”*. Berkan, who referred to the debates, classroom discussions, and case-based scenarios as being valuable learning experiences, perceived that learning was possible for him in a risk-free environment *“with no judgments”*. He emphasized the importance of the establishment of a risk-free environment to foster the effectiveness of such interactive exchanges in the PD program adding that *“the content is not everything”*. The fact that Berkan *“sometimes found the courage to participate in these discussions”* helped him integrate the new knowledge with his classroom experiences stating that *“I look at issues in a slightly different light”* based on his personal experiences.

Aybüke, echoing a sentence uttered in the PD program, shared *“the questions determine the destiny of the class in terms of its effectiveness”*. She continued *“I liked to fail at scenarios as it meant I was going to learn something new from experienced colleagues”* adding that *“...and I did not fear to fail...”* referring to the importance of a risk-free environment on her exploration and construction of meaning in the PD program. Aybüke and Demet expressed the importance of planning of materials to *“create this sharing climate”*. Aybüke continued *“questions having a narrower scope would not have created the same impact”*. Three reflection forms revealed the importance of class discussions and scenarios’ impact on piquing interest, exploration and integration: *“We were able to relate to our class experiences with some of the questions. Listening to what other teachers had to say about them was different and useful”*. Item 28 in the CoI Scale ($\bar{X} = 3.8$), focusing on the contribution of class discussions to help learners gain different perspectives, confirmed this qualitative finding.

The data revealed that the cyclical implementation of the PIM helped the first-year language teachers (1) feel motivated throughout the PD program through piquing their interest (2) reach the exploration and integration stages of learning. Aylin depicted the cyclical nature of the PIM as *“it gets me to be mentally active all the time”* adding that this alertness did not exhaust her as *“the intensity of the activities changed throughout the program”*. Aylin continued that the change in the rhythm of the activities made her feel *“intrigued and highly motivated”*. Referring to the nonlinear cycle of the PIM implemented in the PD program, Aylin shared *“after we have completed our classroom implementations, we found ourselves discussing the*

undiscovered again...reflections functioned as break times to make more sense of what we have been working on...” indicating the positive impact of the nonlinear implementation of the PIM on her meaning construction referring to the whole stage as “*a flow*”. Similarly, Merve referring to her learning experiences as “*a flow*” stated “*...I think to myself I understand the fundamentals of engagement... then we are assigned an activity that gets us to understand there is more to discover...*” referring to the frequent shifts between the exploration and triggering event concluded “*sometimes what is unsaid arouses more curiosity*” referring to the information gap element used in the implementation of the initial stages of the PIM. Item 27, 29 and 30 ($\bar{X} = 3.8, 3.8, 3.9$ respectively) in the CoI scale also confirmed the constructs emerging from the qualitative data in the light of participants’ constructing explanations and solutions through exchanging information and other interactivity elements.

Fikret and Erguvan shared that the PIM stages helped them empathize with their students in terms of their learning processes. Referring to the moments she felt intrigued by the presentation of the content, Erguvan shared “*if it feels right for me, it should feel right for students too*”. Erguvan, scrutinizing her presentation techniques, concluded “*a dry way of presenting would not get us to discuss further in this program*”. Erguvan continued the importance of going back and forth between the stages of the PIM on the integration level as “*I appreciated the constructivist nature of this PD program in that the trainer got us thinking of a previous point after a heated discussion to help us integrate the pieces*”.

Finally, the data revealed that reflection time allocated in the PD program was found to be useful by the first-year language teachers to help them integrate the new knowledge with the prior. Demet expressed that these moments helped her “*dream about*” what she could potentially do in her own classrooms, referring to the importance of being given time in the reflection activities. Demet continued that when the content was unfamiliar or “*too deep*” for her, she could actually have used more time to reflect during the PD session, which she sometimes could not due to the pacing of the program. Erguvan shared her appreciation of the mini reflection questions placed in the occasional intervals of the PD program in that “*...it helped me organize my thoughts mentally...generate applicable ideas... I needed these breaks...*”. Item 31

($\bar{X} = 4$) indicating the impact of reflection on course content and discussions on learning confirmed the themes emerging from the qualitative findings.

Despite the benefits expressed by the four first-year language teachers, the data did not reveal an impact of the diversity of instructional strategies on helping the participants move forward to the resolution stage. Erguvan shared “*I could not apply these new ideas to the extent I wished to do so*” due to “*the end of the year hustle*”. Fikret expressed that he needed more time and close monitoring “*even though my classroom implementation gave me hope*”. Fikret continued to add that he would really prefer to be observed by a trainer and be provided with structured feedback in a post-observation meeting for a successful transfer. Similarly, Burak expressed his preference to be observed by the trainer upon the completion of the PD program for his own professional development. Fikret expressed the need of time to look more into the theory referring to the PD and other academic resources. Aylin was content with her classroom implementation; however, she also expressed a need to read more articles within the scope of the PD program to reach higher levels of learning as well as to bridge the gap between theory and practice. She continued to add that a whole session on discussing the theoretical and practical implications of such articles could have helped her gain a deeper understanding of the subject matter in the PD program.

4.3 The Aspects of the PDP Reflected in the Performance Context

The aspects of the PD program reflected in the performance context of first-year language teachers were analyzed through examining the implementation lesson plans by the help of a lesson-plan evaluation rubric (originated from the Online Community of Inquiry Syllabus Rubric developed by Rogers & Haneghan, 2016) and consolidated with the constructs coming from the literature on the CoI model (Richardson, Arbaugh, Cleveland-Innes, Ice, Swan Garrison, 2014) and reflection forms, aligned with the constructs coming from the relevant literature (Garrison, 2017), spread in the weeks of 3 and 5 in the PD program. The data coming from the lesson plans, post instruction interviews, and reflection forms are categorized as elements in accordance with the CoI presences, organized and presented accordingly.

The reason why the analysis of the post instruction meeting transcriptions was incorporated into the lesson plan evaluation step was to gain better insights into the lesson plans to explore first-year language teachers’ transfer of the PD program in the

performance context. Post instruction meeting data entailed (a) teachers' enhancement of SP, CP, and/or TP in the performance context (b) their students' perceptions of SP, CP, and/or TP. The lesson plan evaluation coming from the lesson plan and post instruction meetings ($n = 6$) revealed that first-year language teachers were able to achieve the objectives of the PD program satisfactorily and carried out satisfactory attempts to enhance cognitive, teaching, and social presences of their learners in the performance context despite some limitations (see Table 20).

Table 20

The Score(s) of the Lesson Plans for Each Dimension

	Havva	Aylin	Fikret	Aybüke	Merve	Demet	Means
Cognitive Presence	4	5	3	5	5	5	4.5
Educational Technology	4	5	2	2	3	3	3.2
Learner Support	3	3	3	3	3	4	3.2
Social Presence	3	5	4	5	3	5	4.2
Teaching Presence	2	4	4	5	3	5	3.8
Means	3.2	4.4	3.2	4	3.4	4.4	

The central drive behind using the reflection forms regarding first-year language teachers' transfer was to explore their takeaways from the PD program and attempts to enhance cognitive, social, and teaching presences in the performance context. The reflection forms revealed that first-year language teachers ($n = 10$) were able to incorporate several aspects pertaining to teaching, cognitive, and social presences satisfactorily into their lessons by utilizing teaching presence as a catalyst to realize and enhance the latter (Lee, Looi, Faulkner, & Neale, 2020) (see Table 21)

Table 21

Elements of the CoI Presences Reflected in the Performance Context

Presences	Elements to engender the CoI presences	Frequency
Cognitive Presence	Information gap	5
	Students' contribution to the content of the lesson	6
	Reflectivity	4
Social Presence	Students' working towards a shared goal	5
	Personalisation	4
	Humour and emotions	6
Teaching Presence	Instructional planning	7
	Facilitating discourse	6

4.3.1 Cognitive presence in the performance context. The analysis of the lesson plans and post instruction meetings revealed that the incorporation of *the information gap, students' contribution to the shared knowledge and/or activities, and reflection* elements contributed to the enhancement of cognitive presence in the performance context of the first-year language teachers.

4.3.1.1 Information gap to initiate curiosity and exploration. Information gap element was used to trigger the curiosity of the learners and that led learners naturally to the exploration stage. In other words, the information gap element in the triggering event stage was found to engender the exploration stage itself. Havva incorporated different types of questions bearing her students' personal interests in mind into the game she has prepared with the intention of correcting the fossilized mistakes in the simple past tense. She incorporated the surprise elements through several types of questions (i.e., true/false, multiple choice and open ended) into miscellaneous topics based on learners interests. Her learners were using the target lingual structure as they strived to explore the target content. Aylin used the information gap element as her students were working on creating their own riddles and interacting with one another to find the answers for the riddles on their designated theme "public buildings". Likewise, Aybüke used the information gap element through creating a gamified activity to get her students to think about the punctuation and spelling rules to initiate discussions and interactions on the designated topic in the following stages of her lesson. One of the comments of the reviewers was "...*the information gap led to the exploration stage naturally when the content of the material was intriguing...*". The students' comments in line with this construct centered around remembering the content and being in the flow. For instance, Aylin's student stated that "...*I learn the things, the answers of which I could not find promptly. They stay with me...*". Three of her students in total commented on the effectiveness of "being in the flow" to better remember the target vocabulary. "...*I thought about the word bakery so much that I do not think I will ever forget it...*", "...*Time just flew by as we were trying to come up with answers to the general world knowledge questions... I feel better about the topic (the simple past tense), now...*" shows the critical role of being in the flow for students to learn effectively.

The reflection forms revealed the transfer of information gap through case-based scenarios and storytelling in the performance context. For instance, Burak reported that he used an excerpt from a Turkish novel leaving information blanks to get his students to think about possible endings. “...*The students tried very hard to guess what may have happened correctly...*”, which indicates the contribution of the information gap element on the triggering event and the exploration stages. Berkan, likewise, reported using gamified elements as an option for elicitation technique as he tried to get students to think of possible endings to Nasreddin Hoja’s jokes (a great philosopher and humorist in Turkish culture) to increase students’ cognitive engagement.

4.3.1.2 Learners’ contribution to the shared knowledge to enhance cognitive interaction and move students towards higher levels of learning. It was observed that learners’ construction of knowledge aligned with the purposes of the lesson led to higher levels of thinking, learning and engagement levels. Demet led her students to contribute to the lesson by getting them to find examples on the wrong use of Turkish language (i.e., spelling & punctuation errors and ambiguity) in their neighborhoods, streets, the places they go to and on the Internet. She had her students post these examples on an online sharing platform prior to the lesson. Learners, later on, discussed and elaborated on these visuals as a whole class in terms of the lingual aspects, Demet reported that “... *this activity made all my students alert and engaged in the lesson since they were curious about what their friends posted on the platform... they had so much fun looking at the visuals and guessing the mistakes in these photographs...*”. One of her students commented “...*Isn't it really sad that we make that many mistakes in our native tongue?*”, which made Demet very content as she described the richness of what students brought to the classrooms was “*a shocker*” for students as it helped them realize the commonality of mistakes made in students’ native language. The reviewers referred to the part as the occurrence of high levels of learning and interaction when students continued to correct language mistakes in the subsequent lessons and spontaneously brought up some examples even when their teacher did not particularly ask them to do so. Demet’s approach to the PIM was found to be cyclical in that she continued to sustain curiosity in her next lessons through using information gaps and getting students to create rules for common lingual

mistakes based on their occurrence. Learners' contribution to the shared content was found to be important in terms of helping students reach higher levels of learning and engagement when they were complemented by a follow up activity in the PIM cycle.

Reflecting the critical role of 'the follow up activities' after the exploration stage, Merve got her students to contribute to the shared knowledge through a backchannel tool by getting them to write on "the most important environmental issues across the world and their suggested solutions" prior to the lesson. Initiating a discussion on the environmental issues in the classroom, she noticed that her dependency on the coursebook for that particular lesson diminished since the students were already equipped with the target set of lexical items as they prepared for their tasks. This was consolidated through the classroom discussions that took place. Students' transfer of the lexical items was observed when they were able to complete a follow-up activity (Merve transferred *the alphabet game* she learned in the PD program to consolidate the lexical items students explored previously). The reviewers reported that "*integrating activities prior to the lesson and during the lesson through combining several activities from the PD program adapted to particular lesson objectives*" showed a high degree of CP transfer and added that the PD program had an impact on Merve's transferring CP into her class.

When the triggering event was evident in the lesson plans, it was observed that it naturally led to the exploration stage amongst learners. Learners' contribution to the lesson was found to be an effective strategy to ignite curiosity, however, the data revealed that the triggering event was not enough on its own to achieve higher levels of learning. For example, Aylin used riddles to attract her students' attention on the designated topics. However, after the discussions in the PD program she decided that keeping students on the two early phases of the PIM was not sufficient to ensure deeper learning. The reviewers reported that Aylin employed a very effective strategy to enhance CP "*when she got students to create their own riddles*". The data revealed that when learners were in the process of creating content, they advanced through critical inquiry and "*gained ownership*" as well. The reviewers commented that the slight shift from the teacher-led activity to a student-led activity changed the level of engagement "*drastically*" in Aylin's class and this was reported as a successful transfer of the CP in the performance context.

Finally, Aybüke's lesson was found to be effective in triggering the curiosity of learners through getting students to prepare problematic questions in groups and integrating those into a game. As Aybüke commented, students' own contribution to the content of the lesson "... *helped the students gain ownership of the lesson...*". She also added that her students were "...*very intrigued and proud at the same time as their friends had difficulty answering questions they had prepared...*". The reviewers commented that "*the fact that students got excited and had cognitive investment in the material*" contributed to higher levels of cognitive presence since the students were involved in the creation of the content beyond merely applying the knowledge but rather "*evaluating its accuracy and appropriacy on both lingual and semantic levels*". This aspect was also complemented with reflection forms in that a first-year language teacher reported that he decided to give more work and responsibility to the students in terms of letting them contribute to the content of the lesson stating that "...*I came to understand that I am doing more harm than good when I am doing the work instead of them. I should just let them get their hands dirty a little bit...*". Furthermore, another first-year language teacher shared that she used the personalization technique to allow room for "students' opinions and contributions" on the sports unit and this technique helped her students become more "*invested and cognitively engaged*" in the lesson.

4.3.1.3 Reflective elements to promote higher levels of learning. A pattern in the first-year language teachers' lesson plans indicated the importance of incorporating reflective elements into the lessons to enhance CP. Scrutinizing her technology integration approach, Aybüke reported that each activity that leads students to exploration should conclude with a "reflection time" otherwise "*the activity and the fun that comes with the activity would be the goal itself, not the means*". At that point she emphasized that she benefited from the questions to enhance CP (an activity from the PD program centered around enhancing CP through discussion questions) and could easily adapt them suited to her students' levels and the learning objectives. For instance, she posed questions such as "*share a new thing you have learned from this lesson; share how you were able to understand a confusing point in today's lesson; share a mistake you do not want to repeat again*". The reviewers commented that such reflective elements in the lesson served as a smooth transition to move learners beyond mere exploration and added that discussion and reflection questions played a critical

role determining the “*direction of students' levels of learning*”. One of her student’s reflections on this shows the importance of incorporating such elements for better learning “...*thinking of interesting questions makes me understand that I have actually learned stuff...*”. Havva, who was not particularly content with her lesson as she could not devote sufficient time to assigning students’ roles and responsibilities in the group reported that the part where her students visualized their understanding on the simple past tense” through slogans and posters was “*what leveraged the quality of this lesson in terms of the CP*”. She reported that she could not have achieved this higher level of learning but for the reflection questions.

Three reflection forms revealed that classroom discussions to help their students move forward to higher levels of learning in their classes was employed in the first-year teachers’ teaching contexts. Getting students to complete a missing story, discussing the characters’ feelings in a story, asking students to write questions based on answers rather than letting them simply answer the questions, asking students hypothetical questions such as “If you had the power to improve the planet, what would be your one move, and why?” helped them be “*intrigued*”, “*invested*” and led to an increase in “*student-student and student-content interaction*” as stated by the reviewers. Fikret, Aylin and Aybüke who incorporated discussion questions into their lesson plans emphasized the importance of giving students sufficient time to elicit more quality answers. To that end they stated that the “*think, pair, share*” strategy worked well to leverage the quality of classroom discussions. The reviewers also agreed on the importance of the provision of time for students before dwelling on classroom discussions.

4.3.2 Social presence in the performance context. Analysis of the lesson plans and post instruction meetings revealed that *working towards a shared goal*, *personalization*, and *humor* were dimensions contributing to social presence of the learners in the performance context. These dimensions were also confirmed with the data obtained from the reflection forms of first-year language teachers.

4.3.2.1 Working towards a shared goal to promote affective/personal communication and group cohesion. The data revealed that group activities that have students work toward a shared goal contributed to SP in the performance context of first-year language teachers. Havva, scrutinizing her lesson where she integrated a

gamified tool assigning students different roles (i.e., keeper, writer and researcher), emphasized the importance of “*assigning roles and responsibilities*” prior to administering the activity. She reported that “*being assigned certain tasks and roles within a group helped my students reach rapport within the group*” and reflected back on her lesson stating that she should have allocated longer time for this component as it is critical for the establishment of the group unity. The importance of assigning roles and responsibilities within the group was also confirmed by the reviewers. They reported that assigning roles to the students is a pivotal part as students work towards a shared goal and added “*...this aspect should definitely be emphasized in all PD programs...*”

Aybüke incorporated this aspect into her lesson plan through getting students to create questions as groups, in which each student had roles of researching punctuation and spelling rules, writing questions, creating an answer key and so on. Aybüke approached assigning roles and responsibilities cautiously stating that the roles and responsibilities should be “*structured and well-defined*” at the beginning if students are not used to conducting group activities. In light of this, the experts also added that the data revealed the merits of assigning roles and responsibilities in a well-defined manner and that it had a positive impact on the establishment of a positive learning climate and a risk-free environment. The relevant comments of students pertaining to this were “*...Helping my friends in the group made me feel very good...*” and “*...I did not feel scared of making mistakes. We were together in this...*”.

The experts reported that the design of the activities played a crucial role in the establishment of SP. The design of group activities allocating certain responsibilities and roles for students allowed room for group rapport and individualization as well. As stated by Aylin dwelling on her classroom implementation experience “*group activities where students are given particular roles provide great opportunities for students to get to know their personal strengths*”. The reviewers viewed this aspect as a contributor to SP stating that “*giving room for individualization in a group activity leads students to express their emotions and feelings freely*”. This aspect was found to be salient in Aybüke’s lesson in that she observed “*even the least active students were involved in the lesson asking their friends what they thought of their question in general and how they were able to write up that question... that never happened before...*”. Thus, the reviewers concluded that the design of group activities entailing

individualized tasks in their breakdowns of roles and responsibilities was effective in the establishment of SP.

Two first-year language teachers reported in their reflection forms that the incorporation of well-designed group work with certain roles and responsibilities also contributed positively to their classroom management. They expressed that well-designed group work activities enhanced group cohesion when *“students were interacting around a common goal whilst fulfilling their assigned duties individually”*.

4.3.2.2 Personalisation to enhance social engagement and moderate cognitive engagement. Personalization, being referred to as the aspect that leads students to express their own ideas, thoughts, and emotions, was found to contribute to the SP in the performance context. Aylin benefited from this aspect as she gave her students the freedom of choice to create the content within a designated theme. Her students' reflections showed that students perceive that they learn better as they have an opportunity to express their ideas from their personal stances and experiences. For example, one student commented that *“...When it was my turn to talk about what I wrote, I asked my friends questions and I also learned through these questions-answers...”*. Fikret incorporated the freedom of choice element into his lesson as he asked students to choose a fable and write a different ending for it. He added *“...I have never seen this level of engagement in our lesson discussions before...”*. Fikret, criticizing himself for his lack of experience and puzzlement in his silent class, reflected back on his lesson stating that *“...I think there is still hope for me to do better in my prospective classes...”*. The reviewers found this quotation important and emphasized that the data showed the impact of the PD program in Fikret's transfer as well as the critical role of task design in the establishment of SP.

The data coming from Fikret's lesson plan and post instruction meeting indicated that the level of CP was not very high for some students as *“a few of them simply used a translating tool to create endings for their fables”*, implying that they did not invest in the task cognitively prior to the lesson. However, the data revealed that these students were emotionally and cognitively present in the lesson as they were describing their fables and their friends were asking questions to them about the fable. As Fikret added *“they were doing their best”* despite their lingual incapacabilities. The reviewers commented that this showed the impact of personalization on SP and added

that “...the establishment of SP in that particular lesson triggered the establishment of CP as well...”.

Merve and Demet incorporated personalization into their lessons as they allowed room in their designs of activities for students to share their personal experiences, beliefs, thoughts and perceptions. Merve used the personalization element through getting students to express their ideas on environmental issues and solutions; Demet used this element through getting students to bring realia to the classroom from their neighborhoods, homes and/or the Internet. The reviewers commented that the data coming from students through personalization in both lessons constituted the basis for sharing and exchange of ideas in a risk-free environment as a group. The reflection forms also revealed a general tendency towards personalization ($n = 4$) through creating room in the design of activities to allow students to express their own thoughts and ideas. Two first-year language teachers indicated that the amendments they made in the task design meant “*less dependency on the coursebook*” and this “*positively changed the course of the lesson in terms of student interaction*”.

4.3.2.3 Considering humor and emotions to enhance group cohesion and self-projection. The data showed that the humor element was brought about by the absence of key information, utilization of personalized content and gamified elements and that it led to the establishment of SP. Aylin, who reported that her students are “*notoriously silent and reluctant*”, observed a high degree of interaction as students were trying to challenge one another through the questions they created. The incorporation of “peer interaction” in the design of the task was found to be a substantial element to enhance the humor and ultimately the SP by the reviewers. This aspect was also complemented by the students’ comments in Aylin’s class that read “*I had fun with my friends while learning*”, “*I had so much fun when my teacher could not find the answer*”, “*I loved it when the answers were tricky and my friends and I were were searching for the answers*”, which indicate the impact of the information gap on learners’ interaction with their teachers, peers and the content. Likewise, Erguvan shared in her reflection form that she used the information gap element to trigger fun as she was teaching lexical items to her students. She reported that she used a gamified tool she learned from the PD program and the students exerted a high degree of interaction to find the missing letters and students “*felt at ease and had fun*” while

interacting with one another in the class *“instead of me just sharing the words in a dull and dry way”*.

Humor created through the personalized content was found to be established by (a) the task design (b) considering learners' interests through learner analysis. For instance, Berkan reported that he started incorporating jokes and small, fun anecdotes to his lessons (considering the theme of his lesson) with the intention of changing the rhythm of the class only to find out that 3 of his students volunteered to bring some jokes themselves without being asked to do so. Berkan reported that there was a high interaction and exchange of ideas amongst his students when the humor was there *“I feel like my students fall into the trap of learning and they do not even know it”*. Aybüke shared that she noticed the trainer (in the PD program) used the break times as an opportunity to get to know the first-year language teachers. She reported that she did the same and incorporated this information into her lessons through adapting the content to students' needs. She shared that she prepared small texts on youtubers, tennis champions and Hollywood Stars with information gaps and observed that her students felt *“important and included”* as she considered their personal interests and that *“...groups had so much fun trying to fill in these blanks in those texts...”*. *“Even small tricks and tiny details can change the course of the lesson”* was a comment made by Aylin who referred to her students' previous fun moments in the subsequent lessons. Aylin added *“it felt like humor created a common language between us”*.

Aybüke was content with the lesson in terms of student interaction and the attainment of learning objectives in that the students remembered the questions prepared by their peers in the subsequent lessons. She added students described these learning as *“... I remember the question X could not answer...”* and *“...I remember the consonant assimilation since Y gave a very funny answer...”* concluding that she found this *“striking and unusual”*. The reviewers commented that learners gained ownership of the content as they had fun together while learning. They concluded that *“these learning points are associated with interactions and the emotions students have”*. Derya included in her reflection form that she was planning on using the humor element into her lessons: *“We lose ourselves trying to catch up with the syllabus but including some humor would not hurt anyone”*. Derya shared that she started using a gamified tool as a nomination technique; however, despite the high degree of interaction and *“great excitement over the unknown”* she questioned this use. Derya

described her doubt as *“the excitement brought by the new web tool may not necessarily indicate SP or CP; however, could be simply a novelty effect...the depth of the students’ exchanges were not always how I imagined it to be in terms of our objectives...”*. The trainers found this quotation critical in that it showed that first-year language teachers started to form *“a cautious and grounded approach”* self-assessing their teaching practices. It was reported that this indicated a transfer of the PD program to the performance context as well as *“even a change in first-year language teachers’ teaching identity”*.

Fikret reported that he was *“so impressed with the Pygmalion effect in the PD program”* that he started thinking of ways to consider it in terms of his teaching practices and interactions with his students. He reported that he self-reflected his beliefs and perspectives of his students and *“tried really hard to be like an empty vessel”* to ward off his biases and prejudices. *“I caught myself not giving voices to all my students because of my biases”* said Fikret and added *“however, the trainer in the PD program never ignored a comment or a question”*. In the essence of this, Fikret started incorporating students’ comments in the lesson through allocation of the final 10 minutes and added that this increased the level of interaction and exchange of personal ideas in his class. He reported *“students’ emotions matter... nobody should feel singled out”*. The reviewers reported that the data coming from the lesson plans, post-instruction meetings and teacher reflection forms indicated that teachers’ incorporation of humor and consideration of students’ emotions contributed to a higher degree of SP, and this was achieved through the design and organization aspect pertaining to the TP.

4.3.3 Teaching presence in the performance context. Lesson plan analysis as well as the post instruction meetings revealed that teaching presence manifested itself in the performance context in the form of instructional planning and facilitating discourse despite some limitations. The teaching presence indicators in the data were found to serve as binding elements to contribute to the establishment of CP and SP. The data revealed that the first-year language teachers lacked facilitating discourse and direct instruction, to some degrees, in their classroom implementation; however, that they were aware of the missing elements pertaining to this and seek to find solutions through conducting more detailed planning to address this issue. Additionally, the data

also showed that unsatisfactory levels of facilitation and direct instruction had an adverse effect on the instructional planning. The reflection forms mainly revealed the transfer of TP in the form of instructional planning.

4.3.3.1 Instructional planning to promote social and cognitive presences.

Instructional planning comes across as a predominant theme evident in the lesson plans, post-instruction meetings and reflection forms. Instructional planning refers to the planning of instruction through incorporating materials, utilizing tools and adapting materials aligned with the educational objectives set for a particular lesson (Stepniak, 2019). The reviewers reported five out of six lesson plans revealed the presence of satisfactory planning -despite some limitations- by means of language teachers' proactive thinking in terms of designing and/or adjusting activities that serve the intended objectives. The reviewers reported that Aylin's lesson plan included a high degree of teaching presence since she paved the way for students to contribute to the shared knowledge aligned with the learning objectives by making adjustments in the main activity through shifting the focus by the help of "*a strategic move*". The change in Aylin's lesson plan "*after the inspiration she got from other first-year language teachers in the PD program*" in Aylin's words, was found to "*change the course of the lesson*" by the reviewers in that she completely turned the activity into being "*students-led*" by getting students to create riddles in the designated theme. Apart from this, Aylin incorporated the design of a follow-up classroom discussion with the intention of getting students to produce using the targeted lexical items as a complementary to her main activity. Since Aylin indicated that "*her students' reluctance to produce in the target language*" was a major and common issue, the reviewers considered her handling this common issue as well as facilitation of the lesson objective above the average in terms of manifesting teaching presence. The humour element Aylin "*deliberately considered*" in her planning was found to contribute to the constructed learning environment by the reviewers. Likewise, Aybüke's lesson was found to include a high degree of teaching presence in that she set very clear and transparent guidelines regarding the preparation of questions on orthographic rules in groups prior to the lesson. Students' contribution to the content through Aybüke's planning was considered having a mediating role to students' cognitive engagement as well as social presence in that she set each students' roles and

responsibilities very clearly prior to the activity and this pre-set group cohesion resulted in students' social and cognitive engagement during the actual implementation of the activity.

Demet reported that the common issue in her particular classroom was the reluctance of her learners, like Aylin, and shared that she had planned to alleviate this problem through *“a thorough planning”* prior to the lesson. Demet reported that her *“typical lesson aligned with the objective of revising spelling & punctuation errors, ambiguity in students' native language would probably be to let students simply go through follow-up exercises in the coursebook”*; however, she *“realized that a lot more needed to be done to enhance students' interaction and curiosity”*. Demet set clear guidelines prior to the lesson to specify learners' tasks and ensured that students familiarize themselves with the online platform she was planning to get them to use through a former activity. Demet reported that her intention of familiarizing students with this online platform prior to the implementation was *“decreasing the potential cognitive load”*. Her lesson plan was found to include a mixture of personalization, technology integration elements as well as the consideration of cognitive load. The reviewers reported that this showed a high degree of transfer in terms of teaching presence and added that *“the fact that she even considered the cognitive load...learning this concept from the PD program and contemplating it... indicates Demet's takeaway from the PD training in the evaluation level”*.

The reflection forms revealed that teachers' experiences of TP in the learning context had an impact on their establishing TP in the performance context. Fikret and Havva reported that they started using some key words to communicate the learning objectives at the onset of their lessons as well as competencies towards the end of their lessons aligned with the content and planning of their lessons. Berkan reported *“the competencies you shared in the PD program acted as a checkpoint for me to see where I was at”*; therefore, he *“added this to the classroom routine”* as well. Derya expressed that she shared the target words from her lesson at the end and *“asked students to evaluate their learning using the colors green, yellow and red depending on how they feel”*. The reviewers reported that the latter example indicated a high transfer of TP since *“necessary refinements were made to adapt the activities suited to the dynamics of the classroom and the cognitive and social needs of students”*. Three first-year language teachers reported that they started doing *“more detailed planning”* prior to

the lesson to enhance interaction and this caused them to become “*less dependent on the coursebook*”. Derya added how she felt about the notion of detailed planning stating that “*I came to understand that the effectiveness of a lesson is actually determined way earlier than the lesson actually starts*”.

4.3.3.2 Facilitating discourse to promote social and cognitive presences.

Facilitating discourse, a concept closely tied with establishing social presence and enhancing cognitive presence directed to realize instructional outcomes, manifested itself in the form of classroom discussions with limitations based on the data coming from the lesson plans, post-instruction interviews and reflection forms. The examiners found Aylin’s lesson plan above satisfactory in terms of facilitating discourse in that she incorporated inquiry stimulating questions to get her students to “*integrate the lesson objectives with their personal experiences and emotions*”. Aylin reported that she benefited from the PD program materials in terms of adapting questions to enhance CP in her class. The reviewers indicated that this showed a high level of transfer of the PD content to the performance context. Likewise, Merve expressed that she tried out incorporating discussion questions “*being inspired by the PD program*” to get her students to recycle the targeted lexical items “*in a comfortable environment*”. Merve’s post instruction meeting revealed that teacher-led discussions in the lesson worked as planned. However, when Merve spontaneously decided to facilitate student-led interactions in the lesson, it “*did not go as she wished*”. She reflected back on this moment stating that “*this failure could have been avoided through using a rubric*”. The reviewers reported that the unplanned aspect of the lesson revealed an important point to indicate “*the impact of instructional planning on facilitating discourse*”. They also added that Merve’s self-assessment of her own lesson’s lacking in the facilitation step and her conceptualization of the rubric as a remedy to fix this issue “*was valuable*”. It indicated the impact of the PD program on Merve’s professional development even though she could not put the latter into actual practice.

As for the impact of instructional planning on facilitating discourse, Havva’s lesson plan and post instruction meeting, which entailed the incorporation of technology to recycle syntax, revealed that she experienced difficulties to keep the desired task “*flow smoothly*” since she devoted insufficient time to assigning students roles and responsibilities prior to the administration of the activity. This issue was

interpreted as a possible adverse impact of lack of instructional planning on facilitating discourse by the reviewers. Fikret's lesson plan revealed that, even though the fables created by the students along with the discussion questions enhanced the cognitive and social interaction in the class, he expressed that he "*experienced some difficulties managing the discussions*". He reported "*some of my students kept their responses very long and scattered...I did not want to interrupt them... disrupted the flow of the lesson from time to time...*" to describe his challenges in that particular aspect of the lesson. One of Fikret's student's reflection also reflected the lack of direct instruction on their perception: "*...I wanted to share my ending in the lesson. Those who did not volunteer could have passed or we could all have been given equal time...*" The reviewers commented that Fikret was self-aware of the importance of planning in that he reflected on this moment as he stated that "*more planning on the preparation of questions could have prevented this*". Fikret's lesson plan and post instruction meeting also revealed that "*lack of direct instruction*" was a contributor to the lack of facilitating discourse as Fikret "*could not perform the required leadership*" to manage the extent and the timing of the arising responses according to the reviewers.

The data revealed that lack of facilitation and direct instruction impacted the instructional planning adversely. Erguvan shared in their reflection report that she experienced difficulties in terms of "*summarizing the key points in the discussions and moving the discussions towards the desired direction*", which indicated a low level of facilitating discourse and direct instruction, which "*obstructed the realization of the planned lesson*" according to the reviewers. The first-year language teacher went on to report experiencing challenges in ensuring the continuation of the classroom discussions and "*that part of the lesson getting off the track*" due to this situation, which revealed the impact of facilitation and direct instruction on instructional planning. Derya expressed that "*I could not curtail the effusive comments of those who dominate the discussions*" and this aspect, indicating a lack of facilitating discourse, was found to "*impact the instructional planning adversely*". The data coming from the first-year language teacher, when asked to reflect back on her challenging experience, read "*I found it challenging to manage the discussions without being dominant... I did not want to dominate...I let them do the talking as long as it took...*". According to the reviewers, this indicated a satisfactory level of facilitation despite the limitations in that "*the instructors' being too dominant would potentially diminish engagement and*

that she was trying to regulate this being aware of the possible reverse impacts”; however, the reviewers expressed that the facilitation aspect was not fully performed aligned with the objectives of this particular lesson.



Chapter 5

Discussion and Conclusion

This chapter presents the discussion on the major findings of the current study considering the research questions as its main scope in light of the relevant literature and the conclusions drawn. This research aimed at exploring the CoI elements experienced in the learning context (designed PD program) and reflected in the performance context by the first-year language teachers.

5.1 Discussion

Based on the findings and results of the current study, it is crucial to note that all the participating first-year language teachers were satisfied with how the designed PD program addressed their professional needs; furthermore, the data revealed that the first-year language teachers experienced high degrees of social, cognitive and teaching presences in the PD program and reflected their takeaways from the PD program satisfactorily to enhance the social, cognitive and teaching presences in the performance context despite some limitations. The congruence between the first-year language teachers' previous needs and what the designed PD program has to offer its intended audience may be regarded as the confirmation of the phase I findings in the study. This verification is important as phase II of the present study is a continuation of the work aggregated in phase I following the iterative and cyclical nature of the ADDIE framework (Peterson, 2003). The first-year language teachers' general satisfaction with the PD program may be expressed through the impact of cognitive presence and social presence in the designed PD program on course satisfaction (Lee and Faulkner, 2011; Lee, Looi, Faulkner, & Neale, 2020; Richardson and Swan, 2003).

How the PD program addresses the first-year language teachers' professional needs, which mainly centre around *the incoherence between theory and practice*, aligns with the relevant literature regarding the professional development (Mendez & Pérez-Gómez, 2017; Sariçoban, 2016; Seferoğlu, 2007) and offers important implications to address the limitations in the literature of professional development for language teachers. Incoherence between theory and practice is particularly important as this issue lends itself to content transmission where teachers simply copy and paste

i.e. activities, strategies (Mendez & Pérez-Gómez, 2017) without integrating knowledge and adapting the lesson suited to learners' needs. From the lens of instructional design and technology, this issue is approached as *lack of transfer*. Addressing this issue through a PD program designed through the CoI framework indicates the cultivation of the cognitive presence, which is critical to facilitate deep and meaningful learning (Garrison, 2017) in learning environments.

The high degrees of social, cognitive, and teaching presences perceived by the first-year language teachers in the designed PD program is a critical outcome since it signals the effectiveness of the CoI model in terms of fostering the quality of learning and teaching (Garrison, Anderson, and Archer, 2000). The resemblance between the experienced and the performed elements pertaining to the CoI presences on certain common grounds and the satisfactory enhancement of the CoI presences in the performance context is also particularly an important finding that indicates the first-year language teachers' making connections across the knowledge (Garrison & Arbaugh, 2007) obtained in the PD program and transferring this into their performance contexts. The practical implications arising from the scope of understanding the first-year language teachers' CoI experiences as well as analysing their endeavors and limitations to enhance the CoI presences in the performance context contributes to unveiling the practical implications in terms of utilizing the CoI model (Garrison, 2018).

5.1.1 Research question 1. The post program interviews, and reflection forms revealed that despite some limitations first-year language teachers perceived a high degree of social, cognitive, and teaching presence in the designed PD program, the results of which are consistent with the quantitative data. The aspects to promote the social presence were found to be intimacy and interactivity amongst the first-year language instructors. Cognitive presence was found to manifest itself through the establishment of TP (i.e., sharing resources and diverse instructional strategies and personal relevance of the topic) and SP (i.e., open communication). The first-year language teachers' perceptions did not signal going beyond the integration phase in the PIM cycle, despite the elaborations and reflections they had, the reasons of which are explained in depth. Finally, perceived TP, in the form of instructional planning and

facilitation of the trainer, was found to be a catalyst binding itself to social presence and cognitive presence (Bangert, 2008).

The intimacy aspect was mostly approached by the first-year language teachers through an instructional lens in the designed PD program. While three first-year language instructors reported the importance of the positive attitude of the instructor on the establishment of a trusting atmosphere, close monitoring of the trainer in terms of addressing issues and questions that arise in the PD program as well as frequent asynchronous communication to deal with any kind of issues aligned with the objectives of the designed PD program were found to be factors to contribute to the SP of the teachers. Intimacy, referring to verbal and nonverbal cues such as gestures, facial expressions, and body language (Gunawardena and Zittle, 1997), are core components in the establishment of the SP within a community (Short, Williams, & Christie, 1976). Considering Garrison's (2017) argument on the critical role of open communication to establish the SP as a support mechanism to promote the attainment of the objectives within a community, the positive attitude of the trainer may be considered important to set the learning environment for higher learning. Aybuke's quote on the impact of smiling on breaking potential teacher resistance "*the positive atmosphere created by this situation left everyone unarmed*" signals the importance of intimacy making the learning environment conducive to higher learning through the establishment of a risk-free environment. Referring to Aybuke's postulation on this potential resistance, Demet reported "*I would have never turned on my camera on my commute if I had not felt this warmth from the trainer*" confirming the critical role of positive trainer attitude to break potential teacher resistance. Demet's analogy to describe the PD program as "*a feast*" aligns with Garrison's (2017) argument on the critical role of open communication to foster deeper learning: "*If there was no sincerity, nobody would have the appetite to eat.*" The data revealed that intimacy could be a critical factor on retention and persistence. Erguvan, who reported joining the PD program due to the pressure of the school management, had a striking evaluation on the impact of intimacy on her persistence "*but for this warmth, I would have just left Zoom running pretending I was there*". Her post-program interview indicates that her persistence along with her social and (later) cognitive engagement was contingent upon the intimacy and positive atmosphere of the online learning environment.

Other aspects of the SP perceived by the first-year language teachers were found to be leaning more towards an instructional lens: close monitoring and frequent communication to address teachers' instructional concerns and needs in the PD program. In line with close monitoring, Derya expressed "*it was very important that these exchanges were revisited later on by the trainer*" referring to what she had shared with the trainer regarding her school experiences. Derya added that this encouraged her to attend the subsequent sessions, signaling the impact of SP on her persistence (Akyol & Garrison, 2008; Boston et al., 2009). Fikret expressed that being able to share his ideas during and outside the PD program knowing that "*this would not be frowned upon*" made him feel "*at ease and comfortable while sharing his ideas and thoughts*", which shows the impact of intimacy on the first-year language teachers' epistemic engagement through the establishment of a risk-free environment.

The epistemic engagement of the first-year language teachers through close monitoring and frequent communication was reported to be valuable when the talk was interpretive rather than prescriptive, which is also confirmed by the findings of Ouyang and Scharber, 2017. The dialogues emerging between the trainer and the first-year language teachers had a dynamic balance and were not performed for the sake of quantity to facilitate their learning (Moule, 2007). Demet's appreciation of the frequent communication with the trainer "*this was not mandatory, but I found myself doing it to explore more*" signals this interpretive, dynamic and context-bound nature of the communication (Moule, 2007) that moved her towards higher levels of cognitive engagement.

The establishment of SP is important to set the path for cognitive and teaching presence (Shea, Bidjeramo, 2008). The perceptions of the first-year language teachers of SP towards an instructional lens shows the critical role of SP to set for higher learning (Garrison, 2017) and that it is not just "*a feel good issue*" (p. 24). The present study also revealed that it was important to engender social presence (a) through a systematic course design (i.e. collaborative activities, classroom discussions, case-based scenarios) to enhance group cohesion that gets the learners to interact around group activities and tasks (Richardson et al., 2014) (b) the diverse nature of the social context in the PD program.

Aybüke's expression of her appreciation on the use of case-based scenarios shows the effect of the course design on her self-projection and cognitive engagement

“you started with an intriguing scenario saying that the answers would change...I was not just somebody, passively listening to the trainer. I was Aybüke (pronouncing her name) feeling comfortable to share my experiences, ask questions, explore some insightful teaching-related questions knowing that answers may vary...”. Berkan’s expression on the critical role of the questions *“The trainer rarely asked us if we had any questions. Instead, she made us interact through the intriguing nature of the questions you posed”* and Derya’s experiences on the role of humor and information gap on the group cohesion (Izmirli & Izmirli, 2019; Richardson et al., 2015) *“I sometimes felt gullible as I easily fell into the trap of agreeing with some statements based on my experiences...We had fun trying to convince one another...”* signals the systematicity in the course design to establish the SP through different approaches. This systematicity to enhance the SP is important to form a community of inquiry and indicates that the establishment of SP was not approached as a one-off task in the designed PD program, as also suggested by Garrison, 2007. Additionally, the purposes of the social presence enhancing activities entailing interactivity are aligned with the goals of the PD program, which indicates that CP is not overlooked at the expense of promoting SP (Garrison et al., 2001).

The getting to know activities embedded in the PD program including collaborative activities and classroom discussions were found to enhance the group cohesion amongst the first-year language teachers. Burak’s depiction of his experience regarding the getting to know activities *“getting to know activities accelerated our adaptation.... we were just laughing together as we were doing our common task before we knew what was going on”* indicates the role of task design in the form of introductory exercises in the PD program to enhance group cohesion (i.e. the first-year language teachers’ interacting around common tasks) (Richardson et al., 2014). The incorporation of the getting to know activities in the first week was appreciated by the participants in terms of its maintaining a trusting atmosphere in the learning environment, which confirms Garrison’s findings (2017) with regard to the importance of allocating such activities to develop relationships and trust. Fikret’s analogy to describe the benefits of such activities as *“killing two birds with one stone”* reveals an additional benefit he has experienced: understanding the critical role of maintaining interaction in the first session through experiencing it. This finding resonates with the nature of social presence being directed towards learning outcomes (Garrison, 2007)

reflecting academic goals and objectives in its design (Garrison, Cleveland-Innes & Fung, 2004).

The other forms of task design where SP manifests itself are through case-based scenarios and classroom discussions entailing the personalization element rooted in its design. The findings revealed that the personalization, in terms of addressing the needs and experiences of the participants, enhanced the SP of the participants. When personalisation was evident in the task design, an intricate task design or content was not required to establish SP: *these questions were actually quite simple but contained something from our lives*” (Merve) referring to the personal relevance of a scenario-based discussion *“I felt the urge to express what I thought”*. Opportunities for exchanging ideas and self-projection (Lowenthal & Parscal, 2008; Richardson et al., 2017) to enhance personal/ affective communication are perceived to be stemming from the nature of the tasks by the first-year language teachers: *“I sometimes felt gullible as I easily fell into the trap of agreeing with some statements based on my experiences...We had fun trying to convince one another...”*. Aybuke’s perception of the flexible nature of tasks *“...that the answers would change”* confirms the impact of open communication in the establishment of a risk-free environment through course design (Richardson et al., 2014) to enhance her SP: *“...that means there would be no judgement...”*.

The classroom discussions were found to engender the perceived SP in the first-year language teachers in terms of exchanging ideas and experiences. The synchronous nature of the classroom discussions which allowed the presence of emotions, non-verbal cues, responsiveness and the synchronicity caused by the mode of the held discussions (Sung & Mayer, 2012) may have contributed to the establishment of the SP addressing the possible limitations (i.e. synchronicity problem, lack of immediacy and lack of nonverbal communication) revealed by the research studies on the impact of discussion posts on the establishment of the SP (Ataş, 2021; Karen, 2010). Burak’s experience of his SP indicates his observance of the non-verbal cues as the participants move towards group cohesion *“If there had not been these contagious smiles, we would not have had that much fun as a group as we were working on tasks and exchanging ideas.”*. Additionally, the class size in the PD program (Week 1: 18, Week 2: 15; Week 3: 10) and the small number of participants in groups (maximum 5 participants) may have contributed to the establishment of SP in parallel with the research studies

postulating the adverse effects of large groups on interaction, intimacy and attention (Bertucci, Conte, Johnson & Johnson, 2010; Hamann, Pollock and Wilson, 2012). The majority of the first-year language teachers perceived high levels of SP (i.e., intimacy, group cohesion) during the administration of group work. It is noteworthy to mention that the number of participants in groups was deliberately kept small in the PD program.

As per the heterogeneity of the PD context in terms of the participants' having diverse backgrounds and departments, the data revealed that this diversity helped the participants ward off their anxiety and set beliefs "*...I never knew that experienced teachers and other first-year language teachers would also have similar struggles like I do...*" lessening the feeling of isolation "*that was a relief for me as I noticed I was not the only one...I actually was not alone...*" (Fikret). The data also revealed that such diversity positively contributed to the personal/affective aspect of the SP "*I felt more encouraged to share my own hearing the struggles of the experienced teachers*" (Merve). Due to the design and organization of the PD program, these exchanges, as expressed by Merve, were in the scope of professional development content aligned with the intended objectives. Therefore, the group composition evident in the PD context may have contributed to SP and CP of the participants in the PD context consisting of language teachers with varying characteristics (Lee & Lee, 2006).

The limitations of the perceived SP in terms of the first-year language teachers' preference towards the incorporation of at least one face-to-face session to ease the adaptation process from personal/ affective communication lens is in line with the research findings in favour of incorporating a face-to-face component in the implementation of the CoI model (Abrams, 2005; Vaughan, 2004). The addition of a face-to-face component to complement the PD program could aid participants in reaching higher levels of learning (Akyol, 2009; Vaughan and Garrison, 2005) and may possibly account for the limitations in the first-year language teachers' perception of reaching the resolution stage in their PIM cycle.

Provision of open resources was perceived as a facilitating aspect to enhance CP amongst the participants, which resonates with the nature of direct instruction in TP (Akyol, 2009). The systematicity behind the organization of PD program resources was rooted in the instructional planning of the program with the intention of aiding participants in making sense of the content, expressed by Derya as "*actually*

understood the materials binding it with the theoretical base being discussed in the PD program". The immediacy of the sharing of the materials (responding to the needs arising in the PD program as well as the synchronic coherence of the materials aligned with the objectives) helped first-year language teachers explore the content and integrate knowledge (Garrison & Arbaugh, 2007) following the sequence of the program: *"I benefited a lot from looking into these steps offered in the materials"* (Aylin). The provision of materials to aid participants in moving beyond the exploration is important as the integration stage was found to be best pursued in the personal world of the learners (i.e., individual assigned readings) (Garrison, 2003; Archer, 2010): *"...they helped me to explore the previous content at a convenient time..."* (Derya). Within the scope of sharing resources, the data interestingly revealed that sharing resources was perceived to decrease the procrastination of the first-year language teachers: *"I would not have immediately tried out the hidden game activity, if I had not been provided with the cheat sheets and the guidance..."* (Berkan). Finally, the data revealed that the systematicity in the sharing of materials aligned with the sequence of the PD program prepared first-year language teachers cognitively for the next sessions to come, adding leadership and structure to the program (Garrison and Cleveland-Innes, 2004). Given that participants need sufficient domain knowledge to be able to draw connections between concepts in the PD program (Richardson et al., 2009), the systematicity behind the resources may have avoided a potential metacognitive dilemma (contrary to *germane load* from the lens of instructional design and technology field) where first-year language teachers would have to draw these connections simultaneously as they were learning (Land, 2000; Sweller, Van Merriënboer, & Paas, 1998). Rather these resources were found to constitute a sound infrastructure for the first-year language teachers to base their mental connections on retrospectively and prospectively: *"...They (the materials) also caused me to be more ready for the classroom discussions..."* (Aylin), *"...they helped me to explore the previous content at a convenient time..."* (Derya).

The personal relevance of the PD content was found to enhance CP perceptions of the first-year language teachers through arousing curiosity and piquing their interest: *"...I suffer from my students' lack of engagement... That's why I was all ears..."* (Merve). This is aligned with Krzyszowska and Mavrommati's research study (2020) in that when the subject matter is relevant to the professional interest of

the participants, the learners perceive a higher level of CP. The quotes from first-year language teachers resonating with the core constructs of professional relevancy may as well be considered as the confirmation of the phase I analysis step aiming at exploring first-year language teachers' instructional needs (DeSimone & Werner, 2012): "...it is one of my weakest spots" (Burak) referring to classroom management, "exactly what I needed" (Berkan) referring to the practical implications and nature of the PD program. The relevancy of the PD content should also be approached from the complexity lens considering the needs and readiness of the intended audience. Likewise, the analysis step in the ADDIE framework complemented with the literature review on professional development may have contributed to reaching the optimum level of the materials in the PD program since the needs of the intended audience were taken into account whilst creating the instructional materials. For instance, the materials, even though they entailed personalization elements, were kept within the optimal proximity when related to daily life experiences of the participants (i.e., not being closely associated with typical patterns) as it may have caused the first-year language teachers to heavily rely on their prior knowledge without reaching a deep understanding and analysis of the PD content (Guo, Saab, Wu, & Admiraal, 2021). Similarly, the extent of the questions incorporated into the PD program were created in an unstructured fashion keeping the complexity of the materials and interaction at an optimal complexity level. This design aspect was considered to prevent the first-year language teachers from relying on their already so-called opinions so that they would not miss out potential opportunities to reach higher levels of CP (Darabi et al., 2011): "it is important that the complexity level in the materials creates the urge for us to explore the content" (Merve), "I sometimes felt gullible as I easily fell into the trap of agreeing with some statements based on my experiences..." (Derya).

With regard to the diversity of instructional strategies embedded in the PD program, data revealed the contribution of instructional strategies (i.e., debates, classroom discussions, case-based scenarios) to first-year language teachers' perceived CP through the establishment of open communication of SP (a risk-free environment). Demet, referring to the coherent interaction and discourse as "a flow" appreciated the sequence within the planning in debates, class discussions and case-based scenarios since she perceived it fostered her critical thinking (Garrison and Cleveland-Innes, 2005): "they taught me how to think deeply and approach classroom

situations from diverse perspectives". Furthermore, the cyclical implementation of the PIM was found to contribute positively to first-year language teachers' CP in that participants were provided with several opportunities to practise, express their thoughts and integrate in the course of the PD program (Akyol & Garrison, 2011): "...after we have completed our classroom implementations, we found ourselves discussing the undiscovered again..." (Aylin). Going back and forth between the stages of the PIM was found to enhance teachers' perceived CP in the triggering event dimension: "...I think to myself I understand the fundamentals of engagement... then we are assigned an activity that gets us to understand there is more to discover..." (Merve).

The nature of the task (i.e., not having a definite answer) was found to engender open communication leading to a social knowledge construction and argumentation cycles where participants collectively build on one another's knowledge (Garrison et al., 2000, Du & Wagner, 2007) in an unbiased, embracing manner (Hosler & Arend, 2012): "*I liked to fail at scenarios as it meant I was going to learn something new from experienced colleagues...and I did not fear to fail...*" (Aybüke). Facing different counterparts in the discussions, the first-year language teachers perceived their exposure to different ideas and approaches as positive in terms of their CP (Darabi et al., 2011): "*We were able to relate to our class experiences with some of the questions. Listening to what other teachers had to say about them was different and useful*". Considering the diversity of the social context (i.e. different majors and experience levels among the participants), this may have contributed to the utilitarian nature of the knowledge construction process amongst the participants (Sezgin, 2021) in the PD context. The incorporation of ill-structured tasks, without the provision of clear objectives and/ or direct questions (Darabi et al., 2011), was found to enhance CP of the first-year language teachers (Gašević et al., 2015): "*the posed questions caused a natural shift and helped us engage in fruitful dialogues*" (Demet), "*questions having a narrower scope would not have created the same impact*" (Aybüke). Finally, the incorporation of reflections in the PD program caused positive effects on first-year language teachers' cognitive presence perceptions: "*Reflections served as pauses to make more sense of what we have been working on...*" (Aylin). The design and organization pertaining to the TP element, that each stage of the PD program was complemented with a reflection activity, may have positively contributed to first-year

language teachers' perceived CP helping them mentally organize their knowledge and mental constructions in a coherent manner (Aktı & Turgut, 2021). Similarly, Erguvan's perceptions on the importance of reflection activities reflects the essence of reflectivity on her perceived CP: *"...It helped me organize my thoughts mentally...generate applicable ideas... I needed these breaks..."*

The incorporation of synchronous classroom discussions in the PD program was perceived as a contributing factor to the establishment of CP by the first-year language instructors and the close monitoring of the trainer was perceived to augment teachers' making sense of the PD content. The trainer's addressing of first-year language teachers' concerns and professional needs, not giving teachers a voice for the sake of giving but incorporating it into the PD content in a coherent manner, may have been possible due to the small size of the PD program (Week 1: 18, Week 2: 15; Week 3: 10) (Darabi et al., 2011). If the size of the PD program had been larger, this level of close monitoring and facilitation of classroom discussions on such individual basis may not have been plausible. The data also reveals that the engendering of personal/affective communication in SP may have contributed to the perceived CP among the participants (Garrison, 2017): *"...My questions were always addressed in the sessions...I felt very special and included..."* (Fikret).

Despite the advantages the synchronous oral classroom discussions and reflection activities bring in terms of enhancing CP through the establishment of SP, this may not have provided the first-year language teachers with the amount of time to internalise the content due to their synchronous nature. The discussions may serve as means to enhance the epistemic growth of the first-year language teachers when combined with time, formative feedback, and facilitation (Krzyszowska and Mavrommati, 2020). In this regard, text-based communication may have been preferred over oral discussions in the PD program considering the needed time to go beyond the exploration stage in the PIM cycle (Garrison et al., 2000). In essence with this, the data revealed that the first-year language teachers mostly perceived the triggering event and exploration stages in their CPs, which may be regarded as low-levels of CP (Anderson and Krathwohl, 2001 translated them as remembering, understanding, and applying in their revision of the PIM through Bloom's taxonomy). Aybüke's evaluation of the synchronous oral discussions as *"...the topics were so deep... I need more time on my own to internalize them..."* resonates with the essence

of the need for time for the participants to internalize the PD content in their personal worlds. Referring to Picciano's distinction (2002) between *interaction* and *presence*, the perceptions of first-year language teachers' high levels of interactions taking place in the PD program may not necessarily signal the occurrence of higher levels of learning. Thus, the lack of adjunct means of asynchronous communication in the PD program (Garrison, et al., 2000) should be considered a limitation and may account for the result that the first-year language teachers did not perceive reaching the resolution stage in their CoI experiences.

The result of the present study pertaining to the low perceptions of the resolution stage in the PIM is in line with the research findings (Vaughan & Garrison, 2005; Akyol, 2009, Galikyan & Admiraal, 2019; Gašević et al., 2015; Sezgin, 2021). Apart from the lack of adjunct means of communication, this shortcoming may also have been caused due to the length of the PD program (Swan, Garrison, & Richardson, 2009) contrary to the disposition that case-based questions and the presence of online scaffolds through pre-structured threads, both of which are evident in the PD program, enhance high levels of CP (Brooks and Jeong, 2006; Richardson & Ice, 2010). The time barrier may have been a primary reason for the lack of perceived resolution, which is reflected in Erguvan's evaluation of her perceived CP: *"I could not apply these new ideas to the extent I wished to do so"*. Resonating with the essence of Erguvan's evaluation, the first-year language teacher's additional duties in their professional contexts may have contributed to the time issue as well (Garrison et al., 2001).

The sequence in the PD program was found to positively correlate with participant teachers' cognitive presence in terms of constructing meaning and internalising the subject matter. The coherence between the synchronous and asynchronous sessions considering teachers' professional needs and the nature of the subject matter were reflected in Demet's post-program interview: *"...The sessions complemented one another... had we started from the last session and reverted back to the first ones, the impact would not have been the same..."*. The interactions (i.e., teacher and learner; learner and content) do not necessarily require synchronicity; on the contrary, requires a cyclical design where asynchronous sessions complement the synchronous ones or vice versa as suggested by Bernard, Abrami, Lou, Borokhovski, Wade, & Wozney et al., (2004), which was considered in the design of the PD program (i.e., the sequence, design of tasks in phase I). As for the interaction patterns taking

place in the synchronous and the asynchronous components of the PD program, this argument goes way back to Moore's classification (1989) of interaction types as learner-learner, learner-instructor, and learner-content and that it is the instructor's responsibility to have them complement one another (Ji, Park, Jo, & Lim, 2016) aligned with the learning objectives. This was considered through the task design and the nature of questions in the design and development steps of phase I and first-year language teachers' teaching presence perceptions with regard to instructional planning resonated with this in phase II. Aybüke's evaluation of the impact of asynchronous resources and tasks on the online synchronous sessions reflects this aspect: "...*The articles aligned with the PD objectives helped me understand our discussions more thoroughly...*". This notion falls under the category of teaching presence considering its integrating role to hold social and cognitive presence together (Garrison, 2009).

Similar to the research studies conducted by DeNoyelles, Zydney, & Chen (2014) and Gašević, Adesope, Joksimović, & Kovanović, (2015), the catalyst role TP had in the sequence of the program components in different modes (i.e., asynchronous or synchronous) was strengthened by the instructor (referring to teaching presence) enhancing cognitive presence of the learners in the present study. One of key principles to enhance TP is to have learners reflect on the designated areas, consolidate conceptions in a united manner (Garrison, 2017) rather than inundating learners with information (Garrison, 2007), which was the case in the present study. This unity is reflected in Erguvan's reflection on the coherence of the PD program: "...*I appreciated the constructivist nature of this PD program in that the trainer got us thinking of a previous point after a heated discussion to help us integrate the pieces...*".

The post program interviews and reflection forms also revealed limitations in terms of teaching presence in that the participants approached time as a barrier to construct meaning from time to time. Referring to the online discussions and the nature of questions raised in the PD sessions, Aylin shared "...*Sometimes I needed more time to think and reorganize my thoughts...*". Time may have been reported as a barrier in the online PD program sessions due to two reasons. The little amount of time available for reflection in the online PD sessions may have been a possible source of this preference of teacher participants in the present study (Guo, Saab, & Admiraal, 2021). Teachers' reporting the need for more time is also aligned with the notion that allowing learners sufficient time to reflect on their learning experiences is an important aspect

to be considered (Ambrose, 2013). Reflection allows learners to connect their experiences to new information and ideas, make sense of what they have previously learned, and integrate it into their existing knowledge. The nature of oral discussions taking place in the synchronous PD sessions which requires learners to respond more quickly as opposed to text-based communication (Garrison et al., 2000) may also have contributed to the notion of time as a barrier in the present study. As for the integration stage, taking place in the individual world of the learners (Archer, 2010; Garrison, Anderson, and Archer, 2001), it may be important to consider the time aspect in order for learners to make meaningful connections and work at their own pace. Demet's critique of the group work in the asynchronous tasks could also be approached from this lens: *"...I would actually prefer to work alone as I go back and forth between the steps in the materials you shared with us...It could be just me..."*.

The data revealed that the enhancement of social presence in the designed PD program through the intimacy of the instructor was conducive to perceived higher levels of learning and persistence of the first-year language teachers. Similar to research studies by Garrison, Cleveland-Innes, & Fung, (2010) and Garrison, (2017), social presence was found to be a mediating variable enhancing cognitive presence of the participating teachers (Vaughan, Cleveland-Innes, & Garrison, 2013). This is reflected in the following quotes of the participating teachers: *"...Had encouragement from the trainer been done with a frowning face, the dialogues would not have been that deep..."* (Berkan) and *"...Nobody received a hurtful comment... our only aim was exploring and understanding..."* (Aylin). Teaching presence, playing an integral role in the facilitation of a trusting atmosphere in the PD program, was evident in the present study and the data revealed that it enhanced first-year language teachers' teaching presence experiences and enhanced their perceived learning in line with Tastle, White and Shackleton's (2005) findings. One of the findings in essence with the role of social presence (emergence of a trusting atmosphere) on perceived learning and facilitation in the present study is Aylin's evaluation of the learning (PD program) atmosphere: *"the fun moments in the PD program kept us going further in the discussions"*. The data clearly revealed the critical role of established SP on first year language teachers' perceived CP. It should be noted that the careful design of the PD program materials in promoting SP and CP was in line with the notion that SP was not

established for the sake of merely enhancing SP but for CP (Darabi et. al., 2011); and this was established through the TP evident in the present study.

Discussion questions held in the asynchronous sessions were found to promote learning amongst the participating first-year language teachers. The unstructured and thought provoking nature of the discussion prompts were found to engender a constructive atmosphere for meaning construction, which was reflected in Aylin's evaluation of the questions' impact on the learning atmosphere in the PD program "*...The questions were really powerful... They helped me dive into deeper aspects regarding what we have been discussing...*", "*...helped us engage in meaningful interactions...*". It should be noted that the interaction processes among the participants are essential components of the social knowledge construction process (Du & Wagner, 2007) and that the quality and nature of online discussions help learners engage cognitively (Garrison et. al., 2000; McLoughlin & Mynard, 2009).

The findings and results that reveal the effectiveness of the designed questions on higher levels of learning and first-year language teachers' tendency to use such probing questions in their teaching contexts may indicate the effectiveness of the PD program in this regard. This aspect was deliberately incorporated into the design of the PD program aligned with the phase I results (need for interactivity for higher levels of learning); they are also aligned with relevant research studies conducted by Du & Wagner, (2007); McLoughlin & Mynard, (2009); Sadaf & Olesova, (2017). Furthermore, it should be noted that the scaffolding perceived by the first-year language teachers may have been due to the active role of the trainer through asking such thought-provoking questions (Goodyear, Salmon, Spector, Steeples, & Tickner, 2001) and this may have impacted the perceived TP in the present study with regard to the facilitation category in the teaching presence. Additionally, the moderation of such discussions in smaller groups proved to be perceived as effective in terms of the first-year language teachers' learning (through *think, pair and share strategy*). This finding regarding the planning and facilitation of classroom discussions in smaller groups is also supported by Garrison (2017). This may account for participating teachers' preference for more break-out room discussions in the PD program as the online discussions were sometimes held as a whole class discussion due to time constraints.

5.1.2 Research question 2. The findings revealed that the first-year language teachers were able to reflect elements pertaining to the CP, SP and TP into their performance context satisfactorily despite some limitations, which are discussed in line with the research findings considering the nature and the dynamics of the present study. The first-year language teachers were able to exert satisfactory levels of teaching presence along with limitations in the facilitation and direct instruction putting instructional planning at the forefront of their classroom implementations. The lesson plans, examined by the experts in the field of educational technology, revealed a moderate balance of SP, CP and TP to maintain a satisfactory level of collaborative community of inquiry (Akyol, 2009). The resemblance between the first-year language teachers' experiences in the PD context and their reflections of the CoI presences in their teaching contexts reveal the satisfactory level of their transfer based on the data and signals the effectiveness of the CoI model to foster the professional growth of the participants.

In terms of enhancing cognitive presence through the establishment of social presence, the data revealed the consideration of course design in the classroom implementations to enhance the SP of the students. Approaching the learners as collaborative knowledge builders, Havva designed structured and well-defined tasks to get her students to work in groups to contribute to the content of the lesson aligned with the instructional objectives. The successful transfer in such lessons employing the collaborative constructivist lens (Aybüke and Havva) signals the ascendancy of this approach to affect students' perceived learning (Arbaugh and Benbunan-Fich, 2007) eliminating the reluctance and low levels of interaction, common issues perceived by the first-year language teachers, in the particular lessons. The data also revealed that the participants were aware of the importance of assigning roles and responsibilities with the intention of enhancing group cohesion and moving students towards experiencing high levels of cognitive presence (Gašević et al., 2015). Considering the intricacies and purposeful inquiry in the task design (Garrison & Cleveland-Innes, 2005), the lesson plans revealed the awareness of the first-year language teachers that SP should be promoted to CP of the students and that they were not following a surface approach by overlooking CP for the sake of enhancing SP (Garrison et al., 2001). Havva's self-evaluation of the structuring of the activity she administered in her lesson *"being assigned certain tasks and roles within a group helped my students reach*

rapport within the group” also signals the use of collaboration activities and role assignment to foster deep and meaningful learning (Garrison & Cleveland-Innes, 2005) through achieving group cohesion despite the limitations in terms of reaching higher levels in the PIM cycle.

The interactivity was fostered through course design by utilizing information gap elements with the intention of piquing the students’ interests as well as increasing social interaction amongst the students. For instance, Burak, attempting to enhance group cohesion towards students’ epistemic engagement, utilized excerpts from a Turkish novel having vivid descriptions with an incomplete ending, which enhanced students’ cognitive engagement in the lesson: “...*The students tried very hard to guess what may have happened correctly...*”. Similarly, Derya used a Web 2.0 tool as a nomination technique to take a dialogic approach in her lesson aligned with her lesson objectives. Erguvan, used a gamifying tool to initiate a high degree of interaction as an elicitation technique, and finally Aylin utilized interaction to foster peer-supported learning to aim at enhancing cognitive engagement (Stephens & Roberts, 2017) and creating social interaction amongst her students. Despite the high level of social exchanges perceived by the first-year language teachers, the perceived interaction may not be necessarily equivalent to a meaningful inquiry (Picciano, 2002) amongst the learners since the data shows that some aspects of the interactions were in the triggering event and exploration stages in the PIM. When exchanges do not go beyond simple social exchanges, the academic engagement belongs to low-levels of learning as remembering, understanding, and applying (Anderson and Krathwohl, 2001): “*The depth of the students’ exchanges were not always how I imagined it to be in terms of our objectives...*” (Derya). However, considering the pattern of the issues experienced by the first-year language teachers in terms of students being i.e., “*notoriously silent and reluctant*” (Aylin) the social interactions and exchanges amongst the learners should still be considered valuable in terms of the participants’ takeaway from the PD program and transfer into the performance context.

Despite the benefits brought about by the interactivity, data revealed a lack of facilitation in the lessons “*I could not curtail the effusive comments of those who dominate the discussions*” (Derya), “*I had difficulties moving the discussions towards the desired direction*” (Erguvan), which indicated a low level of facilitating discourse and direct instruction obscuring the realization of the intended instructional plans. It

should be noted that enhancing simple interaction, without structure and leadership of the teachers, does not suffice on its own to foster deep and meaningful learning among learners (Garrison & Cleveland-Innes, 2005). The attempts and challenges to maintain the social engagement amongst the learners “*I found it challenging to manage the discussions without being dominant... I did not want to dominate...I let them do the talking as long as it took...*”, signals the challenge in mastering the fine delicacy of establishing SP to promote CP through the establishment of TP (Garrison et al., 2000). The direct instruction and facilitation dimensions of the teaching presence are critical to foster an effective learning environment as lower levels of these dimensions in the TP may inhibit the success of educational objectives and impacts the design and organization adversely (Garrison & Arbaugh, 2007): “*...eventually that part of the lesson got off the track...*” (Erguvan).

Even though it is naturally tempting to establish SP to develop relationships within a community and the adoption of dialogic approaches are valuable as they provide opportunities to reduce the potential transactional distance in online environments, the establishment of SP should serve as a precondition to engender purposeful inquiry (Garrison & Cleveland-Innes, 2005; Krzyszkowska and Mavrommati, 2020) aiming at fostering high levels of cognitive engagement. Furthermore, one-way interactions in a lesson may hurt the group identity whilst strengthening the personal identity (Krzyszkowska and Mavrommati, 2020): “*...I wanted to share my ending in the lesson. Those who did not volunteer could have passed, or we could all have been given equal time...*” (A reflection of Fikret’s student). Thus, interaction in the lessons should be systematic, carefully planned and purposeful.

Considering the affordances and the limitations of the Web 2.0 tools the teachers took a grounded approach to the technology integration using it as a medium and scrutinizing their teaching practices. Derya, examining the SP and CP dynamic in her lesson, expressed: *the excitement brought by the new web tool may not necessarily indicate SP or CP; however, could be simply a novelty effect*. Additionally, the data revealed teachers’ consideration of the utilization of the Web 2.0 tools towards the TPACK perspective. Overall, the majority of the lesson plans and post instruction meetings revealed that teachers did not heavily rely on technological affordances

rather on instructional planning rather considering the social presence of the students as “*the quality of the medium itself*” (Short et al., 1976, p. 65) to enhance CP.

The incorporation of personalization in course design, in the form of addressing students’ interests and needs, were implemented not purely cognitively but also from a social lens. Fikret, who incorporated freedom of choice to get his students to create new endings for the fables, expressed “...*I have never seen this level of engagement in our lesson discussions before...*”. The students’ remaining in a cohort during the course of the lesson and the personally fulfilling nature of the task administered in a dialogic approach reveals the direct contribution of SP to the success of educational experience (Garrison et al., 2000). Strikingly, the students who used a translating tool to complete their assignments showed a high level of engagement in the particular lesson due the personal relevance of the subject matter, indicating the contribution of personal relevance positively impacting the perceived CP (Krzyszowska and Mavrommati, 2020) through personal affective and open communication. Fikret, referring to his students who used a translation tool to complete their assignments, perceived “*they were doing their best*” despite their lingual incapacabilities when personalisation was incorporated into the task design.

Reflectivity, which was appreciated by the first-year language teachers in terms of its contribution to the CP in the PD context, was also practiced in the performance context to promote high levels of learning. Resonating with the essence of the design and organization dimension of TP, the participants incorporated follow-up questions and activities aligned with the objectives of the lesson. Referring to *the think, pair, share strategy* that was incorporated in the PD program, Fikret, Aylin and Aybüke planned the allocation of time in the utilization of the reflective activities to foster the cognitive presences of their students. Reflectivity was not treated as a separate entity, rather a complementary one enriched with the intriguing nature of questions to enhance SP and CP in the classrooms. The findings reveal that the allocation of time during the employment of reflection activities is critical as learners need to be given sufficient time to reach deeper learning (Ambrose, 2013). Havva, who was not initially happy with the general course of her lesson due to lack of instructional planning, expressed her satisfaction regarding learners’ reaching intended goals through the use of a reflective activity. Getting students to create their own slogans and posters, an idea she adopted from the PD program, was “*what leveraged the quality of this lesson in terms*

of the CP” indicating the key role of reflection to foster cognitive presence (Fiock, 2020).

The data revealed that the PD program triggered changes in teachers’ macro instructional strategies, even though some of them were not fully implemented as intended in the performance context. For instance, Fikret expressed “*I tried really hard to be like an empty vessel*” in case of his potential biases against his students, referring to the Pygmalion Effect in the PD program as well as his perceived social presence in the PD context. His motivation to self-evaluate himself in terms of his potential biases and prejudices against students to strive for the establishment of SP is critical as an unbiased atmosphere is conducive to form a meaningful inquiry (Hosler & Arend, 2012) to foster deeper learning through self-projection. Another change perceived by the first-year language teachers is regarding the use of humor in course design to facilitate the trust in the learning environment (Akyol, 2009). Derya’s approach to the use of humour signals the impact of the PD program on her instructional strategies given that she has never used it before “*We lose ourselves trying to catch up with the syllabus but including some humour would not hurt anyone*”. Humour was found to be a critical element to create a fine balance between SP and CP (Guo et al., 2021; Çelik & Gündoğdu, 2016) lessening the dependency of the participants on the coursebooks “*it felt like humor created a common language between us*” (Aylin) referring to the incorporation of riddles in her lesson, “*I feel like my students fall into the trap of learning and they do not even know it*” (Berkan) referring to the addition of intriguing and personalised questions to his lesson.

In addition to the self-evaluation and the incorporation of humor, the data also revealed the first-year language teachers incorporated goals and objectives with the intention of adding this into their classroom routines to enhance metacognition. Reflecting the resemblance between the perceived TP experience (design and organization) in the PD context and the reflected TP in the performance context, Berkan’s quotation reveals his change in his instructional strategy “*the competencies you shared in the PD program acted as a checkpoint for me to see where I was at...added this to my classroom routine*”. This is particularly important considering the possible impact of communicating clear goals and objectives to enhance higher order thinking and providing students with opportunities to monitor their progress (Vaughan, Cleveland-Innes, & Garrison, 2013). Derya’s approach to the incorporation of goals

and objectives is striking as she has coined the ideas she gained in the PD program “*I asked students to evaluate their learning using the colours green, yellow and red depending on how they feel*”. Similarly, Merve’s approach to enhance SP and CP through creating a pre-set task, employing a collaborative learning approach through classroom discussions and planning on a follow-up activity she learned from the PD program aligned with the objectives signals the importance placed by the teachers in terms of design and organization (TP) to balance SP and CP in their lessons (Garrison et al., 2000; Vaughan, Cleveland-Innes, & Garrison, 2013). Furthermore, these excerpts reveal the consideration of a robust instructional planning contrary to an incremental design approach, which entails a deficient approach: simply adding additional activities for the sake of adding (Vaughan, Cleveland-Innes, & Garrison, 2013).

The limitations in terms of facilitation and direct instruction, considering the first-year language teachers’ awareness in their planning may be considered to be stemming from their lack of experience (Vaughan, Cleveland-Innes, & Garrison, 2013) considering their professional backgrounds. For instance, Fikret describing his failure to moderate the discussions “*some of my students kept their responses very long and scattered...I did not want to interrupt them... disrupted the flow of the lesson from time to time...*” emphasized the importance of instructional planning: “*more planning on the preparation of questions could have prevented this*”. Even though he was aware of this, he could not put it into practice expressing his wish to be observed by the trainer and be provided with structured feedback. This perceived failure may have been possible due to the lack of teaching experience in that it may require expertise and experience to interject when necessary (Vaughan, Cleveland-Innes, & Garrison, 2013). Aybüke complementing the use of a gamified tool with a reflective follow-up activity in the lesson commented on the importance of reflectivity as “*otherwise the activity and the fun that comes with the activity would be the goal itself, not the means*”. Likewise, Derya scrutinized her technology integration as “*it could be simply a novelty effect*” referring to the “*great excitement over the unknown*”, which indicates Derya’s takeaway from the PD program and her critical evaluation of the potential SP and CP dynamics she observed in her lesson. The commonalities in these excerpts indicate that the first-year language teachers’ take away from the PD goes beyond “*infotainment*” considering their focus on the importance of educational purposes (Garrison, 2017).

The data of the first-year language teachers on their technology integration and diversity of activities in their classroom implementations moves beyond “the additive novelty” avoiding unreflective adoption of teaching strategies (Garrison, 2017) but rather a heavy emphasis on the instructional planning along with their limitations in direct instruction and facilitation dimensions of TP.

5.2 Conclusion

The designed professional development program based on the CoI framework successfully enhanced the first-year language teachers’ CoI experiences and reflections in both learning and teaching contexts. Phase II results indicated that first-year language instructors perceived instructor intimacy, interactivity, open resources, personal relevance, diversity of instructional strategies, instructional planning, and facilitation as a part of their CoI presences in the PD program. Moreover, the data illustrated that their experiences and reflections in teaching contexts were similar to their experiences. The data revealed a strong transfer of the design category of the teaching presence as well as cognitive and social presences in first-year language teachers’ teaching contexts even though there were some limitations in direct instruction and facilitation categories of teaching presence.

5.3 Suggestions

The CoI framework in the designed PD program proved to be effective in terms of attaining the objectives and enhancing first-year language teachers’ reflections and experiences. Suggestions for using the CoI framework researchers and teachers are shared in this section.

5.3.1 Suggestions for researchers and instructional designers. The data in the present study revealed the preference of first-year language teachers for a blended design of the CoI model. Aligned with the literature with regard to the benefits of face-to-face environments, the triggering event and exploration stages of the PIM may take place in face-to-face environments (Meyer, 2003; Vaughan and Garrison, 2005). The data also revealed that the preferred venue of the first-year language teachers to share the CoI experiences in the teaching contexts was face-to-face. Finally, the majority of the first-year language teachers indicated a preference towards a face-to-face

environment while engaging in getting to know activities at the onset of the PD program. Thus, it is suggested that a face-to-face venue could be preferred for PD sessions that require a high level of interaction, collaboration, and reflection to complement the online sessions.

The findings of the present study indicated the first-year language teachers' preference for discussions in smaller groups as well as their appreciation of break-out room discussion activities. The present study showed that discussions in smaller groups helped establish a risk-free environment and group cohesion, which are conducive to higher levels of learning. This is also in line with Garrison (2017) as the data revealed that such smaller groups would help the first-year language teachers engage more and work in a consistent manner towards shared goals. Furthermore, the findings of the present study revealed that teachers may shy away from participating in the whole-class discussions. Therefore, researchers and designers should consider these aspects in the design and timing of the activities with regard to the synchronous PD sessions.

Furthermore, time was found to be a barrier regarding the administration of discussion and group activities in the present study. This finding has implications regarding the phase I design step of the study since the researcher determined instructional strategies, timing and the sequence of the PDP content at this stage. In essence with the ADDIE framework which allows agile decisions to be taken during the instructional design process, the researcher in the present study went back and forth between the ADDIE stages; however, failed to notice the time barrier despite the formative evaluation procedures she has performed. The researcher carried out a one-to-one evaluation upon the completion of the development step, which helped her gain useful insights into the materials; however, the relatively isolated nature of the one-to-one analysis may have prevented her from noticing the time barrier. Thus, it is suggested that group evaluation, in addition to a one-to-one formative evaluation, take place before the implementation of a PD program since it may yield insightful data from the lens of the group dynamics to make necessary revisions in terms of the timing of the activities and materials.

The personal relevance of the PD program was found to enhance the CP presences of the first-year language teachers in the present study. The data in Phase II revealed that personal relevance of the PD topics helped first-year language teachers

become engaged in the triggering event, exploration and integration stages in the PIM cycle (in line with the research findings of (Krzyszowska and Mavrommati, 2020). The personal relevance of the PD program is based on the work conducted in phase I of the study, more specifically, the data coming from the analysis, design and development steps helped the researcher create such personalized content for the intended audience. Thus, grounded instructional design approaches should be adopted with regard to the PD programs since it proved to enhance the effectiveness of the program and the CP experiences of the participants.

Finally, the data revealed that online synchronous discussions enhanced cognitive and social presences of the first-year language teachers; however, some of the participants expressed their need for more time to internalize, and reflect on the questions in the present study. The asynchronous nature of online discussions may help the participant teachers have the opportunity to take the time they need before they post their answers, in line with the findings of Garrison et. al. (2000). The data revealed that some of the first-year language teachers could not reach higher levels of learning since they could not catch up with the discussions as they were trying to formulate their ideas, suggestions and/or reflections simultaneously. Due to these reasons, asynchronous communication (not instead of, but rather as a complementary aid to synchronous discussions) is suggested to the researchers and designers with regard to the design of PD programs.

5.3.2 Suggestions for teachers. The data revealed that cognitive presence is related to the expression of discussion questions and pre-structured threads. The findings in the present study suggest that questions within a more narrow scope would not have created the same impact based on the perceptions of the first-year language teachers. The present study revealed findings in favor of inquiry-stimulating questions to initiate the triggering event and exploration stages in the PIM cycle. Thus, the nature of the questions should be closely examined and prepared prior to the triggering event and exploration stages. In this regard, the data also revealed that a non-linear cycle of the PIM helped teachers stay cognitively engaged in the materials; therefore, questions that include personalized and reflective elements should be spread in the lessons aligned with the learning objectives.

Aside from the wording and the nature of the questions, the diversity of instructional strategies was also found to enhance the SP and CP of the participants in the present study. In this regard, case-based scenarios, classroom discussions and information gap activities can be utilized in CoI designs. The findings with regard to teachers' ease in their personal expression when there is no definite answer is striking since the data showed that such flexible assignments and activities were found to engender open communication and lessen their anxiety and shyness. Course design was found to be a contributing factor to the establishment of the perceived SP in the present study. Therefore, teachers should bear these considerations in mind when designing activities to promote SP. Finally, the SP elements such as instructor intimacy, humor, and interaction should be incorporated in line with the cognitive goals of the educational community (Garrison, 2007). The findings of the present study suggest that the first-year language teachers were aware of the SP techniques used; and appreciated the use of such SP elements towards the learning objectives. That is why, the teachers should be careful of this delicacy between the two presences while using such elements and prioritize the quality of interaction over the quantity of interaction in their lessons based on the CoI framework as evident in the present study.

Phase I and phase II findings indicated that learners prefer flexibility in terms of working modes (i.e., group work, pair work and individual work) and that they may have different choices with regard to the cycles of the PIM. Thus, implementing the CoI model does not necessarily mean that all modes of working should be in groups but rather teachers should strive to offer different modes to their learners aligned with their educational objectives. This may actually be considered one of the misinterpretations pertaining to the CoI model in that CoI model itself also highlights the importance of higher levels of learning in individualized worlds of the learners and some research studies reveal that the higher levels of learning (i.e., exploration and integration) may be better achieved in personalized worlds of the learners (Garrison, 2003; Archer, 2010). The present study revealed insights into this matter as well; thus, the research suggests that such clear-cut divisions should not be made when it comes to the implementation of the stages in the PIM cycle. Therefore, it is suggested that differentiated instruction in terms of activity choice and assessment measures may be considered depending on the cognitive styles and learning preferences of the learners.

Having a systematicity in terms of resources and repository of class-related materials proved to be effective to enhance learners' perceived learning considering different cognitive styles and preferences of the learners. The present study revealed that such systematicity not only enhanced learners' exploration stage in the PIM but also decreased the procrastination of first-year language teachers. Therefore, teachers should carefully design resources and create cheat sheets when necessary. In this regard, the present study reveals the importance of knowing the emerging needs of the intended audience. Teachers should conduct learner analysis and/or perform formative evaluation procedures to be able to make such informed decisions in the systematicity of supplementary materials and aids.

Another striking finding is regarding the facilitation category of the teaching presence, which manifests itself as close and active monitoring in the present study. The researcher took notes in the administration of the PD sessions; and, referred back to these notes in the sessions to help first-year language teachers with the intended objectives. The data revealed that close and active monitoring enhanced SP and made the learning environment conducive to higher levels of learning. Thus, it is critically important to truly rely on the data coming from the learners in shaping the activities and the facilitation processes of the courses they teach. Finally, the data revealed the critical role of communicating goals and objectives to help learners with their metacognition. In line with the relevant research studies (Garrison, Cleveland-Innes & Fung, 2004), the exertion of strong teaching presence (direct instruction) helps learners evaluate themselves and understand the aims and objectives of the lessons, as evident in the present study.

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