From Design to Practice: Teachers' Experiences and Perspectives of Blended Professional Development in Hong Kong

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Abstract

This research explores teachers' perceptions of a blended professional development course at a Hong Kong university. This course supports teachers' knowledge and application of blended learning and teaching approaches, and follows teachers' inquiry and reflection of their blended learning experience to support student learning.

Few studies have investigated teachers' perceptions of blended professional development courses to support their understanding and implementation of blended learning. Addressing this gap, this qualitative research uses the Community of Inquiry (CoI) framework as its theoretical lens. Teachers' perceptions are explored through data combining aspects of blended course designs and related experiences. This data includes participants' interview transcripts, learning journals, commentaries and reflections via Pecha Kucha presentation slides. Applying thematic and image-theme analysis on the data collected provides a multimodal representation of teachers' experiences of blended learning including their reflective practice through inquiry-based learning.

Findings suggest evidence connecting to the CoI three presences: social presence; teaching presence and cognitive presence. These findings are complemented and presented metaphorically through a Confucian proverb to acknowledge the study's Asian context. This study contributes to the knowledge of blended learning approaches

for professional development courses and how these act as an effective means to build teachers' knowledge and competence in blended learning.

The data also reveal the importance of providing meaningful tasks for teachers to experience the benefits and challenges as online learners. The effectiveness of these tasks is further evidenced when teachers implement their blended learning designs through inquiry and peer-based collaborations. The study also identifies the use of image-based reflection as an useful approach to understand and support reflection in teachers' continuing professional development. The study recommends further research targeting blended professional development for teachers. These findings can inform teacher training and staff development in relation to blended learning design and implementation.

Contents

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List of abbreviations

ALT	Association for Learning Technology
DBLT	Designing Blended Learning and Teaching
CPD	Continuing Professional Development
CoI	Community of Inquiry
LMS	Learning Management System
TEL	Technology Enhanced Learning

List of figures and tables

Chapter 1 Introduction

This chapter introduces the research and my interest in this area. This section begins with a rationale and statement about the need for professional development to support teachers in the use of learning technologies, and specifically to develop blended learning approaches in higher education. I explain the aims and purpose of the research, and provide an overview of the research setting. I outline the theoretical framework used to underpin this study and identify my research questions. I highlight the approach taken in the study, my position within this research setting and the intended audience. This chapter concludes with an overview for the structure of the remaining sections of my thesis.

1.1 Wider research context: Aligning professional development with blended learning approaches

In higher education, the use of learning technologies is now an integral aspect of teaching and learning approaches in the 21st century. Using such technologies to deliver and enhance the curriculum and to meet student expectations can help to address the increasing demands from government funded bodies as well as to meet current education challenges (Blackwell & Blackmore, 2003; Kang, 2012; Rhode & Krishnamurthi, 2016; Selvi & Çardak, 2016). These factors can drive institutions to develop their own strategic goals in such forms as e-learning strategies and policies (Sharpe, Benfield, & Francis, 2006) to facilitate innovative technology adoptions. Consequently, the design of professional development for teachers may better support

and align with an institution's context and the maturity of elearning adoption and use (Mason, 2006).

In the early days of learning technologies, many institutions implemented Learning Management Systems (LMS) as part of strategic initiatives to enable teachers to deliver their content in online environments. In practice, this meant integrating the LMS within traditional face-to-face environments where its functionalities were considered as enhancements to campus-based learning approaches and teaching methodologies (Littlejohn & Pegler, 2007). This then led to emerging conceptions and practices of blended learning and teaching, which form the background of this thesis.

Therefore, as LMS usage becomes integral to learning ecology and blended learning development, teachers must gain relevant skills and knowledge to effectively use the technology to teach within this blended learning environment. However, Rhode and Krishnamurthi (2016) noted in their study that although many teaching staff had the skills to teach in a traditional face-to-face environment, when they are placed in an online environment, this did not necessarily result in the acquired knowledge to "teach and facilitate effectively in this environment in order to enable student-centred teaching methods" (p. 376). This observation highlights the gap between engaging teachers with an online learning experience and an understanding of the online pedagogies to help them teach effectively through relevant professional development activities.

Effectively implementing the potential benefits of learning technologies into the curriculum first requires the enthusiasm, motivation and willingness of teachers to adopt these new teaching approaches into practice. Additionally, teachers require timely,

appropriate and contextualised training and development activities to meet their needs and stages of use.

As learning technologies, such as the LMS, are adopted more widely, teachers are expected to make more informed decisions regarding the nature of how they incorporate, integrate and use technologies in their face-to-face teaching. This leads teachers to consider more deeply the possibilities and constraints of blended learning approaches in curriculum design to support the student learning experience (Bath & Bourke, 2011).

To help teachers make informed decisions and to understand different aspects of curriculum design with the use of learning technologies, it is essential that teachers are provided with relevant professional development and training to help them gain relevant pedagogical philosophy and practical skills, techniques and knowledge for effective blended design and delivery. The means the nature and context of continuing professional development for teachers about blended learning requires a balance of both the pedagogical underpinnings and the practical knowledge and skills.

To help address this balance, the Community of Inquiry framework has its foundation on Dewey's social constructivist theory and provides an important connection and link to support the theory and practice of blended learning. In that, the framework "provides a means to shape practice but also to reflect upon and make sense of outcomes" (Garrison & Vaughan, 2008, p. 13).

Furthermore, Garrison and Vaughan (2008) propose that the development of blended learning approaches should involve the creation of a supportive, safe and open environment for teachers and learners. This involves establishing relevant learning communities, providing opportunities for inquiry, making considered decisions and interventions to allow them to reflect on their teaching practice and to observe the impact of their choices. Therefore, understanding how these factors influence the blended learning context, preferably through demonstration in a blended learning mode, is a crucial design element in effective professional development for teachers.

1.2 Aims and purpose of the research

This research focuses on the experience of a community of teachers in a blended professional development course. During this semester-long course, teachers completed various online activities and collaborations, with the aim of designing their own blended learning activity for implementation with their classes running concurrently to this blended course. In this study, the blended course will be referred to as Designing Blended Learning and Teaching (DBLT) in the interest of anonymity and ethical practice. The curriculum design and learning activities from this course are described in Section 3.4. My motivation for this research is to identify and understand how blended design components or course activities can support teachers' reflection and inquiry of their blended learning journey, and help them integrate blended learning into their teaching practice as a learning community. Thus, as its theoretical lens, Garrison and Vaughan's Community of Inquiry (CoI) framework was applied.

The aim of this research is to investigate the design of professional development to support teachers in developing their blended learning approaches, and this is positioned

at the intersection of several key concepts and practices in this area. At the core of this research study is the concept and approach of blended learning and how professional development is designed to help teachers understand and apply it with their students. This is further coupled by demonstrating blended learning approaches via a blended learning mode to support teachers' understanding and application of the skills, knowledge and pedagogy in their teaching. Furthermore, the concept of an inquiry-based learning community of teachers both encompasses and forms the central focus of blended professional development. As mentioned above, to support this perspective, the CoI framework will be used as the theoretical lens to evaluate this study. In addition, to complement the text-based analysis of this study via the CoI framework, image analysis based on Pecha Kucha[1] presentations (slides with images) provides a richer, multimodal insight into the reflective experiences of the participants' learning.

1.3 The research setting

This research is situated at one of the eight government-funded higher education institutions in Hong Kong. This university is primarily a campus-based university, where most teaching is face-to-face via traditional lectures and classrooms. Hong Kong, located in China as a Special Administrative Region, and prior to 1997 was under British sovereignty until its handover to its constitutional principle of 'One Country, Two Systems' rule. Consequently, most of Hong Kong's education system models the British system, though Hong Kong is uniquely based on a Western outlook underpinned by traditional Confucian educational philosophy. In 2012, Hong Kong's secondary and higher educational system underwent a radical restructure known as the 3,3,4

[1] Pecha Kucha is a presentation style consisting of 20 slides shown for 20 seconds each.

Curriculum, denoting the establishment of an additional year at university level and new core subjects in Chinese and English Language, mathematics and liberal studies at secondary level.

Therefore, alongside changes in Hong Kong's educational reforms, the institution in this study transitioned to a new LMS, Blackboard, along with an institution-wide professional development plan to help engage teachers in its use. In addition, to help the implementation of the 3,3,4 Curriculum and manage the intake of a double cohort of first year undergraduates, the new LMS was timely in dealing with increased class sizes and in encouraging teachers to adopt new learning and teaching approaches.

1.3.1 Professional development needed for a new Learning Management System (LMS)

In preparation for these changes, strategies for professional development were developed to support teachers to adopt the new LMS. These included access to online modules to supplement workshops or for independent training, school and department based workshops, plus a series of face-to-face workshops, mainly focused on the LMS functionalities.

Many of these workshops were offered to teachers and helped to support early LMS adoption, given the new platform unfamiliarity for most users, though it became evident that workshop attendance did not necessarily mean teachers would then use Blackboard with students. Likewise, the online modules and resources developed for the implementation allowed staff to engage with the topics in a more flexible way, but their usage remained low.

1.3.2 New model for professional development

Although many teachers attended the face-to-face workshops and/or reviewed the online modules, most still required support to apply learning to their teaching situation, and attendance at workshops often had minimal impact on teaching practices and approach. Feedback from staff revealed many were aware of their unfamiliarity with the online learning and teaching environment, since most had never learned online during their education, or taught online before. In order to create such an experience, and thereby help staff become proficient online teachers through being online learners themselves, a series of short moderated online course was developed. This approach to contextualised, moderated online courses resonated with similar studies and findings from the sector (Al-Mahmood & McLoughlin, 2004; Gregory & Salmon, 2013).

Therefore, in 2014, the DBLT course was proposed as an institutional teaching and learning project. This approach for blended professional development adopted principles from good curriculum design practices (e.g. scaffolding, active learning, and constructive alignment) as well as modelling similar practices across the higher education sector worldwide. The course was to be delivered via three online modules, providing staff cohorts with an active learning approach including:

i) an experience of being an online learner in a moderated environment

ii) the framework to develop their own blended learning activities/project within Blackboard

iii) an opportunity to implement and evaluate these through a small-scale independent project, with support from an educational developer.

The DBLT course aimed to enable a community of teaching staff to better engage and develop good practice in LMS usage, as well as improve the quality of blended learning at the university.

1.4 Theoretical framework

My study is situated within blended inquiry-based learning, and considers how this approach to professional development can best support a teaching community in their knowledge and understanding of blended learning approaches.

This concept, for an inquiry-based community to develop relevant conceptual knowledge and reflection whilst supported within an open and safe learning environment, is encapsulated within Garrison and Vaughan's CoI framework that highlights: social presence, teaching presence and cognitive presence. These three presences encompass the factors needed to design a blended professional development course and also those which support teachers when applying blended learning approaches with their students.

Though many CoI studies are based on conventional student-learner courses (Szeto, 2015), and in some cases, pre-service teacher courses, there are limited studies on how this framework is used for teachers' professional development (Vaughan & Garrison, 2005). In particular, there are even fewer studies which use the framework to analyse concurrently teachers' own learning to evidence both their blended learning design and its subsequent implementation with their students (Vaughan, 2010).

In addition, the studies and investigations related to the CoI framework are predominately focused on text-based analysis (Akyol & Garrison, 2011; Makri, Papanikolaou, Tsakiri, & Karkanis, 2014). Since the use of multimodal elements is being further incorporated into online learning and teaching, it is applicable and relevant to understand how these elements align with and complement the three presences of the CoI framework.

Where reference is made to the different categories within each presence (e.g. *open communication* in social presence), these are presented in italics throughout the thesis to avoid ambiguity which could be caused by their literal meanings.

1.5 Research questions

This study aims to find out how teachers from a Hong Kong higher education institution experienced a newly-designed blended professional development course to support their own blended learning teaching practice and their professional development within a CoI. In order to do this, the following research questions were formulated to help form the basis of this study:

1. What are higher education teachers' perceptions and attitudes towards a professional development course, delivered in a blended format, about blended learning and courses through the lens of the CoI framework?

    a. In what ways does participation in a blended professional development course support teachers to develop their communication capacity (skills) in relation to their social presence?

b. In what ways do instructional design and facilitation within a blended professional development course help to support teaching presence in relation to teachers' understanding and use of blended learning practices?

c. How do the design, implementation and evaluation of a blended learning activity support teachers to develop their cognitive presence in the continuing professional development (CPD) inquiry process?

2. How do the key aspects within the analysed blended professional development course help teachers to integrate blended learning and teaching into their practice?

a. What are the benefits of using a blended learning approach to demonstrate blended learning practices for teachers?

b. What are the challenges of using a blended learning approach to demonstrate blended learning practices for teachers?

c. What do images from Pecha Kucha presentations reveal about teachers' reflections on their own learning and teaching approach to blended learning? What implications and potential does the use of images in the Pecha Kucha style presentations have for teacher training and CPD?

1.6 Research approach and my institutional position

As described in section 1.3, this research took place at a Hong Kong higher education institution where I worked and was a co-designer and facilitator of the blended professional development course in this study.

I was interested in exploring the experiences of the teacher-participants on this course, and thus it seemed appropriate to adopt a phenomenological approach for this research. The use of phenomenological research allows the study of lived-experiences on a shared phenomenon. I adopted a qualitative interpretivist approach to this study and collected data via semi-structured interviews, supplemented by participants' personal reflective commentaries from the course as well as their image-based Pecha Kucha slides from their final presentations of their learning experience. Further details about my research design, methodology and analysis are discussed in chapter three.

1.7 Intended thesis audience

Learning designers, learning technologists and educational developers, at both management and executive level, as well as researchers in technology enhanced learning (TEL), with a special interest in blended learning, may find this study and its recommendations helpful in further understanding the design of blended professional development activities to support and develop teachers in their TEL practice. In addition, this study can provide insights for course designers to understand the design and activities components within a blended professional development course for teachers to apply their blended learning approaches.

Furthermore, this study may interest researchers in how the CoI framework can be analysed and applied within blended professional development for teachers. A further area of interest is how the incorporation of multimodal analysis via images can be used to complement the CoI framework and its future development.

1.8 Overview of the thesis

The following is an outline of the chapters in this thesis:

- Chapter two contains an overview and analysis of the relevant literature
- Chapter three describes in detail my research design and methodology, including details of the blended professional development course as situated in this study
- Chapter four comprises four distinct themed sections to form the findings and discussions to address the research questions
- Chapter five concludes the thesis overall by providing implications and suggestions for the theoretical framework and for future research.

Chapter 2 Literature Review

The range of professional development strategies and support approaches delivered to academic staff on the use of TEL is diverse and multimodal. It aims to provide teaching staff with the relevant knowledge and skills to integrate technologies to enhance learning and teaching. However, the nature of these support interventions are often dependent upon the institutional context and its strategic focus, and can alter with evolving elearning maturity and use (Iskander, 2012; Mason, 2006; Salmon, 2006).

This chapter will review the relevant literature to provide an overview of how professional development for TEL is designed and delivered, and how key factors in its design can help to support blended learning within higher education institutions. In particular, the chapter will investigate the potential of the CoI framework and the integration of blended professional development activities to further support a community of teachers in acquiring the relevant knowledge and skills to facilitate blended teaching.

2.1 Definition of blended learning

This literature review begins with defining the term for blended learning within the context of this research study, and how this connects to the nature of this study. Blended learning has been a widely debated term for over a decade within the sector. The term is often accepted and widely used to describe, in general, the use of technology in face-to-face teaching (Driscoll, 2002; Littlejohn & Pegler, 2007; Torrisi-Steele & Drew, 2013), while others like Oliver and Trigwell (2005) have argued how the term has been poorly defined, and highlighted its inconsistent use amongst educators. More recently,

Selvi and Çardak (2016) attempted to define blended learning within their study and found variations in how the term was used depending on the situation and setting. Despite this, their overall findings were not dissimilar to how Driscoll (2002) originally defined the term and categorised it into four different concepts:

> 1. To combine or mix modes of web-based technology (e.g. live classroom, self-paced instruction, collaborative learning, streaming video, audio and text) to accomplish an educational goal;
> 2. To combine various pedagogical approaches (e.g. constructivism, behaviourism, cognitivism) to produce an optional learning outcome with or without instructional technology;
> 3. To combine any form of instructional technology (e.g. videotape, CD-ROM, web-based training, film) with face-to-face instructor-led training;
> 4. To mix or combine instructional technology with actual job tasks in order to create a harmonious effect of learning and working. (p. 1)

Driscoll (2002) further stipulated that the idea of blended learning had varied meanings depending on different people and highlights its potential and challenges when interpreted and applied in different ways depending on the context. Conversely, Oliver and Trigwell (2005) suggested that the notion of 'learning' within blended learning aligned more appropriately with the shift and changes through its teaching methodologies and instructions. Here, they further argued and proposed that reviewing the term through a variation theory approach which was grounded in learning theory would allow a change of perspective "from teacher to learner, from content to experience and from naively conceptualised technologies to pedagogy" (p. 24). These

two perspectives present an interesting juxtaposition which requires further consideration. Driscoll's (2002) four concepts and the language used implies that blended learning could be seen as *an addition* to the existing learning and teaching situation through the technology or instruction, whereas Oliver and Trigwell (2005) could imply *the change* that might manifest itself through blended learning. However, it may not be helpful to consider blended learning as a mutually exclusive activity to context or behaviours, and by contrast, Garrison and Kanuka give a more inclusive interpretation which suggests that "blended learning is the thoughtful integration of classroom face-to-face learning experiences with online learning experiences" (2004, p. 96).

This more integrated perspective gave rise to further specificity from Garrison and Vaughan where they define blended learning as "a coherent design approach that openly assesses and integrates the strength of face-to-face and online learning to address worthwhile educational goals" (2008, p. 5). This definition explicitly mentions the inclusion of course design in blended learning and the consideration of both environments to achieve learning outcomes; and in which the structure and approach to teaching and learning are *transformed* through its intervention. On this basis, they highlight that blended learning design assumes the following:

1. Thoughtfully integrating face-to-face and online learning
2. Fundamentally rethinking the course design to optimise student engagement
3. Restructuring and replacing traditional class contact hours. (2008, p. 5)

Garrison and Vaughan's (2008) definition provides an interpretation of blended learning which acknowledges a more in-depth *combining* of learning technology as first highlighted by Driscoll (2002), encompassed by the *shift in focus of the pedagogy* as suggested by Oliver and Trigwell (2005). In addition, their inclusion of pertinent underlying and connected factors within the learning process, such as the overall course design and its learning outcomes, provide the definition with further acknowledgment of the complexity of blended learning. It is this more specific definition for blended learning as outlined by Garrison and Vaughan (2008) that this study chooses to adopt to underpin the purpose of this research, and to help address the research questions proposed. In particular, this concept of blended learning as a focus for the design of professional development for teachers helps provide an effective means of modelling and facilitating blended learning approaches for their own teaching.

To help teachers in their adoption and understanding of blended learning, there needs to be relevant support and professional development. The following section describes more broadly, the nature and design of professional development for teachers to develop and support them in the use of TEL, and how this can transition to support teachers specifically for blended learning and teaching, which is the focus for this research study.

2.2 Professional development for teachers in Technology Enhanced Learning (TEL)

Professional development for TEL is an important and crucial area to focus on since, ultimately, teachers are the ones in the primary role to actively implement TEL with their students. Teachers are encouraged and expected to become familiar with the technology, as well as understand how they can use it for new approaches to learning

and teaching, and in particular to be competent in the area of online pedagogy (Fitzgibbon & Jones, 2004; Macdonald & Poniatowska, 2011; Selvi & Çardak, 2016). On this basis, there is a need for teachers to participate and engage in professional development so they can understand about the intricate process of integrating TEL into course design and curriculum in order for students to experience the potential benefits of elearning in their studies. Therefore, it seems vital to focus on the design and delivery of effective professional development to make the best use of staff time, which may help to lead to positive long term impact and changes to teaching practices and mindset.

The design and delivery of professional development activities or support interventions typically range from individual consultations, hands-on technical training and workshops to more extensive formal accredited courses and programmes. These may be delivered in the form of one-off learning and teaching type events, e-learning seminars or sharing sessions from e-champions or early adopters (Lam & McNaught, 2008; McNaught & Kennedy, 2000; Wilson & Stacey, 2004). The purpose and outcome of these various support strategies and activities are ultimately designed to provide useful approaches to meet the different needs and demands of busy teaching staff. These may be delivered concurrently or as a phased approach to meet different expectations and demands.

In reviewing the literature on professional development for TEL, the breadth and depth of support and strategies appear to be built on the sense of, or dependence upon, the idea of teachers being part of a group, cohort or learning community, to enable its effectiveness. Based on this, the following section describes briefly how these support

strategies can vary along a professional development continuum for teachers (see Figure 1).

self/individual support		systematic/structured support
Online resources	One-to-one sharing early adopter/colleague	Workshops, training, short courses, accredited courses and programmes

Figure 1: Professional Development Activities Continuum

At one end of this professional development activities continuum, it is common for a suite of online resources and/or frequently asked questions resources to be made available to teaching staff as part of an LMS implementation, and these are often extensive self-help files and online tutorials focusing on the technological aspect of the system. These help to address some bespoke or ad-hoc practices and procedures to help teaching staff contextualise their meaning and application (Forsyth, 2003). In addition, these may also be accompanied by individualised and one-to-one support from instructional designers or IT officers to provide teaching staff with responsive and timely help with the use of the LMS or other related learning technologies (Lackey, 2012).

Towards the middle of this continuum, one-to-one professional development via colleagues or peers in the form of "localised peer support" (Wilson and Stacey, 2004, p. 6) where specific teaching staff within a discipline are tasked with a special mandate for elearning developments. These could be via secondment opportunities or focused responsibilities, with the aim of a staff member sharing their expertise or acting as a mentor and supporting other colleagues on a similar journey. These individuals, groups or communities are usually established to encourage and embed innovative practices into teaching and learning (Sharpe, Benfield & Francis, 2006), and are often the early adopters as described (Bennett, 2014). They may be asked to share good practices, develop a culture for embracing change in teaching approaches, showcase innovative examples within their specific disciplines or act as role models for the use of learning technologies in the curriculum (Wilson & Stacey, 2004).

At the opposite end of this professional development continuum, as the depth of contextualised support deepens, themed workshops or training are provided where teachers can access the necessary guidance and support on TEL. This may be in the form of technical hands-on training with a primary focus to teach staff the functionality and 'how-to' of the technology or tools, and can also include reference to recognised good practice or course design principles. These sessions can provide teachers with an insight into the possibilities of using the technology for learning and teaching, and give options on how to start designing online courses, where certain technical features are encompassed within a particular learning and teaching approach or scenario such as the use of discussion forums to support collaborations (Dempster, Benfield & Francis, 2012).

This type of workshop or training can develop to further short or accredited courses and programmes. Short, online courses to help teaching staff become familiar with learning online and aware of the different pedagogies associated with teaching online (Fitzgibbon & Jones, 2004; Macdonald & Poniatowska, 2011). These courses usually model similar frameworks or programmes such as the commonly known and accepted Gilly Salmon's 5-Stage E-moderating model for staff development (2004), although these are sometimes adapted for a blended mode and not fully online (Lee, 2014). There are also other more intensive, longer term commitments to professional development, possibly contextualised for the institution and leading to accreditation from formal national bodies or the institution itself (Cochrane & Narayan, 2013; Hinson & LaPrairie, 2005; Rienties, Brouwer, & Lygo-Baker, 2013).

There are clearly many ways to design professional development activities and this seems to resonate with Wilson and Stacey's (2004) findings that there are:

> many approaches that can be used successfully to shape staff development activities to help staff integrate technologies into their teaching through designing and establishing teacher presence online, and thereby facilitating interaction with their students, as institutions develop and constantly change their e-learning environments. (p. 9)

However, what still seems apparent, as expressed by Rhode and Krishnamurthi (2016) more than a decade later, is the gap and the disconnect between detailed nuances of online learning, and teachers' readiness and knowledge to be able to teach effectively online to facilitate a student-centred approach to learning and teaching.

2.3 Professional development to support blended learning approaches

This gap and disconnect, which further emphasises the need for deeper investigation into the specific nature of blended learning, and how professional development is designed to support this, is reiterated by Fitzgibbon and Jones (2004). Their study revealed how "it quickly became clear that before teaching online, academic staff would need a training programme, which could introduce them to the pedagogy associated with this very different form of teaching and learning" (p. 25). Again, this general conclusion on the need for teaching staff to have the knowledge and understanding about the deeper connection between online learning technology and online pedagogical use is not too dissimilar to more recent works carried out in several other studies (Kang, 2012; Owens, 2012; Rhode & Krishnamurthi, 2016).

This connection between understanding and applying the learning technology and online pedagogy is made apparent through Rienties, Brouwer and Lygo-Baker (2013) in which they highlighted the sophisticated complexities and intricate connection between pedagogy, technology and content knowledge required to enable teaching staff to effectively adopt and implement TEL as aligned to Mishra and Koehler's (2006) Technological Pedagogical Content Knowledge (TPACK) model. In addition, Baran, Correia and Thompson's (2011) review of the existing literature found evidence to suggest the relevance of online teaching roles and competencies within the context of teacher development programmes, but how these failed to address "the issues of empowerment of online teachers, promoting critical reflection, and integrating technology into pedagogical inquiry" (p. 421). This may suggest the complexities for teachers to understand blended learning approaches and indicates the need to apply them within course design for teachers.

What these studies suggest is the need for a shift in perspectives towards how professional activities can be designed to support teachers, and thus requires careful consideration and design, connecting the "online learning experience and pedagogical expertise to teach and communicate effectively in an online learning environment" (Rhode & Krishnamurthi, 2016, p. 376). In addition, there is a need to provide opportunities for teachers to observe the application of teaching online or transfer the online skills to a more authentic learning environment contextualised to their needs. Moreover, it has been suggested that professional development activities need to further challenge lecturers' pedagogical perspectives by developing their technical knowledge and supporting them with relevant technologies so they can fully understand the potential and possibilities for how different online pedagogies can be applied in their teaching and context (Owens, 2012).

2.3.1 Moving towards blended professional development for teachers

Many higher education institutions often make use of blended learning approaches as their primary delivery mode to their students. For teachers to understand the nuances and nature of blended learning with their students, they are often required to know how to use the technologies, to plan and consider the re-design of their existing curriculum and content for a blended learning environment and to work within the boundaries and constraints of their context and institutional environment (Garrison & Kanuka, 2004), and ultimately, to learn to teach and facilitate effectively in a blended learning environment (Kanuka & Rourke, 2013; Kirkwood & Price, 2014). However, what appears is a gap for advocating and using this blended mode of instruction and delivery as an important and crucial aspect of professional development support strategies to help effectively model this fundamental change in learning and teaching, for teachers.

Whilst there have been many initiatives, studies and practices that demonstrate the benefits of blended learning and how teachers adopt and implement different learning technologies within their curriculum for their own students, including in the context of Hong Kong (Cheng & Chau, 2016; Kember, McNaught, Chong, Lam, & Cheng, 2010; Lai, Lam & Lim, 2016; Szeto, 2015;), there are still very few studies on how teachers learn to teach within a blended environment via coherent and structured professional development activities (Kang, 2012; Keengwe & Kang, 2013; Mironov, Borzea, & Ciolan, 2012). In contrast, research studies into blended professional development with teachers in Hong Kong are even more limited, though Mark, Thadani, Santandreu, Calonge, Pun, and Chiu (2011) conducted a study into a blended learning course for graduate teaching assistants, which focused primarily on the use of two specific learning tools, the discussion forum and a video lecture capture software, to develop facilitation skills. Though, more recently, a strategic professional development initiative focussing on capacity building amongst teachers through a range of comprehensive support interventions has been implemented (Lim & Wang, 2016).

In 2013, Keengwe and Kang conducted a literature review and found only a limited number (23) of empirical studies documenting the use of blended learning approaches in teaching development programs. Many of these were case studies, survey-studies or comparative studies, and much of this research focused on different areas of blended learning, such as its effectiveness, teachers' perceptions, online pedagogies, technological tools and online communities. What Keengwa and Kang noted was, despite an understanding of the difference and nature of teacher development compared to other courses, the approach to blended learning was similar to how other educational programmes were delivered within the institution. More so, they also observed that the

use of traditional learning theories in teachers' professional development within an online environment needed further consideration and realignment. Specifically, educational designers of these courses and programmes were reminded and urged "to modify these concepts and integrate traditional conceptual frameworks into online activities for building effective frameworks for their student teachers" (2013, p. 490).

The potential to use blended modes of delivery to demonstrate blended learning approaches for teachers needs to be further researched and investigated. The underlying benefit of engaging teachers in professional development via a blended approach provides opportunities to experience the intricacies of online learning in an immersive and authentic manner and to view this from different perspectives, such as the technologies available, the nuances of online behaviour, the limitations of traditional pedagogy in this environment, and so on. This approach to blended professional development is shared and supported in various studies, and helps to address the issues which have been suggested that teachers' pedagogical beliefs were often a barrier in effective online learning and teaching, and without understanding their perception, teachers would continue to teach in a didactic manner, and in ways they were familiar with, based on traditional perceptions of how students learn (Donnelly, 2010; Hinson & LaPrairie, 2005; Lee, 2014; Owens, 2012; Singh, 2014a).

2.4 Characteristics of blended professional development

From reviewing the literature, four main distinctive characteristics appear when teachers experience blended learning professional development activities. These appear to play a key role in addressing the gap between teachers learning how to use online technologies and applying these via appropriate online pedagogies. The following

section briefly highlights these four characteristics and explains their connection and purpose for designing blended professional development for teachers.

2.4.1 The need for instructional design

Teachers need to be equipped with an understanding of instructional design for blended learning, and the importance of understanding this concept for developing online learning, and ultimately to effectively adopt this in their own teaching practice. This resonates with Donnelly and O'Farrell's (2006) suggestion that "when academic staff members are given professional development experiences that engage them in discovering educational technology, the stage is set for them to consider principles of instructional design and practice" (p. 155). More often in practice, considerations about instructional design details are constructed in tandem and in collaboration with other relevant colleagues, such as instructional designers or learning technologists. At times, this type of partnership is incorporated within the individualised support for professional development as outlined earlier. This, in effect, provides a more holistic and inclusive approach to curriculum design incorporating TEL, although the result could be that essential and fundamental skills about this are often elusive and detached from the teacher's experience.

In parallel to this, the definition and practice of instructional design is in itself ambiguous and complex, and subject to interpretation determined by content and even, culture. For example, Kanuka & Rourke, (2013) gave an insight into the possible differences and variance of this term between countries, where one of their participants in their study noted that:

> The US has a very different approach to faculty development – more of an instructional development model based on computer theory. The EU, AU and UK focus on student learning research. The US is more about people helping with the logistics of the practical and this shows in the popularity of online learning in the US. Canada is a mix of the two [focus on student learning and instructional development]; more like the UK, but a bit further behind. (p. 29)

Likewise, there appear to be differences in how online courses can be designed based on either an instructional design or social constructivism approach, and Henderson (1996) notes how these different perspectives can have ramifications for the design of online learning and courses. This, in turn, also has implications for important aspects of cultural and contextual understanding for elearning development in general, as Banks, Lally, Liu, and McConnell (2006) noted in their UK and China elearning collaboration through the Sino-UK eLearning Programme (eChina-UK).

Owston, Wideman, Murphy and Lupshenyuk, (2008) highlighted the design, structure and content of the three courses they reviewed as factors which influenced teachers' opportunities and engagement with the course and its activities. They noted that "the more structure that a program imposed, the less flexibility it provided teachers to experiment with activities in the classroom at the same time they were planning on teaching them" (p. 208). For teachers to understand and apply the concept of instructional design and its connection with curriculum design implies they need opportunities to directly experience this via their own learning and inquiry.

2.4.2 Contextualising and modelling the learning environment

An important aspect of professional development for teachers is the need to contextualise the online learning environment, its activities and content in order to adapt to the needs of the institution and their teaching staff. For example, in studies carried out by Fitzgibbon and Jones (2004) and Salmon and Gregory (2013), both of the courses studied were developed based on Gilly Salmon's E-moderating online course, but the tasks had to be adapted and changed using specific technologies or terminologies which were familiar to teachers within the specific institution. Furthermore, providing contextualised training supports Owston et al.'s assessment of the impact of blended professional development programs on teachers' practice, which suggested the closer these programs "met teachers' immediate needs; the more relevant the programs were to teachers' everyday work, the more likely teachers were to change their practice" (2008, p. 209).

In addition, several of these studies actively chose to situate their blended professional development within their institutional LMS or similar platforms. Though this could be regarded as a convenient decision process, what Salmon and Gregory highlighted and considered an important aspect of their study was the decision to deliver their course via the institutional LMS as this "gave staff the chance to see how the LMS worked from a student perspective, and to explore and experiment with the system in a safe and supportive environment" (2013, p. 268).

2.4.3 Learner experience

Another important factor for the teacher in blended professional development is the opportunity to be positioned in the role of a learner to engage in authentic online activities and tasks. From the studies reviewed it is observed that many teachers lack the experience of having learnt online themselves and thus are inexperienced in the complexities of online learning, and therefore, lack the confidence to teach online (Fitzgibbon & Jones, 2004; Rienties et al., 2013; Selvi & Çardak, 2016; Singh, 2014; Vaughan & Garrison, 2005; He, 2014). The importance of the role of the learner is reinforced by Salmon and Gregory through their study of a large-scale online professional programme in which "staff benefit from becoming learners in the online environment and experiencing what their students experience" (2013, p. 259). This perspective has resonance in works by (Kolb, 1984) where the learner goes through a cyclic learning and reflection process through engagement with a specific experience, and this is underpinned either implicitly or explicitly through the quality and nature of the learners' own reflection (Moon, 1999).

Both these perspectives highlight the nature of directly experiencing and reflecting in a general sense, and not specifically as applied to an online or blended environment where the process of reflection needs to be reviewed and adapted to support the learning process. For teachers to experience directly online learning, this provides an opportunity to reveal more explicitly the issues and challenges of learning online in relation to their own students' learning, and this, as elaborated by Barnes (2016) helps "instructors experience similar frustrations and accomplishments as students, they can empathize with the students and understand how online teaching requires enhanced skills". (Conclusion, para.6).

2.4.4 Learning community

Building on the teacher's role as an online learner is a core concept around being part of a community of learners. Garrison and Vaughan's definition of blended learning as a pedagogical approach includes ideas and practice around developing empathy, reflection and inquiry. This, in essence, helps to develop and support a learning community for teachers to help foster collaborative learning, share experiences and practices, as well as establish a sense of peer support that may continue beyond the timeframe of the activities. What appears so vital in these learning communities of teachers is how learning online with others can often reinforce some of the characteristics of establishing ground rules, identity and collaborations needed for the group or cohort to develop a sense of openness and trust (Keengwe & Kang, 2013) which are similar to face-to-face interactions. Moreover, there is also a possibility that this can also help to mimic and demonstrate real-life and relatable scenarios and contexts that teachers may experience with their own students. This resonates with Keengwe and Kang's suggestion that online learning communities can help to "provide authentic contexts for student teachers to bridge theory and practice" (2013, p. 488). In addition, Qasem and Viswanathappa, (2016) noted how the learning community was an important factor in teachers' perception of adopting TEL, and establishing a learning community through developing a blended approach in professional development would allow teachers to be supported in their perception and integration of elearning.

More specifically, Owston et al, (2008) reviewed formal evaluation reports from three different blended professional programmes for teachers, to gain a greater insight into the design, development of community, changes to teachers' practice and student impact. Their findings pointed to the opportunities afforded to teachers via participating

in a blended professional development programme, such as the development of a community, although they noted this appeared to be a "community of teachers striving to improve their professional practice" (p. 209) and unlike their assumption based on Wenger's (1998) Community of Practice. Nevertheless, at the core of these communities, as highlighted by Chen, Mashhadi, Ang, and Harkrider (1999), in their Singapore study, is the importance of trust and communication, together with the use of their reflective inquiry as a factor in developing online courses, and in building learning communities. Chen et al. then go on to highlight an interesting insight on the idea of cultures in the understanding of TEL within an Asian context and suggest that "the quality and nature of learning are largely determined by the individual's experience of cultures and technologies" (1999, p. 228). In general, this appears not dissimilar to challenges experienced by most teachers, but they highlight the need to acknowledge the cultural context and perceptions of what learning is within it.

One key fundamental concept that seems evident from reviewing the literature on blended professional development for teachers is the importance of creating an online learning community to provide a space for learning and teaching practices to encourage and develop inquiry, collaboration and enhance collegiality. Lock (2006) acknowledges the importance and benefits of having online learning communities for teachers' professional development, but highlights how changes in existing perceptions, new models of embedded online learning communities and a wider, more global inclusion to professional development would need to change in order to further develop and sustain these communities.

2.5 Learning communities in blended professional development

One focus for this research study is the concept of a learning community of teachers engaged in a blended professional development course. Looking initially into the idea of learning communities, several studies (Evans, Tutty, & White, 2004; Wilson & Stacey, 2004) have adopted Wenger's (1998) model, Community of Practice, to describe how teachers may foster and encourage collaboration with one another. Wenger' model highlights the importance of the participant's own individual identity and what they bring to the community and its underlying sense of learning as a social participation. The idea was first conceptualised by Lave and Wenger (1991) through their study of apprenticeship situated learning. It highlighted a unique distinction between membership and participation regarding communities of practice based on their assumption that "members have different interests, make diverse contributions to activity, and hold varied viewpoints" (p. 98). Wenger's Community of Practice theory is used and adapted in different ways, for example, to support staff to teach online, to develop collaborations in departments and among staff or to achieve a deeper understanding of different roles and responsibilities within communities (Eib & Miller, 2006; Evans et al., 2004; Hannon, 2008; Oliver, 2002; Wilson & Stacey, 2004).

However, one of the limitations of Wenger's Community of Practice model is how this approach can apply itself to teachers' professional practice within an online and blended environment. What seems evident in the literature is when learning communities are placed within blended environments for teachers to learn about blended learning approaches, it appears to provide teaching staff with the confidence and skills to mimic and apply its uses and approach with their students. The role of the online community of learners to support professional development in TEL is developed further by Palloff

and Pratt's (2007) idea that "the learning community approach is proving to be an effective means by which to provide faculty development and training regarding online learning" (p. 13).

In Palloff and Pratt's (2007) work, they identified four elements to help support the development of an online learning community: people; purpose and policies; interactivity and reflective/transformative learning. Palloff and Pratt's (2007) model aligns to the development of an online community and views this from several perspectives, including connections with online activities and technologies, together with development of a social constructivist context that allows for reflection and the active creation of knowledge and meaning. This seems to acknowledge and start to address some of the complexities of blended professional development, and highlights the activities and reflections the participants engage with, which is absent from Wenger's Community of Practice. In applying this to online professional development, Palloff and Pratt (2011) proposed a framework that could be applied to online professional development, dependent on the teachers' stages of development and their needs and requirements. This is similar to Sherry et al.'s (2000) model where different stages of professional development could be aligned to varying roles for the teacher, however, in practice, it may not always be clear the type of support that is required to suit teachers' roles and their needs in TEL.

These models of learning communities exist predominately in either a face-to-environment or fully online environment, though it cannot be disputed that the way in which these communities form and evolve within professional development has an impact on teachers' approach and perspective regarding online teaching and TEL. This

is reiterated by Palloff and Pratt as they consider that "one of the most effective ways to assist faculty in understanding the value of a learning community in online teaching is to incorporate this same approach into faculty training and development" (2011, p. 54).

On this premise, it is helpful to look further into the concept of learning communities, which is most appropriate and suited within a blended learning environment. Underpinning this research study is the use of Garrison's (2000) CoI framework to help inform the design and development of online and blended educational environments. As previously mentioned, the foundation for the CoI framework lies in the work of Dewey and the idea of practical inquiry via collaboration, goals and outcomes (Garrison & Vaughan, 2008). Furthermore, Garrison and Vaughan embed the idea of blended learning design through their work on the CoI, and as such, this forms the basis of a theoretical framework for this study. This further supports and resonates with how this study is concerned with the design of a blended professional development course, to model blended learning and teaching for its participants.

2.6 Community of Inquiry (CoI)

The concept for the CoI framework derives from the idea that blended learning can provide an opportunity for institutions to transform the nature of teaching and learning through a more specific and tangible approach. Garrison and Vaughan (2008) connected this to the idea that "transformational growth can only be sustained with a clear understanding of the nature of the educational process and intended learning outcomes". More specifically, in order to support this, they suggested that the central, key aspect of this process is in a community "that supports connection and collaboration among

learners and creates a learning environment that integrates social, cognitive and teaching elements in a way that will precipitate and sustain critical reflection and discourse" (p. 8).

Garrison and Vaughan (2008) believed that the process of learning and teaching lies fundamentally within "a collaborative constructivist process that has inquiry at its core" (p. 14), and to do this, requires learners to develop a deeper understanding and reflection of their own knowledge through social and collaboration exchanges with others to help provide further meanings and construction. In this sense, the community needs to have inquiry. This forms the basis for a CoI, and at its core are three key underlying philosophies based and focused on providing purposeful, open and disciplined dialogue, inquiry and reflection for its learners (Garrison & Vaughan, 2008).

Together with these key underlying philosophies are three aforementioned important underpinning and interconnecting elements: social presence, cognitive presence and teaching presence, which impact and influence one another (see Figure 2). How this manifests itself may not always be directly measured equally but ultimately these elements are supportive of the overall CoI framework. In addition, each element demonstrates certain characteristics and has associated related activities which are placed accordingly to help support and achieve the corresponding learning and teaching processes (Garrison & Vaughan, 2008). These key interconnecting elements provide the basis for a collaborative, constructivist learning experience for a community of learners, including a distinct set of categories and indicators which further help to define each individual presence for analysis and investigations (Garrison, 2007).

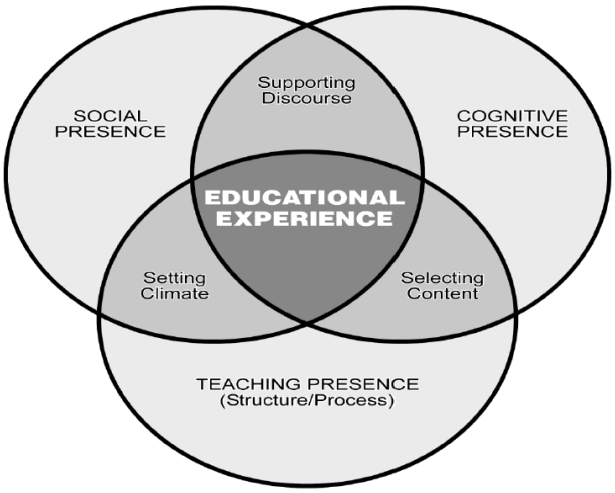


Figure 2: Community of Inquiry Framework (Garrison and Vaughan, 2008)

The following briefly describes each presence in the CoI framework, which will be used to help address and discuss the research questions proposed in this study.

The role of social presence is focused on the creation and development of an environment that supports trust, open communication and group cohesion (Vaughan, Cleveland-Innes, & Garrison, 2013). The categories of social presence are defined as *open communication*; *group cohesion* and *affective/personal communication* (Garrison & Arbaugh, 2007). It is evident that the need for the creation and sustaining of the social aspects of online learning such as connection to, familiarity and ease of communication with other learners can be indicators of effective and successful learning communities (Garrison, 2007; Tolu, 2013). Many of the studies investigating the influence and impact of social presence primarily focus on the frequency counts of text-based interactions and collaborations amongst online learners (Kanuka & Rourke, 2013; Rourke & Kanuka, 2007; Swan, 2005; Swan & Shih, 2005). By comparison, Vaughan and Garrison's (2006) similar study of blended professional development showed a shift and increase to *group cohesion* suggesting the importance of *open and affective*

communication before *group cohesion* can be established. What is relatively absent in the literature is the focal point of social presence within a blended professional course and how the connecting cognitive and teaching presence might influence it. In particular, and of greater relevance to this study is how the design of relevant tasks or activities can contribute to and support participants' development of social presence in blended professional development courses.

Teaching presence is defined and operationalised through the *design, facilitation and direction instruction* in a CoI, and connects social and cognitive processes which lead to meaningful educational outcomes (Vaughan, Cleveland-Innes & Garrison, 2013). The role of the teacher within online and blended learning environments plays a crucial aspect in "student satisfaction, perceived learning, and sense of community" (Garrison & Arbaugh, 2007, p. 163). The different facets of teaching presence are conceptualized in the CoI framework as three distinct components a) *instructional design and organisation, b) facilitating discourse and c) direct instruction*. Thus, the role of teaching presence is defined as "the design, facilitation, and direction of cognitive and social processes for the purpose of realising personally meaningful and educationally worthwhile learning outcomes" (Anderson et al, 2001, p. 5). The relevance of this presence to this study is the understanding and further investigation of how the design of the blended professional development course together with the associated blended teaching approaches can support teaching presence.

According to Vaughan et al, (2013) cognitive presence is defined "as the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry" (p. 11). In cognitive presence, the

categories are a four-phase process that is based on the foundation of practical inquiry through *a triggering event*, *exploration, integration* and *resolution* (Garrison, 2011). Each phase gives rise to different indicators, although the investigation carried out by Rourke and Kanuka (2009) challenges the ability of the CoI framework to give rise to deep and meaningful learning as a measure of cognitive presence. Notably, Garrison (2007) admits the challenges posed by the study of cognitive presence, and later chooses to focus on the process of achieving learning outcomes (Akyol & Garrison, 2011) and the transition between the different phases, with an emphasis on the process to *resolution* in a CoI, as a measure of cognitive presence. However, one of the underlying principle within cognitive presence is the idea around collaboration, application of inquiry and in particular, reflection. To further support the process of reflection in cognitive presence, Redmond's (2014) study proposes the inclusion of this as an additional indicator to help further demonstrate the *resolution* phase. Again, much of the literature has focused on cognitive presence within a fully online environment, and in particular with students as the learners. This study aims to look specifically at how the design, implementation and evaluation of a blended learning activity can support teachers in developing their cognitive presence in the CPD inquiry process.

Table 1 shows the three presences with their corresponding categories and possible indicators.

Elements	*Categories*	*Indicators (examples only)*
Social presence	Open communication Group cohesion Affective/personal	Enabling risk-free expression Encouraging collaboration Expressing emotions, camaraderie
Cognitive presence	Triggering event Exploration Integration Resolution	Having sense of puzzlement Exchanging information Connecting ideas Applying new ideas
Teaching presence	Design & organisation Facilitation of discourse Direct instruction	Setting curriculum and methods Sharing personal meaning Focusing discussion

Table 1: Community of Inquiry Categories and Indicators (Garrison and Vaughan, 2008)

The CoI framework provides an interesting perspective into how we perceive blended learning, as well as an approach to how blended learning can be designed, implemented and evaluated. This aligns with recent existing studies which continue to investigate the applicability and usefulness of the CoI framework for online and blended environments (Cooper & Scriven, 2017; Paskevicius & Bortolin, 2016). In addition, it provides an appropriate theoretical framework to underpin this study to help investigate how the existence of the three presences supports the learning experience of a community of teachers to develop blended learning approaches, whilst demonstrated via a blended professional development course.

Furthermore, Garrison and Vaughan (2008) highlight the necessary, and relevant tasks teachers need to engage within a blended learning community, this leads us to their adapted framework to support an inquiry-based learning community of teachers in a blended environment. Specifically, it highlights the type of professional development activities and aims for teachers on a blended professional development programme, and thus provides the necessary environment and support for teachers to be able to discuss and reflect on course designs, experience blended learning from the position of a student and to be able to apply and evaluate their course design supported by relevant instructional design strategies (Garrison & Vaughan, 2008). The concept and details behind these three interconnecting areas, and how teacher participants are expected to engage with the relevant tasks in this blended CoI, are shown in Figure 3 and described below:

Curriculum Design*:* this involves the design of the course outline or syllabus for delivery as a blended learning course

Teaching Strategies*:* teacher participants to learn through experience a range of teaching approaches, such as online discussions, group work and e-assessments

Technology Integration: this involves developing the knowledge and skills required to manage online course websites, and resolving basic technical issues from students.

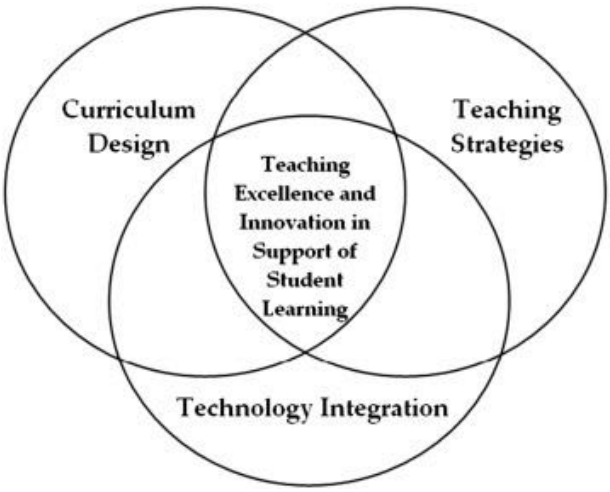


Figure 3: Program Outcomes for a Blended Faculty Community of Inquiry (Garrison and Vaughan, 2008)

This approach for a blended CoI for professional development actively advocates for teachers to review and redesign their courses for blended learning. This implies an understanding of the benefits and transformative nature that blended learning can offer. In practice, this may mean a more systematic and organised approach that has to be aligned with the existing institutional context and procedures, which may, at times, appear daunting and unmanageable. However, it may be possible to experience the potential benefit of applying this approach on a more micro and discrete course level, which can be dictated and controlled by the teacher. The gap in the literature for this approach is an interesting one, and how teachers can be expected to adopt blended teaching practices via relevant and appropriate support interventions align to the context of this study and its research questions.

The application of the CoI framework coupled with the advantages and affordances of blended learning designs allows greater potential for professional development, and can "create cognitive presence and facilitate inquiry into one's teaching practice" (Vaughan and Garrison, 2005, p. 4). This is ultimately one of the aims of designing effective

professional practice that helps to support teachers in the use of TEL. In addition, where the focus can be both on how to learn to use the technologies in teaching but also, and most critical in the development of teachers, how to effectively facilitate with these technologies to achieve student-centred learning.

2.7 Thesis contribution to knowledge

It is evident from reviewing the literature for this study, that more research is needed in light of the evolving developments and practices around blended learning and teaching to support teachers to meet the needs of 21st century education. In concluding this chapter, it is apparent that there is still much to research in the area of blended learning and its approach for designing professional development courses and programmes for teachers. There have been numerous studies spanning over a decade to suggest professional development for teachers on the use of TEL, in particular for blended learning, still needs to address the gap between the technological and the pedagogical knowledge and skills, in order for teachers to apply effective online teaching and facilitation in their practice (Keengwe & Kang, 2013; Owston et al, 2008; Rhode & Krishnamurthi, 2016). This disconnect between what is learnt and gained from blended professional development, and how this is applied directly into teaching practice requires further research and investigation. The research questions in this study aim to provide further insight into how blended professional development can help support and develop teachers' skills and knowledge in this approach and thus start to address the gap highlighted in the literature. Findings from this study will help inform the future design and development of blended professional development for teachers.

In addition, a central focus of blended professional development within this research study is the concept of a community of teachers who inquire, reflect and develop their blended learning approaches through considered course design, implementation and evaluation. One of the aims of this study is to provide an insight into a community of teachers' learning experience of blended learning via a blended learning delivery mode. This will be studied using the CoI framework as its theoretical lens, and this study will help to contribute to the body of knowledge around inquiry-based learning communities and to the development of the framework itself. This study will contribute to the understanding and development of teaching and facilitation in a blended learning environment and how this approach for CPD can be adopted more effectively for teachers.

Lastly, within the context of Hong Kong where this research study is located, there is an absence of national bodies and frameworks such as the Association of Learning Technology, Staff and Educational Development Association, Higher Education Research and Development Society of Australasia, and UK Professional Standards Framework which, by comparison, have a unique position in terms of oversight and dissemination of professional development activities and the use of TEL by teachers. Thus, the purpose and contribution of this qualitative research will help to provide some insight into how blended professional development is designed and delivered for higher education teachers in Hong Kong.

Chapter 3 Research Design

This chapter outlines the rationale and use of phenomenology for the purpose of this qualitative study, and provides details of the process of the research and its methods and analysis. It also includes details of the research context, including the curriculum design of the blended professional development course (DBLT) and the Pecha Kucha presentations in this study.

3.1 Research methodology: an overarching approach

The research methodology was chosen and determined by the research questions, the context and the relevancy of this study for the ongoing investigation of blended professional development to support teachers develop their blended practice. This research adopts a constructivist-interpretivist stance and uses phenomenology as a methodological approach.

At the core of this study, are teachers who come from multiple backgrounds and disciplines and have a wide range of teaching experience and knowledge. They bring with them many different perspectives and conceptions in terms of how they might engage and participate in professional development on blended learning and teaching. Thus, according to Cohen, Manion and Morrison (2011):

> the central endeavour in the context of the interpretative paradigm is to understand the subjective world of human experience. [Therefore it is important] to retain the integrity of the phenomena being investigated, efforts are made to get inside the person and to understand from within. (p. 17)

This acknowledgement of the multi-dimensional perspective of how we view certain behaviours, situations and context means that the specific nature of this qualitative study supports the idea "to empower individuals to share their stories, hear their voices, and minimise the power relationships that often exist between a researcher and the participants in the study" (Creswell, 2013, p. 48).

Before considering the use of phenomenology for this study, I also considered the use of case study as a possible approach since Creswell identifies "a case within a bounded system, bounded by time and place" (2013, p. 48) and this initially appeared to suit the context currently being investigated, that is the blended professional course and Hong Kong. However, limitations for case study for this research posed some difficulties as this meant having to specify clearly the parameters and descriptions being investigated (Yin, 2009) and it was inappropriate to do this if participants' experiences of the course were to be fully understood. Therefore, the decision to use phenomenology as an approach aligns with the stance of this study. Phenomenology is also an interpretative perspective that aims to provide "multifaceted images of human behaviour as varied as the situations and context supporting them" (Cohen et al, 2011, p. 18).

3.1.1 Phenomenology

There are several strands of phenomenology, as originated by philosophers such as Husserl, Mearleau-Ponty and Heidegger, but in general, phenomenology is based on the philosophical viewpoint to do with the "study of direct experience taken at face value; and one which sees behaviour as determined by the phenomena of experience rather than by external, objective and physically described reality" (Cohen et al, 2007, p. 18). This approach is based on a philosophical position of studying peoples' experiences

around “a concept or the phenomenon” (Creswell, 2013, p. 51), and is focused on the lived experiences of a group of individuals around a shared phenomenon.

According to Denscombe (2007), phenomenology supports investigations into “how things are experienced first-hand by those involved” (p. 76) and as such, it seems appropriate to use a phenomenological approach for this study since it allows participants to express their experience of a blended professional course which aligns to the purpose of this qualitative research.

The teachers in this study come from different subject disciplines and have different perceptions of learning and teaching, and their experiences of using technologies for teaching are diverse. Thus, how their experiences are experienced and interpreted is based on the individual participant, and is therefore varied. Phenomenology allows exploration of the participants’ diversity of experience and complexity with a particular phenomenon through identifying “lived experiences of individuals and how they have both subjective experiences of the phenomenon and objective experiences of something in common with other people” (Creswell, 2013, p. 78). This supports the idea of Moustakas (1994) that “whether one is perceiving, remembering, judging or imagining, there are common threads in one’s intentional experience of something” (p. 71). The exploration of participants’ experience provides a detailed understanding of it based on their own subjective interpretation of the phenomenon (Dusi, Girelli, Tacconi, & Sità, 2011).

This study is concerned with how the participants on the DBLT course perceived and engaged with the use of technology, their application of TEL. Cilesiz (2011) highlights the use of phenomenology as an appropriate approach for underpinning educational

technology research studies since the prevalence of technology in our daily lives and its influence on an individual's experiences means:

> experiences with technology – and even experiences of non-use of technology for that matter – are embedded in students' and teachers' lifeworlds. Investigating experiences with established technologies that are seamlessly integrated into their daily lives is especially consistent with phenomenology. (p. 493)

This in-depth investigation into how the participants experience the DBLT course provides this phenomenological study with "the *essence* of the experience for individuals incorporating 'what' they have experienced and 'how' they have experienced it" (Creswell, 2013, p. 79). This addresses one of the aims for this study to investigate teachers' perceptions and attitudes towards blended professional development.

Encompassed within this phenomenological study is the aspect of designing and developing a blended professional development course for teachers. This aspect is based on my role in co-designing and adopting an iterative approach to the development of the DBLT course as an educational intervention to help inform teachers' practice within a local, real-world context (Alghamdi & Li, 2013; Anderson & Shattuck, 2012; Euler, 2017) to understand and evaluate teachers' experience of the course. The DBLT course was designed iteratively and enhanced through practice-informed evaluations and reflections taken by the facilitators and via participants' feedback from the three

cohorts. The details of the DBLT course described in this study are the final version of the course, and were delivered to the third cohort of participants.

On this basis, it would have been possible to adopt a form of design-based research approach (Herrington, McKenney, Reeves, & Oliver, 2007) in this research study to complement the philosophical underpinning of phenomenology in that it can be considered as one which facilitates "pragmatic inquiry, through a series of methodological approaches to assist in the exploration of complex phenomena in real-life contexts and in collaboration with people engaged in everyday practice" (Goff & Getenet, 2017, p. 109).

3.2 My position as designer, facilitator and insider researcher

I am aware and recognise the multiple roles and perspectives I bring into this research study, namely, as the course designer of the DBLT course, as one of its facilitators during the delivery of the course, and as a researcher; and the potential possibilities and challenges this would bring to the research.

Mercer (2007) acknowledges the dichotomy and contradictions of the insider-researcher role in undertaking research where the researcher works, and highlights the tension between familiarity, rapport and the influence this might have on the study and its underlying ethics. My status as the designer/ facilitator of the DBLT course meant access to participants and data collection was relatively easy, and but this also meant I had a greater understanding about the rationale for the design of the course and its subsequent iterations in which certain activities were modified or adapted. In addition, I also knew of the problems or struggles some participants had experienced on the

course. These included personal issues as well as challenges with institutional or managerial matters and context. This aligns to Mercer's perspective that "insider researchers usually have considerable credibility and rapport with the subjects of their studies" (2007, p. 7), and I had to be aware of my own presumptions about data collection and analysis.

In conducting my research, I tried to make clear to the participants the distinction of my roles as a researcher and the designer/facilitator of the course. In this way, I tried to adopt Mercer's approach and to "limit my own contributions" (2007, p. 11) so as to refrain from predetermining or predicting participants' responses in the interviews.

3.2.1 Epistemology and ontology

To understand the purpose and rationale of this study, it is important to clarify more explicitly my own ontological and epistemological position. As researchers, we bring, either implicitly or explicitly, a set of values, beliefs and assumptions to the context and research that is being studied (Creswell, 2013). The nature of this study places the researcher as both the course designer and facilitator, so I am aware of my own unique position, motivation and direct experience of working with the participants and their experience of the course itself. Therefore, the researcher's stance is from an interpretivist/ constructivist paradigm in which "individuals seek understanding of the world in which they live and work" (Creswell, 2013, p. 24). This means the basis of this study relies on the participants' lived experiences of the DBLT course, but in interpreting their meaning, I am also aware of my own position and direct experiences which are shaped and influenced by my "own personal, cultural and historical experiences" (Creswell, 2013, p. 25).

3.3 Course design and content

3.3.1 A blended professional development course: Designing Blended Learning and Teaching (DBLT)

The DBLT course was designed and structured explicitly to be delivered in a blended mode. This provided opportunities for an authentic, and real-life experience for the participants, and to demonstrate how teachers could apply similar techniques and approaches with their own students. To help reinforce the idea of an authentic blended learning context at the university, the course consisted of five compulsory face-to-face sessions delivered at specific intervals during the course, which lasted 14 weeks and was separated into three modules. In total, the course was delivered to three cohorts over three semesters.

The course was developed with the following intended learning outcomes:

- Have an authentic experience of being an online learner, and be part of a learning community
- Develop knowledge and understand the issues of embedding blended learning approaches in your discipline
- Develop and apply innovative blended learning approaches aligned to your teaching and subject
- Critique and evaluate your own blended teaching practice as part of being a reflective practitioner.

The three modules were designed to make use of resources, such as academic articles, videos and other learning and teaching references, and these acted as stimuli for online discussions, group work and for the sharing of knowledge and experiences. The online modules provided examples of good practice, case studies and modelled online pedagogical practices. The course adopted an iterative course design and, as mentioned above, was delivered to three cohorts of teachers between 2014 and 2015. Each course completion provided an opportunity for the facilitators to evaluate and refine certain tasks and instructions, based on their own experience and feedback from participants. The course was designed and delivered by two facilitators (one being the researcher of this study). The outlines of all three modules, as designed and delivered for the third and final delivery of the course, are described in the following section.

Module One: Being an Online Learner

The intention of this module was for participants to be able to achieve the following outcomes at the end of the module:

- Describe how the use of Blackboard can enhance their online teaching
- Provide examples of how being an online learner has influenced their online teaching
- Apply basic and relevant skills/techniques within their online teaching in Blackboard.

A prerequisite for the participants on this module was they had to either have an introductory workshop on the LMS or to have used the LMS with their students for at

least one semester. Table 2 below refers to the course outline and learning outcomes for Module One.

<table>
<tr><td colspan="3">Module One: Becoming an Online Learner (4 weeks)</td></tr>
<tr><td>Learning outcomes (LOs)</td><td colspan="2">At the end of this module, participants will be able to:
• Describe how the use of Blackboard can enhance their online teaching;
• Provide examples of how being an online learner has influenced their online teaching;
• Apply basic and relevant skills/techniques within their online teaching in Blackboard.</td></tr>
<tr><td>Delivery mode and times over 4 weeks</td><td>Face-to-face (compulsory)
Online learning and online activities (compulsory)
Independent Study</td><td>2 hrs
6 hrs
4 hrs

Total = 12 hrs</td></tr>
<tr><td colspan="2">Online activities</td><td>Main activities for participants</td></tr>
<tr><td colspan="2">• Pre-course survey to assess their experience with Blackboard and elearning
• 10 online activity/tasks designed and developed
• Module evaluation survey</td><td>• Online orientation, introduction and self-assessment
• Face-to-face group discussion
• Discussion topics with peers based on stimulus and resources provided
• Quiz to assess personal learning styles
• Maintain learning journal to record and reflect on learning on the course
• Collaborate in an online group work using a wiki</td></tr>
<tr><td colspan="3">Blackboard functions/tools used in the module:
survey/quiz; discussion forums; wiki; blogs; learning journals</td></tr>
</table>

Table 2: DBLT Module One Course Outline and Learning Outcomes

This first module (see Figure 4) was focused on establishing an online learning environment for teachers to experience being an online learner. This was considered an important element of the learning experience since many of the teachers had never learnt online. This module demonstrated examples of good practice/techniques within the LMS and included specific online activities. These included extensive use of the discussion forum to support group communication, keeping a personal learning journal to support reflective writing, and the use of a wiki to support group work. In the wiki activity, participants were asked, in groups of 5-7 members, to develop a set of wiki pages on a specific topic of related online learning, such as inclusive learning, accessibility and social media. For many participants, this was their first contact with a wiki and with experience of real online group negotiation and collaborative creation.

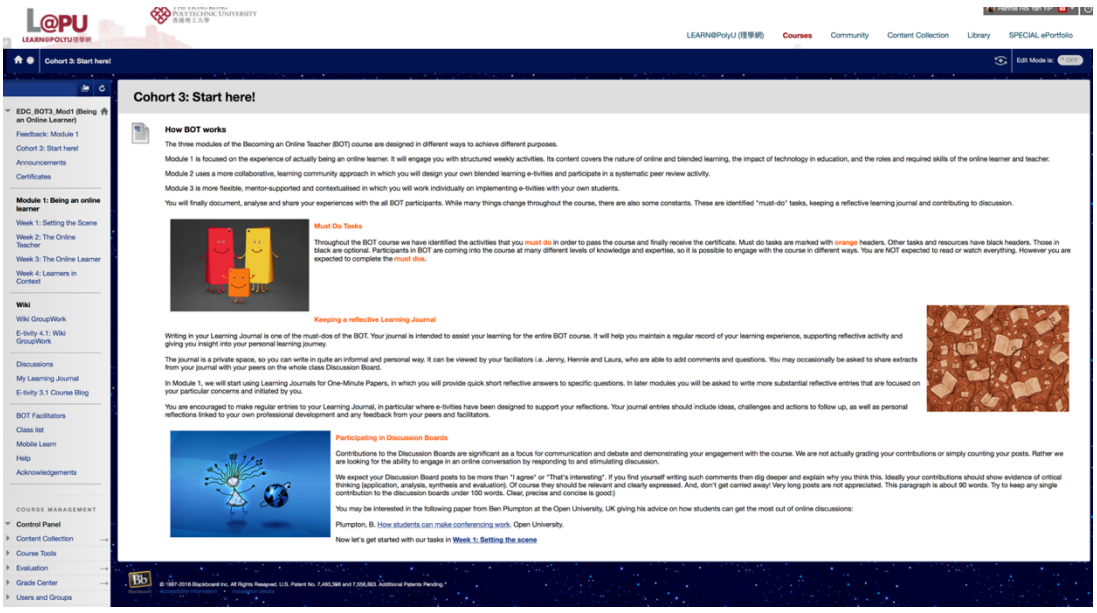


Figure 4: Screenshot from DBLT Module One

This first module was designed with a dual exit strategy, firstly to enable teachers to experience and use the different functions in the LMS to provide a scaffolded transition

smoothly into the next module: Designing an e-tivity. Secondly, the module could also act as a standalone approach to also allow teachers to either i) complete and exit the course at this point, or ii) have the option of re-joining Module Two in the following semester. This flexibility was seen as an option to help address the busy schedule of the teachers. Within the course, an e-tivity was defined by the course designers as a learning activity designed to be implemented within the Blackboard LMS and used in a blended delivery mode (face-to-face and online components).

Module Two: Designing an e-tivity

Participants had to have successfully completed Module One: Becoming an Online Learner before progressing to Module Two. In addition, they had to be able to identify a subject they would be teaching in the same semester in which they could design and implement their blended learning activity.

The intention for this module was for participants to be able to achieve the following outcomes:

- Critique and evaluate different tools within Blackboard to constructively align to the use of learning outcomes within their own subject(s)
- Design a blended learning activity within Blackboard for their subject
- Use relevant resources and literature to support a critique and rationale of their online learning activity.

Table 3 below provides further detail on the course outline and learning outcomes for Module Two. This module focused on preparing teachers to design a small scale

blended learning 'e-tivity' plan that they would implement with their students later on in Module Three.

<table>
<tr><td colspan="3">Module Two: Designing e-tivities (4 weeks)</td></tr>
<tr><td>Learning outcomes (LOs)</td><td colspan="2">At the end of this module, participants will be able to:
• Critique and evaluate different tools within Blackboard to constructively align to LOs use within their own subject(s)
• Design a blended learning activity within Blackboard for their subject
• Use relevant resources and literature to support a critique and rationale of their online learning activity</td></tr>
<tr><td>Delivery mode and times over 4 weeks</td><td>Face-to-face (compulsory)
Online learning and online activities (compulsory)
Mentor support
Independent Study</td><td>4 hrs
4 hrs
2 hrs
2hrs

Total = 12 hrs</td></tr>
<tr><td colspan="2">Online activities</td><td>Main activities for participants</td></tr>
<tr><td colspan="2">• 5 online activity/tasks designed and developed
• Individual feedback and comments for all participants on their e-tivity plan
• Module evaluation survey</td><td>• Share an online resource using a blog
• Design an e-tivity plan for their subject
• Share their e-tivity plans with their peers
• Conduct two reviews and provide feedback and comments of their peers' e-tivity plan (via blog)
• Face-to-face discussion on peer review process
• Maintain learning journal to record and reflect on their learning on the course</td></tr>
<tr><td colspan="3">Blackboard functions/tools used in the module:
survey/quiz; blogs (course & individual); learning journals</td></tr>
</table>

Table 3: DBLT Module Two Course Outline and Learning Outcomes

Teachers were guided through a detailed instructional design process with a set of questions and guidelines relating to their learning outcomes, the online environment and how this would potentially support the students' learning. They were supported through this process by the use of online groups and personal blogs in the LMS. At this point, participants were assigned to one of the facilitators of the course who acted as a mentor to provide personal support for the rest of the course, and in particular during their implementation in the final module. Each participant's idea for their e-tivity was captured using The E-tivity Planner (see Appendix 1), a key step-by-step document with relevant prompt questions to support teachers in the design stage of this module.

A significant aspect of this module was the blog peer review activity in which participants were asked to submit their e-tivity plans to their individual blog area where two peers and a mentor would review and provide feedback on their idea. The process of this task allowed participants to review each other's work, enabling them to learn from each other by acting as critical friends and by providing constructive feedback. In addition, Module Two was created with a different look and feel to show participants alternative ways to design their own Blackboard courses (see Figure 5).

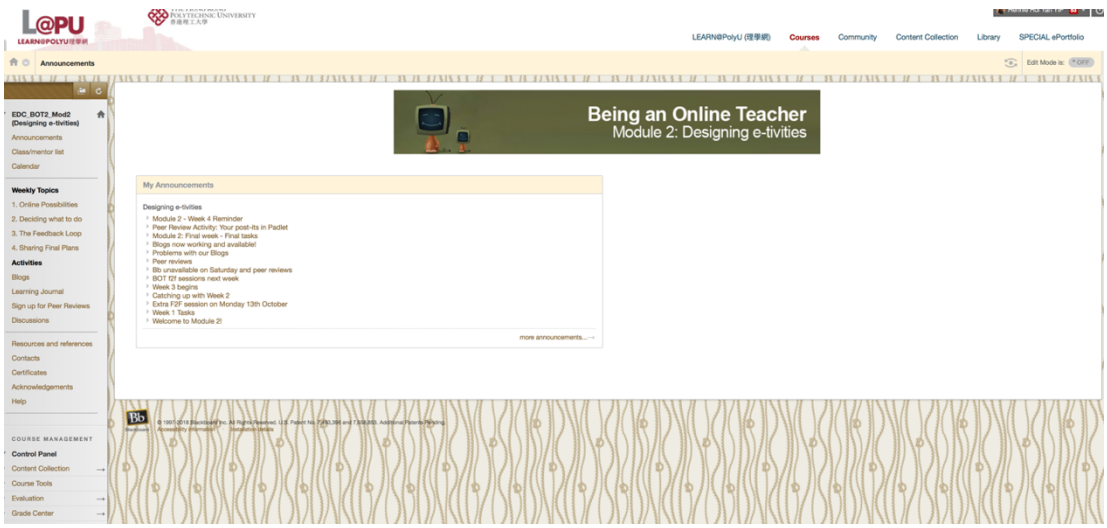


Figure 5: Screenshot from DBLT Module Two

Module Three: Teaching with e-tivity

In this final module, participants had to implement their online activity with their students in the LMS (or other chosen learning technologies as justified) and evaluate its effectiveness. The intention for this module was for participants to be able to achieve the following outcomes:

- Implement a blended learning activity for use with students in a subject
- Evaluate the impact of the blended learning activity on student learning

  Critique and reflect on teaching practice through blended learning activity/use of Blackboard.

This implementation stage ran concurrently with the DBLT course and, in general, teachers had around 5-6 weeks to implement and evaluate their design with their students. The participants were also asked regularly to write reflective learning journal entries to record their thoughts about their implementation progress. In particular, they were also asked to critique and reflect on their own teaching practice through the experience, as part of being a reflective practitioner. The culminating piece of work required to complete the DBLT course successfully was for participants to write up a short case study capturing their implementation and evaluation of the e-tivity. These case studies were then shared in the discussion forum. Further sharing of these blended learning experiences took place in the final face-to-face session when all participants were asked to make Pecha Kucha presentations to their peers. Table 4 refers to the course outline and learning outcomes from Module Three.

<table>
<tr><td colspan="3">Module Three: Teaching with e-tivities (8 weeks)</td></tr>
<tr><td>Learning outcomes (LOs)</td><td colspan="2">At the end of this module, participants will be able to:
Implement a blended learning activity for use with students in a subject;
Evaluate the impact of the blended learning activity on student learning
Critique and reflect on teaching practice through blended learning activity/use of Blackboard</td></tr>
<tr><td>Delivery mode and times over 4 weeks</td><td>Face-to-face (compulsory)
Online learning and online activities (compulsory)
Mentor support
Independent Study</td><td>3 hrs
4 hrs
2 hrs
5hrs

Total = 14 hrs</td></tr>
<tr><td colspan="2">Online activities</td><td>Main activities for participants</td></tr>
<tr><td colspan="2">Relevant resources designed for the following aspects: mentoring; implementation; case study, reflection, evaluation; Pecha Kucha
3 online activity/tasks designed and developed
Post course and module evaluation survey</td><td>Meet mentor for individual consultation
Implement e-tivity plan with their own students
Evaluate and collect feedback from their students about their e-tivity
Write a case study of their e-tivity experience
Maintain learning journal to record and reflect on personal learning on the course
Prepare a final critical reflection (written, video or audio) of learning on the course
Prepare and deliver a Pecha Kucha presentation on blended teaching/learning experience for peers in the final face-to-face session</td></tr>
<tr><td colspan="3">Blackboard functions/tools used in the module:
survey/quiz; discussion forums; learning journals</td></tr>
</table>

Table 4: DBLT Module Three Course Outline and Learning Outcomes

Participants had to complete certain tasks from Module Three at scheduled times during the implementation of their blended learning activity. These included writing reflective entries to a learning journal, collecting student feedback, as well as writing a case study of their implementation. Figure 6 shows a screenshot from Module Three outlining the different tasks and activities participants had to achieve to complete the course.

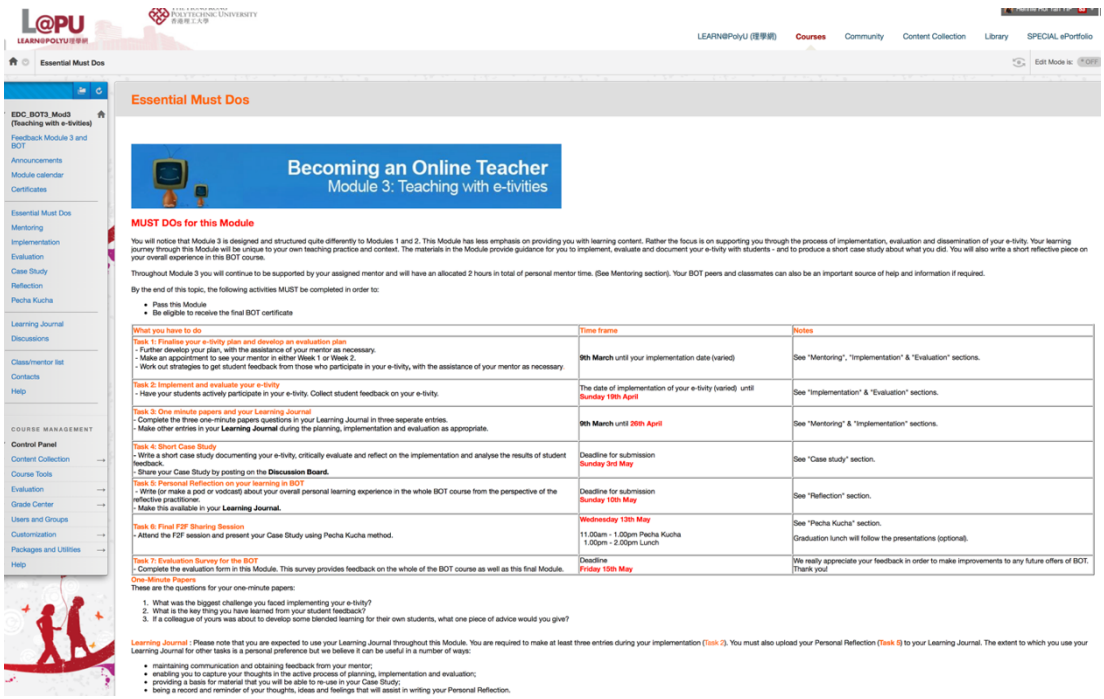


Figure 6: Screenshot from DBLT Module Three

The curriculum design of the DBLT course was conceptualised based on teachers having an experiential learning experience where they were able to engage with certain functions/tools in the Blackboard LMS, but most importantly, to help them design a blended learning activity which they could use and evaluate with their students. Figure 7 below shows how the course, as a cyclic, developmental and supportive framework, gives teachers an opportunity to authentically experience the nature, potential and limitations of blended learning in a specific context.

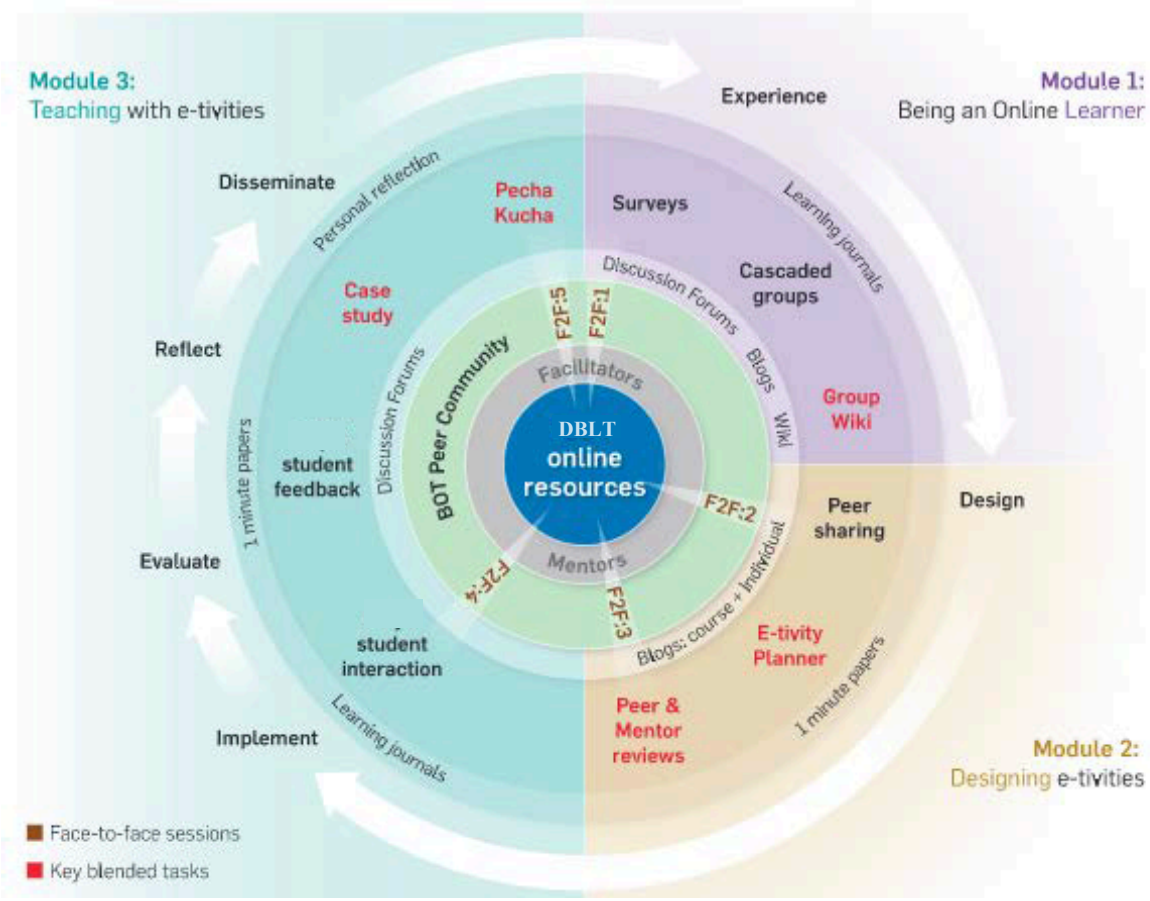


Figure 7: DBLT Course Structures and Activities

The overall design strategy of the modules transitioned from a structured and moderated/guided experience based on weekly activities (Module One) to a more collaborative, learning community approach around a systematic peer review activity (Module Two). Finally, a more flexible, mentor-supported and contextualised approach was adopted to support individual participants' e-tivity implementations with their students (Module Three). This overall strategy provided the immersive and focused experience for teaching staff as originally intended in the project conception.

In total, 95 participants completed the DBLT course over three semesters. Each cohort included the following number of participants who completed the course: Cohort 1 (30 participants); Cohort 2 (24 participants) and Cohort 3 (41 participants).

3.4 Participant recruitment

For the purpose of this phenomenological study, a purposeful sampling strategy was used based on decisions for i) who the participants were, ii) type of sampling and iii) sample size (Creswell, 2013; Miles, Huberman, & Saldaña, 2013). The participants who were selected had experienced and completed the DBLT course, the phenomenon being researched in this study.

In considering participants' recruitment, one question centred on the role of the course facilitator now undertaking the role of the researcher in this study, and the potential impact this insider position might have on the research at the time of starting this research study. This was particularly relevant for the last cohort of participants who were, during the time of commencing this study, still completing the course. To overcome this potential conflict of interest, participant recruitment only commenced after the last cohort had fully completed in May 2016. This coincidently occurred around the time that the researcher transitioned to a new appointment in a different institution, and thus helped to minimise issues around the power imbalance which could have impacted on the semi-structured interviews during the data gathering stage in this qualitative study (Kvale & Brinkmann, 2015).

Email invitations were sent to all the participants in July 2016. These outlined the nature and purpose of the study, the format of data collection and anonymity of

participants' details within the research. A total of 11 participants responded and agreed to be interviewed from the following cohorts (see Table 5).

Cohort	Number of participants	Gender	
		M	F
1	6	4	2
2	3	1	2
3	2	0	2

Table 5: Profile of participants in this study

According to Creswell (2013), to explore the phenomenon with a group of individuals within a phenomenological study, the sample size "may vary in size from 3 to 4 individuals to 10 to 15" (p. 78) and thus for the purpose and nature of this research, this sample size of 11 was deemed appropriate.

Consent forms were sent to participants prior to the data collection stage, and their anonymity was assured as well as permission to withdraw from the study after their interviews, within a 14-day timeframe. All interviews were audio-recorded and transcribed verbatim.

Therefore, applying a purposive sampling approach fulfils this study as this approach is appropriate for a homogenous group of DBLT participants who have direct experience of the course and who are able to provide an in-depth, reflective, direct description of their lived-experience (Cilesiz, 2011; Creswell, 2013).

3.5 Data collection

Underpinning this study using a phenomenological approach provides an insight into how participants experience this course to help answer the following research questions proposed in this study. The data in this study were collected at specific times of the participants' engagement with the course. Table 6 below shows how the data collected corresponded to the sequence of events for the participants on the course.

Sequence of events	Methods
During the implementation of participant's blended learning activity	Learning journal entries
On completion of the course (end of Module Three)	Personal reflective commentary
At the final face-to-face session of the course (end of Module Three)	i) Pecha Kucha presentations from participants ii) Researcher notes taken during the presentations
Conducted by researcher after the completion of the course	In-depth, qualitative, semi-structured interviews

Table 6: Sequence of events for data collection

The selected methods and analysis used are presented and mapped against the research questions in Table 7.

Table 7: Research questions and corresponding research methods and analysis

Research Questions	**Data and methods used**	**Type of Analysis**
What are higher education teachers' perceptions and attitudes towards a professional development course, delivered in a blended format, about blended learning and courses through the lens of the CoI framework?	a) In-depth qualitative, semi-structured interviews b) Personal reflective commentary written by participants on completion of the course c) Learning journal entries written by participants during the implementation of their designed blended learning activity	Thematic analysis
a) In what ways does participation in a blended professional development course support teachers to develop their communication capacity (skills) in relation to their social presence?		
b) In what ways do instructional design and facilitation within a blended professional development course help to support teaching presence in relation to teachers' understanding and use of blended learning practices?		

c) How do the design, implementation and evaluation of a blended learning activity support teachers to develop their cognitive presence in the continuing professional development (CPD) inquiry process?		
What are the key aspects within the analysed blended professional development course that help teachers to integrate blended learning and teaching into their practice?		
a) What are the benefits and challenges of using a blended learning approach to demonstrate blended learning practices for teachers?		
b) What are the challenges of using a blended learning approach to demonstrate blended learning practices for teachers?		
c) What do images from Pecha Kucha presentations reveal about teachers' reflections on their own learning and teaching approach to blended learning? What implications and potential does the use of images in the Pecha Kucha style presentations have for teacher training and CPD?	a) Pecha Kucha presentation image slides b) Researcher notes taken from presentations	Thematic verbal and image analysis

3.5.1 Semi-structured interviews

In phenomenological studies, it is common to use interviews, observations and descriptions as a way of gathering data (Cilesiz, 2011; Eddles-Hirsch, 2015; Giorgi, 1997; Moustakas, 1994) to gain insight into the participants' lived experiences. In this case, the primary approach to gathering data with the selected participants is using semi-structured interviews. This allows participants to share and describe their experiences from the blended course and helps to facilitate "qualitative descriptions of the life world of the subject with respect to interpretation of their meaning" (Kvale & Brinkmann, 2015, p. 124). The format of a semi-structured interview provides a space in which participants can explore their reflection and experiences of the course, and how this experience connects to their own teaching and learning. In particular, using open-ended questions and prompts to highlight their direct experience, and subsequently key aspects of the course interaction and engagement can "focus attention on gathering data that will lead to a textual and structural description of experiences, and ultimately provide an understanding of the common experiences of the participants" (Creswell, 2013, p. 81). This further supports Kvale and Brinkmann's (2015) reasoning behind the use of qualitative interviews within phenomenological approaches to gain as much insight and precise descriptions as possible of what people have directly experienced.

To prepare the design of questions used in a semi-structured interview, the researcher is required to carefully consider the nature, format and types of questions to ask in order to understand the phenomenon experienced by the participants (Cousin, 2013; Kvale & Brinkmann, 2015). The questions and interviews need to be conducted in a manner, befitting of a qualitative research study, which aims to "capture the authenticity, richness, depth of response, honesty and candour" (Cohen et al., 2007, p. 393). With

this in mind, questions were designed to help solicit a deeper understanding of the participants' perceptions of the phenomenon studied, whereby the researcher was able to provide prompts to gather further information within a safe and open environment to explore the diversity of the participants' experience on the DBLT course.

To address the research questions of this study, participants were asked a series of open-ended questions, which included their perception of the DBLT course, how this experience impacted their teaching practice, how specific aspects of the DBLT course supported or affected their learning and engagement, and their overall attitudes towards blended professional development to support their use of technologies with students. Through exploration of these questions, it was possible to gain a more in-depth understanding of how the DBLT course was experienced and interpreted by the individual participants. This aligned to the phenomenological approach of this study and the overall approach to conducting semi-structured interviews in this context (Kvale & Brinkmann, 2015).

3.5.2 Learning journals

Participants implemented their blended learning activity with their students in the final module of the course, Teaching with e-tivities. During the entire course, participants were asked to keep regular learning journal entries to help them record and reflect on their experience and their own learning. In particular, during the implementation stage, they were asked to reflect in their learning journal following three prompt questions. These were:

- What was the biggest challenge you faced implementing your e-tivity?

- What is the key thing you have learned from your student feedback?
- If a colleague of yours was about to develop some blended learning for their own students, what one piece of advice would you give?

These questions used for the learning journals and personal reflective commentary were informed by practice in the sector and by related studies conducted by organisations such as ALT, as well as underpinned via the guiding questions developed by Garrison and Vaughan (2008) in their work to develop activities for a blended community of inquiry for teachers.

The inclusion and analysis of these specific learning journal entries provide a deeper insight into teachers' experience whilst implementing their blended learning activity. In particular, it is pertinent to note, that during this stage of the course there was a significant period where there were limited online activities and no face-to-face sessions. The rationale for this was to enable teachers to have dedicated time to focus on their own students' experience of blended learning. The learning journals also provide a more detailed insight into their students' feedback of the e-tivity, supported by their case studies, personal reflective commentaries and Pecha Kucha presentations. Therefore, the analysis of these specific journal entries captures an aspect of the teacher's work and teaching practice that otherwise would be left unseen and undocumented.

3.5.3 Personal reflective commentary

At the end of the course, participants were asked to write a 200-500 words personal, reflective commentary of their overall learning experience from the three modules. The

aim of this was for participants to reflect critically and constructively on their own online teaching practice. This reflection was shared only with the facilitators on the course. A focus for this task was for teachers to draw on Kolb's (1984) experiential learning cycle, and their role as a reflective practitioner. Participants were also encouraged to submit their reflective commentary in an equivalent audio or video commentary of their experience.

Alongside the semi-structured interviews for this study, an important aspect of analysing these personal reflective commentaries is that they capture the participant's thoughts and reflections at the exact moment of completing the course. This is relevant in terms of participants recalling their experience, since some of the semi-structured interviews were conducted almost one year later for a few of the cohort 1 participants. The analysis of these personal commentaries can provide a more accurate interpretation and meaning of how participants felt immediately after they completed the DBLT course.

3.5.4 Pecha Kucha presentations

At the end of the course, participants were asked to present and share their experience with others using a Pecha Kucha presentation. These presentations were based on their written case studies of their blended learning activity and its implementation. The aim of these presentations was to encourage teachers to share and *tell their stories* of implementing blended learning with their students, using predominately images. To ensure all participants have the opportunity to observe each other's presentation, the format of the Pecha Kucha was shortened from 20 slides to 10 slides. Each slide would last 20 seconds, making the total presentation for each participant 3 minutes 20 seconds.

Participants were asked to condense their case studies and to tell the story of their blended learning activity and its implementation for their presentations using the following questions to help guide their narrative:

- What did you do?
- How did it go?
- What did you learn from the experience?

Using the Pecha Kucha to form part of this research analysis allowed further insight into the participants' experience of the course through this visual narrative and representation. For the purpose of this study, I selected five Pecha Kucha presentations from the participants interviewed. As this was the first time for all of them to present in a Pecha Kucha format, many were unfamiliar with this way of preparing and presenting their PowerPoint slides. Therefore, the Pecha Kucha presentations chosen for analysis followed an agreed format of being imaged-based/focused and with limited text.

3.6 Data analysis

3.6.1 Thematic analysis

Within a qualitative study, there are undoubtedly various ways to analyse the data collected, and much of the literature suggests that these methods can vary considerably, but ultimately the process should be fit-for-purpose for the nature of the research and the type of data being collected (Cohen et al., 2007; Creswell, 2013; Finlay, 2012) whereas Miles et al. suggest the aim is in "finding coherent descriptions and

explanations that still include all of the gaps, inconsistencies, and contradictions inherent in personal and social life" (2013, p. 10).

This study is concerned with the detailed lived-experience of the teachers who participated in the DBLT course, and as Groenewald (2004) emphasises, "the aim of the researcher is to describe as accurately as possible the phenomenon, refraining from any pre-given framework, but remaining true to the facts" (p. 5). In developing this research study, I am aware of my own subjectivity and stance with regard to the phenomenon being investigated, and in particular with the participants involved and my own very strong connection with the profession.

In analysing the data collected from the interviews, the role of the researcher is to ensure "the description be as precise and detailed as possible with a minimum number of generalities or abstractions" (Giorgi, 1997). This is further reiterated by Denscombe (2007) who states that the researcher should "present the experiences in a way that is faithful to the original" (p. 78).

Within phenomenology, Moustakas (1994) adopts two modified methods for the analysis of data, the Van Kamm method and the Stevick-Colaizzi-Keen method. Both these methods include several main steps in the analysis, and is outlined below:

> organisation of data begins when the primary researcher places the transcribed interviews before him or her and studies the material through the methods and procedures of phenomenal analysis. The procedures include *horizonalizing* the data and regarding every horizon or statement relevant to the topic and question as

having equal value. From the horizonalized statements, the *meaning* or *meaning units* are listed. These are *clustered* into common categories or *themes*, removing overlapping and repetitive statements. The clustered themes and meanings are used to develop the *textual descriptions of the experience*. From the textual descriptions, structural descriptions and an integration of textures and structures into the meanings and essences of the phenomenon are constructed. (p. 118)

Analysing the detailed descriptions from the participants' experiences of the course will provide a deeper insight into their views about blended learning professional development, and thus help to develop the essence of the phenomenon being explored in the research questions (Moustakas, 1994). In addition, analysis of participants' learning journals and final personal commentary of the course were included to help form a deeper understanding of their experience and learning.

This study mainly follows Moustakas's approach to analysing data, and Giorgi's (1997) more detailed description and explanation on his five steps to support this phenomenological study to analyse the interview data. Giorgi's (1997) five steps involve:

1) collection of verbal data
2) reading of the data
3) breaking of the data into some kind of parts
4) organisation and expression of data from a disciplinary perspective
5) synthesis or summary of the data for the purposes of communication to the scholarly community.

In order to analyse the data, I began by reading each individual participant's transcript several times to gain an overall feeling and impression of each lived experience of the course. Each sentence was then examined in more detail to find potential meanings or connections and phrases or words, together with additional notes and a further impression of the participant's lived experience. I kept and managed this data in an Excel spreadsheet so that the analysis could be conducted for an individual participant and across all the participants' experiences. I continued to refer back to the participants' transcripts to ensure I remained as close to their lived experience as possible as further analysis took place to find emerging themes and categories. The main themes were then identified and are described in more detail in the following chapter.

3.6.2 Thematic analysis for images

The use of Pecha Kucha presentations to support this study gives additional information and meanings to supplement the thematic analysis applied to the primarily text-based methods within the semi-structured interviews, personal commentaries and learning journals. In particular, the use of still images in educational research can be viewed alongside other data and used to potentially gain a deeper understanding of participants' experience of the course and provide a further interpretation of how teachers reflect in the context of their own blended learning teaching practice (Cohen et al., 2007 p. 530).

From the Pecha Kucha presentations, I looked at what reflection the images prompted or triggered according to my notes, and how these images related to the teacher's own reflections. Based on this, I developed three key themes which connected the context of the images with teachers' reflections.

Unfortunately, none of these presentations were possible to video-record as this was not possible under the institutional and research timeframes, and thus the corresponding teachers' audio recordings were not available for analysis to help form a more coherent and systematic approach. However, notes taken during the presentation by myself helped to provide added detail to their talk.

3.6.3 Bracketing

A key aspect of a semi-structured interview is for the participants to be able to reflect, engage with and have an informal, yet interactive dialogue with the researcher, who will use open-ended comments and questions to help develop a further understanding of the participant's experience with the phenomenon (Moustakas, 1994). What the interviewer is required to be aware of, is their own subjective perceptions, preconceptions or assumptions, and to take these into consideration when conducting interviews (Kvale and Brinkmann, 2015). Thus, "presuppositionlessness implies a critical awareness of the interviewer's own presuppositions" (Kvale & Brinkmann, 2015, p. 31). This *epoche*, as identified by Edmund Husserl (1999) provides the basis and understanding by which the researchers "aim to *bracket* their previous understandings, past knowledge, and assumptions about the phenomenon so as to focus on the phenomenon in its appearing" (Finlay, 2012, p. 24). Within phenomenological studies, the way in which the researcher's own subjectivity is construed and made apparent is debatable, and how *bracketing* is applied throughout the study aligns with the strand of phenomenology being followed (Finlay, 2012; Giorgi, 1997). In addition, the notion of "power asymmetry" as identified by Kvale and Brinkmann (2015, p. 34) highlights the researcher's awareness to further elaborate and reflect on these issues

within their own epistemological position and the importance of bracketing within the study.

As the researcher in this study, I attempted to adopt a bracketing strategy as described above during the data collection stage and analysis process, and aligned this to my own epistemological position to minimise potential researcher bias, and to ensure validity and reliability of the results throughout this study.

3.7 Summary

This chapter has provided a description of the process adopted within this research methodology and outlined in detail the different steps taken in the research method. It gives a rationale for the use of phenomenology, as well as the researcher's ontological and epistemological perspective in which the study is positioned. It includes details of the DBLT course as situated within this specific research context and the rationale for the data collection and analysis.

Chapter 4 Findings and discussions: Teachers' insights into blended professional development via CoI

I hear and I forget

I see and I remember

I do and I understand

The above proverb derives from, and is often associated with the educational philosophy of Confucius, the well-known historical Chinese scholar. It highlights the importance of learning and understanding through direct experience and observations. Hong Kong, the broader context of this study, is a compact and dense city uniquely positioned between East and West. Though its educational systems reflect Western teachings, its educational approaches also remain deeply embedded in Confucian philosophy. Thus, it is appropriate to recognise this Asian influence within the context of these findings through an adaptation of Confucius' proverb, which aligns to these four chapter sections as follows:

I feel and we share [2]

I see and I remember

I do and I understand

I reflect and I grow [3]

[2, 3] Added by the researcher

My rationale for adapting this proverb and to use this as a way to present these as chapter quotes, is not to situate the findings fully within Confucius philosophy per se, but as a source of inspiration to encapsulate the notion of "learning by doing" by articulating the individual's learning through contributions from an inquiry-based community to illustrate how this supports reflection, self-growth and recognition of one's own knowledge and practice together with a community of learners and practitioners. The use of the CoI framework in this study connects and complements my perspective of Confucian's thinking about developing one's own self-awareness of knowledge via a series of observations, applications and reflective contemplation. This self-knowledge and awareness developed through theory and practice, in Confucian's thinking occurs through many aspects of an individual's connection and interaction to their childhood, family surroundings, formal education and schooling, government and society. In this sense, an individual's learning, knowledge and understanding is mutually related and connected to the needs and aims of the wider community. Thus my use of Confucian's proverb is only applied to help illustrate a metaphor for the corresponding three CoI presences and teachers' experiences and reflections of their practice.

These findings are discussed in Sections 4.1, 4.2, 4.3, 4.4 and 4.5. Each section analyses key themes against each presence in the CoI framework and addresses the research questions of this study. At the end of each section, the findings are briefly summarised.

In Section 4.1, *I feel and we share* presents the findings capturing the individual experiencing interactions with a community of fellow teacher-learners in an emotionally relational sense, where camaraderie and pivotal face-to-face sessions help to support the overall learning experience. This captures the notion of instilling empathy

within an individual and in their interactions with others as an initial point for building connections and relationships. This section discusses the findings with reference to the social presence of the CoI framework, highlighting the importance of social sharing amongst the community.

In Section 4.2, *I see and I remember* presents the findings through individuals' observations and perspectives through blended course design, resources and facilitation experiences to gain experience and insights in the art and practice of teaching. This stems from the idea of observations as an approach to modelling skills and practice by an individual. This section discusses the findings with reference to the teaching presence of the CoI framework.

In Section 4.3, *I do and I understand* represents the core essence of Confucian philosophy: through direct experiences and application of knowledge, there is deeper understanding (or cognition) of skills and practice. The teachers in this study embark on a journey which allowed them to investigate and apply different concepts and ideas through their own individual learning and through integrated collaborations with their peers and students. The process of actively connecting and applying new ideas within a learning community leads to a deeper awareness of their own learning development journey. This section discusses the findings with reference to the cognitive presence of the CoI framework.

Finally, in 4.4 and 4.5, *I reflect and I grow* captures the findings in relation to teachers' own reflective practice of their learning, and via contributions from the learning community. This section is presented in two parts. In 4.4 (Part 1), the analysis of Pecha

Kucha presentations is discussed in relation to the research questions, thereby providing a perspective on how participants share and reflect on their course learning experiences. This offers a complementary perspective on how the social, teaching and cognitive presences within a blended CoI can be further observed and captured. Secondly, in 4.5 (Part 2), reflective testaments of teachers' recognition of CPD in their teaching are presented.

These sections examine each presence individually in the context of the research questions and findings. However, this does not imply that the three presences are mutually exclusive, but gives consideration to the interconnected complexity of the framework. It also recognises that each presence complements and affects the others within a blended learning environment for professional development.

Finally, Section 4.6 summarises the four sections, drawing upon the findings and discussions, before connecting these to the CoI framework within a blended professional development environment for teachers.

Discussions of the findings are supported by relevant extracts from participant interview transcripts and analysis from their personal reflections, learning journals and Pecha Kucha presentations. Participants in the interviews are anonymised and identified as [P1], [P2] to [P11].

To stay faithful to the original spoken and written data some language errors have not been changed. However, additions have been made in square brackets or an explanation given within the discussion if the meaning of an extract is not clear.

I hear and I forget

I feel and we share

I see and I remember

I do and I understand

I reflect and I grow

4.1: *I feel and we share:* Social presence in blended learning

This section is the first of four and discusses the findings (see Figure 8) from this study to address the following research question (1a) as stated below:

Research Question 1a: In what ways does participation in a blended professional development course support teachers to develop their communication capacity (skills) in relation to their social presence?

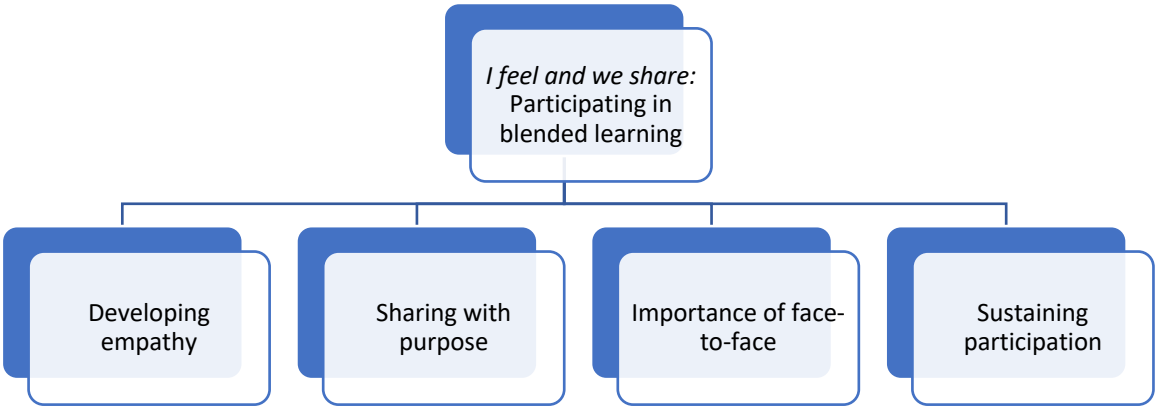


Figure 8: Summary of findings of social presence in blended professional development

4.1.1 Developing empathy online

All of the participants interviewed had never participated in a blended professional development course, but several had either studied fully online as part of postgraduate degrees or taken part in short online courses such as Massive Open Online Courses (MOOCs). These prior experiences allowed a few participants to compare their previous online experiences with the DBLT course, and thus they were able to highlight some distinct features or feelings they had encountered. For example, the feeling of being

‘lost’ in a distance, online course compared with the blended experience or concerns about discrepancies and conflict within themselves around their online identity. Since all the participants in this study had never engaged in blended professional development prior to the DBLT course, this shared experience amongst them provided an important grounding that helped to create the social relationships which were necessary prerequisites for inquiry and criticality within the learning community. The participants had very limited expectations of the course. However, they had a deep level of empathy as learners, learners in a group, and an even deeper empathy and understanding about the learners they teach.

Findings from the data suggest staff gained a positive experience and valued the effectiveness of participating in an authentic and immersive learning environment when they are placed in the role of a student-learner. Being in this position of a student-learner gave them an opportunity to participate in online tasks and activities and experience a variety of issues and concerns that they recognised as directly related to those of their students. This created a greater sense of understanding of learning online and gave participants a renewed appreciation of the needs of their own learners. This level of empathy acted as both an opportunity and a challenge to the participants. For example, they valued and enjoyed collaborating and learning together, specifically across the different disciplines, however they also highlighted the limitations and challenges they encountered about the pace of learning online in a group. These findings reinforce Barnes's (2016) suggestion for teachers to experience similar difficulties and challenges of their own students, and thus, understand the need for online teaching skills and strategies to be developed and refined.

In addition, participants highlighted how the course provided them with the sense and attitude of engaging in a 'real' course as opposed to a CPD one, and how demonstrating this realistically within the context of their work helped them to understand more fully the nature and approach of what blended learning was or how it might be presented for the learner. This aspect allowed them to view the course more thoroughly from a dual-perspective, as a student and as a teacher, and gain direct experience of the benefits and challenges of learning through a blended mode.

> *First of all, to know what exactly is online blended [learning]. Then to see what really I can use as a teacher. At that time I'm still a teaching fellow and thinking about what I can use to implement to my class. [P7]*

> *The course structure is very good because the first one is that we get an experience, some people haven't had an experience being an online student. You first try to be an online student and you experience what is good, what is bad, and then you form some framework in the mind. Then afterwards, we try to draw some association between being a student and about the subjects that we are teaching. [P5]*

It seems this level of extended empathy, and being able to relate more directly with their students' experience allowed participants to easily share the experience of learning online with their peers, both in a subtle and more transparent way during the course. This type of learner-connection and empathy provided an added dimension of social presence that does not appear to be explicitly mentioned in the literature, and shows how the development of social presence goes beyond the immediate learning

community. The extension of being able to understand their students' feelings allowed the teachers to demonstrate a clearer understanding and acknowledgment of their students' needs in the context of blended learning. Furthermore, their active participation in the online tasks and activities from a student perspective, allowed them to gain relevant experience and knowledge which helped to support their level of empathy with the students they were teaching.

In parallel, the participants' technical knowledge and understanding of the LMS increased during the course since they observed how the different tools and functions could be used to support various online tasks and outcomes in an authentic way. This created a greater empathy and understanding towards their own students' learning using the LMS and on how blended activities could be designed and experienced. All of the participants had attended short workshops on the LMS where the concept and examples of blended learning were highlighted, but most had not directly experienced it or been involved in a course where they were asked to participate in authentic blended activities and tasks as a student.

This created opportunities for them to encounter first-hand some of the technical difficulties with using the LMS, such as not being able to view or download certain resources or features on their mobile phone or problems with collaborating in a discussion forum. By positioning themselves as one of their own students, they felt they were better equipped for responding to and dealing with potential technical queries and to better relate to the general problems with learning online.

In Module One, I think it was very good for me to have that first time experience, to be like a student. I go through all the frustration and struggle, like I try to open LMS on my iPhone and it doesn't work. When I have to write something, that function is not there. It's very powerful for me to recognise that in the future, if I am doing this in [the] LMS, if my students are accessing using mobile, then I need to warn them that certain functions are disabled, for example. [P9]

... they mentioned the difficulties again, similar to my own fate that you are working with others very differently because you have to wait for the other teammates to contribute and then it takes time. This is something that I learned,...you have a lot to think about from the position of the student because in e-learning students are different from face-to-face learning students. [P1]

This observation starts to suggest the use of the LMS or other relevant learning technologies designed within professional development plays an important role in demonstrating how the technology applied can be relevant to its learning context. The modelling of blended learning approaches and the advantages this brings to the learning experience of teachers is also noted in several studies (Tolks et al., 2014; Paskevicius & Bortolin, 2016; Rhode & Krishnamurthi, 2016), in particular, how this can be relevant for teachers so they can apply the techniques and strategies within their teaching.

In addition, the online tasks and activities also helped to demonstrate the wider use of the LMS to demonstrate different learning and teaching approaches. For example, the use of an online peer review approach highlighted a concept that is often referred to in academia. However, having seen this applied and having participated in the activity, one teacher commented on how this enabled them to have a better insight into their own MOOC developments. Applying techniques to relevant learning contexts allowed teachers to make better, more informed decisions about blended and online pedagogies and thus skills and confidence to transfer and apply them in their practice.

> *I knew about it. How it should work as a teacher but I didn't try it like that. That was useful….Well, before DBLT, I knew about peer review, but I'd never used it. I didn't know whether it would work. When we came to do a MOOC, we wanted to try to get away from doing just multiple choice questions. The only other option would be to do some type of self-assessment or peer assessment. [P3]*

Through directly experiencing online learning in this course, participants gained a greater insight and immersion in terms of i) the authenticity of experiencing blended learning and ii) further understanding blended learning approaches. This resonates with Keengwe and Kang's (2013) own observations on the effectiveness of demonstrating authentic learning environments to help bridge the theory and practice of blended teaching and learning for teachers. In this aspect, the nature of the course, the tasks with peers and the general experience of becoming more familiar with the LMS contributed to the social presence experienced by the individuals. The experience of being an authentic online learner, within a learning community of teachers allowed the group to

share more collectively and empathetically with each other, and in addition, to be more reflective of their teaching practice, and the learning experience of their students.

By being an online student, participants developed a greater awareness and self-empathy and empathy towards, their peers and their own learners. This helped to cultivate a learning environment necessary to support social presence, and thus the prerequisites needed to form a CoI. This experience of being an online learner aligns in part to later research by Armellini and Stefani, (2016) who proposed a rethinking of social presence as a more influencing factor on both teaching and cognitive presence, and where social presence provided a focus for the development of higher order thinking in the context of 21st century learning and teaching. However, one limitation of their study is that it does not capture the nature of how social presence influences a blended mode of study, and presupposes that 21st century learners are digitally literate and IT competent, which may not necessarily be the typical profile of the average teacher in all context.

4.1.1.1 Barriers to collaborating online

Though most of the participants expressed their enjoyment of the course and the idea of participating online with other teachers, five highlighted their frustration with some of the online group work and how this had impacted on their preference to learn and engage online. In particular, the structure of the blended course meant that asynchronous collaborations played a primary role in the timing and pace of communications and interactions among participants. This pace and time of learning was not solely about the individual's own preference, but also connected to the challenges of working with others online and the lack of control since they needed to wait for others to participate, respond and collaborate online. This was highlighted

through their frustration with the delay in responses in asynchronous discussions, or how a specific wiki group work activity was affected due to the lack of participation or agreed leadership for the task.

> *So I cannot work everything by myself online, so I rely on my teammates so sometimes that the virtual learning environment is so carefree so [laughs] they won't even respond sometimes so that's tougher. I think online collaboration learning is even tougher. [P1]*

> *Everyone was supposed to do it. I'm not seeing anyone doing it, It's not working. I had to stop and wait for other people to start doing the stuff. [P3]*

In addition, some the participants commented on the restrictions they felt with collaborating online in a blended course because they felt unable to control their own pace of learning. These feelings were compared with experiences from fully online courses where they were able to move forward with certain topics or resources, as and when it suited their needs. However, they felt the nature of the blended mode within the DBLT course meant they were unable to move on independently and they felt the lack of flexibility and control was due to this. The challenge for some participants to learn at their own pace online may be due in part to a lack of direct experience about the different modes of delivery and their constraints. For example, the nature of the DBLT course in a blended delivery mode requires coherence and a steady pace from participants collectively in order to proceed towards certain tasks and activities. Furthermore, teachers are introduced to a variety of different terminologies with regard

to learning online, such as self-paced learning or MOOCs, and these, in addition, highlight similar benefits and advantages to learners and their style of learning which could create confusion and lack of understanding about learners' experience of online learning. This further suggests the importance of clarifying the nuances and distinctions between these different terms in order to help teachers decipher how these different types of delivery can provide varying learning and teaching environments.

This comparison with different modes of learning and individual preferences correlated with some participants' personal reflections from the end of the course. Those who had previously experienced learning online felt that, at times, collaboration did not necessarily help them to understand some topics better, it was however, the process of implementing their learning activity with their students which made them reconsider more thoroughly the benefits of collaboration, for themselves and their students.

> *As a teaching staff in (xx) department, I have done a lot of online learning already, but in an individual mode. According to my personal experience, knowledge construction can be perfectly done without any collaboration. Sometimes, involvement of other people into the learning process even spoils the efficiency and effectiveness of learning. I did believe it in my heart even during the time I implemented collaborative writing in my e-tivity. It's my students who change[ed] my mind. [P7]*

Paradoxically, one participant reflected in their personal commentary that they recognised their own limitation and passiveness in engaging and expressing their opinions within the online discussions due to fear of having their meanings

misinterpreted by others and the overall transparency of expressing comments online. This insight made them consider the real difficulties of online discussions and comments.

> *As a practitioner, I confess that I was bit passive to express my own opinions as well as follow the course. Deep in my mind, I want to participate more actively [in] every task and share more opinions with others, but I was afraid to do so. It's because most of the communications, such as leaving comments to others and getting comments from others, went on [the] online environment mostly. [P11]*

Some of these findings in terms of attitudes or behaviours are not unusual when it comes to online learning, and barriers such as reluctance or shyness to participate or lack of time are common barriers for learners (Paskevicius & Bortolin, 2016). Blended learning is often presented as a means to save time and increase flexibility, but what we continue to observe is the difficulty for teachers to engage fully in these types of professional development activities. However, in this study, the participants' perception and awareness of time management and commitment to learning online gives a deeper insight into their challenges and provides further correlation that teachers can also experience similar challenges as their learners. Conversely, it is again, this level of empathy as mentioned earlier which participants experience that allows them to relate more authentically with their own students and thus provides an incentive or motivation to modify or change certain teaching approaches online.

Specifically, one participant also highlighted their dislike for the overuse of discussion forum activities. In particular, the difficulties and issues with not being able to observe the nuances and emotions of online discussions, and how some behaviour or comments could be wrongly interpreted or perceived if participants were not fully familiar with online forums and their associated netiquettes. Although there were a few discussion activities in the course, this comment was applied more generally but it did highlight the potential for some participants to disengage from predominately text-based group collaborations. The use of discussion forums to encourage online group collaborations was further elaborated by two participants who felt they struggled with writing and expressing their thoughts online. They felt that in order to communicate with other participants they had to develop their writing skills. This starts to signal the problems associated with frequent and overuse of discussion forums, in particular for professional development and where written artefacts are a common practice to support and document the development of group work and reflective exercises.

Despite the challenges these participants faced with collaborating online and being made more aware of some of the potential difficulties after their experience, they felt this approach to online learning and collaborative group work was still beneficial for their learners.

4.1.1.2 Online identity and hierarchy

The nature of this blended professional course also gave some participants an opportunity to explore, observe and experience the tension with how they presented themselves both in the face-to-face and online environment. Providing a safe environment for participants to consider different aspects of their online identities is an

important element of experiencing and understanding blended and online learning, and as such contributed to the element of familiarity and trust of social presence in the community. This safe environment allowed participants to engage with group work, discussions, show and share activities in an open and transparent manner, however it was noted that when some of these tasks transitioned into the online environment, some participants found this more difficult and challenging. This tension was at times connected to the hierarchical nature of the workplace and this seemed more apparent when participants had to provide feedback to their peers. This issue may be due to the noticeable power-distance and hierarchical relationships developed in the Hong Kong working context which can influence the nature of professional development and how this is delivered across different positions and ranks of staff. This issue appears in this study in two situations, first where teachers, in positions of teaching assistants or instructors, are not always directly responsible for the design and planning of their courses and second, where teachers had to engage in a peer review activity for their superiors.

Three participants also expressed their difficulties and concerns on how they or others were presenting or being perceived in the online environment. This seemed to create tension between the face-to-face space and the online learning environment which affected how they posted online. In particular, they had concerns about possibly having two personas, one face-to-face and one online, and the potential for misconceptions. For example, this tension was compared to a fully online course where participants only know each other's names but never meet. However, the DBLT course made them more aware of the participants they knew as colleagues, and how their learning and personality might be perceived. Connected to this for one participant was their

preference for face-to-face environments and how they perceive their learning as individual and personal development which may have impacted on their contributions online.

> *I feel like you have to be a different person online. The course is very closed in that only the group of people that are on [the course are] there. But yes I know one individual that was online but different in real life. So yes I guess in that aspect of what I was posting was minimal and when I had thoughts yes rather than posting them online I think I sent just a learning journal to you because I guess the point of me learning is more individual…I guess it's just my personality. I'm an introvert by nature. [P2]*

4.1.2 Sharing with purpose

Whilst most of the positive comments around working online together focused on the face-to-face environments and the sessions, for example, the opportunity to meet teachers from other disciplines and to find out about their teaching context, several participants also commented on the positive aspects of being part a collaborative activity such as the online peer review process and the Pecha Kucha presentations. They felt the blended aspect of the course, with its scheduled face-to-face sessions helped them to build relationships across the different disciplines, facilitated better discussions online and motivated them to complete certain tasks and activities. This supports existing research which highlights the connections and influences on developing cognitive presence through social presence via collaboration on tasks to establish and enable peer support.

It is also worthwhile noting that as the course developed, design of the online tasks became more focused on the individual's learning to support their contextual needs. In this case, the level of social presence as evidenced in the different categories around interpersonal and open communication becomes less apparent, and this shifts towards more cohesive communication which is demonstrated through more collaborative tasks such as the peer reviews. This strongly suggest and supports the need and focus for relevant and meaningful collaborative tasks for the learning community. This study further demonstrates Garrison's (2007) support for a shift in social presence to develop a purposeful, educational objective of the community and "to create the conditions for inquiry and quality interaction (reflective and threaded discussions) in order to collaboratively achieve worthwhile educational goals" (p. 64). Furthermore, he highlights how this is supported through group cohesion and is an important prerequisite to supporting cognitive and teaching presence within the framework. However, in this study, the peer review task is short-lived and participants are transitioned quickly to a more independent, focused approach through the implementation of their blended design but nevertheless, the peer review process demonstrated an important aspect of social presence in this study.

4.1.2.1 Peer feedback

The benefits of the online peer reviews was apparent for most of the participants and highlighted in the data analysed. This form of feedback was compared to feedback for their students and thus the process of providing constructive feedback appears to have naturally embodied itself as part of the peer review task and process. However, some participants also felt that their feedback was not always useful or applicable due to their

lack of familiarity with certain subjects and their pedagogical approaches. Nevertheless, the purpose of and participation in this critical task allowed teachers to exchange opinions and provide feedback which helped them to develop further and deepen their understanding of blended learning design.

One aspect to note, is that participants were allowed to choose who would review their plans and this level of learner autonomy could have contributed to the level of engagement and commitment with this relatively extensive task. In addition, this task was introduced in Module Two in a face-to-face session and then transitioned online, thus it is likely that some aspect of social presence constructs may have already been established and helped to support the sense of purpose and success of this task.

> *Well the Module Two was really effective because you have to develop the e-activities and then you get comments from the tutor so that it is like a teamwork so yes. You are not doing it by yourself and then somebody else will give you some comments and based on that we develop it so you have someone to talk to, fine tune the idea and then make improvements so to me it's very useful as well. [P1]*

In addition, the nature of the peer review activity required both face-to-face preparatory group discussions and online peer reviews, though these were not necessarily conducted by the same people, participants saw this as a good demonstration of how a blended learning activity could be conducted, and considered design of the online and face-to-face environments could be merged successfully.

Let's say we have three modules and then I think when we get to the third module, there was something very helpful, is the face-to-face discussion because just by writing on the planner, it is not going to get too far. It gets you somewhere, it must get you somewhere, it gets me started ...then in order to have someone to review it for me, then the face-to-face reviewing is very useful. [P5]

More importantly, the opportunity to hear, first-hand how other teachers designed their blended learning activity, the decisions taken to select appropriate tools or features in the LMS to support this, and what worked or did not work with their students provided all participants with a wide range of different learning and teaching ideas and approaches. It was helpful for the participants to see how the LMS could be used in a variety of ways, with different group sizes and for different subjects and disciplines. An aspect of bridging the technology with relevant tasks was partly supported by the development of social presence, as this created the necessary factors for learners to feel safe and open in the online learning environment. These aspects of the peer review activity demonstrated and reinforced an important dimension of being part of a learning community, and the notion of this within a blended learning environment which supports collaboration, reflection and empathy are highlighted and supported in the review of the literature (Keengwe & Kang, 2013; Qasem & Viswanathappa, 2016; Vaughan & Garrison, 2005).

You got to see what other people are doing. I found it fascinating because [of] the teacher cognition and observing teachers, I find that fascinating. How people understand learning and react to it. As a teacher, I find

really interesting. The activities that they were doing. It was as I just said, seeing what other people were doing. I'm a very nosy person. Just talking to people, seeing different methods of teaching that they're involved in, like different activities that people were thrown in. It was good. The peer review of the two people I did - both worked down the corridor for me - so we actually did talk about it a little bit face-to-face. [laughs] [P8]

The positive impact of the peer review for some teachers was also expressed through their final reflections in the course. The inclusion of peer support and peer feedback is noted as a positive aspect in developing learning communities and to create dialogues amongst teachers about effective online teaching and pedagogies (Baran & Correia, 2014). In particular, the nature of the peer feedback appeared to be unexpectedly helpful, and was perceived to be different compared with other feedback methods such as journal reviews or feedback from students.

A very valuable part of Module Two is the peer reviewing process. As a scientist, I am used to peer review[ing] for my grant application and manuscript publication. However, as a teacher, I normally receive comments after I have delivered a lecture. I am grateful to the reviewers' comments before the implementation of the e-tivity. They have provided their views from a different perspective. [P5]

One participant also reflected how another teacher's comment created a much more lasting impact on his practice with blended learning. This open communication through

social presence supported and cultivated more effective and constructive peer feedback that appeared to have more impact on teachers' practices. This correlates with the general consensus from Stein, Shephard and Harris, (2011) on the value and importance of teachers sharing experiences, ideas and practice as part of their professional development.

> *My designed e-tivity proposal was reviewed by classmates and teachers and then fine-tuned based on their comments. It was great to gather multiple perspectives though some of the suggestions might not be practical. A classmate wondered how my e-tivity could be designed to guarantee equal contribution from each group member and I think I will always remember this concern whenever I design my course in the future [P1]*

It was also important for the participants to see the peer review process helped, enhanced or improved their plans. Even though some participants felt that it was not always possible for others to comment on subject matters, the general consensus was that reviewing the plans helped them to clarify their ideas or approaches. The opportunities afforded to them through social presence and in engaging in collaborative tasks and interactions is connected to and works in tandem with the development of cognitive presence in this learning community.

> *The peer review was helpful. Even though it was not clear as I get that quite a lot it was unclear. [The] peer review[er] would come back and say "I don't really understand what we're doing here." That part was*

helpful. I think it [is] describing a process and different steps. That's why it [is] different. What you need to do first and second but also did it talk about the language you should use? In terms of so much of what I do I just do automatically but I don't need to think about it. But then If you were telling someone who doesn't know, who's never done that before, you [have] got to be very explicit in your directions. [P3]

However, two participants expressed some concern with conducting peer reviews for their superiors, and how this hierarchical structure affected them in the peer review process. This may be due in part to the context of the institution and its related cultural environment where importance is placed on rank, positions and responsibilities. This comment was also further elaborated in another participant's learning journal entry where they felt that at times, the comments from peers could be misinterpreted and they expressed a need for more professional development on how to provide and give feedback to colleagues. The issue of rank and position is also evidenced and discussed in section 4.5.

2-3 comments posted online without my actual face-to-face presence there, might be probably misinterpreted and these couple of comments will not probably develop the skill of accepting feedback as a natural process in learning immediately. But might ruin the relationship - that's for sure. More work should be done to make us reflective teaching professionals. Much more. There should be separate sessions dedicated to this. People just don't accept feedback that easily. This involves the whole set of skills which should be developed step by step. [P10]

4.1.2.2 Sharing via Pecha Kucha

Most of the participants interviewed highlighted the benefits of sharing and learning from each other in the course. Specifically, all participants referred to the final sharing session where participants presented a Pecha Kucha presentation about their blended learning activity they implemented with their students. Sharing via this format allowed the participants to have a better overview of the range of blended learning activities other teachers had implemented. This meant they were exposed to more ideas and practical suggestions about different technology and pedagogy. The purpose of sharing is similar to Peskivicius and Bortolin's (2016) findings from where they observed the benefits of teachers sharing practices and approaches to form and develop greater interdisciplinary connections. Though their observation arose mainly from interactions in the online discussions, what the DBLT course reveals is the potential benefit of connecting the face-to-face activities to further deepen and encourage the sharing of practices and experiences amongst the learning community.

In this study, none of the teachers had delivered a Pecha Kucha presentation before, and a few participants commented on how learning this new presentation style caused some nervousness, resulting in needing to rehearse and practice beforehand, which they found exciting and unusual compared to their normal practice. This seems to suggest that easing the teachers out of their comfort zone to participate in a new and unfamiliar task, whether it is face-to-face or online can help to achieve the level of learner empathy as highlighted by Barnes (2014). However, it is also necessary for a level of social presence to be developed within the learning community in order for learners to feel they are supported and safe to achieve those new tasks.

I like the last section, Module Three…we saw a different presentation from other teachers. How they use their E-tivities. So those are the practical experience so to me maybe some of them works for them, may not work for them but I can learn that "Maybe I should try that" it's actually inspired some ideas I think. [P1]

[The] last face-to-face [was] actually like a sharing one. That means every people need to present their case in a pedagogy format. This is also like brainstorming perhaps [so] that you know many different styles of doing a utility and also the ways to do that. You learn a lot. [P7]

The nature of the sharing and participants' reflection of their Pecha Kucha presentations is further discussed in section 4.5.

4.1.3 The importance of face-to-face sessions

Blended professional development places more significance on the purpose of its connected face-to-face sessions, and as a result the importance to clarify how this connects to the online activities to ensure coherence and structure within the overall course design. This in turn supports and facilitates the development of teaching presence in an CoI. It is evident from the findings that all the participants felt a sense of belonging and a level of connection with their peers in their cohort. This sense of belonging can be seen in certain online group activities, however, the core focus for this connectedness resided mainly within the face-to-face sessions and participants' interactions with each other.

Furthermore, the importance placed on these face-to-face sessions appears to have at times, helped or contributed to the success of the subsequent online activities. For example, in preparing for the online peer review task, providing constructive comments on participants' initial ideas took place earlier in the face-to-face session. Establishing these face-to-face sessions at regular intervals during the blended DBLT course was seen as integral and an important ethos in the principle of the course design, allowing participants to develop and build on fundamental aspects of online learning, such as familiarity, trust and openness.

Several participants highlighted the importance of face-to-face sessions in the course. They recalled specific participants, activities and instances of support during these sessions, for example, how they learnt about new technologies from colleagues in different departments or who had been involved in their group tasks during the sessions.

> *I like the DBLT because we were meeting people. Several times, I can't remember how many. I knew I enjoyed that element of that you could meet people and interact online, then because you had the timing where you had to meet. You had to have the sessions so you kind of had to do the work beforehand. Having the blended element where you can go and meet people is good, yes. [P3]*

One participant noted how the combination of face-to-face sessions and online environment allowed them to interact with different teachers, whilst being able to work and learn independently online too. This resonates with Garrison's (2011) revised social presence definition, which focuses on the "dynamic nature of the social presence

construct in a progressively developing community of inquiry" (p. 34). Therefore, this ongoing interaction, during the face-to-face sessions and online helps participants create mutual support, familiarity and ownership, both for their own learning and for that of their students.

This dynamic social presence, articulated by Garrison (2011) is evidenced in an earlier study by Vaughan (2006) who found that group cohesion comments increased while effective and open communication decreased, suggesting a need for more social relationships in order to then develop more meaningful group communication. Indeed, making the face-to-face sessions compulsory highlighted their importance as well as emphasising how the course modelled similar situations in the university. Likewise, Vaughan's study also focuses on a blended professional development environment and similarly resonates with the idea that developing social presence within a blended environment resides predominately in the face-to-face sessions.

The course design meant that various blended activities were not solely text-based as is often associated with studies investigating social presence. Active participation through attendance, engagement with group tasks (e.g. sharing Pecha Kucha presentations), curiosity to learn more about the LMS, the sharing of group-based tasks and challenges in the face-to-face sessions indicated the level of group cohesion was comparable to similar text-based investigations. In addition, the interdisciplinary nature of participants coming from different schools and departments provided a sense of collectiveness and collegiality which meant participants could easily share teaching experiences and challenges. This created a sense of relative ease, but likewise, some possible tension when sharing this within a course amongst colleagues in the same discipline. Having

face-to-face sessions within the DBLT course helped develop the social presence required for a CoI to be created, however, it also provided and established necessary meeting points for the group to maintain the momentum required to keep on top of, and complete their tasks in parallel with a busy teaching schedule. These acted as crucial pivotal moments which helped to nurture social aspects and sustain the community and their learning. The importance of the face-to-face sessions and the role they played in helping to construct social presence is also observed in a recent study by Paskevicius and Bortolin (2016), and in particular they saw these as critical in order to develop the necessary rapport and relationships between participants through relevant activities in the early stages of their programme.

4.1.4 Sustaining participation

Teachers in this study were already familiar and comfortable with the concept of engaging with professional development, and the idea of sharing amongst peers in this environment. However, what is different in this course is the idea of sustained social interactions and participations within this blended environment course which was new to the participants. While some participants acknowledged, through their own reflections, their own passiveness or reluctance to contribute or communicate more prominently in the online environment, these types of resistance or barriers were not apparent in the face-to-face sessions and in the related activities.

Nevertheless, participation and engagement in professional development in a blended environment also brings with itself some newly-found fluidity, with participants experiencing the normal and expected ebb and flow of interactions. For instance, certain online tasks were more individually focused such as the design of their blended activity

compared with the online group discussions in the earlier modules. These group discussions were cohort based collaborations and were required in the earlier stages to help demonstrate certain LMS features and blended learning approaches. These were designed and contextualised to help develop more cohesion amongst the group. This meant participants could observe and recognise more distinctly the role of the facilitator whose responsibilities were to ensure engagement and motivation during the course. This was supported in participants' interviews where they acknowledged the way the facilitator reminded and prompted them towards certain resources or activities.

During the later stages of the DBLT course, the progressive nature of social presence as described by Garrison (2011) becomes less apparent and obvious, however the level of group cohesion in the form of collegiality and moral support seen in the Pecha Kucha presentations was more visible. This is referred to by participants through their interviews and course feedback. The opportunity for participants to observe each other, out of their comfort zone allowed them to demonstrate and show visible signs of encouragement and support which seemed natural and appropriate to the context of the situation. This would have been otherwise slightly more challenging in an online environment, especially given the conservative nature and culture of Hong Kong.

There was a sense of an overall group cohesion amongst the participants in the learning community when participating in the course to achieve similar outcomes, and later transition to more individualised learning objectives and outcomes. This cohesion did not diminish even when participants spent the allocated 4-5 weeks implementing their own blended learning activity with their students, as little interaction amongst the group was designed into the course to enable this. Instead, during this time, participants were

encouraged, and required to reflect on their learning and experience through learning journal entries that were shared with the course facilitators. In addition, any challenges faced or advice required at this point of their learning was supported by the facilitators. This results in a shift in the focus of social presence towards more individualised support but group cohesion is later observed again and *reformed* towards the end of the course.

This shift is demonstrated again when participants were required to share their experience through their written case studies presented in the discussion forum and in the face-to-face Pecha Kucha presentations. For all the participants, the Pecha Kucha presentations were a new way of sharing and communicating their learning experience with their peers. This spectrum of dynamic group cohesion helps in part to sustain the learning community as the DBLT course runs for one full semester (usually 14-16 weeks long) and was seen as crucial for this extended style of blended professional development.

4.1.5 I feel and we share: summary

This section, *I feel and we share,* captured how the blended learning environment and its associated collaborative activities provided participants with a unique insight into their experience of learning online, and by extension, created a deeper sense of empathy for their students. This aspect of empathy, together with purposeful and relevant collaboration amongst the community of teachers helped to develop the social presence necessary for inquiry in a blended professional development environment. This also allowed participants to learn from each other via sharing of ideas and experiences as well as engaging in relevant and meaningful collaborations which added value to their

classroom practices. These findings resonate with the review of the literature, in particular, where the need to create opportunities for learning authentically online can be experienced by teachers (Barnes, 2016), and within a blended learning community where the activities the participants engage with can provide meaningful engagement and collaboration (Lock, 2006; Owston et al, 2008).

Due to the blended nature of the course, the purpose of the face-to-face sessions was more dominant and important in the development of different categories within social presence for the participants. The scaffolded nature of the activities designed in the course meant participants became more open, comfortable and supported in the group as they progressed in their learning. This led to more successful and meaningful collaborations and sharing of ideas and experiences in the learning community. Findings from this study have helped to provide some explanation of the gap identified from the literature review and the development of social presence, specifically in a blended community of inquiry.

The following section focuses on the design and facilitation of the DBLT course to provide important aspects and connections of blended learning theory and practice.

I see and I remember

4.2: *I see and I remember:* Teaching presence via connecting the theory with the observed design practice of blended learning

This second section of the four, presents and discusses the findings (see Figure 9) from this study and answers the following research question (1b) as stated below:

Research Question 1b: In what ways do instructional design and facilitation within a blended professional development course help to support teaching presence in relation to teachers' understanding and use of blended learning practices?

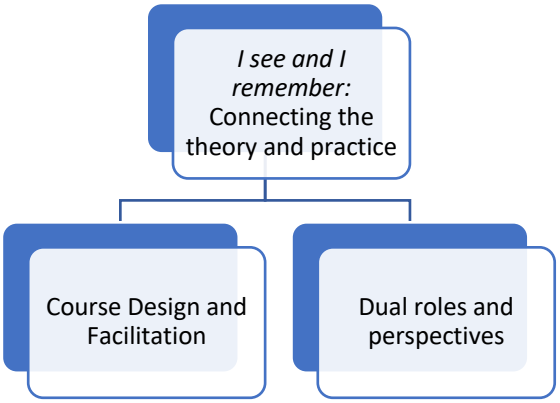


Figure 9: Summary of findings of teaching presence in blended professional development

The role of the teacher plays a crucial and fundamental one in the shaping of the learning experience and in the development and construction of key knowledge and skills. The three phases of teaching presence are determined, namely via a) instructional design and organisation; b) facilitating discourse and c) direct instruction. With this in mind, it is clear the DBLT course provided a unique, dual perspective of how teaching presence can be demonstrated. Firstly, the course facilitators played a major role in its design and structure and secondly, the participants proceeded to design and facilitate their own

blended learning activity with their students, concurrently learning from the course. Teaching presence happened at different stages of the course, across the three modules and in varying ways. In particular, the process for the participants to undertake and develop their teaching presence during Module Three meant that they took on multiple roles which allowed them to inquire and reflect on their learning and teaching approaches and practice. This continuous shifting of roles helps to demonstrate the importance and fluidity of how teaching presence is developed in this blended professional development course as it positions and provides a dual-purpose environment and perspective for the participants.

4.2.1 Course design and facilitation

All the participants provided examples of how the blended teaching approaches in the DBLT course helped them to understand more deeply the principles and pedagogy of blended learning, and how to effectively teach and facilitate in a blended environment. All of the participants noted how the structure of the course, with its three connected and coherent modules provided them with insights and authentic examples into course designs and layout, how LMS functions could be used in certain contexts with applied techniques and approaches that helped to encourage participation.

In addition, the importance of demonstrating and modelling blended learning approaches allowed participants to learn through the course design and structure so they felt able to apply certain strategies and techniques within their teaching and online environments. This further supports the literature review, and the need for teachers to understand elements of course design and instructional design to help deepen their understanding of blended learning (Donnelly & Farrells, 2006; Owens, 2012; Owston

et al, 2008). For example, some participants felt the regular reminders from the course facilitators helped them keep on schedule with the online tasks, and the weekly summaries to signal the end and start of certain topics. This allowed them to stay connected with the course, but more importantly, provided them with useful techniques to adopt with their students. This supports findings from similar studies where contextualising the learning and demonstrating the skills to facilitate teaching online becomes an important aspect of designing blended professional development for teachers (Fitzgibbon & Jones, 2004; Salmon & Gregory, 2013).

Most of the participants noted the design aspect of the course, in particular its curriculum structure, certain activities and the developmental nature of their learning as they progressed through the three modules. It is clear, there were obvious intentions and design strategies adopted to create the course in such a way that participants were given a varied and meaningful experience that aligned with the course structure and its learning outcomes. This aspect of the course was directed by the two facilitators, and supports Garrison and Arbaugh's (2007) premise that, of the three components, instructional design and organisation for teaching presence is usually orchestrated by the instructor. This is similar to studies by Peskevicius and Bortolin (2016) where the facilitators were responsible for the learning outcomes of each module as well as developing the activities and discussions online with the participants. Participants also highlighted how using certain LMS features for specific activities provided them with ideas on how to review and integrate similar approaches in their teaching. In practice, it is common for teachers not to view or experience how other teachers design their online courses. Although exemplar courses may be created for the purpose of reference and help, these examples may not be directly relevant or applicable. In particular,

several of the participants commented in their interviews and reflections that the specific structure of the course and the way it was designed allowed them to review their own Blackboard courses and gave them new ideas for presenting materials and resources.

> *I want to talk about the materials on [the] DBLT course. It is well-structured, well-organized, practical, and applicable. When I took a look at materials on DBLT, it opens my eyes into the wide world. Looking through materials, I've got to think how to organize and select materials for my classes. It would be helpful if there's some tips to help how to select and organize materials, as well as some principles about the online materials. [P11]*

> *I can see it is important to make everything clear to students; e.g. 'Must Dos'. I think only Module Three had the 'Must Dos' as a link on the homepage; this was helpful. Modules One and Two were arranged in weekly topics, while Module Three was more fluid. I can see the reason for that - in Modules One and Two we had to work together, while in Module Three it is more individual work. A combination of both is something I'd hope for in my own courses that I design. I think having things arranged weekly can focus the attention of students, but also having links to pages that cover the whole course are helpful. [P3]*

In addition, the use of the planner as a blended peer review activity gave the participants an authentic sense of collaboration amongst their peers and allowed the learning community to build on relevant expertise, knowledge and support. However, it is later

through the implementation that participants were enabled to further develop their blended learning knowledge and practice.

This study does not include the facilitators' own experience of teaching on the blended course, however, as the insider-researcher of this study, detailed attention was given to designing the course to ensure relevant aspects of the LMS were used to demonstrate and showcase specific collaboration techniques and activities, as well as making deliberate connections between the face-to-face and online environment to support the overall educational outcomes in a meaningful and authentic way.

In designing the course, attention and focus was given to the aesthetics of the online design and use of graphics, as well as ensuring ease of use, direct navigation via relevant hyperlinks, and different colours and styles to highlight the transition to the different modules. This attempt at a coherent branding and stylistic design demonstrated to teachers a variety of the different uses, approaches and styles that could be created within the LMS, whilst also acknowledging and working within the constraints of the technology.

4.2.1.1 Choosing meaningful content

As referred to in the literature, the selection of content, course design and its connected activities are mainly directed and driven by the facilitators and thus much of the control and leadership for a CoI relates to the first component of teaching presence, *instructional design and organisation*. This aspect of the DBLT course gave participants an insight and understanding between the theory and practice of blended learning. The facilitators structured the course so that it was possible to model good

practice, and demonstrate certain strategies and techniques so that participants were made aware of the intricate nature of 'how to do' blended learning which was underpinned with relevant literature and resources. The structure of the course with its three progressing modules allowed the facilitators to guide and focus the participants to the different aspects of blended learning which would be considered useful and practical to teachers. Therefore, this approach to instructional design may have been at times, more exaggerated and explicit but achieved the outcome of making certain blended pedagogies and techniques more obvious, replicable and achievable for the participants. The integration of relevant topics also helped participants to reflect more critically about their teaching practice. For example, a topic on the 'Course and a half syndrome' (Aycock, Mangrich, Joosten, Russell and Bergtrom, 2008) allowed a participant to recognise this challenge in their online course and this on how they would design courses in the future so as to not 'overload' the students. Another aspect of using this relevant resource helped to support one important aspect of teaching presence, achieving a balance between selecting content to provide further investigation of the learning for the students but also making decisions to select content which leads to further interaction and collaboration (Garrison, 2011). This aspect was particularly useful when participants had to design their blended learning activity into their own course as they were able to assess and make decisions on the necessary pedagogical rationale so to achieve a meaningful learning outcome for their students. The content selected made emphases and connections to the other modules and activities in order for the learning experience to be coherent and holistic.

This alludes to how balance is achieved in the 'blend', and often in practice teachers over-provide information and resources which can hinder the learning experience. This

issue is addressed in this section and discusses how teachers learn to teach in an effective blended mode. Garrison's view is that the "understanding of the medium of e-learning intersects with the actual teaching and learning transaction" (2011, p. 57) and this balance of design and organisation provides one of the bases for teaching presence within the CoI framework. The opportunity for participants to then apply and re-enact design and organisation in parallel to their own learning and reflective practice helps to build experience and knowledge on how blended learning approaches could be adopted and managed. Furthermore, Garrison viewed nuances between the design and organisation aspects with teaching presence, in that "design refers to the structural decisions made before the process begins, while organisation refers to similar decisions that are made to adjust to changes during the educational transaction (i.e. *In situ* design)" (2011, p. 57). In a similar way that the facilitators would select relevant and appropriate content, and design its structure to support interaction and learning within a blended environment, the participants on the DBLT course were able to make informed decisions on relevant areas or topics that would lend well to their blended learning design and activity for their students. This aspect of decision making gives some insight into an extension of teaching presence where the learners are in the position of a teacher.

In addition, supporting the different concepts around online and blended pedagogies through carefully constructed activities via the LMS allowed participants to have multiple dimensions of access and experience the design and organisation of the course holistically but also, it gave them a detailed insight into each learning activity. For instance, some participants were able to recognise the purpose of each activity, how the online and face-to-face are perceived as essential building blocks to their experience as

well as how different activities connected across the three modules to support the overall learning experience. This is supported by Garrison (2011) who highlights the need for teachers to understand the emphasis and design of teaching within an online community, in particular for those who have never had experience of learning online.

4.2.1.2 Modelling facilitation

This study highlights the participants' perception on the role of facilitation and the coordination of these tasks and activities demonstrated to them by the facilitators during their learning experience.

For example, participants mentioned the different ways in which they acknowledged and valued the facilitators' presence and guidance through their regular reminders, comments and advice on their blended learning activity, and how these techniques or strategies were used to encourage and motivate engagement with the online environment. Peskivicius and Bortolin (2016) noted this explicitly in their own study in that participants valued these timely reminders to help and encourage them to participate online. These observations provided participants with examples of modelling that helped them to facilitate their blended activity during the implementation stage in order to achieve their desired outcomes.

> *Other than the planner, then it is the examples that you have set out for us, […] you didn't deliberately make it as an example for the teachers. Then I don't know how many teachers really sensed that is some sort of an example but I do, I took it as an example, I took it because I was a student in the course. I'm gaining experience from you and [co-*

facilitator's name] as the teacher who framed the course and layout a course on an online structure for us. There must be something that is useful, and then I use that kind of things, for example, when you have the announcement and then from the announcement you have some task for the people to do and then you will have some follow-up on that task. Then, for example, you were asking people to sign up, that is an example of how to use the wiki on blackboard, I copy that. [P5]

It would appear that integrating and modelling of blended learning practices and principles in the course gave teachers a better insight and this ability to apply these in their teaching. This also allowed teachers to move beyond just the technical knowledge of the LMS, but progress to a more blended learning approach where they could apply blended pedagogical skills and techniques with their own students. This aligns with and is supported by similar findings where teachers were able to apply their knowledge and skills within their own teaching context following relevant professional development activities (Owston et al, 2008; Salmon & Gregory, 2013). This level of modelling also extended to other new ideas and approaches that participants were exposed to such as the Pecha Kucha presentations. Most of the participants commented on the advantages of this format within their classes and were interested in trying this or re-adapting similar presentations for their students in the future.

I saw it in class and I was like, "Oh I'm going to copy this". I haven't done it yet, but I want to try to do that in class. It could even be an assessment, rather than having these long presentations. [P3]

4.2.2 Dual roles and perspectives

This study observed that during the *instructional design and organisational* phase of teaching presence, participants are placed in the position of the instructor during their blended learning implementation and thus have the opportunity and indeed, are required to demonstrate a level of blended instruction and facilitation with their students. This sheds more light into how teachers, in situ, proceeded to apply the knowledge gained from the course and applied this into their context. This reaffirmed the idea that participants could observe, inquire and reflect on different blended pedagogies through experiencing this as a learner, and where they could, they were also able to apply the different techniques and facilitation skills in their practice.

The course reinforced specific blended learning and teaching ideas and concepts and indeed, the crucial aspect of the course design structure was that participants had to be in a position to design and implement their own blended learning activity. This is reinforced by similar suggestions found in the literature on the need to highlight for teachers important aspects of designing activities and courses for online and blended purposes, in order to develop the necessary knowledge and skills to teach and facilitate effectively in those environments (Donnelly & O'Farrell, 2006; Owston et al, 2008). In this sense, the explicit nature of needing to implement blended learning as part of the DBLT course, made the participants more aware of the aims of their own individual learning and continuous reflections of how blended learning was being modelled to them during the different stages of the course. At times, specific tasks such as the peer review process allowed participants to observe and engage in an experience where there was obvious integration and merging of the physical and online environments to support their learning.

> *We were getting ready for the peer [review] online and I felt the reason why it was important that we were doing this because first, modern face-to-face which helps you to engage better in everything that's happening online. When you model something face-to-face, it's much easier to do this online because actually. Even though now we're talking about online and technology and everything, they're still working according to the [traditional] methodology of teaching and learning. [P10]*

The *direct facilitation* phase within teaching presence in this study is observed and considered through the modelling of good practice and this was experienced in varying degrees by participants on the course. In this context, *direct facilitation* through modelling allowed participants to either imitate and/or adapt these skills and strategies with their students during the implementation stage to gain a more in-depth understanding of their role as facilitators of blended learning activities. This allowed them to develop the skills required to facilitate in both an online and face-to-face environment. However, *direct facilitation* in teaching presence in a blended environment may be considered a relatively unfamiliar and new aspect to most of the teachers in the DBLT course. This was because none of them had learnt in a blended mode previously, nor had they encountered and engaged with specific professional development on topics such as online moderation. However, it could be said that certain aspects of facilitation within a face-a-face environment in their teaching could be considered a similar technique and some aspect of this could be adopted and transfer effectively to a blended environment, and this position is supported by Garrison (2011).

To further enable participants to understand complex facilitation during implementation, the planner asked detailed questions on how they might design and support their blended learning activity. In addition, facilitators' comments and mentor consultations focused on the detailed operations of their blended activity, such as, how the participant would deal with student engagement. This included understanding possible scenarios including time management of online activities, challenges of motivating students online and lack of activity engagement. Participants needed this direct facilitation experience; firstly, through observation and modelling as a learner, and secondly, as a teacher orchestrating their own blended learning activity while testing ideas and skills learnt from the DBLT course. This gave participants the opportunity to practise blended facilitation skills on a constructive platform from where they could apply, critique and reflect on their blended learning teaching practices. Without this experience of *direct facilitation*, the ideas and skills presented to them would remain more hypothetical in nature and detached from meaningful practice, and thus more challenging to apply in future.

Though the second component of teaching presence, *facilitating discourse,* focuses on the ability to encourage discourse and reflection as a foundation to learner understanding and meaning, the related literature often targets text-based postings and discussions. However, within a blended environment, equal attention is paid to the face-to-face and online environments, particularly where blended activities build on certain tasks that take place within the different environments. Careful and considered integration of the different environments is a key factor for successful blended learning. The challenge is developing ways in which participants view teaching presence within

the face-to-face and online environments as mutually influencing factors while retaining a flexible approach to the blending of the environments.

Although participants developed designs using the planner, this was set within predefined set of parameters, such as, structure semester, course assessments, key implementation and evaluation timings, participants remained undeterred from implementing small facets of blended learning into their courses. This correlates with Garrison's aforementioned viewpoint about the difference between *design and organisation,* but in particular, it allowed participants to manage, experience and reflect on their roles as designers and facilitators of blended learning. These roles resemble those in a study by Kang (2014) on one instructor's experience of teaching on a blended course for pre-service teachers, which indicates the frequent adoption of multiple roles when teaching in a blended environment. The DBLT course enables participants to undergo the dual experience of learning for themselves, and of learning via a blended learning experience with students. This experience helps participants to develop their blended learning perspectives and practice, as noted in the findings from Kang (2014).

4.2.3 I see and I remember: summary

This section, *I see and I remember*, captures how the design, organisation and facilitation of the DBLT course provided a unique inquiry-based environment for participants. This approach enabled participants to embed, connect and transition between the roles of learner and *instructor* during the course whilst supported by course facilitators. This meant participants could achieve a purposeful educational outcome demonstrating the gained blended pedagogies and skills. This helped them establish

further inquiry and reflections into their own learning, which they could compare and contrast with that of their own students.

It was important for both facilitators and participants to experience and understand the nuances, behaviours and challenges of online and blended learning, particularly, how facilitators modify the course content, activities and design based on feedback and evaluation. Likewise, teachers should clearly understand the possible challenges in designing learning activities. This ongoing course refinement was clearly articulated to participants as certain activities were refined based on feedback. This also provided pedagogical rationale and advice for participants so as to reinforce the idea that blended learning design is an iterative rather than a perfect process. Garrison (2011) highlights that "building the curriculum is made more complex by having to deal with the apparent contradiction of having both to increase and decrease the content" (p. 56). This resonates with the course as participants address the idea the 'course and a half syndrome' highlighted by several participants in their interviews and considered one of the key and lasting lessons they learnt on the course.

The course design supported the concept of a scaffolded learning experience for participants. This resulted in a greater emphasis on participant analysis of the *design and organisation* aspects of teaching presence in a more explicit manner. For example, they were able to comment on the different stages of the course across the three modules, and on the benefits of specific online activities and different LMS functions to support their learning. This clear articulation of design and organisation provides a fundamental basis within teaching presence that enables reflection, criticality and higher-order thinking within a CoI, and further supports the need for teachers to

understand the importance of instructional design in order to help bridge concepts and practice for a blended learning environment as highlighted in the literature.

Bridging the gap between theory and practice was another important learning experience during the course. The design and integration of the planner as a key facilitation strategy for designing participants' own blended learning activity gave another dimension and application between the theory and practice of the course with blended learning. This step-by-step approach gave participants the opportunity to highlight detailed instructions for students in the design stage of this task. This provided the structure, considered essential for the design of blended learning activity. This further indicated the design and organisation, plus the necessary facilitation skills needed for their activity, which were highlighted in the relevant phases of teaching presence. Effective use of the planner to develop cognitive presence is discussed in the next section. Opportunities for participants to contribute, model and develop teaching practice within their own course demonstrated an important aspect of how to bridge the theory and practice of online teaching skills and knowledge.

The next section describes participants' experience as they approach the design and application of a blended learning activity with their students, and how this aspect of the DBLT course developed their knowledge and understanding of blended learning.

I do and I understand

4.3: *I do and I understand:* Cognitive presence via design implementation in practice

This third section of the four, presents and discusses the findings (see Figure 10) from this study and answers the following research question (1c) as stated below:

Research Question 1c: How do the design, implementation and evaluation of a blended learning activity support teachers to develop their cognitive presence in the continuing professional development (CPD) inquiry process?

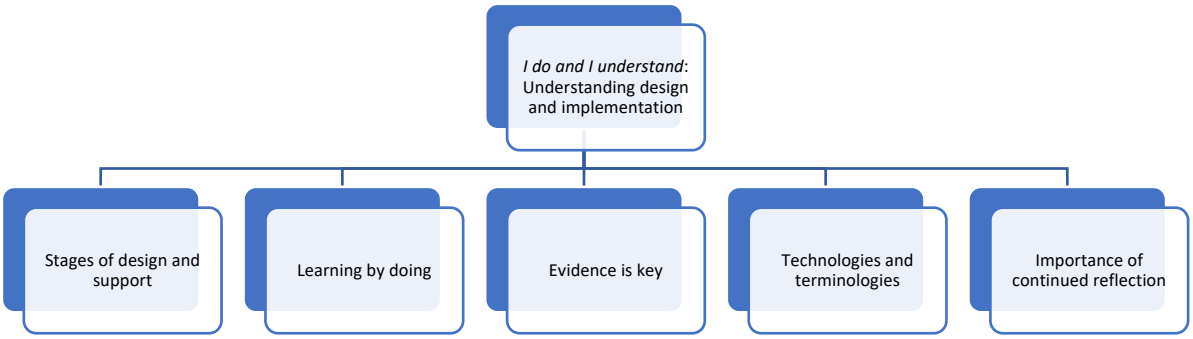


Figure 10: Summary of findings of cognitive presence in blended professional development

The third element of the CoI framework is cognitive presence. This presence has its basis in Dewey's model of practical inquiry and Garrison (2011) describes this within a four phase process of 1) *triggering event*; 2) *exploration*; 3) *integration* and 4) *resolution*. The process of these four phases helps to develop cognitive presence by first identifying an issue or problem which requires further inquiry or investigation (*triggering*). Learners begin to analyse this further through individual and collaborative reflection and discourse (*exploration*); during the *exploration* phase, learners will

develop meanings from these ideas (*integration*) which are helped and supported through enhanced teaching presence and finally, learners apply these ideas or knowledge within an appropriate environment or work context (*resolution*) (Garrison & Arbaugh, 2007). In contrast to other studies where cognitive presence is found through means of questioning and connecting ideas from participants via analysis and evidence in the online discussions (Peskivicius & Bortolin, 2016; Vaughan & Garrison, 2004), this study analysed participants' cognitive presence in a CoI through the design and implementation of their blended learning activity with their students.

An overarching aim of the course was to develop teachers' use of the LMS and a more holistic and embedded understanding of the nature and complexities of blended learning and teaching approaches. On this basis, it was relevant for teachers to design a blended learning activity for an existing course. They were expected to identify a particular challenge, context or situation where their blended learning activity could be applied to help support or solve an aspect of their teaching and their students' learning.

All participants used a template planner, aided by step-by-step prompts to guide their blended activity design (termed e-tivity for the purpose of the course), and all participants referred to ways in which the planner helped them to design their activity. For example, helping them focus on different stages of design and comparison made to other lesson planning techniques and practice. The process of engaging participants in the detailed process of designing, implementing and evaluating a blended learning activity with their students highlights the evidence of cognitive presence within a CoI. This shows the importance of selecting an appropriate task or activity, facilitated and supported by teaching presence as mentioned earlier, and resonates with Garrison's

(2011) perspective that doing this can help support participants to transition between the four different phases, in particular to the *resolution* phase.

This template planner was reviewed and refined for each delivery of the course. Feedback from participants was also incorporated during the iterative design. The final version of the planner for cohort three can be found in the Appendix.

4.3.1 Stages of design and support

The importance of using the planner was highlighted by all the participants and these were referred to as either a conceptual plan, a checklist, a guide or compared to a teaching plan. Several participants commented on how their usual approach to activity planning with a sense of being on 'auto-pilot' or having certain presumptions based on their teaching experiences, 'trial and error' judgements or having an assumed knowledge of their students. Therefore, it seemed pertinent that one participant highlighted how the planner made them reconsider the planning from a different perspective and reflect more deeply on their existing practice. This meant they adopted the position of another teacher who may not be directly involved in their subject or teaching. This reinforced, for them, the importance of articulating explicitly their learning design instructions, the rationale and purpose behind their design and the activity. Several of the participants noted how the planner reminded them of similar planning approaches, such as a teaching or classroom plan, which they encountered through similar teaching training experiences. This connection shows value in how skills needed to plan blended learning and online pedagogy are similar to the practices that teachers often undergo in their training, and the importance of showing resemblance and continued relevance for teachers.

It's like a guide. It's list of everything-- actually, it's like [a] checklist, everything I need to be aware. [P7]

It's like the teaching plan. When you just teach the first time, for a certain subject and you have to write down a scenario as your teaching plan, but later on when you get used to that, then you just make a simple [note] just with a fact. [P11]

It just helped me to conceptualize what I am going to do and how that links to the internet learning outcome. I think one reminder is that sometimes, we do learning for the sake of it and there's a lack of how does that link to the internet learning outcome. That is also my personal tendency as well because I'd like to try new things for the sake of novelty. [P9]

I had to think about how another teacher could use the same idea to incorporate in their own lesson. When we had to submit the plan. [P3]

The planner offered a structure of prompt questions and guidance which helped to develop practical inquiry and allowed participants to apply relevant skills, advice and knowledge gained from previous modules on the course. Most importantly, the process of providing detail and articulating clearly was a skill which aided teachers' understanding and application of blended learning. The design of the planner itself also made deliberate connections and references to specific content used earlier in the course, such as Chickering and Gamson's, (1987) Seven Principles of Good Practice, Bates, (2015) elearning continuum and 'closing the loop'. This acted as reminders, but

more explicitly as reference materials to help participants reflect on previous activities which were discussed in the online environment or the face-to-face sessions. Adopting this technique and approach resonated with Garrison's advice regarding the nature of teaching presence and the role of the teacher to support this *triggering* and *exploration* phase. In particular, how tasks are designed so it "can be structured in a more open manner by framing the issue and eliciting questions or problems that students see or have experienced" (2011, p. 46).

The planner also served as reminders for several participants' and focused them on the needs of their learners, in particular, ensuring their design aligned to the course intended learning outcomes. Though several participants commented on the time-consuming nature of completing the planner, they also felt it was useful in considering their activity from an instructional design perspective, such as keeping their designs simple and easy to manage allowing them to facilitate the activity and students more effectively. In addition, two participants also indicated the useful reminders, including the details of their evaluation approaches as helpful prompts when considering their implementation.

For participants, the relevant prompts in the planner acted as a secondary level of facilitation and questioning and further supported the peer reviews' process and mentor's guidance. This demonstrates the connection between teaching presence and cognitive presence of the framework, and further reminds us of the interconnected influences and impact of all three presences. It seems evident that encouraging clear articulation of the instructions for designing and implementing blended learning, and supporting this through a peer review process meant ambiguity or lack of detail could be addressed. This supported the participants' planning of their ideas, their

understanding of ‘doing’ blended learning and subsequently how they relayed these instructions for their students.

> *Basically, this planning, it helped me to put my thoughts together, what we're doing in this planning stage because I just remember that we have to describe the participants, we have to describe the group. But it's really useful and it's very similar to the subject of [a] course that we did before. [P10]*

> *I think for class I treated it as the class planning. I will just plan class time as a session planner. But the planner also ask for something more. For example, you need to understanding the learner. You need to understanding your ILO [intended learning outcomes]. You also need to do some evaluation. [P7]*

Most of the participants also commented on how their design provided them with opportunities to approach their teaching differently and allowed them to try out more features in the LMS. More importantly, they felt that undergoing an intensive and detailed process for the design of their blended activity enabled them to explore more deeply the needs of their students, in particular, their motivation for learning, their discipline and how they approach learning. This seems to demonstrate that they were able to adapt knowledge from their learning on the course and actively apply this to their own teaching so they could ultimately, be more student-focused.

The delicate balance for individuals to understand and reflect upon their needs and focus, and compared them with the learning community becomes more apparent towards the later stages of the course when participants were asked to design and implement their blended learning activity. Transitioning participants to focus on more individualised learning and addressing their own needs allowed them to prioritise their learning and context as opposed to the collective learning of the cohort, although the peer review process acted as an important connector to the CoI. By guiding the participants through the step-by-step planner, focus was given to the nature of their subject, learning outcomes and their students. This sense of familiarity and confidence in their own knowledge and expertise meant they were able to describe and discuss the details, challenges and possible opportunities for blended learning in a much more informed manner, and with definite ease.

4.3.1.1 The guide(s) on the side

The mentor in the course acted as a specialised guide to support the teacher during the implementation of their blended learning activity, for example, by giving technical guidance on the LMS and providing advice on facilitation techniques about the blended learning activity. The third phase, *integration* is concerned with learners creating further meanings from their *exploration* and connects new ideas through critical and reflective discourse. The role of the mentor through the one-to-one consultations and discussions provided elements of *integration* in cognitive presence. Participants' learning journals and reflective commentaries valued the presence and advice of the mentor role to support them in the application of blended learning and teaching practices. This type of interaction is not dissimilar to other types of professional development support mentioned earlier in the literature review (Lam & McNaught, 2008; Wilson & Stacey,

2004), although the contextualised support gives an additional impetus needed to help participants transition to the next phase of cognitive presence.

From the literature, it is noted there is often a challenge in moving to, or at least little evidence of these latter phases in cognitive presence, namely *integration* and *resolution*. However, it appears the role of the learning community and the facilitator/mentor in the course shifts and adopts different roles and responsibilities to provide bespoke, tailored support for the participant as they proceeded to design and implement their blended activity. Furthermore, at this stage of the course, participants take on a different role as they adopt the facilitator's responsibilities to engage their students in the blended learning activity. It is also worth noting that participants also make connections with other peers in their department who help to provide specialised technical or IT support. This type of support network created by participants allowed further inquiry into blended learning, and in particular, built and connected ideas to make blended teaching more practical. The nature and context of support, required by participants at this stage of the course is different. By comparison, the support required is now more specialised and tailored, and addresses specific challenge within their own teaching context. This also re-emphasises the importance and the need for a varied approach to the nature of professional development interventions and support as identified earlier in the literature review. In particular, this highlights how different stages of teachers' needs can be addressed along a professional development spectrum via various forms of activities and modes of delivery, and the relevancy for when and how these types of support occur (Forsyth, 2003; Sharpe, Benfield & Francis, 2006; Wilson & Stacey, 2004).

4.3.1.2 Individual needs versus shared worlds

During the design and implementation stage of the course, participants were actively engaged with specific learning outcomes which deviated from the learning community and prioritised their own learning and development needs. This focus on a real-life, familiar scenario or problem can be viewed as the first step towards the *triggering* phase described within cognitive presence. This *triggering* phase within the course was present throughout and, in particular, during the first and second modules where certain activities were designed and built on concepts around blended learning, engagement and LMS use. However, in Module Three, tangible signs of success and meaningful transformation in terms of understanding blended learning approaches is more evident when participants implemented their blended learning activity with their students.

Developing and supporting teachers' ability and knowledge to be able to describe and articulate their approach and rationale for designing and implementing their blended learning is a fundamental aspect of understanding online pedagogies and how they can be adopted in teaching. This approach helps to support the second phase of practical inquiry known as *exploration,* since participants needed to peer review their draft design plans. In this study, incorporating ideas, suggestions and feedback from their peers and facilitator in the peer review process helped participants to modify and refine their blended learning plans. Consequently, this gave participants a greater understanding of the purpose of blended learning, but more importantly challenged their perspectives and beliefs about the blended learning which led to further inquiry and reflection about their practice. This supports Garrison's (2011) position who viewed this exploration as a process of exchanging information between learners, either through group activities, reflections and ideas either collectively or individually. This also suggests evidence of

the development of an effective learning community whereby participants felt at ease to challenge misconceptions in a group.

This again, suggests some influence of the interconnected nature of social presence on cognitive presence. In particular, the majority of participants valued the benefits and comments they received from the peer review process, and some chose to have the same peers for the online component of the peer review activity.

Garrison (2011) also suggested that during the *exploration* phase, learners "will experience iteration between the reflective and shared worlds as ideas are explored collaboratively and individuals try to make sense of what may seem to be complexity and confusion" (p. 47). He emphases that this process depicts the true nature of a CoI and goes on to further elaborate that the challenge here is to "monitor and regulate this phase of divergent thinking in such a way that it begins to be more focused in preparation for the next phase" (p. 47).

This study demonstrates the divergent thinking as described by Garrison since participants developed and explored best possible solutions for their blended approach. However, this exploration phase, in the context of their own self-meaning and construction does not appear to be continuous. Exploration in the early stages of the course allowed participants to engage and reflect with each other, however, the real sense of satisfaction and achievement was observed when participants focused on their blended activity. This continuous and developmental cyclic interaction between individual needs (self) and the community's (shared world) appears explicitly in two instances during the course.

To further analyse, the first time this type of individual reflective and shared world interacts is when participants share their initial blended learning idea. They had only one week to prepare their idea, or several ideas so they could present these to their peers during a face-to-face session. This initial sharing was facilitated in a small group of three people, and was based on Brookfield's, (2017) model for a "Critical Conversation Protocol" (p. 128) to facilitate and enable critical conversations on learning and teaching amongst teachers. The second time is when participants complete their first draft of their blended learning activity and share this with two other peers and the facilitator (mentor as this stage). In both these instances, participants explicitly comment on the benefit and value of these activities. Whilst other more collaborative, group activities appear to have created less impact and response from the participants. However, due to the nature of the course, any deeper or more in-depth interaction in the *exploration* phase which focuses on the design of the blended learning activity is relatively short-lived, but this appears to impact the individual in such a way that it helps them to further refine their approach to the design of their blended activity. One suggestion here, is that teaching presence through individual feedback from the facilitator-mentor acted as a strong basis for participants to further critique and reflect on their design.

From this study, there appears to be the possibility that individual needs, at times, can be prioritised, over the community's shared worlds in a mutually reciprocal manner. This is an interesting idea as it appears to have minimal impact and detriment to the community as a whole, and provides further insight into how an inquiry-based community can be sustained and motivate itself enough to collaborate and move towards the *resolution* phase of cognitive presence.

4.3.2 Learning by doing

It is clear from this study, that asking participants to implement their blended learning designs with their students meant they were placed in a better position to adopt a more reflective perspective on the courses' existing learning outcomes and directly connect these to the rationale of their blended designs. This aligns to Vaughan and Garrison's (2005) earlier perspective "that a blended learning design could be used to create cognitive presence and facilitate inquiry into one's teaching practice" (p. 4). By positioning the participants in such a way that they constructively reviewed their blended design, based on their own experience of learning in a blended mode during the DBLT course, gave them new insights into blended learning and teaching, and thus a better awareness and more tangible understanding of the needs of their students. For some participants, it was an opportunity to review the courses' learning outcomes and assessment components in a more informed manner to make future changes beyond the scope of the DBLT course. This provided an important connector for participants as they rationalised their own designs with the needs of their students, and thus gave them autonomy to shape their own understanding of blended learning in conjunction with support from an educational developer. This appears to be an essential component of the *integration* phase, in particular where the teachers are able to actively apply the knowledge gained about blended pedagogies with support from relevant expertise and colleagues.

Through participants' reflections during their implementation phase, it was evident they were able to identify and reflect on the challenges of the experience, as well as critique aspects of their students' learning through their own teaching practice, and with their blended learning activity. A few participants also compared and reflected on how peers

within the DBLT course would withdraw from the online environment or discussion forums, which was a similar behaviour and problem they had experienced with their own students. This allowed them to relate authentic situations they were encountering with their own existing teaching challenges and problems, and thus made them first acknowledge this issue, amongst themselves, and consider different ways to resolve them rather than become frustrated.

This resonated with Garrison's (2011) perspective on the third *integration* phase, and emphasised that "decisions are made about integration of ideas and how order can be created parsimoniously" and that during this time "the teacher must probe for understanding and misconceptions as well as model the critical thinking process" (p. 47). This understanding and misconception is demonstrated via a unique double helix-type interaction between i) teacher-participant and mentor and ii) teacher-participant and students learning concurrently, which helps to develop the critical thinking and reflection that is so crucial within the integration phase of cognitive presence. The nature of actively articulating, documenting and reflecting on their teaching practice as they conduct and implement their blended learning design gave the participants a focus, rationale and practical experience of how they undergo and apply blended learning in their teaching.

In this study the role of the learning community and the facilitators affects and influences cognitive presence at different times during the course. When participants implement their blended learning activity, the role and input from the learning community is limited. The community's contribution to help with inquiry, knowledge building and critique ceases after the online peer review task. In contrast, the role of

support and inquiry is via support from the mentor/facilitator and in parallel with interaction and feedback from the participant's students. The connection and interactions needed for collaboration and inquiry shifts, but this is not to suggest it is any more or less important or crucial in the participant's understanding of blended learning teaching practices. The need and rationale for different types of interaction and collaboration with regards to supporting the different phases of cognitive presence is clearly dynamic and not linear.

Lastly, at the point of implementation, participants had limited reasons and purpose for reconnecting with the rest of the learning community. Their focus shifted primarily to their students, and the evaluation and impact of their blended learning activity. This implies that the role of a CoI does not necessarily have to develop in a linear way, but that quite often and as shown from this study, the community is dynamic as roles and interaction shift and change depending on the task. In addition, the role of the students and the impact of their learning experiences have a much greater impact and influence on how teachers perceive and reflect on their blended teaching practices. In this study, responses and evaluation from their students acted as powerful evidence, incentives and motivation for participants to build and reflect on their understanding and experience of blended learning approaches. This is further discussed in the next section, and highlights the possibility of a much greater and extended connection of social presence and teaching presence.

4.3.4 Evidence is key

Two participants compared their blended learning implementation with their own discipline of healthcare, which highlighted for them the effectiveness of applying

practice to the knowledge and examples they gained through the course. By applying their designs, participants gained confidence about the planning and design aspects of blended learning, but also, specifically about the pedagogical principles underpinning their approach. However, most importantly, through evidence in the form of students' feedback and comments, participants were able to assess more fully, the effectiveness of their design on students' learning.

> *Well, first of all you really can't tell how effective it was, your E-activity, you can't tell, you haven't tested, you have no data, no comments, no feedback. Well, to me I was still think[ing] it will be a good experience. Doing the first and second module you learn the knowledge, you get the knowledge and then you know how to write your idea, but you don't the experiment part yet. [P4]*

It seems one of the most important and determining factors that directly affected the participants' perspective and mindset about blended learning and teaching approaches was feedback from their students. Evidence from students appeared to give participants significant momentum to either change their practice or reconsider the benefits of blended learning. This correlates with Stein et al.'s (2011) own observations about teachers' perception and adoption of new ideas or concepts if they could subsequently see its positive impact in the classroom and on their students. The 'seeing is believing' concept is a powerful persuader and suggests that some participants viewed their students' feedback and experience as a critical turning point to how they perceived blended learning. This may be seen as perhaps, reassurance and consolidation of their design approach, or overturning their own misconceptions about blended learning effectiveness. The impact of their students' learning, as well as their reflection suggests

that some participants could have transitioned to the illusive *resolution* phase of cognitive presence, which is often quoted as difficult to attain.

> *Throughout the process, I realized that I started to BELIEVE what I planned to do is meaningful and with confidence. I do believe that through observing and reflecting on one's own teaching, it can bring about change. And I am now ready to CHANGE! Having analysed the data and feedback from my students, I can be reassured that online teaching is a MUST HAVE item in our blended teaching/learning, of course with good quality and thoughtful design. [P4]*

The implementation and evidence from students meant participants had authentically 'tested' and evaluated their own understanding of blended learning in a meaningful context. Their own critique and reflection of this process in this *resolution* phase is described by Garrison (2011) as a critical assessment of "the viability of the proposed solution through direct or vicarious application" (p. 52). Through application, evaluation and reflection, participants were able to create an authentic experience for themselves which further developed their understanding of blended learning based on empirical knowledge, evidence and feedback from their students. Consequently, the opportunity to share and critique this experience, in a timely manner and with purpose with their peers gave a more constructive and deeper insight into teaching practices which they were able to consider and reflect on.

Several of the participants referred to being sceptical about the design and implementation of their blended activity, in particular their students' willingness to

engage, and a lack of incentive or motivation such as formative assessment grades. Despite this, these participants were surprised with the success of their activity, and although they admitted it was relatively simple, it allowed the students to participate and integrate more deeply in their face-to-face sessions and thus created a better sense of ownership of the task and their overall learning. The responses from participants resonate strongly with Kang's (2014) own findings and assertion that the success of blended learning within teacher development creates learning communities that aim to "share empirical evidence of the effectiveness of the blended approach" (p. 68).

> *Very luckily, don't have ending complaints. Also, the outcomes is quite good and out of my expectation. I don't - at the very beginning, I don't think [it] will [be] really effective like that. I really don't think at the very beginning the student[s would] love it. [P7]*

> *...I wasn't convinced as to how well it worked and then I was very surprised anybody did my activity…I was amazed people did it. And so, I have started integrating it a bit more, yes. [P8]*

The success and achievement felt by participants is observed more through their learning journals during the implementation stage and this is supported via evidence of their students' feedback and the impact on their learning. In these learning journals, several of the participants noted their surprise on students' positive reaction and engagement in their blended activity. For example, increased activity in LMS, improved contributions in the connected face-to-face sessions and a demonstration of deeper understanding of topics and instructions were noted. Participants also felt students

valued the learner autonomy created from the blended environment which led to it being more student-led and student-centred rather than teacher-driven. To support their learning journal reflections, several of the participants had included statistics from the LMS to highlight students' engagement and activity, as well as feedback from the end of course evaluations.

> *The key thing I learned from students' feedback is to make learning happen [it] is not necessary to teach. Honestly, I really expected some complaints from students about the learning outcomes of such kind of blended learning. Because the whole design focused on mak[ing] students do things by themselves, i.e. create the case, set up the questions, study others' case, answer questions, present ideas. There's no element of "teaching". I mean the traditional view of teaching, i.e. teacher stands in front of class and talk. But, from the feedback collected, I found out that surprisingly many students really said that they can learn more by learning this way and some of them even think it's [a] much better way of learning! [P7]*

4.3.4 Technologies and terminologies

Prior to the DBLT course, most participants had expectations of becoming more familiar with using the LMS. After the course, all participants highlighted their increased familiarity with the LMS to support learning and teaching. In particular, they highlighted their increased confidence as well as confidence to advise and support other colleagues. Several participants also mentioned specific functions and tools within the

LMS they became familiar with during the course, but in addition, how they continued to use these, beyond the course with their students.

> *Actually [on] the DBLT course you didn't learn how to use the tool exactly, but it gave us chance to explore a lot of tools we didn't know through the blackboard and beside the blackboard there are more LMS in each university in Korea for example. But while I was using [the] LMS in Korea and I think I got a better idea how to use it there and I also gave some advice to my leading professor to use that LMS. [P11]*

Allowing teachers to transition between the different roles as mentioned in section 4.2 meant they could apply the use of the LMS for their students, but more crucially, organise and facilitate their blended learning activity based on techniques and approaches as observed on the DBLT course. These could be considered as imitation approaches or contextualised application as participants found ways to model good practice and apply their skills. Participants valued the opportunity to experiment and apply their learning to their familiar roles as teachers with more tangible results and with renewed insight. This was made possible as the implementation stage ran concurrently with the course, so participants could easily access help and guidance from their learning community and facilitators.

For example, the DBLT course demonstrated the use of blogs and wikis to support online group work, this helped some participants to assess in detail the benefits and challenges of using certain technologies with their students. Likewise, one participant also commented on how the use of the wiki tool for online group collaboration helped

them to reassess its perceived benefit for learning and teaching. The participant referred to case studies and resources within the sector which support and suggest the use of wiki online collaboration and group work, though their direct experience on the course made them question its real tangible benefits for learning and made them more sceptical about its use in the future. This highlights the importance and relevance of designing online tasks which embed the use of the LMS to further develop teachers' understanding and competency with the technology and its connection to supporting learning and teaching.

> *I remember we used the Wiki. The Wiki, even though I don't think it worked very well, it's because I was the only one contributing. In that, but I think at the same time that was a good thing because I learned a lot because this was what was happening in my own class because one person dominates on … I guess it made me a little bit more sceptical about the benefits we can use. [P3]*

Furthermore, the same participant noted how increased confidence in using the Blackboard LMS enabled them to better advise their department and colleagues when they transitioned from another LMS. This direct experience allowed them to fully assess and evaluate different technical possibilities and approaches which could support their department's needs.

> *I think, beforehand, there was a lot of apprehension within the centre about moving over to Blackboard, because beforehand, we used [name of LMS]. The way we used [name of LMS] was that it was very much technical staff did everything, and teachers were unable to do anything.*

Having to do things yourself, that can be kind of a positive or negative. I had not done anything either on Blackboard before, so actually going to a blackboard course and then, as a student, seeing what you could do. Then also, as an instructor, seeing how you could change things, and seeing there's not really any difficulty doing that, that just made me think -- And also the flexibility, how you could do different things, depending on your class. That's what I felt. I felt that's the way that we should be going forward within the [department's name] with more confidence. [P3]

Several of the participants also noted how they had also learnt new tools or learning technologies through peers on the course, as well as specific hints and tips to use the LMS more effectively in their teaching.

Though the course focused and highlighted the use of blended learning as a mode of delivery, it was interesting that three participants compared their experience to flipped classroom approaches or its similarities to distance learning courses. In particular, they felt this was what the course was attempting to model, or that they were being 'taught' how to apply flipped classroom techniques through the design of their blended learning activity. This suggests the continued misunderstanding on the specific characteristics of blended learning approaches and that more focus was needed to help participants distinguish these differences when teaching about online learning, and aligns with literature that suggests further enquiry is required for greater clarity and explicitness on how blended learning is defined (Driscoll, 2002; Oliver & Trigwell, 2005).

I can focus on individual students more. I think it was the best idea to apply the flipped learning as an E-tivity. Because […] the students should prepare the lesson before the class but actually it gives a burden to the students. But E-tivity you can't just flip your way [out] of your class before the class or after the class and if you don't have time on the activity in the class then you give the students idea[s] to do activities in online. Then, the course taught me a lot of ways to use tools of [the] LMS system, so made me more confident. [P11]

4.3.5 The importance of continued reflection

The process of maintaining regular and continued reflection during the implementation and evaluation stages revealed how participants experienced the impact and challenges of blended teaching. In practice, it is common for teachers to embark on blended learning with their students, where the process of their experience is rarely documented in an explicit manner. Through the concurrent nature of the DBLT course with their own learning, it was possible to observe participants articulated a more in-depth engagement with the change and process of blended pedagogies. This demonstrated a shift and change in their mindset and perception about their overall teaching practice. Although, some changes may have appeared relatively minor, for example, a misunderstanding about certain functionalities with the LMS, or a relief when the technology worked with their students, it seems evident that by asking participants to reflect this process helped them to clarify their own learning process.

The intentional design of the DBLT course incorporated activities and processes to support continuous reflection, and as such, it is important to embed the nature of

reflection and reflective practice into professional development activities. It is through these reflections that we start to observe the changes participants underwent, and how these changes informed their teaching practice and mindset. The participants were asked at specific, significant points during the course to reflect, individually on prompt questions to facilitate their thinking and to share experiences; and were also encouraged to challenge their own conceptions and misconceptions. This act of prompted reflections allowed both the participants and the facilitators to view jointly the process of their learning. The use of learning journals or reflecting regularly on teaching practice and learning is not a new concept (Moon, 1999), and as such, establishing a purpose, which had a focus and outcome allowed the participant to inquire deeper into their own teaching practice and learning.

Redmond (2014) noted the importance of reflection within the CoI framework, and proposed this modification to be included as an explicit indicator of the elusive *resolution* phase in cognitive presence. Redmond (2014) included *reflection* as an explicit, additional indicator within the *resolution* phase in cognitive presence. This, she asserts underpinned both inquiry and reflection as key components within the CoI framework, and further supports Garrison's (2011) idea of analysis, discourse and reflection as integral in cognitive presence. Comparatively, the findings in this study shows the importance of demonstrating the means and process to encourage and support reflection via relevant and well-designed reflective activities within the CoI. Though it needs to be acknowledged that the nature of reflection can be both an innate and explicit behaviour and response. Therefore, according to Redmond (2014), to include explicit reference to reflection provides further evidence that helps to identify learners' transition to the *resolution phase* of cognitive presence.

The nature of the teachers' reflections from their experience in this blended professional development course will be discussed further in the final section of this chapter.

4.3.6 I do and I understand: summary

This section, *I do and I understand*, summarises participants' approach and engagement towards the design and implementation of their blended learning activity. Participants noted how this process allowed them to observe and reflect on their concept of blended learning from an initial idea to a more purposeful action. In addition, it gave them an insight into the application of instructional design and online course design by applying what they saw and learnt from the course.

This important aspect of being able to apply skills, knowledge and techniques of blended learning with their students reinforces the need to provide an appropriate form of environment for in-situ learning and application to help teachers observe and reflect on the impact and evidence of their blended learning approach as they trial and test new ways of practice. This form of in-situ learning can help to provide the necessary incentive, guidance and support needed to motivate teachers to make active decisions to apply blended learning approaches in their teaching and classroom (Kopcha, 2012). This further aligns with and supports the different chartacteristics and indicators idenitified with cognitive presence in a communty of inquiry (Garrison & Vaughan, 2008). Moreover, for teachers, the fundamental aspects of design, implementation and evaluation for blended learning approaches is further consolidated when integrated with support which allows for inquiry through observations, peer feedback and ultimately, processes for reflection and reflexive practice. In this way, findings from this study

provide insight into how specific blended learning activities or tasks can help specifically support cognitive presence as highlighted from the literature (Akyol & Garrison, 2011), but also indicate the interplay and connection between social presence and teaching presence within the wider Community of Inquiry framework (Gutiérrez-Santiuste, Rodríguez-Sabiote & Gallego-Arrufat, 2015).

The next section is arranged in two parts. The first part discusses the participants' reflection of their learning experience using images from the Pecha Kucha presentations. The second part discusses participants' reflections from their learning experience and how this has influenced and impacted on their role and responsibility, and their overall perspective and mindset towards blended learning and teaching approaches.

I reflect and I grow

4.4: *I reflect and I grow (*Part 1*):* Images as teachers' reflections on blended learning

This last section of the four comprises two parts to collectively form teachers' reflections of their experience in this blended professional development course (see Figure 11). Part one presents and discusses the findings in relation to teachers' reflection from their Pecha Kucha presentations. Part two will discuss the findings in relation to the teachers' overall reflections of their blended learning experience. Part one answers the following research question (2c):

Research Question 2c: What do images from Pecha Kucha presentations reveal about teachers' reflections on their own learning and teaching approach to blended learning? What implication and potential does the use of images in the Pecha Kucha style presentation have for teacher training and CPD?

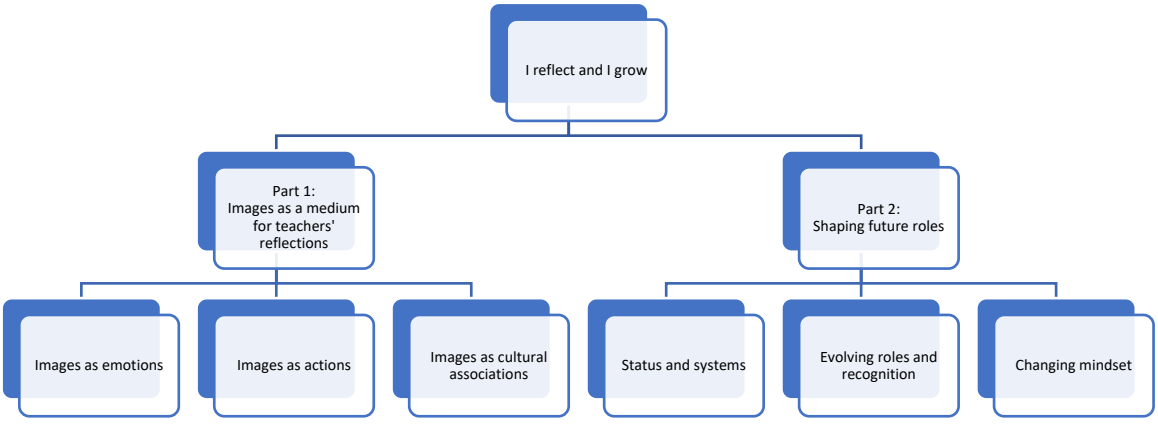


Figure 11: Summary of findings of teachers' reflection in blended professional development

In order to understand more thoroughly the nature of professional development for teachers, the context and content for the delivery of online and blended learning cannot

solely focus on text-based materials and interactions. The increasing use of images, videos, animations, and more recently virtual and augmented reality in education means teachers and learners need to become familiar with this multimodal approach to form knowledge, critique, debate and reflect in order to support curation, creativity, storytelling, collaborations and interactions (Jewitt, 2006; Matthewman, Blight & Davies, 2004).

In this study, the use of images to support the process of reflection provided a valuable opportunity for participants to articulate and share their learning experiences in a more dynamic and personal way. The role of reflection in learning from experience is well researched in the literature as evidenced from the works of Dewey and Kolb. Likewise, the need for reflection lies in the heart of cognitive presence within a CoI framework. Including the analysis of image-based reflections within this study seems relevant and pertinent as teachers become more familiar with the different pedagogies and approaches associated with online and blended learning. The need to make conscious and articulated decisions on the selection of relevant media to represent accurately their messages and meaning and how they use these for learning and teaching will become a vital and helpful skill for teachers. Therefore, the selection and relevance of using images to support and convey meaningful educational process and outcomes needs to become a more deliberate and explicit action, rather than one for pure aesthetic and presentation purposes.

The nature and process of reflection, and sharing these in the learning community was a fundamental approach designed intentionally into the DBLT course. Although many of the participants' reflections were shared mainly as private reflective entries with

facilitators, a key outcome of the course was to share experiences of their learning. This included how their blended activity was designed and evaluation of their students' feedback via a Pecha Kucha presentation format. The main purpose of the task was to share their experiences in a relevant, fun and fast-paced manner. This was pertinent since, in the final stages of the course, all the participants were busy with their own individual design and implementation and this was seen as a worthwhile experience after the peer review contributions, to demonstrate to the learning community how participants had refined and progressed in their blended learning plans. Placing the participants in an environment where they appeared to be slightly out of their comfort zone, compared with their usual traditional presentation styles, generated a sense of excitement and energy in the final face-to-face sharing session.

The analysis of the Pecha Kucha presentation forms a small, but complementary part to this study. It is acknowledged that given the short time (twenty seconds) for the corresponding dialogue of each slide means the narrative is more concise and succinct compared to a traditional presentation, and this may have its own limitations in terms of attempting to offer a wider analysis of the participants' reflective experiences. Nevertheless, the analysis of the Pecha Kucha slides provides an alternative and interesting insight into how images could be used to further support reflective learning. As referred to in Chapter Three, it was only possible to analyse one corresponding audio narrative with the Pecha Kucha presentations, and thus this was used as a basis for a more extensive analysis. The remaining Pecha Kuchas were analysed together with accompanying notes taken at the time of the presentations. The following section discusses the findings from five Pecha Kucha presentations and the emerging themes

associated with the images as related and associated to emotions; actions and cultural meanings.

4.4.1 Emotion-related images

In this study, participants tended to use images to highlight emotions when referring to their learning from the course. The images used illustrated how their experience on the course changed them or their practice. In the small sample of the Pecha Kucha images analysed, they appear to act as metaphors to capture participants' feelings and experience. These were shared in an openly expressive manner with others in the cohort. At such points during their presentations, where participants refer to their own learning, their narrative appears to match and correspond to the images they selected. This is in contrast to the rest of their presentations where their chosen images would contain limited reference or connection to their spoken word and narrative.

The use of more emotive expressions in their images could suggest a more personal connection to their teaching practice at a more social cognitive level, which allowed them to reflect and question any preconceived mindset or assumptions both prior to and after the course.

Likewise, it can also suggest a more self-reflective outlook of their teaching practice and, in particular, an aspect of social presence which enabled the participants to be more open, comfortable and familiar to share more obvious feelings and emotions with the learning community. This supports the camaraderie shown to each other during the face-to-face presentations and suggests a level of unity in terms of how they approached an unknown and unfamiliar task together. This also suggests a level of respect and

support for each other in the learning community, and connects to the characteristics and indictors as identified for social presence in a community of inquiry (Garrison & Vaughan, 2008).

This observation also correlates with Moon's (1999) premise that the notion of emotion and reflection is intrinsically connected but never fully acknowledged or addressed in the literature. Although much of her investigation involves the use of text-based writing or journals, what she does conclude is how the act of reflection is part of the reflection and can contribute to the individual's process and outcome of reflection. Therefore, in the images used by participants, we observed how a feeling or sense of emotion can be invoked through the act of reflection, and vice versa. In addition, these are used to convey the participants' meaning and are interpreted and connected to subjective references, social meanings and values. The interpretive nature of the images they selected for the Pecha Kucha presentations provided a deeper insight into their emotive experience of their learning and a willingness and openness to share this with their peers. Further analysis needs to be conducted to find out if this is more apparent if learners are asked to use images as part of their dialogue and presentation for reflection purposes. This level of emotive response correlates with and is supported in participants' final written personal commentary.

This does suggest a link between how emotion can aid or support the reflection process and outcome, but also how this influences and impacts on cognition. Moon (1999) further elaborates on how reflection allows individuals to view the act of questioning and response from both an emotive and cognitive perspective. With this in mind, the use of images in this study helped participants to articulate more fully their reflection

and learning experience. This provides an interesting dimension for future research, and this approach could be used as a means to further capture and investigate the three presences in a CoI. In the following examples, participants select images which act as metaphors for an emotive response about their learning and reflective practice.

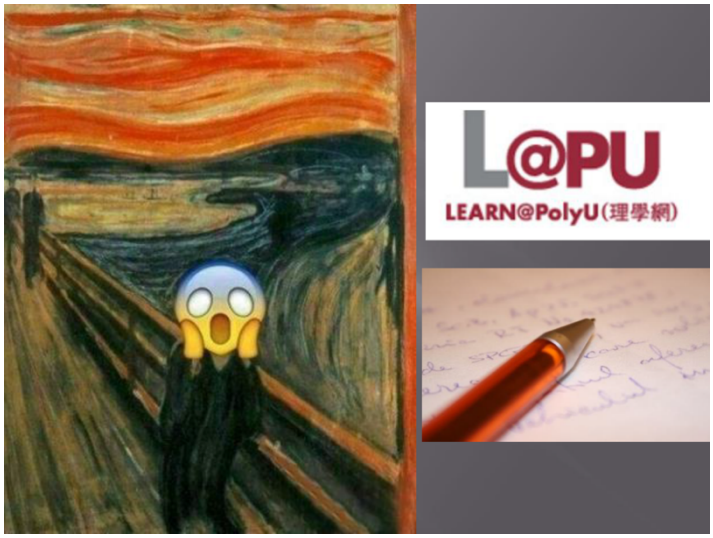
For example, participant, [P11] chose an image of a blue sky and ocean:

Her corresponding narrative was:

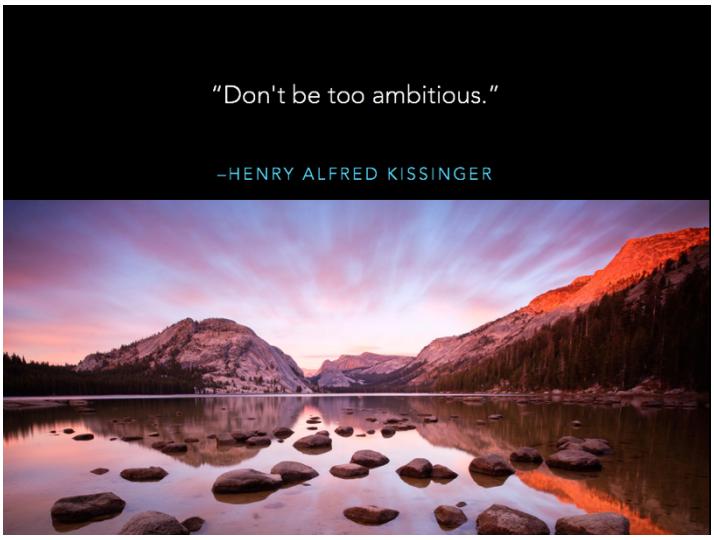
> *Overall students achieved their intended outcomes and I'm very satisfied with this result. Through the course, I feel like I found a blue ocean where I can try various activities with numerous plans. What's the important thing? I learned how to make [a] more engaging practical and learning environment for the class.*

Another participant, [P3], chose to represent her learning on the course as new green shoots, possibly depicting new ideas or new growth:

In addition, participant, [P3] further reflected on how there was more to learn about using the LMS, and on this specific slide they inserted a picture of the famous Scream by Edvard Munch depiction with an emoticon scream or shock face to possibly show the online nature of her reaction.



In another example, one participant chose a landscape scene with a quote from Kissinger “Don’t be too ambitious” highlighted as text on the slide to share her own reflection of the course:



These emotive type responses in regards to their reflections appeared to generate the most abstract of choices for their images, and often these images were used as metaphors to express their feeling or thinking about their own reflection. Although only one audio narrative was available to be analysed, when this is studied with the accompanying notes taken from the session, what appears is that there was a deeper meaning to the images the teacher chose which often did not directly correspond to the words used in their presentation. This may also have been the case for the other presentations.

4.4.2 Action-related images

In contrast, when the participants wanted to explain the rationale behind the design of their blended activity, and its connection to how to resolve a challenge or problem they were having with their students' learning, they chose images that could be used to explicitly signal actions or situations where discrete actions could be described. For example, one participant, [P11], chose an image of a person holding a clock to indicate

a lack of time, and of a mouth being taped closed to indicate a lack of communication or engagement.

In another example, the participant [P11] used an image of a DJ to represent her students' task of introducing a Korean song as a radio DJ. However, the details of the activity as explained in the participant's narrative suggested a deeper integration between the online and face-to-face component of the learning activity.

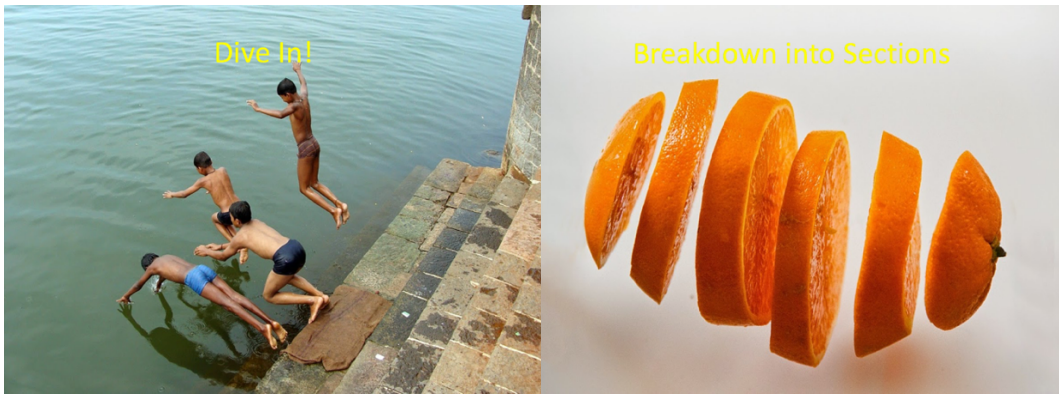
[The l]ast activity is being a radio DJ. In this, the students introduced their favourite K-pop song and explained why they choose the song and what's the story about it? The students record the story for one to two minutes and [make] lots of comments to two other students through the discussion board. I left a comment on every student.

This participant also highlighted how the process of the blended learning activity concluded with the amalgamation of a recipe book for her students that she had produced based on the Korean-language activity she had developed. The image she chose to use is shown together with the narrative:

Also, I prepared [a] surprising present for them. [The [l]eft one is [a] blog of group work, and the right one is my present. I print here all of group recipes and bound it as a recipe book. I wanted my students to see how […] obtaining the knowledge can produce something real. Through this process, I think students could feel more achievement.

These very action-based orientated narrations appear to have more connections and relevance to the corresponding images the participants selected for their presentation. In another example, one participant [P9] presented the idea of having to evaluate their blended learning activity or to collect feedback and comments from their students through the image of a clock and additional text to signal an action to evaluate and to indicate responses from the students.

In another example, the actions or decisions participant [P2] took in designing and implementing their blended learning activity were made more explicit through a series of action-implied images together with specific phrases or words attached to the image. For example, the idea of starting or beginning their design was referenced as “Dive In!” and the activity itself where the students were asked to make a series of decisions to complete the task was referred to as “Breakdown into Sections”.



Another participant [P9], highlighted their use of discussions to promote the idea of bilingualism using images of computers connected to the word "Forum":

This occurred during the highly mediated event of Occupy Central[4] when her students were not attending classes. Though the context of her activity occurred at a time when political issues were highly debated and controversial, the participant later chose more iconic images as separate slides taken during this time of Occupy Central to demonstrate the feelings of her students on their online discussion activity. These images are easily recognised as the events and actions that happened during this period.

[4] Occupy Central, also known as the Umbrella Movement was a political movement in Hong Kong during 2014.

In contrast to the levels of emotive-reflection that is evidenced through the images chosen by participants when they referred to their learning experience and perception, those chosen to describe their blended activity are more descriptive and provide a more analytical visual narrative. These very tangible, and action orientated images create the impression of a task-orientated approach to their Pecha Kucha presentations and give a more informative narrative of their blended learning activity. In addition, the images selected were quite 'literal' and their corresponding narrative could be partly matched to these images. For example, images used to describe either the challenge of the task being time-limited depicted by an image of a clock or the use of certain LMS features, such as discussion forums depicted by the image of the word itself or speech bubbles. Participants used more active or action-orientated images to describe the blended learning activity and this may suggest how they perceived blended learning approaches as a form of external intervention applied to their teaching practice. This may have been due to how they made active considerations and decisions to the outcomes of their subject and their students' learning. Participants viewed their learning on the DBLT course as having an element of 'doing' and an active sense of participation which they

were able to recognise and reflect upon. During this process they were able to apply this action and adapt it to within the cultural context of their teaching.

4.4.3 Cultural-related images

Three participants appeared to choose images that were culturally relevant and identifiable. For example, images were selected based on particular cultural references or stereotypes. The images used to refer to a specific genre of music such as K-pop or a particular regional cuisine could be portrayed through easily recognised images and references. These were then referenced in the corresponding narrative given by the participant [P11].

Participants also selected images that appeared to have an Asian theme to the messages they wanted to convey, such as the use of paper cranes, origami good luck wishes, and a vending machine with the words “Blend is Beautiful” to convey her messages.

There were direct cultural associations and identification for three of the participants when describing their students, the subjects they were teaching, or the impact on their students’ learning since they chose images that featured mostly Asian-looking students.

By comparison, one participant referred to the cultural differences experienced in his teaching in Hong Kong and selected an image with predominately white male western faces to convey how to demonstrate his blended learning activity with his students using the following picture. It is unclear the decision for selecting this image, and a further discussion with the student may help to reveal this choice. One possible option is the image could depict the sense of "showing and following" as suggested by the army exercise shown.

It is interesting to observe how participants selected images to convey certain aspects of their teaching environment, for example, how cultural associations were implicitly integrated within their presentations and how this was further used to emphasise their students, their approach to learning and socio-environmental factors or events. The element of cultural associations within the images selected took the form of significant social events, such as the Occupy Central movement, the subject they taught, or in objects or artefacts that often implied Asian connotations and connections, for example, paper origami cranes. This, perhaps suggests an acknowledgement to the context of their teaching environment and how their blended activity was designed for the particular needs of their students. Lacković (2010) suggests that "visual inputs inform viewers about many aspects of society" (p. 123), and this includes representation of the cultural influences and context. For example, where participants tried to portray their students in their Pecha Kucha presentations, many would use Asian-looking faces or specific pictures they had taken with their students.

This also demonstrated the strong connection to how they viewed and tried to address their students' needs and their learning. The literature already suggests that the design and effectiveness of blended learning lies much in how this can be contextualised, either for the institution, the subject, teaching and the students. Therefore, it seems reasonable and interesting that several of the images selected by the participants tried to convey the importance of context and cultural environment as part of their reflections. This may also imply the social values, meanings and interpretations that participants may be unconsciously making when they choose those images.

4.4.4 The unexplored potential of image-based learning design

The Pecha Kucha presentations created by teachers in this study primarily served as a tool to aid and share their reflective experiences in the learning community. However, I was not able to be in a position to delve more deeply into the image analysis or use images in a more explicit or proactive way within the course as another option to aid and support teachers' reflection on this occasion.

Nevertheless, this initial investigation into teachers' image use via their Pecha Kucha presentations has revealed the potential and possibilities of image-based analysis to further develop and support reflection. On this basis, there are opportunities for teachers to use these images as an approach, in a more active manner to further understand their learning and reflective practices for themselves and with their students. One possible method is the use of Inquiry Graphics (IG) (Lacković, 2018) to support image-based reflections. The IG method can be used for two purposes, firstly as a pedagogical approach to support image inquiry (Lacković, 2019) and second, as a systematic method for video coding and analysis (Lacković, 2018). The IG approach helps to develop the notion that multimodality and semiotics can be applied to support the context, nature and reflection of educational research.

Within IG analysis, there are a series of steps which are applied systematically to the image being investigated. The first step in image analysis is known as the *Representamen-led* step. This involves identifying and listing individual key elements, such as an animate and inanimate objects, as nouns. These are numbered or counted as indicated (Lacković, 2018).

The second step is *Interpretant-led* which branches into two codes, denotation and connotation to interpret the seen (*Representamen*) with reference to a description of an action or state of the element as seen in the first step of analysis, and a deeper description of environmental, socio-cultural or contextual meaning related to the action or state of the element (Lacković, 2018).

The final, *Object-led* stage of analysis brings together these components from the earlier steps, and contextual meanings are drawn from the elements and its descriptions. At this stage, Lacković states the importance of focusing on the "meaning of individual elements, levels of denotation and connotation in relation to research questions or key concepts in a theory [and] to interpret these in relation to key concepts relevant to research questions" (2018, p. 12).

By situating IG analysis in the context of supporting teachers' reflections more proactively and systematically as a tool for reflection, teachers could be asked to perform the steps described above in the form of a more constructed dialogue or activity with other peers or with course designers/facilitators. Prompts or questions as described by Lacković (2019) can help to solicit further details and meanings, including the context, purpose, reasons and connections behind the images selected by the teacher, and provide further opportunities to help teachers learn and understand more about their own perception of learning and reflective experiences through potential associations and connections captured via images. Constructing carefully designed activities with reflective dialogue may also help support teachers to articulate explicitly their subliminal messages through visual triggers and nuances so as to gain a deeper insight and self-awareness into different aspects of their teaching practice and approaches. This

approach to a form of systematic visual reflection creates more opportunities for richer and more diverse learning activities beyond just text-based reflections for teachers' CPD, in particular, how the nature and process of reflections are considered, captured and connected to multimodal artefacts. In addition, this also opens up more possibilities for teachers and their students, whereby in particular, their reflection and reflective practices are incorporated and embodied within the process and creation of certain disciplines and artforms such as the creative industries and performing arts.

The potential benefits of incorporating visual reflection into teachers' CPD activities may also lead to a deeper understanding of an individual's reflective process and how this manifests more explicitly within the teacher's practice. By adopting different methods for reflective actions, this can help to develop greater self-awareness in an individual's teaching practice, which may in turn, help to provide and identify areas for development and enhancement.

In terms of designing CPD activities for teachers, by incorporating more diverse multimodal methods and analysis for reflective practices in teachers' professional development, this can help to align more authentically with the current learning trends and approaches of how students both engage with, and learn through multimodal delivery (Jewitt, 2006). This further consolidates and supports earlier discussions in this study which focused on the importance of providing opportunities for teachers to experience and relate to their students' online learning more authentically.

On this basis, Appendix 2 refers to my attempt at an adapted IG analysis of one participant's Pecha Kucha image slides with their corresponding talk content. This

adaptation only refers to the Denotation of the Interpretant side, as mentioned in step two of IG analysis.

4.4.5 Images for teachers' reflection and professional development

The integrated use of images for reflection on professional development activities provides an insight into how teachers visualise perceptions about their teaching practice. Future research needs to be conducted to include multimodality, such as images and videos, as an equitable and equivalent resource to support the reflection process. The potential for designing and integrating this approach into the educational experience can provide many more possibilities for reflection, and thus an in-depth articulation of the process *in learning* and *on learning*. For example, clearer instructions to teachers about the selection of the images as an explicit aspect of the reflection process may help them choose more meaningful images that can best demonstrate and make clearer connections to the narrative of their presentation. This can also help to identify and address the gaps that currently exist in the literature about the impact of learning on the cognitive and emotional process. This study has shown that participants' choice of images gives an initial insight into key elements and symbolism to the meaning of their learning experience and reflection process.

The recognition and inclusion of reflection as an integral component in cognitive presence in this study provides a good basis for further work to be investigated. However, what is more crucial in an environment where visual representation is fundamental to the design and delivery of online and blended learning is how the CoI framework can be applied in either image-based or video-based analysis and studies.

This study can provide an initial perspective into how the CoI framework can benefit from a wider inclusion of multimodal analysis such as IG analysis or similar investigations. The use of images as a reflection tool can be a powerful aid and trigger to provide stimulus for discussion and to recall memories of feeling and emotions or to convey subtle and complex meanings. For this to occur, there needs to be an active cognitive process embedded within an inquiry approach to help individuals explore their practice, beliefs and perspectives. Lacković (2010) supports the notion that including images in students' learning brings visibility to the process of understanding. This extends to the process of reflection and how images could be used to convey further meanings and connections. The use of Pecha Kucha presentations as a reflective approach has shown this can be a good basis for teachers to begin exploring their pedagogical approach.

However, the time limitation of a Pecha Kucha presentation means the corresponding narrative may not fully support the detailed meaning conveyed through the images. One possibility is to ask participants to select one image which captures their overall reflective experience and learning and allow more in-depth dialogue and narrative to be developed based on this approach. This is similar to a related study using video analysis to view how students reflect on a physical artefact in fashion design, which revealed how objects or artefacts can help to connect critical thinking, initiate and demonstrate reflection with experiences (Brough & Ryan, 2015). This approach can be further developed for supporting the reflective process and its articulation in the creative and performing arts, such as dance, music and theatre design (Jones & Ryan, 2015).

As multimodal resources become more prevalent in supporting learning and teaching, more research is required to find out how these relate to the act of reflection, as do more conventional language-text based methods.

4.5: *I reflect and I grow* (Part 2*):* Shaping future roles

Part two of this section discusses teachers' overall reflections of their experience from this blended professional development course. The themes are discussed in detail below and supported with extracts from the participants' transcripts and reflective commentaries.

4.5.1 Status and systems

Participants reflected on the issue of roles, systems and hierarchy as challenges they encountered during the course. Three of the participants highlighted their difficulty and challenges in terms of their roles to engage with the design of their chosen blended learning activity. Their roles as junior teaching assistants meant they did not have overall responsibilities to manage or redesign a subject in a way to integrate a blended learning activity from a pedagogical perspective. One participant highlighted there was little enthusiasm and even, discouragement when attempting to suggest the introduction of a possible blended activity to the course leader. This response, at one stage, made the participant reconsider their position within the DBLT course, and if they were able to proceed to completion. However, after several attempts and specifically highlighting the teaching benefits to the course leader, the participant was eventually able to implement their design.

> *[The m]ajority of the participants they have all subject[s] in semester two. So they have no problem to conduct the e-activity. But for me, because I was not really handling the subject by myself so that's why I feel a bit stressed. Even though maybe I have a perfect plan, if I don't*

have the subject I still can't complete the whole training. This is really […] a big hurdle that I have to overcome. At the very first beginning when I told my senior that I may need to conduct some way and then modify a little of the groupings so that more students will engage in my E-activity. The first [response was …], "No, don't bother," because that was my first time to teach their subject. He said, "You just focus on your teaching, don't bother to make any changes," and then what I did was keep begging and then at the end he said, "Well, as long as you won't change any marking criteria then I don't bother." [P4]

After receiving positive feedback from the students, this participant was able to modify and redesign subsequent activities and courses to incorporate more blended learning approaches. Other studies have shown how student feedback and evidence of the effectiveness of blended learning were often key components in persuading and influencing changes in teaching practice (Makri, Papanikolaou, & Tsakiri, 2014; Stein, Ginns, & McDonald, 2007; Stein et al., 2011). This type of situation can present challenges to teachers who may not be in a position to directly make changes to the curriculum, however, it reaffirms the need to demonstrate and have empirical evidence about the impact on students' learning via a blended learning approach to help support and justify the adoption of new teaching methodologies and to ensure buy-in from different groups of teachers, senior managers and other stakeholders.

Another participant commented on how it was difficult for them to introduce more sophisticated or better integrated blended learning activities into their course, since existing learning activities were well established and there was a specific and predefined

course structure with multiple assessment components supported by multiple teachers. To overcome this, extra time in the face-to-face session was allocated to allow students to engage with the online task.

> *There was a little bit of difficulty with trying to integrate, especially because with the way (course name) works. Trying to find and integrate activities … the way they do the courses is very structured and set so you can't mess around with it too much. And so, trying to find the extra time to do the activity, which students knew wouldn't count towards anything. It was a little bit difficult to get them motivated, which is why I tried to do something a little bit more interesting. [P8]*

This shows that, at times, institutional, cultural or organisational resistance can hinder or prevent changes being developed. Specifically, teachers need relevant support to test, trial and be innovative to make changes to their blended learning and teaching practice.

4.5.2 Evolving professional roles and recognition

Most participants referred to their new-found interest in elearning and blended learning via the course. This resulted in other opportunities for them to explore aspects of elearning matters and developments, such as representing their departments on the university's community of practice. More specifically, these participants also commented how they were able to develop their research and interest outside of their core subject discipline. One participant reflected on how the course allowed them to engage in further aspects of educational development, and to pursue other teaching related activities and professional development courses and accreditation schemes such

as being a Certified Member of the Association for Learning Technology (CMALT). In addition, they referred to the change in their own professional development needs post the DBLT course, and having learnt some basic online pedagogies, they were more aware of other gaps in their knowledge and the support they would require to continue to meet their own professional development needs.

Again, nearly half of participants felt that the course helped them to understand and evaluate the differences in design and interaction when they engaged in developing MOOCs for their departments. They also commented on how the difference in the MOOC platform tended to shape or pose limitations to certain activities they designed, for example, creating large amounts of video resources, which was time intensive, or how MOOC participant numbers were a barrier to more interactive collaborations such as facilitated discussions.

Some of the participants also felt they had somehow, implicitly acquired further recognition of their elearning developments and contributions through the course, such as having evidence-based examples to support a teaching award, or through the case studies booklet which was acknowledged in their appraisals or other committees and university elearning groups. This notional recognition also included allocated funding to attend elearning conferences and to participate in other elearning courses.

> *The course empowered me in a certain way and then different elements, different little tokens, put together, will then impress other people, impress the students, for them to nominate [me] for the awards. [P5]*

Through the course, two participants also were nominated and seconded from their departments to the central educational development unit within the university to undertake further elearning development work. The aim of this secondment was to deepen the individual's knowledge and practice in elearning in order to integrate this practice back in the department after the secondment. Both participants felt that this intensive, focused contribution on elearning allowed them to further develop ideas from the course, and help to contextualise their specific teaching approaches, as well as act as a point of support for their colleagues. However, this was perceived as both a negative and positive outcome. In particular, one participant noted how they responded to technical queries from colleagues who had difficulties with the LMS, and this conflicted with their perception of their own role and responsibilities as an academic teaching staff member. Two other participants, who were new to the university indicated how the DBLT course helped and supported them in their transition to a new environment and become more familiar with university teaching and its context.

> *So it changed a lot my thinking because I spend a whole year, to be more focused or maybe contribute to more things related to e-learning, so I conducted workshops for other teachers on how to use e-learning for their classes and things like that. So to me the whole year is very interesting it opened my eyes. It is not just about using LMS, the different tools any more. So what I am going to try to say there, taking the course gave me some advantage because it showed people that I am more interested in it… I don't think I am an expert on e-learning, but someone sees in the school that I am an expert so I have to do a lot of [laughter] answering questions, so some of the -- and emails, "I have troubles to do*

that.", "If I am going to do this exercise what tools should I use?" It is okay, I don't mind giving you the pedagogy idea on how [to] use it. But I do mind being a technician. [P1]

Conversely, one participant felt they were able to better advise and facilitate more technical developments within their department, and helped to deliver contextualised workshops and training for their colleagues. In addition, through the course and their subsequent elearning activities, they also found success in gaining university funding for teaching and learning, which furthered the recognition for their elearning expertise. This correlates with existing models of support and development for teachers in which elearning advocates are seen to provide either localised or contextualise help and support to their peers and colleagues (Bennett, 2014; Wilson & Stacey, 2004).

To train the other teachers. The course gave me the confidence. I learnt and followed what you were to learn as the instructor. I followed your example then did my own workshop for [department's name]. [P3]

Another participant also felt a responsibility to 'spread the word' through their learning on the course, and played an active role in encouraging other colleagues to engage with trying out new blended learning and teaching approaches. They also referred to a sense of empowerment gained through the course and their motivation to share this back in their department.

...actually I think I also have another role to play, [it] is that I'm like a seed, you guys are planting the seeds everywhere in each department and

see if we grow, it grows then it so happened that I tried to tell people that, "I'm doing this, it's fun." I say, "You try also," [P5]

Three participants highlighted their motivation and interest to connect their research areas with educational research or elearning through attendance at relevant conferences and events, as well undertaking further studies such as post doctorate degrees in elearning disciplines.

...the things I learned from the course leads me to the job, and as an e-learning development associate I learn more about e-learning. Because of that, I applied for the PhD in e-research… [P1]

4.5.3 Changing mindset

All participants concluded that through the blended DBLT course, their approach and attitude to blended learning had evolved and developed in various ways. For example, this ranged from an increased practical understanding about the LMS to a more philosophical viewpoint about how their teaching approach had been affected through their learning experience. All the participants were positive about wanting to adopt new methods to their teaching and, to incorporate more blended learning approaches which helped them to facilitate more student-centred learning in their disciplines.

Teaching is not like something you can study on paper. You need to practice it. Also sometimes you just feel scared that you don't know whether or not your student will accept it or these teachings, these methods are really going to work, will it be dangerous if you try this? It

actually changed the soul, not only the techniques, the soul. It means because in part not only introduc[ing] some tools, it also introduced I don't want to use pedagogy, because it's bigger than pedagogy. Actually [it] is a spirit of teaching in this era. That one changed me a lot. That means I think teaching and learning are different way[s]. [P7]

One participant also commented on their position and expectation of what it means to be a teacher had been altered through this experience. Previously, they had only considered teaching in terms of how to present information and materials effectively to students, however through their direct experience on the course, they realised teachers also need a deeper understanding of the technical and online pedagogies associated with teaching in an online and blended environment.

Before I just think a good teacher an efficient teacher need[s] to present the materials very well. I mean in class it's good enough and then maybe you have some interaction like ask questions to involve students in your class….After this course I think a teacher is not only an effective presenter but also someone who [is] really equipped with all of these technology enriched pedagogy and skills. [P7]

Several participants mentioned the course made them more aware of the need to blend their teaching and to experiment with more varied teaching approaches and methodologies. The course provided them with new ideas and experiences about teaching and learning, it helped challenge their own preconceived ideas about blended

learning and to reconsider their subjects and their teaching approaches from a learner perspective.

> *I think the empowerment is the willingness to go outside, to really teach outside the box. The willingness to try many different things and also learn from others. And, keep that in mind, I'm not sure how can I pass that experience to more people?. Because, indeed, when I'm taking the course I really look at how you made it to us online. [P5]*

> *Thank you for inspiring me to break my prejudice about blended learning and move to new teaching methods. [P11]*

> *What I discovered through this experience is the amount of effort one need[s] to prepare for online learning. This is a lot more than I thought. Everything needed to be self-explanatory and instruction[s] needed to be very detailed. I can see the benefit and importance of blended learning. I will definitely consider blended learning in my future teaching. [P9]*

Some participants also mentioned how their learning experience provided timely reminders to reflect on the educational theories presented to them during the course. In addition, one participant commented on the usefulness of being able to share up-to-date resources in the course with others, and how a specific reading prompted them to investigate further the idea of gamification in education and how this aligned with their own interest with being a gamer and having grown up with the technologies.

> *I grew up with computers, and so I am fairly, fairly savvy with how everything works. It was just a good reminder and it made me think of maybe a couple of different ways of integrating technology in to the classroom. [P8]*

Most participants noted the benefits of being supported during the course, and more specifically during their implementation with the help of their mentor. This individualised approach to support from the course facilitators provided them with feedback and practical advice on their design, implementation and evaluation.

> *The consultation is the highlight for me, not only that I was given the practical advice on e-learning, but also it has given me some constructive advice on instructional design in general, what questions students would be asking, even not related to the technology or the platform. That definitely gave me the confidence and empowerment for me to try the blended learning and decide the activity, without which I think it would not push me to try or [have] given me that confidence. At least I know, if anything happens, I have a team here, I have someone that I can come back to. The suggestion was very useful. [P9]*

The practice of capturing and recording their reflections throughout the duration of their learning experience, via specific activities and journaling was seen as a positive and useful. However, there were some mixed responses to this online activity, with one participant acknowledging how they found the process of reflection more difficult than expected. Specifically, they felt this was partly due to their educational background and

discipline being mainly science-based, but primarily the process of reflection was made more difficult since they were doing this in a second language (English).

Lastly, participants noted how the course prompted them to reflect more thoughtfully about their own practice and identity as a teacher with regards to online and blended learning and teaching.

> *One of the key 'takeaways' from that course was – never stop wondering and reflecting. This course definitely reinforced the message and made me reflect on my own teacher identity. [P10]*

4.5.4 I reflect and I grow: summary

I reflect and I grow is the final section of the findings and discussions for this study. It captured the participants' reflections, specifically in terms of how the course made an overall impact on their professional roles, either in their department or on a much broader perspective within the institution. Alongside this are the challenges faced by teachers who may not be able to directly change aspects of the subject and its teaching for their students due to the constraints of their roles, course design and its context.

In addition, some of their experiences from the course allowed them to springboard onto other elearning initiatives such as MOOC developments, or to pursue further studies and accreditation in related areas. Likewise, this section also revealed some heartfelt moments and revelations for some teachers in which they were able to review, reflect and renew their perceptions about their blended learning and teaching practice.

4.6 Summary

Chapter four analysed and discussed the findings of this research in detail, and related certain aspects of this to the CoI framework. The experiences and perceptions captured from the participants on the course correlates to the different categories of the framework. The design and approach of the blended DBLT course involved a diverse range of teachers from different subjects, teaching disciplines and approaches and developed teachers in a learning community who have shared experiences of blended learning with their students. Furthermore, these findings provide more detail to explain what and how the learning outcomes, specific activities and tasks in the online and face-to-face environments can be aligned to support the programme outcomes for teachers in a blended CoI (Garrison & Vaughan 2008).

The DBLT course provided activities and support to reinforce the approach as identified by Garrison and Vaughan (2008) within a blended community of inquiry for teachers. This allowed teachers to:

- Reflect, discuss, and make decisions about their course redesign process with their peers
- Experience a blended learning environment from the student perspective
- Implement and evaluate their own blended learning courses with the aid of instructional design and evaluation support. (p. 66)

More importantly, following the changes and development of the participants' blended learning and teaching practice throughout the course, and their subsequent blended

learning implementation with their students, this provides more evidence to support how the teachers proceeded to the *resolution* stage of cognitive presence.

Cultivating and developing a learning community of teachers requires a range of authentic and realistic learner tasks and environments. Fostering such a community is seen as an important factor to help teachers position themselves as an online student. In particular, teachers need to directly experience the technical challenges and manage their own expectation and perception of learning online via a range of blended activities to support collaboration, interaction and peer critique within a community.

Positioning teachers in authentic and learner-centred positions gives further opportunities to understand and develop the associated empathy needed to make sense of blended teaching practices and their impact on the learning experience. This is an important aspect of designing blended professional development, and this supports the literature in suggesting ways in which teachers can be given tangible opportunities to learn authentically online to help support them in developing relevant skills and knowledge to facilitate teaching online (Baran & Correia, 2014; Barnes, 2016).

Given the increasing demand on teachers, the motivation and incentive to engage with CPD becomes a time-consuming and resource intensive process. To overcome this, it is necessary to design appropriate and purposeful professional development activities and interventions that both lead directly to meaningful and relevant teaching applications. These designs need to carefully consider the relevance of activities so to balance individual and shared learning needs to develop and co-develop mutual understanding and critique of blended learning approaches. In order to do this, it is

necessary to choose an appropriate and current context that can stimulate debate, provoke reflections and challenge existing practice and mindsets (Vaughan, Cleveland-Innes & Garrison, 2013).

For teachers to understand blended learning, the practice of blended learning needs to be demonstrated authentically to model good practice, and include practical facilitation styles and techniques to ensure these have connections with both the face-to-face and online environments. Teachers also need to be given opportunities to test out these new-found skills and techniques, whilst being supported by colleagues with relevant expertise in a safe environment, so application of blended learning becomes realised, rather than just merely theories and concepts. In this way, teachers adopt roles as designers to construct learning activities which connect between the theory and practice of pedagogy and technology, and thus during this design process, teachers as designers can test "the viability of individual and collective understandings, conceptions and ideas of the learning design project" (Makri et al, 2011, p. 184).

Blended professional development needs to consider ways for teachers to be trained systematically through guidance and prompts to plan, articulate and explain the how and why of blended learning designs and implementation. There needs to be ways to capture and support the intricate planning both at a macro and micro level. Much of the literature may look at the integration of technology and curriculum development within a whole course or programme, but this may not always be feasible or practical. However, allowing teachers the opportunity and equipping them with the necessary skills and support to plan and integrate a small scale blended learning activity into their teaching can provide an important foundation and basis for future curriculum redesign

and developments. This is highlighted and supported in the literature as further suggestions to look beyond traditional methods to deliver and evaluate professional development for teachers to support online teaching (Meyer, 2013).

Incorporating and adopting blended learning and teaching is an iterative process that is often both challenging and rewarding. Thus, providing professional development which allows for trials and pilots can support teachers' continued inquiry and reflection into their teaching practice. In addition, the process of planning, designing and integration with peer feedback, supported by a learning community, allows teachers to develop a clearer understanding and perspective of their aims and outcomes for students' learning. To do this requires a careful consideration and balance of different activities to provide teachers with the necessary scaffolding, purpose and critique so they can make informed decisions and connections to how they construct knowledge for themselves and with their learning community. This directly connects to Garrison and Vaughan's (2008) fundamental philosophy and principles for their Community of Inquiry framework.

Following the changes and development of participants undertaking blended professional development gives opportunities for teachers to put learned approaches into practice, but more importantly, a chance to observe the evidence of the outcomes and impact of their acquired knowledge and techniques on their students' learning. Tangible and observable impact on students' learning through formal or informal evaluation and feedback gives teachers a greater insight and an honest, open perspective into the changes they have adopted and applied into their teaching, and this is also noted in other similar studies (Cooper & Scriven, 2017; Stein, Ginns, & McDonald, 2007). More importantly, the opportunity for teachers to share ideas and experiences from

achieving purposeful and focused tasks with their students gives teachers greater motivation to further inquire into their own learning and that of the learning community.

The focus on sharing experiences with other teachers gives overall purpose to an inquiry-based learning community. This helps them to further critique their own understanding of blended learning, and also to review and observe practical ideas from other teaching disciplines and approaches. This creates a foundation for a rich and collaborative environment for dialogues on different approaches and challenges of teaching in a learning community.

The process of reflection has traditionally been captured and recorded via mainly text-based modes. However, as blended learning approaches start to incorporate the many diverse ways of multimedia and multimodality in the learning environment, its seems appropriate that there should be ways to incorporate and embed these into and via the reflective process.

Underpinned by all of this, is the important concept and practice of being a reflective practitioner. In this sense, a CoI's focus is on the critique and reflection of one's own learning and knowledge (Garrison & Vaughan, 2008; Vaughan, Cleveland-Innes & Garrison, 2013). Designing blended professional development to support reflection is the foundation to how teachers can observe the change and process of their own teaching approaches and perceptions. Reflection into one's own teaching practice requires well-designed and thoughtful activities to support this process. These activities involve inquiry and discovery into one's own practice and perspectives, but this is also stimulated and provoked by triggers and questioning from both peers and students. This

becomes a wider, extended concept of a learning community to support teachers' inquiry and reflection. In this way, this supports a need, as highlighted in the literature to continuously review and refine different professional development interventions to develop and support social, cognitive and teaching presence strategies to meet the changing needs and inquiry for teachers (Vaughan & Garrison, 2006).

Chapter 5 Conclusion, implications and reflections

This chapter summarises some concluding remarks on the overall findings with respect to the research questions, and discusses the implications of this study on the theoretical framework and on practice. I discuss the limitations of the research, as well as suggest areas of potential research for the future. I conclude with my reflections on the design and delivery of blended professional development to help support teachers on their own journey towards the use of TEL within their own teaching practice. In concluding this study, this research considered the following two key questions:

1. What are higher education teachers' perceptions and attitudes towards a professional development course, delivered in a blended format, about blended learning and courses through the lens of the CoI framework?
2. How do the key aspects within the analysed blended professional development course help teachers to integrate blended learning and teaching into their practice?

This study has shown some interesting results in how teachers perceive a blended professional development course, and in particular, when it has also been possible to follow the process of the teachers' experience and progress from their own learning to eventually, the transition of their learning to their students. It is apparent from the findings, that in order for teachers to be able to relate to, and connect with the changes in their own students' approach to learning in the 21st century, teachers need to be equally given a similar and authentic learning environment in which they can develop their understanding and knowledge of teaching with technology in online and blended environments. They also need opportunities and experiences to be able to test out the

validity of their own ideas and preconceptions, which are further supported and evidenced by student feedback so as to assess their impact. In addition, teachers need to be challenged outside of their comfort zone with regards to applying new technologies and approaches to learning, so they can empathise with the ongoing changes faced by their own students.

When teachers' experiences on the DBLT course are examined through the lens of the CoI framework, it is evident that there are different aspects of the course and its associated learning which highlight teachers' perceptions of blended learning and how they experienced this blended professional development course. In particular, the blended approach of the course design, namely, its scaffolded modules and structure and how teachers are supported through their learning is an important factor in how teachers effectively respond to, and engage with blended learning. As a result, teachers value their learning experience, the connections and interactions made with peers and subsequently, the success and lessons learnt from their blended learning activities with students. These perspectives indicate some important and useful responses from teachers about their overall engagement with blended learning, and in the potential opportunities and possibilities that blended CPD can offer.

Participants in this study were able to experience various forms and different components of professional development interventions and support within the DBLT course as referred to earlier in the review of the literature. For example, one-to-one support through the course facilitator/mentor, peer-to-peer support and collaborations via peer reviews and a series of individual and group-based tasks and activities. Providing opportunities and possibilities for participants to experience these

collectively via a guided and structured course gave teachers a deeper and more critically reflective understanding about their teaching and students, as well as a greater sense of empowerment to develop their online and blended teaching approaches as highlighted in the literature (Baran, Correiam & Thompson, 2011, Rhode & Krishnamurthi, 2016).

In addition, an important aspect of the DBLT course allowed participants to observe and apply some crucial elements of blended teaching and learning. These included knowledge and techniques associated with instructional design and facilitation skills which were directly experienced and then applied in their own subjects by the teachers. The contextualised learning environment, both face-to-face and online, actively demonstrated and modelled these techniques, and gave purpose and meaning to help bridge the theory and practice of blended learning for teachers. This approach was seen as both practical and helpful in supporting teachers to develop and integrate more pedagogically focused and effective blended learning and teaching. More fundamentally, designing and implementing a blended learning activity which was informed by sound pedagogical considerations and supported by an inquiry-based community gave teachers a more insightful and lasting impact into how blended learning could be applied in their subjects.

5.1 New knowledge contributions

In this study, teachers' perspectives and experiences of the DBLT course are further encompassed and articulated through the three presences in the CoI framework, and these are presented through an adapted Confucian proverb as a metaphor to help illustrate and complement the context of this research. Table 8 provides an overview of

teachers' experiences and perspectives mapped against the three CoI presences in a blended professional development course:

Elements	**Categories**	**Indicators (examples)**	**Teachers' experiences and perception of blended CPD**	
Social Presence *(I feel and we share)*	Open communication Group cohesion Affective/personal	Enabling risk-free expression Encouraging collaboration Expressing emotions, camaraderie	Developing empathy online Sharing with purpose Importance of face-to-face Sustaining participation	
Teaching Presence *(I see and I remember)*	Design & organisation Facilitation of discourse Direct instruction	Setting curriculum and methods Sharing personal meaning Focussing discussion	Choosing meaningful content Modelling facilitation Dual roles and perspectives	
Cognitive Presence *(I do and I understand)*	Triggering event Exploration Integration Resolution	Having sense of puzzlement Exchanging information Connecting ideas Appling new ideas	Stages of design and support Guide(s) on the side Individual and shared worlds Learning by doing Evidence is key Technologies and terminologies Continued reflection	
Teachers' reflections and experiences of blended learning *(I reflect and I grow)*			Part 1: From image-based Pecha Kucha presentations: Images relating to emotions, actions and cultural meanings	Part 2: Sharing future roles: Status and systems Evolving roles and recognition Changing mindset

Table 8: Overview of Teachers' Experiences and Perspectives aligned to Community of Inquiry Categories and Indicators (adapted from Garrison and Vaughan, 2008)

Adopting a blended learning delivery mode to demonstrate blended learning approaches in professional development for teachers provides an immersive and more authentic learning experience so as to highlight the opportunities, benefits and its possible limitations for learning and teaching so they can meaningfully apply this approach into their own teaching practice. Teachers engaged in this blended CPD experience are then able to directly understand and observe the impact of this for themselves and their students.

Furthermore, actively supporting and following teachers' design and implementation of their blended learning activity during their DBLT learning experience is one of the key aspects of helping teachers integrate blended learning and teaching approaches into their practice. This provides the necessary insight and understanding into how teachers can effectively demonstrate, and bridge the gap between the technical and pedagogical knowledge and expertise required to teach and facilitate online, as highlighted in the review of the literature. The participants on the DBLT course provide evidence to indicate teachers' progress, transition and a more in-depth, practical understanding of the application of online pedagogies.

More importantly, to aid and support teachers' understanding and application of blended learning teaching approaches, the process and engagement of reflection remains core and fundamental for CPD. Reflection allows for connectedness within an inquiry-based learning community, as well as the development of a deeper understanding of an individual's knowledge and skills in blended learning and teaching. Developing meaningful ways for the reflection process to occur in a variety of ways,

which encompass sharing with peers and community as well as evaluation and feedback from students, gives relevance and impact for teachers.

This study has given interesting insights into how blended learning CPD is perceived by a community of teachers in Hong Kong. The DBLT course is an example of how blended CPD courses could be designed to effectively support teachers in their knowledge of blended learning approaches, and more crucially, to help implement and achieve blended learning with their students. On this basis, the DBLT course has provided and demonstrated various examples of different activities, interactions and connections such as peer reviews of blended learning design plans, integrated face-to-face sessions and focussed sharing opportunities via Pecha Kucha presentations which can be incorporated into blended course designs to support and scaffold learning outcomes and objectives for a blended CoI for teachers.

The study has also provided additional insights which help to further identify the three presences and their corresponding indicators in a blended CoI via the analysis of both text-based and image-based data collected from the participants (see Table 8). This has also helped to assist in developing and bridging the gap between the theory and practice of blended learning for both teachers and designers of blended continuing professional development. Based on the existing programme outcomes and activities in a blended CoI for teachers, namely i) curriculum design; ii) teaching strategies and iii) technology integration as proposed by Garrison and Vaughan (2008), this study has also identified additional outcomes which can further support the social aspects of learning amongst teachers, and to support the reflective nature of inquiry. The inclusion of these adapted and additional outcomes for a blended CoI, namely, i) empathic insights; ii)

instructional teaching strategies; iii) curriculum design, implementation and evaluation and iv) transformative reflections helps to provide a more holistic and systematic approach to designing and developing blended continuing professional development activities and support interventions for teachers. Therefore, Figure 12 has been extended from Garrison and Vaughan's (2008) proposed programme outcomes for a blended CoI. Figure 12 shows how, in practice, blended CPD could be considered and designed with relevant objectives and outcomes that provide teachers with opportunities for curriculum design and implementation and instructional teaching strategies, as well as experiences in gaining empathic insights for themselves and their learners, and to proactively articulate this experience by being supported via different forms of reflective practice and methods.

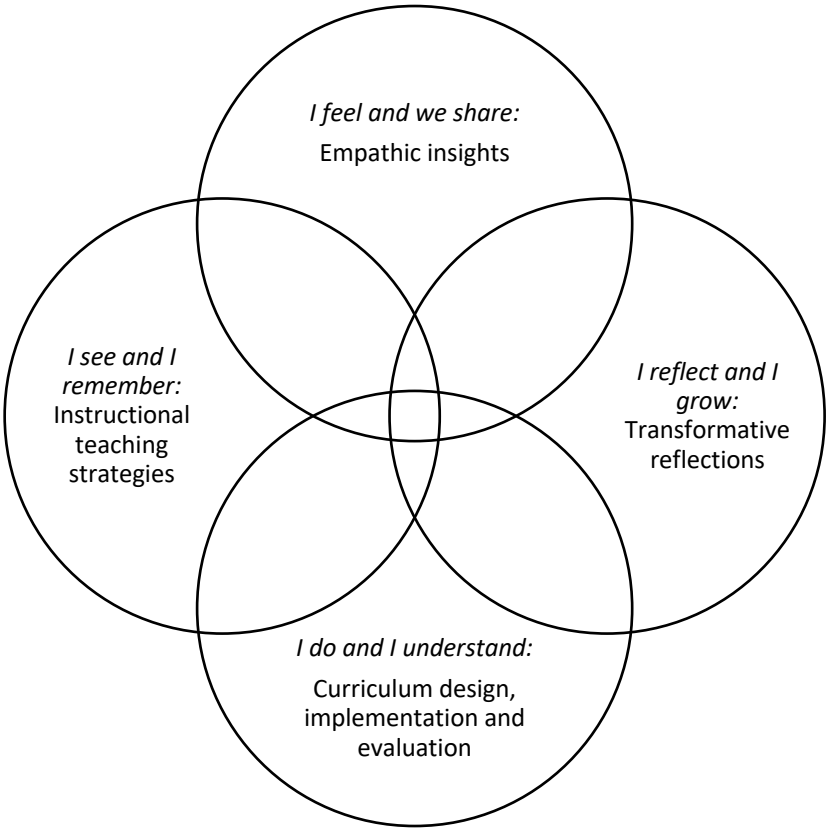


Figure 12: Blended CPD Outcomes for Teachers in a Blended Community of Inquiry (adapted from Garrison and Vaughan, 2008)

As identified and highlighted from the study, to develop the empathic insights section requires an integrated balance of individual and peer-based activities to achieve mutually beneficial outcomes. This involves supporting the individual's own understanding and development such as experiences of being an online learner, whilst also supporting the overall needs of the learning community via, for example, peer reviews and feedback so as to create active sharing of social learning and connections. To support instructional teaching strategies involves the consideration and opportunities for teachers to be engaged with and to observe and practise different aspects of online facilitation and instructional design skills via the use of relevant resources and modelling techniques. This can help to support aspects of curriculum design, implementation and evaluation which provides a core focus for the planning and designing of online and blended curriculum and ultimately, can help to test new innovations and ideas in a safe environment. For example, this may be a small-scale learning activity or extended to a more substantial component of a course. The crucial element here is to have an opportunity to implement and evaluate this design so it becomes possible to assess and observe the impact of this on students' learning, and thus gives the foundation for future refinements and developments. This ongoing development is supported via transformative reflection which includes active processes and means to support teachers to articulate and demonstrate their reflective practice, with reference and acknowledgement into how this influences their teaching practice. These may involve regular text-based reflection activities or more proactive and explicit multimodal reflections and interventions using images as triggers for dialogue and further exploration as previously suggested.

This study has shown some possibilities and proposed suggestions in how to address the gap for teachers between the technical and online pedagogical knowledge and skills as referred to in the literature. Significant impact and progress can be achieved in teachers' understanding and application of blended learning and teaching approaches when relevant technologies and online approaches are designed into CPD interventions that demonstrate and embed sound pedagogical design with relevant and authentic learning experiences to achieve practical outcomes for teachers.

5.2 Implications for practice

The CoI framework provides a robust and coherent basis to assess how an inquiry-based learning community can be established and developed through the three notable presences: social presence, teaching presence and cognitive presence. These form some important cornerstones in supporting learners to construct knowledge, and critique and reflect on their own learning whilst being part of a community which provides the necessary environment to help them move between different stages of learning. The CoI framework was a helpful basis to investigate the design of the DBLT course, as well as give insight into participants' engagement and experience of the course. In this way, first, it allowed the design and structure of the course and its relevant activities to be studied and, second, teachers' construction of relevant meanings and reflection through their learning experience on the course. It also provides possibilities to investigate the design of a course to encompass the relevant components to support CoI, at a macro level. However, this may, at times be over idealistic and not always possible to adopt when reviewing or designing a new curriculum, in particular, where a CoI framework is used as a basis for professional development for teachers, where time, resources and relevance are often under scrutiny and pressured.

It is very obvious that the three presences within CoI are interrelated, however, the challenge lies in how these three presences are determined explicitly when there are clear overlaps, and specific blended activities designed to support teachers' technological and pedagogical developments are being investigated. Some studies (Garrison & Arbaugh, 2007; Akyol & Garrison, 2011; Makri et al, 2014; Barnes, 2016) have noted this, and hint at the possibility, for example, of social and teaching presence as prerequisites to developing cognitive presence. However, it is also possible this may not solely be a prerequisite but more an acknowledgement that the transitions between the three different presences happen in varying degrees and extents based on the activities and tasks in which the participants are engaged.

The CoI framework needs to acknowledge and encompass the different depths and levels of how teachers could be supported within a blended learning environment. In this way, the CoI could be adapted and used both at a micro level, for example, to investigate specific activities and tasks but also applied at a macro level, such as course or programme design and development.

The majority of the studies around CoI are predominately on text-based interactions within discussion forums and text-based analysis. As students and teachers grow increasingly familiar with the curation of digital artefacts beyond text, then understanding how these artefacts form teachers' understanding and knowledge of blended learning and teaching needs to be acknowledged within the CoI framework. Likewise, teachers' ability and knowledge of how to analyse and understand their students' multimodal work within an inquiry-based learning community also needs to

be acknowledged. Although the participants from this study were not asked to analyse their reflection through their selected imagery, it can be observed there are potential benefits of involving teachers more transparently and directly in their reflective process. There is already existing literature and studies on how this could benefit students' engagement, reflection and multimodal literacies through digital storytelling, visual diaries and animations and thus this could be extended for teachers as part of professional development, as well as more creative arts, such as performing arts and vocational studies to reveal further insight into the role of multimodality to support the reflective practitioner.

More importantly, the design and outcomes of such blended professional development for teachers needs to be carefully considered and developed to ensure the learning experience is relevant and meaningful for them. As teachers embark on new teaching approaches with their students, the design of professional development needs to follow and be aligned so teachers have opportunities for authentic and innovative experiences. Ensuring that the design and delivery of professional development follows in parallel and is kept in sync with what happens in the classroom will help teachers to continuously reflect on their teaching practice, and also to continue to develop a sense of empathy towards the experiences of their own students.

5.3 Limitations of the study

This section describes some of my reflections on the limitations arising from this study. In hindsight, I recognise that analysis of the Pecha Kucha image slides was hindered and limited due to the lack of accompanying audio and transcript from the participants. This meant I was only able to thoroughly analyse one complete set of Pecha Kucha

slides (images and slides) using the IG method, and for the rest, I relied on my accompanying notes taken during the presentation itself to help form the analysis. In the future, it would be worthwhile recording the teacher's reflections from their Pecha Kucha presentations in order for a more thorough analysis. In addition, given the nature of Pecha Kucha with its limited duration for presentations, the corresponding audio for each image is relatively short and succinct, and thus would have an impact on the analysis and interpretation of the findings on how teachers can fully reflect on their learning experience.

As one of the designers and facilitators of the DBLT course, I was continuously aware of my own potential bias and position as an insider-researcher. As a result, I may have been more sensitive in terms of trying to understand more deeply and thoroughly the effect of teaching presence on the CoI framework and its potential impact on the course. In hindsight, it would have been useful to also collect data from the other co-designer and facilitator of the course to help illustrate further the rationale and purpose for the design of the course and its related online and face-to-face learning activities.

In this case, there are two distinct subject matter instructors, first, the facilitators of the course as educational developers and instructional designers and second, the participants themselves as subject teaching experts. As noted elsewhere in this study, the primary focus of this research is on the participants of the DBLT course, and not on the facilitators. Therefore, ideally to fully establish the existence of this third element, *direct instruction* in teaching presence, requires a more in-depth analysis and investigation of both parties within this course. However in the absence of this, what can be observed is how the facilitators and participants acted as defined subject-matter

experts within their own domain and therefore, were in a position to provide the distinctive role of critiquing specific content issues to help support their learners, as identified by Vaughan and Garrison (2006).

In hindsight, conducting the interviews with the participants should have been done immediately after they had completed the course. This may have meant they could recall their experience from a more recent perspective. However, due to the nature of my role as designer and facilitator of the course as it was continuously developing meant I was aware of potential bias and difficulty in terms of position with the participants. This meant that for participants in cohort one, their interviews were conducted almost one year after their experience, compared with participants from cohort three which took place within only two to three months. However, the longitudinal nature of this study across three different cohorts also meant that for some participants it was apparent and informative to see how the time span had influenced their continued practice and professional roles.

5.4 Suggestions for further research

As stated earlier in the literature review, there is a gap in studies to investigate further the impact and learning of teachers' experience of blended professional development. This specific research addressed some of the gaps highlighted in the literature, although it is clear further studies need to be conducted on how teachers' engagement and participation in such blended professional development activities directly impacts on their teaching practice in the classroom; in addition, how the gap between technical and pedagogical knowledge and skills are addressed and developed.

This study has revealed the potential of multimodal analysis using the IG method to support investigation of the CoI framework. This form of analysis offers a richer insight into teachers' reflection of their learning experience via the digital artefacts they have created. There is the possibility for future research studies to look at how cognitive presence in the CoI framework is developed via multimodal interactions, collaborations and reflections. This could also be extended beyond teachers' professional development to students' learning, in particular in the area of creative and performing arts to help enhance students' articulation of their own learning experiences.

This study supports the need for greater emphasis of reflection as an additional category for the *resolution* phase of cognitive presence. Findings from this study demonstrated the evidence of cognitive presence via teachers' active and deep reflections of their learning experiences from the blended professional course. Further studies need to be conducted to support and emphasise the addition of reflection as a clear indicator of cognitive presence in this framework.

5.5 Final reflections

During the course of my research, I have appreciated and learnt the balance of being an insider-researcher to help in the development of this study to ensure openness and non-bias to help illustrate the depth and richness of the teachers' experiences on the DBLT course to be studied.

It has also shown me that professional development for teachers is an ongoing process, but often this is contextualised to the needs of the institution and its surrounding culture. In addition, the context of professional development has to meet and address the

challenges as higher education strives to meet varying strategic and national demands and issues.

This means that any opportunities for professional development to occur have to be relevant and effective. Educational designers and researchers need to adapt the designs of training and courses to address and target specific issues, within the most relatable learning environment as possible. The phrase, ‘practise what we preach’ seems ever more pertinent in this context, as we continue to bridge the gap between technology and pedagogy so that teacher are able to apply the knowledge and skills into practice with their own students.

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Appendix One E-tivity Planner Template

E-TIVITY PLANNER: issues to consider when designing a blended learning e-tivity

How to use this planner

Your completed planner should include some answers in each of the five headed sections:

- Your learners
- Intended learning outcomes
- Learning environment
- Your blended e-tivity
- Evaluation

It is not intended that you necessarily answer every question or respond to every issue raised. The text in each box is there to give you guidance and provide prompts for your responses. Statements or questions highlighted in **orange** are the bare essentials – so we do at least expect answers/responses to those.

1. Your Learners
In this section you need to consider and **describe who your learners are**. Some things you may want to include are: • **Level of class; number of students in class;** • Age of students; learning preferences; computer competence; information literacy; • Motivation for learning, prior experience, social and interpersonal skills.
2. Intended Learning Outcomes
This section is very important. The learning outcomes of your e-tivity are critical to planning and strongly related to the *pedagogical rationale* of your design.

- **Consider the existing course and subject learning outcomes in your official Subject Description Form.** Ideally, the intended learning outcomes for your e-tivity should be aligned and relevant to the existing stated outcomes.

- **What do you want your students to learn through your e-tivity?** What is its purpose? What kind of knowledge, academic, technical or social skills will they gain? Will the e-tivity increase student motivation and their ability to progress in your subject**?** **How does your e-tivity meet your intended learning outcomes?**

- **Which of the seven principles of good practice does your e-tivity address? Explain how.**

3. Learning Environment

Your task is to create some blended learning for your students - so here you need to describe the nature of the blending and the way in which you will use technology. Issues to consider may include:

Integration/blending

- **What will be face-to-face and what will be online?** (Think back to the e-learning continuum and types of blended learning).
- **How are these two learning environments connected?** (Think about how you will be "closing the loop". Beware of "course and a half syndrome"!)

Choice of tools and technology

(Refer to the video "Considerations for using technology for teaching".)

- **The kind of resources, tools and learning content you will use.**
- The way(s) in which you may use Blackboard and the most appropriate tools.

- Whether you will need to use technologies and/or software other than Blackboard.

4. Your Blended E-tivity

Think of this section as a plan that could be understood by another teacher who might want to do something similar. Give a fairly detailed description of your e-tivity (both online tasks and associated f2f activities), including for example:

Organisation

- **What students have to do**, how it will be organised, whether students will work individually or collaboratively (in pairs or groups);
- **The kind of instructions/information you need to give students.** Do you need to provide rationale/orientation/instructions/rubrics?
- **The timing**, when it will take place (Which weeks? Over how long?), and approximately how much time students will spend on it;
- Any follow up, extension or reinforcement activities, any relationship/connection with other assignments/ subject tasks?

Support

- **How will you, as the teacher, support learners throughout the e-tivity?** (also whether other teachers will be involved and their roles).
- Whether additional technical support is required and how.
- Any accessibility considerations you have thought about.

Participation/assessment/feedback

- **How will you ensure student engagement/participation from your learners in this e-tivity?**
- **Will there be any assessment**/marks (either formal or informal) involved in the e-tivity ? If so , what assessment criteria will you use?
- **How will students receive feedback** on tasks? Will there be any formative assessment strategies?

5. Evaluation

Start thinking about how you will evaluate your e-tivity.

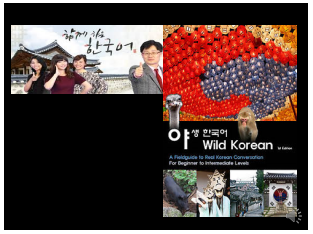
- **How will you know whether your e-tivity was effective?**
- How will you know what worked well and what could be improved?
- **How will you obtain student feedback on your e-tivity?**
- How will you find out if students achieved your intended learning outcomes?
- If other staff were involved, how will you get feedback from them?
- Is there any other data or information you could use to measure your success?

[Adapted from JISC Effective Practice with eLearning, 2004]

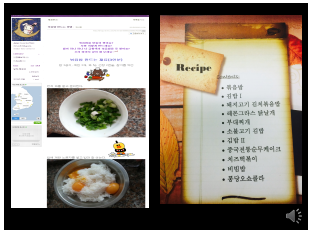
Appendix Two Sample of analysis of Pecha Kucha slides

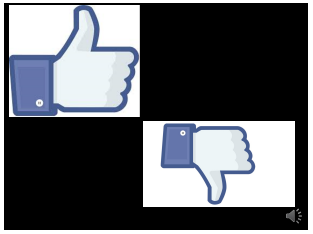
Students built own writing portfolio through e-tivity - learning intermediate Korean language				
Slide	**Representamen (list of objects seen as "nouns")**	**Interpretant-Denotation (describe what is happening to each thing)**	**links to audio recording**	**Contextual meaning**
1  	Faces (15) People (15) Fingers (6) Drawn Circle Inserted Text "It's me!" window bridge water trees	A group of people [are] gathered, facing the viewer. People's faces are smiling and posing. They are standing to the side of a window. Some of them have their fingers presented in a V-shaped sign. A drawn highlighted circle is placed around a person's face in the middle. The text "It's me!" is placed next to the drawn circle. The bottom edge shows a drawing of a small section of a bridge over some water, with some green trees to the left of the bridge	Hello, my name is [teacher's name]. I'm teaching Korean language at the [department name]. It's been three years [that I have been] at the [university's name]. I'm sorry I can't attend the final session due to my coursework in Korea. I'm really sad to miss a chance to see all of your Pecha Kuchas and especially sharing the lunch session.	A group of students in a classroom looking into the camera. In the middle a person's face is highlighted with a circle to emphasise their identity. This is the teacher. Some of [the] students, including the teacher have their fingers presented in a V-shape, which is [a] common gesture in photos within Asia. The group photo is placed on top of a drawn picture in the background. Only the top and bottom edge of this picture is revealed. The top edge has the text "your friend" and the bottom edge shows a small section of a bridge over some water, with some green trees to the left of the bridge.

2 	Face (1.5) Arm (1) Head Hair Eyes (2) Mouth (2) Hand (2) Clock Tape Cross	A face has their eyes closed with a yawning expression on their face. Their mouth is open and yawning. One arm is outstretched with their hand on top of the head. In their other hand they are holding an alarm clock. To the top right corner, there is another face only showing the bottom half of a person's face. Their mouth is closed. Black tape is placed over their mouth in the shape of a diagonal cross to show they cannot speak.	My biggest problem to manage […] for the intermediate level Korean class is that the students can't have enough time to practice Korean language in their class. Secondly, students actually can't speak or write properly for intermediate level. So I designed in my activity to solve this problem. The course is intermediate Korean 2 with 31 students	A face showing a yawning expression, indicating tiredness. The clock in their other hand indicates the lack of time or running out of time. A face showing the person is unable to speak or express themselves due to the tape that is placed across the mouth which is closed. The teacher was explaining the problems her students were facing in her classroom, to give some background information to the DBLT peers about the rationale for the design of her blended learning activity.

3  	People (4) Temple (2) Thumbs (3) Text (Asian-characters) Lanterns (many) Ostrich head Monkey Pig Masks (2) Street Flag Houses Roofs Text "Wild Korean"; "A field guide to real Korean conversation"; "For beginner to intermediate levels"	To the top left, there are four people smiling in front of a temple. Three of them have their hands in a thumbs up sign. There are some Asian characters drawn in the middle. To the top right, there are many lanterns hanging down. There is a section of blue coloured-lanterns, red-coloured lanterns, and so white-coloured lanterns. They are positioned in a yin-yang symbol arrangement. To the bottom right, there is an ostrich head and a monkey with inserted text placed in between "Wild Korean"; "A field guide to real Korean conversation"; "For beginner to intermediate levels". Underneath there are four separate images, there is a pig; two people wearing pig-shaped masks; a sloping street showing temple-styled rooftops; a temple style building with a Korean flag as its gate.	My intended learning outcomes are, firstly, students can write various writing styles in Korean. Secondly, students can gain writing skills to be confident when they're writing Korean. Besides this, students can use [a] Korean search engine to conduct their activity.	The teacher was providing some information to the DBLT peers about her subject matter, that her students were learning how to speak and write Korean. The temples are structured typically of a Korean design and architecture with the street famous for the traditional Korean houses. The coloured lanterns have been arranged in a way, so it is shaped as the yin-yang image on the Korean flag. The images in this composition are very typical of the associations made for Korean-inspired designs.

4 	Food (many) Dishes (many) Plates (many) Bowls (many) egg yolk Pots (3) Table Skirts (2) People (2) Chopsticks (2 pairs)	There are four pictures in this composition. In the top left, this is [an] overhead shot of a large rectangular shaped table. The table is covered with many bowls and plates of different types of food. The bowls and plates are arranged in a symmetrical manner. The overhead shot shows two people sitting on opposite side of the table. They are sitting in a way where their skirts have gathered around each of them. Their hands are touching a bowl nearest to them as if they are ready to eat. To the top right, an overhead shot with more dishes of food. There are different types of food and [it is] very colourful. Some of the foods are placed in hexagon shaped plates and dishes. Other plates of food are arranged around these hexagonal dishes. To the bottom right, dishes of colourful foods in pots and plates with vegetable and egg yolk. To the bottom left, there is a plate of egg-omelette cooked with some vegetables.	My first activity is to write a recipe in Korean. [In a] face-to-face session, I taught how to write a recipe in Korean and showed the various styles of writing. For online activity, and if you wrote his or her own recipe, and then to work-group work. As for a group work, students choose one of their recipes, cooked it, following to the recipe and then produced it as Korean full of blog or video.	All the foods and the dishes are of very typical Korean cuisine, e.g. kimchi; bibimbap (raw eggs) etc. The two people are dressed in traditional Korean dresses.

5  	Text (Asian-characters) Bowls (2) Green vegetable Egg yolk (3) Rice Chef Bear Duck Map Date Text "Recipe"; "Contents" Bullet list (Asian characters" Clipboard	There are two pictures in this composition. To the left, a composition of two bowls of food. One bowl shows some green vegetables. Another bowl shows three egg yolks and some rice. There are some texts in Asian characters arranged on top of these pictures. There is a bear-cartoon character is drawn dressed in a chef outfit placed above the pictures. Another duck-cartoon character is drawn with some cracked eggs. To the left there is a drawn map and text in Asian characters with date/time showing. The left image is taken from a webpage blog showing step by step cooking instructions. Each step has Korean words next to it. To the right, shows a clipboard with a heading text "Contents" and a bullet-point listing of Asian characters. Text is drawn on top of this clipboard "Recipe".	Also, I prepared [a] surprising present for them. [The] left one is [a] blog of group work, and the right one is my present. I print here all of [the] group recipes and bound it as a recipe book. I wanted my students to see how […] obtaining the knowledge can produce something real. Through this process, I think students could feel more achievement.	The left picture is a screenshot of a webpage or blog showing a step by step recipe page. The cartoon characters are shown either as a chef or cooking to represent the cooking nature of this webpage. The right picture shows a clipboard with a collection of recipes - which is presented in a bullet-point list on the contents page. The two images are shown side by side to indicate a ‘before’ and ‘after’ effect.

6 	Hand (2) Thumbs (2) Fist (2)	There is a thumbs up and a thumbs down drawing, in the style of emoticons placed against a black background.	Noticeable positive comments are like this: "Although it takes time to do these activities, we can share our works with friends, that's great." "The activity did not just involve works, but cultural elements. It was fun when I did the recipe activities, it is because I could do it with my classmate." "Workload is reasonable." Negative comments are as follows: "Too many activities where it takes much time to finish can delete one of the activities."	The thumbs up and thumbs down icon is presented typically of the 'likes' emoticon of Facebook or something used to indicate feedback or comments given online. The teacher was highlighting the comments and feedback her students were giving to her after the implementation of her blended learning activity (the cooking activity).

7 	People - females (9) Legs (18) Arms (9) Hair Shoes Shorts Jackets Hats	A group of females standing with legs and feet apart, arms placed on hips are facing the viewer. They are all wearing the same outfit of customised military uniform jackets and shorts. All of them are wearing high heel shoes. They are all wearing military hats, tilted slightly to the side of their heads. Most of them have long dark hair. They are posing, looking directly at the viewer, some are smiling.	My second activity is writing a lyric. In [a] face-to-face session, students listen to one of the Korean songs and study the grammar structure and work a lyric from the song. For [the] activity, students changed four lines of the lyric using the grammar and vocabulary they learned from the face-to-face session. [The l]ast activity is the final step for enhancing students' speaking fluency.	The picture is typical of the culture of k-pop in Asia, and the image presented by girl and boy bands in Korea. K-pop culture is extremely popular in Asia, and the styles; and make-up representing the genre.
8 	Microphone Person Cap Glasses Headphones Table Paper	A person is wearing headphones and holding some papers. They are sitting at a table and in front of a professional looking microphone. They are looking down at the papers in their hand.	[The l]ast activity is being a radio DJ. In this, the students introduced their favorite K-pop song and explained why they chose the song and what the story [was] about. The students record the story for one to two minutes and [wrote] lots of comments to two other students through the discussion board. I left a comment on every student.	The microphone and headphones looks like professional DJ equipment and the person is sitting in front of the microphone, as if they are getting ready to present. The background shows a blurred image giving the impression of being in a studio or being recorded.

9 	Water Sky Clouds Sun rays waves	The water is part of a sea or ocean and sun rays from the sky [are] being reflected in the waves in the water. The sky is quite clear with some clouds. The sky is quite bright and blue. There is reflection in the waters and waves.	Overall students achieved their intended outcomes and I'm very satisfied with this result. Through [the] BOT course, I feel like I found a blue ocean where I can try various activities with numerous plans. What's the important thing? I learned how to make [a] more engaging practical and learning environment for the class.	The sky, water and sun's rays suggests some level of positivity, or a level of 'enlightenment'. The water has some waves, suggesting there is buoyancy and it is active.
10 	People (16) Text (Asian characters; ;"running man") Hands (8) Belt (2)	People are posing and standing in groups facing the viewer. Some of them are smiling with hands outstretched. Two people are posing with hands on their belt and standing slightly to the side. Text is drawn in Asian characters.	[In the] coming semester I will teach a new subject. Cultural Korean through media. Students will learn Korean language through their favourite drama and K pop. I think I can use more creative and various activities for this subject. Thank you for all of your work and [the] BOT course really helps me a lot to make my eyes open wide. Thank you	These are Korean based images of soap dramas, which are popular in Asia. There is also more reference to k-pop and boy bands.