SWITCHING ON TO DIGITAL LITERACY?
A CASE STUDY OF ENGLISH LANGUAGE TEACHERS
AT A VIETNAMESE UNIVERSITY

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A thesis submitted in partial fulfilment of
the requirements for the degree of
Master of Education

2014
DECLARATION

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This Thesis entitled Switching on to digital literacy? A case study of English language teachers at a Vietnamese university is submitted in partial fulfilment for the requirements for the Unitec degree of Master of Education.

Candidate’s declaration

I confirm that:

- This Thesis/Dissertation/Research Project represents my own work;
- The contribution of supervisors and others to this work was consistent with the Unitec Regulations and Policies.
- Research for this work has been conducted in accordance with the Unitec Research Ethics Committee Policy and Procedures, and has fulfilled any requirements set for this project by the Unitec Research Ethics Committee. Research Ethics Committee Approval Number: 2013-1041, 25 June 2013.

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ABSTRACT

Digital technology has significantly contributed to the shaping of an increasingly digitalised landscape of English language teaching (ELT) today. Recently, Vietnam has experienced initial development in technology-supported language learning (TELL). With its National Foreign Language Project, the country aspires to fully change the face of ELT nationwide by the year 2020 through upskilling English as a Foreign Language (EFL) teachers’ linguistic, pedagogical and technological competencies. Despite this favourable framework, no research has been found that surveyed Vietnamese EFL teachers’ digital literacy professional development (PD) in the literature to date. This identified research gap was where the present study aimed to situate itself.

In this light, this study was conducted with a view to examining the professional needs and current practice of a group of Vietnamese EFL university lecturers in relation to digital literacy PD. This single case study involved twelve one-to-one semi-structured interviews with seven teachers and five leaders and twelve classroom observation sessions with four of the teachers. It also employed document analysis and observation of these teachers’ practice regarding the use of technology for teaching purposes and technology-related PD.

The results of this study revealed positive attitudes and optimistic views that teachers and leaders held about the use of technology in ELT and the PD of the teachers’ digital literacy. While the teachers’ technology uptake was found to be associated with to their prior learning and teaching experiences, it did not correlate with their positive attitudes and confidence in using technology. Nevertheless, the research also discovered that teachers’ insufficient digital literacy threatened their sense of competence and put them under the pressure of being success role models for their students in technology application. This lack of confidence led to teachers’ technology anxiety, low uptake of technology in teaching practice and in addition, their reluctance or resistance to TELL.

Similarly, teachers’ frequent use of technology could possibly explain their skills and confidence in particular tools; however, it could not always be linked to efficacy in relevant TELL practice. Furthermore, there was a close relationship
between teachers’ motivation and their pedagogical adoption of technology, with their motivation reliant on a number of factors mostly related to appraisals of various types, including sense of self-worth, official recognition, incentives, career advancement, improved working conditions, and other benefits.

Most teachers shared negative experiences in both classroom use of technology and PD provision by their institution. Noticeably, despite having perceived the importance of technology use and digital literacy in ELT, most teachers did not show much pedagogical understanding of their technology-mediated teaching practice. Even though the informants tended to be positive about the effectiveness of the teachers’ technology application for instruction, most of them saw the practice as challenging. Key inhibitors to teachers’ instructional use of technology and digital literacy PD included limited resources and time constraints, lack of guidelines, PD, technical and financial support.

The research findings, especially observational data, also showed teachers’ rather limited digital literacy, which strongly affected their instruction and other related tasks including administration. Thus, all participants contended that there should be more practical PD on efficient TELL practice. Additionally, the study also identified their expectations and suggestions for better planning and implementation of future digital literacy PD. Based on this information, relevant implications and recommendations including teachers’ pedagogical use of technology, evaluating teachers’ digital literacy and identifying their PD needs related to digital literacy, and improving digital literacy PD planning and implementation for the teachers were put forward. Both formal and informal learning, including training, mentoring, community of practice, collaborative projects, off-site visits, professional networking, action research and self-training were nominated as potential strategies for teachers’ digital literacy PD.
ACKNOWLEDGEMENTS

Along my postgraduate study journey, I have received the care, love and support of many kind people around me, to only some of whom it is possible to give particular mention here. On completion of my thesis, I would like to thank you all for making this challenging journey possible, endurable and enjoyable.

To my Principal Supervisor, John Benseman, from whom I learned a lot as a teacher and a person. I am greatly indebted to your dedicated supervision, invaluable guidance and constant support, without which I would not have been able to accomplish this research. Thank you so much for your very timely encouragement especially when I was in doubt or, in your words, “a tizzy”. My special thanks also go to my Associate Supervisor, Jennifer Collins whose critical feedback and useful suggestions in reviewing my work were crucial to the improvement of this paper. I am also extremely grateful for your insights and substantial assistance over the past two years. Thank you.

To my teachers and fellow students in the Master of Education programme, I am thankful for all the interesting lessons, good discussions and great fun. Your company made the stressful moments far more bearable. My sincere thanks go to Beverley Clark, Carol Cardno, Jill Hadfield and Karen Haines who helped me define the research problem and determine the research design. Warm thanks go to Anne Stubbings who “bridged” my knowledge gap literally and figuratively.

To New Zealand ASEAN Scholars Awards and the programme executives, coordinators, and advisors, without your continuous financial, academic and technical assistance and pastoral care, this research work would not have been possible. Special appreciation goes to Raewyn Castle and EmelindaAban, your sympathy and practical support are highly appreciated. My heartfelt thanks go to Caroline Malthus, who has always been willing to help. Your enthusiastic support and invaluable advice were deeply valued. I could never thank you enough for bearing with me through this demanding period. Many thanks all of you, again, for making my sojourn in your beautiful New Zealand an enriching experience and a significant milestone in my life.
To all the participants, whom, for ethical regulations, cannot be identified, I extend my sincerest thanks for their collaboration and contribution, without which, this project could have never been realised. My acknowledgement also goes to Mr Dong and Ms Yen for their prompt support throughout the project, both online and onsite. To my close colleagues and friends, Ms Nhan, Thao and Ha, thank you for lending me your helping hands and sharing with me a genuine interest in the research topic. To my dearest friends, Mai, Gatot, Hang, Duong, Tien, Thuyen, Thu, Nep, Ms Hoa and Ms Thao, your encouragement and belief kept me going. Thanks for patiently listening to my moaning during this time.

I am most grateful to my husband, Thanh, without his unconditional love and unfailing support, I could never have gone through this journey. You have endured the same emotional time with me with your compassion, ‘always-look-on-the-bright-side’ attitude and never-in-doubt belief seeing me through up and down moments. To our parents and siblings, thank you for being a wonderful source of inspiration and motivation, especially at our homesick moments. You are our rock and we owe our growth to you all. Love!
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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CALL</td>
<td>Computer-Assisted/Aided Language Learning</td>
</tr>
<tr>
<td>CALPRO</td>
<td>California Adult Literacy Professional Development Project</td>
</tr>
<tr>
<td>DigEuLit</td>
<td>a European Framework for Digital Literacy</td>
</tr>
<tr>
<td>EDO</td>
<td>English Discoveries Online (an English language learning application)</td>
</tr>
<tr>
<td>EFL¹</td>
<td>English as a Foreign Language</td>
</tr>
<tr>
<td>ELT</td>
<td>English Language Teaching</td>
</tr>
<tr>
<td>ESL</td>
<td>English as a Second Language</td>
</tr>
<tr>
<td>IATEFL</td>
<td>International Association of Teachers of English as a Foreign Language</td>
</tr>
<tr>
<td>ICT(s)</td>
<td>Information Communication Technology/Technologies</td>
</tr>
<tr>
<td>IELTS</td>
<td>International English Language Testing System</td>
</tr>
<tr>
<td>IIG</td>
<td>Independent Investigations Group</td>
</tr>
<tr>
<td>ISP</td>
<td>International Standard Programme</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>JISC</td>
<td>Joint Information Systems Committee</td>
</tr>
<tr>
<td>LMS</td>
<td>Learning Management System (e.g., Moodle, Blackboard)</td>
</tr>
<tr>
<td>MALL</td>
<td>Mobile-Assisted Language Learning</td>
</tr>
<tr>
<td>NFL 2020</td>
<td>National Foreign Language Project 2020</td>
</tr>
<tr>
<td>PD</td>
<td>Professional Development</td>
</tr>
<tr>
<td>PDAs</td>
<td>Personal Digital Assistants (e.g.: iPhone, iPad.)</td>
</tr>
<tr>
<td>TELL</td>
<td>Technology-Enhanced Language Learning</td>
</tr>
<tr>
<td>TESOL</td>
<td>Teaching English to Speakers of Other Languages</td>
</tr>
<tr>
<td>TOEFL</td>
<td>Test of English as a Foreign Language</td>
</tr>
<tr>
<td>TPCK</td>
<td>Technological Pedagogical Content Knowledge (also known as TPACK)</td>
</tr>
<tr>
<td>UREC</td>
<td>Unitec Research Ethics Committee</td>
</tr>
<tr>
<td>VietCALL</td>
<td>The Vietnamese Association of Computer-Assisted Language Learning (NFL 2020 Technology Team)</td>
</tr>
<tr>
<td>VMoET</td>
<td>Vietnam Ministry of Education and Training</td>
</tr>
<tr>
<td>VOA</td>
<td>Voice of America</td>
</tr>
<tr>
<td>WELL</td>
<td>Web-Enhanced Language Learning</td>
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</tbody>
</table>

¹**EFL** refers to English taught *in countries where it is not generally spoken as a first language and not used routinely by a substantial portion of the population*. Learners will have limited access to speakers of the language. The term is often used to distinguish with **ESL** when English taught *in countries where it is spoken as a common language by a substantial portion of the population*, allowing learners routine access to speakers of the language in a range of settings. These two terms are sometimes used interchangeably with **ESOL** (English for Speakers of Other Languages).
TRANSCRIPT CONVENTIONS

L1  Leader 1
L2 Trans.  Leader 2 - Translation of Vietnamese original speech
T1  Teacher 1
T4.O1  Teacher 4, Observation session 1
[ ]  Clarification
(...)  Ellipsis (omission of unnecessary/irrelevant information in quotes)
CHAPTER 1: INTRODUCTION

This initial chapter offers an introduction to the thesis by sketching the contemporary landscape of English language education and highlighting the most common trends associated with TELL. It also describes the general context for the research. In addition, the rationale for the study and its significance are justified, giving rise to the research aims and questions. Finally, the thesis organisation is explained to provide a general overview of the paper.

Research Background

The changing landscape of English language education

Today’s world is in a burgeoning digital age in which digital forms of information and communication dominate virtually every aspect of society including education (Payton & Hague, 2010). Increasing opportunities for learning are available and education is embracing the idea of e-learning and mobile-learning aiming at open and lifelong learning (Beetham, McGill, & Littlejohn, 2009). In ELT, asynchronous technology is giving way to synchronous technology (Dudeney, 2012; Eaton, 2010), enabling real time connectivity and creating online English courses, virtual learning environments, and other educational resources including openly accessible ones. As a result, when educational institutions started providing less formalised programmes to integrate with the wider world, education has become even more ubiquitous, going beyond four-walled classrooms (Fitzpatrick & Davies, 2003). In addition to computer-assisted language learning (CALL) and Web-enhanced language learning (WELL), mobile technology is shaping a new approach called mobile-assisted language learning (MALL), another buzz word in the field of ELT (Eaton, 2010).

Digital technologies are fundamentally altering the nature of knowledge in the sense that they enable a more creative, active, collective, and personal way of constructing and communicating knowledge through digital media technologies(Payton & Hague, 2010; Sharpe, 2011). Notably, the advent of Web 2.0 technology, and more recently Web 3.0, have introduced the concept of “prosumer” as it allows one to be both producer and consumer of meaning and content, which is now at the heart of information and communication.
technology (ICT) integration (Eaton, 2010). This trend, as pointed out by Fitzpatrick and Davies (2003), is also manifest in the development of TELL, in which there are moves from a behaviourist to a communicative and now constructivist and integrative approach. Also, according to these authors, this change means a potential for more self-directed and personalised learning for students. Similarly, Krumsvik (2006) further indicates that such changes imply, in his own words, new “epistemological contours” (p. 253), entailing new pedagogical approaches that English teachers must embrace to unleash and maximise the potential of students’ self which can be enhanced with appropriate use of digital technology.

Because of these profound and rapid changes, it is necessary to carefully redefine learners and learning needs so that education can prepare graduates for living and working in such a context (Beetham et al., 2009; Hockly, 2013). Some learners, extensively and intensively immersed in technology-rich environments, tend to readily adopt technology-mediated learning strategies, using a range of tools to support their study (Payton & Hague, 2010). However, many learners still find it difficult to transfer practice from social contexts into their learning, especially when it comes to formal contexts involving more rigorous, pedagogical use (Dudeney, 2012; Payton & Hague, 2010). In fact, some aspects of learners’ everyday use of technology such as their everyday use of blogs, wikis and other social-constructivist media along with the use of synchronous tools such as voice and text chat, and video-conferencing are at odds with practice valued in traditional academic teaching (Dudeney, 2012).

As Eaton (2010) claims, today’s learners are often held back in their creativity to express themselves and their understanding of the world using technology. Thus, more and more students tend to have high expectations of institutions to provide robust, reliable and accessible technology together with technological know-how, without which they become disadvantaged (Sharpe, 2011). Obviously, changes in the nature of knowledge have led to related changes in learning and teaching, to which educators need to be attentive and responsive.

Key events and publications marked the turn of the century with efforts made to explain “how, where, and why technology had crept into the professional lives of
all English language teachers” and to envisage the future of TELL (Chapelle, 2003, p. 2). One example was the IATEFL 2000 conference, CALL in the 21st century (Brett, 2001). In the following year, a special issue of TESOL Quarterly featured the future of technology-supported ELT. These examples, among many, imply broad changes in pedagogical approaches, communication, and the English language itself (Chapelle, 2003). By the same token, Lotherington (2004) demonstrates how ICTs have changed the language of communication so significantly that language and literacy standards for ELT need to be redefined and approached in a different way considering digital interfaces.

In the past decade, there have been numerous dramatic changes associated with ELT technology. Initiatives to expand digital inclusion in such countries as UK, Spain, Norway, USA and Australia have now been observed in other parts of the world (Hockly, 2013). Increasingly evident is the recognition of digital literacy as the central factor enabling success in education, profession and other facets of life (Martin, 2006). Such changes challenge teachers in the implementation of technologies in their classrooms as well as their professional development (PD) in digital literacy. Chapelle (2003) calls for English language teachers to provide direct relevant responses to the abilities demanded in the language users, which include learning literacies for the digital age. This challenge can be further translated into a quest for digital integration, digital inclusion and digital literacy development for both learners and educators.

**English language education in Vietnam and the target context**

In Vietnam, English is taught, learnt, and used as a foreign language as it is not the first language of most of the population. Despite being used as a medium of instruction in some English language specialised educational institutions and as a medium of communication in some organisations, English is not widely used in daily conversation, at schools, or in workplaces. The Grammar Translation approach to classroom instruction remains popular since most curricula are heavily examination-oriented. Also because of this form-focused approach, teachers’ use of technology at primary and secondary level seems to be rather limited. At tertiary level, however, technology appears to be increasingly used. It is evident in the literature as well as in everyday conversations of educators that
more attention is being paid to ICT integration in ELT (N. T. Dang, 2009; Dang & Robertson, 2010a, 2010b, 2010c; Peeraer & Petegem, 2012; Pham, 2001) and teachers’ classroom use of technology (X. T. Dang, 2009).

With the aim of renovating foreign language education for international development, a national project, Teaching and learning foreign languages in the national education system, period 2008-2020, also known as Project NFL 2020 (Vietnam Ministry of Education and Training [VMoET], 2008) was launched in 2008 by VMoET. Aligned with this project, there have been a few initiatives trying to improve EFL teachers' digital competencies. Projects such as E-centre and the Introductory CALL course run by the U.S Embassy in Hanoi (D. Le, personal communication, February 19, 2013) and the Intel Corporation’s ICT Training Course for EFL teachers at the site for this study (D. Lam, personal communication, March 3, 2013) have contributed to improving their digital literacy skills and raising their awareness of technology-mediated instruction.

This research was based in the educational setting of an International Standard Programme (ISP) at a university of languages and international studies in a large Vietnamese city. The programme, involving a group of 29 English language teachers, was intended for talented first-year students who were enrolled in fast-track programmes of different disciplines including Social Sciences and Humanities, Technology and Engineering, Business and Economics. Based on their results in a placement test at the beginning of the course, these students were streamed into 24 classes from high to low levels of English language proficiency. The ultimate goal of the ISP was to provide students with a preparation package, which included mainly, but was not limited to, foundation English proficiency and academic skills for their major study in the medium of English in subsequent years. Using the Common European Framework for reference in language proficiency, this one-year programme of five six-week semesters, aimed to upskill students from A1 to C1 level and to achieve a 5.0 and above IELTS band score at the end of the school year, and at least 7.0 IELTS band score upon graduation after five years at university.

Receiving both national and institutional attention and investment in development policy, the ISP was considered a flagship initiative in the Vietnam
national tertiary education reform, carrying out the mission of upgrading EFL learning and teaching with technological integration. While the ISP team was among the most proactive in the university, especially in ICT application, there were still considerable issues in relation to these teachers' digital literacy. Most teachers could generally be categorised as the _late majority_ of technology adopters in Rogers’ (2003) _diffusion of innovations_, while a few others seem to be _laggards_ who were slow or reluctant to adopt these innovations. Overall, the majority of ISP teachers were novice users of ELT technologies and inexperienced TELL practitioners.

**Rationale and Significance**

Arguably, in today’s participatory culture of media-saturated and automated society, digital literacy allowing one to acquire various capabilities required across a range of future scenarios (Beetham et al., 2009) is no longer a luxury, but a necessity (Robertson, 2008) and even an entitlement for teachers (Payton & Hague, 2010), especially English language teachers (Meurant, 2009a). Furthermore, because of the complexity, opportunities, and challenges of the ELT modern world (Levy, 2012), it is imperative for English language teachers to continuously develop professionally, especially in the aspect of digital literacy (Hockly, 2013; Krumsvik, 2006).

Responding to this PD demand, considerable attempts have been made to provide digital literacy education for English language teachers. A growing number of studies with a focus on in-service teachers have been conducted in various ELT contexts such as in Hong Kong (T. T. H. Lee, 2007), Korea (S. Lee & Son, 2006; Park & Son, 2009), and Malaysia (Hassan, 2010). However, the majority of previous studies tended to focus on preparing prospective teachers for digitally inclusive future work (Choate & Arome, 2006; DelliCarpini, 2012; Farooq, Asmari, & Javid, 2012; Kerin, 2009). This research avenue has not been well established in Vietnam. To date, as previously mentioned, there has been only little research in ICT integration and teachers’ ICT uptake in ELT. From a review of literature, it appears that no systematic investigation has so far been elaborated in the field of enhancing Vietnamese teachers’ digital
literacy, leaving an apparent research gap. Thus, the study can hopefully make a contribution to the literature in this area.

Furthermore, the research was in line with the organisational approach of maximising TELL through more effective digital inclusion as well as developing teaching staff expertise. Thus, it might also be regarded as a response to the call for integrating ICT in EFL instruction and upgrading ICT skills for teachers, as part of the national Project NFL 2020 (VMoET, 2008). Ideally, the target group of teachers should be functioning as 21st century teachers, but, based on my own observations and informal communications with colleagues, many seem to be novice users of ELT technologies and inexperienced TELL practitioners. Hence, findings from this research could potentially contribute to better informing effective PD required of these teachers, especially when there is an obvious lack of digital literacy development opportunities for them. For these reasons, the current research project has received positive support from both leaders and teachers from an initial informal survey (D. Lam, personal communication, March 3, 2013; Th. Nguyen, H. Nguyen, & Y. Nguyen, personal communication, February 27, 2013).

In addition, this research work could potentially benefit the leaders, teachers, students, and institution as a whole. For the leaders, the study can help better inform the organisational plan for staff PD as well as improve implementation in the area. For the teachers, the research might offer a good opportunity for their voices to be heard and their needs related to digital literacy PD to be identified and attended to. It can also be beneficial to students in the sense that they could benefit from a more effective TELL journey.

It may, moreover, offer a significant contribution to understanding teachers’ perceptions and expectations of ongoing PD concerning digital literacy in the educational context where the teaching of English is undertaken by non-native-English-speaking teachers. Finally, despite being a small-scale case study with no intended valid generalisations, the research and its transferable findings could still serve as a useful source of reference for other departments in the institution, for other Vietnamese educational organizations, and for those in similar contexts.
Research Aims and Questions

The overall aim of this research was to explore the professional needs and current practice of the ISP teachers in relation to digital literacy development and to critically review current digital literacy PD provision for the teachers, with a view to developing their digital literacy in their educational practice.

Firstly, the study aimed to identify the ISP teachers’ needs for digital literacy PD. In order to do that, the current situation of their technology use in teaching practice was carefully examined. More specifically, the study aimed to find out the learning technologies frequently used by the teachers and their strategies in technology integration in the classroom. Additionally, I sought to identify and study in some depth the difficulties that the ISP teachers experienced in their technology-integrated teaching. Based on this information, I attempted to analyse the existing digital literacy level of the ISP teachers as well as their needs involving digital literacy enhancement. Equally important was the investigation into the leaders’ and teachers’ perception of and attitudes towards digital literacy and digital literacy PD for the EFL teachers in this case study.

Another purpose of the research was to look into how the ISP teaching staff were or were not currently developing their digital literacy, whether they have received any formal and/or informal education and training in this aspect. In other words, it set out to seek information on the ISP teachers’ PD activities concerned with digital literacy and TELL. Also, leaders’ and teachers’ evaluation of the effectiveness of those practices was another objective to be achieved.

Finally, the central concern lay in how the ISP teachers can develop their digital literacy effectively so that it can support their professional as well as other scholarly practice. Thus, leaders’ and teacher’s suggestions with respect to desired in-service teachers’ digital literacy PD were to be explored. It also aimed to document the perspectives of both participant groups on the potential opportunities as well as challenges of developing digital literacy for the teachers. Another goal was to find out how these leaders and teachers saw these opportunities could be utilised and how the challenges could be
addressed. Drawing from these findings, the research would put forward a number of implications for more effective digital literacy PD.

Therefore, the objective of this study was to address the following research questions:

- How do International Standard Programme teachers at a Vietnamese university currently use digital technologies in their teaching?
- What are the teachers’ professional development needs in the use of digital technologies, as perceived by the university leaders and themselves?
- How effective is the teachers’ current digital literacy professional development and how should it be further developed?

**Thesis Structure**

This thesis is made up of five chapters, a list of references, and appendices.

*Chapter 1 – Introduction* – provides general information about the study including the research context, the rationale and significance, the objectives of the study, and the organisation of the thesis.

*Chapter 2 – Literature review* – presents the printed documents to provide the background for the study. This chapter starts with the conceptualisation of new literacies and digital literacy, followed by a discussion of TELL benefits as perceived by English language teachers. It then continues to review teachers’ technology use informed by empirical research. Apart from these, teachers’ digital literacy and digital literacy PD are also discussed.

*Chapter 3 – Methodology* – describes the research design in terms of epistemology and methodology. It is a detailed description of the research participants, data collection instruments, data collection procedures, and data analysis. Moreover, the employed data collection methods including non-participant classroom observation, semi-structure interview, and supplementary document analysis are further discussed in regard to reasons for choosing these methods, the objectives, the relevant principles and practical strategies.
The chapter also demonstrates how research rigour was achieved with careful consideration of ethical issues.

Chapter 4 – Findings and data analysis – presents and analyses data gathered from the interviews with participant teachers and leaders, classroom observation, relevant documents retrieved, and observation of technology related practice of the institution, teachers and students. The findings are presented in accordance with the data collection methods and the data sources, with considerations to incurring patterns as well as differences in the information gathered.

Chapter 5 – Discussion and conclusion – discusses the results with reference to relevant literature regarding the current situation of ISP teachers’ use of technology in teaching, their digital literacy PD needs, their current digital literacy PD, and makes suggestions for further digital literacy PD for these teachers. The chapter also includes the implications for the planning and implementation of more effective teachers’ PD with respect to digital literacy. Finally, limitations of the current study and suggestions for further study are also put forward before a brief concluding statement wraps up the thesis.

Following Chapter 5 are the list of References and Appendices that complete the paper.
CHAPTER 2: LITERATURE REVIEW

In this chapter, literature relevant to the research topic is examined. First, the key concepts of new literacies, digital literacy, CALL and TELL are discussed. Then, the values and benefits of TELL are reviewed through the lens of English language teachers. Following this is a discussion of teachers’ technology use. The subsequent sections elaborate on teachers’ digital literacy and related PD.

Key Concepts

New literacies

Emerging technologies are creating new possibilities, practice, demands, and hence, new literacies (Churchill, 2009). Multiple new literacies have evolved with distinct levels and uses, varying across different contexts, depending on emerging needs (Belshaw, 2011; Churchill, 2009). Today’s literacies (see Figure 1) are a sum of essential abilities, which are required to create and communicate meanings, develop oneself, and participate in a changing society.
Figure 1– Today’s new literacies (Churchill, 2009, slide 5)

Digital literacy

Initially used to describe the ability to read and understand hyper-textual and multimedia texts (Bawden, 2008a) the evolving concept of digital literacy has spawned a multitude of interpretations (Belshaw, 2011). A review of the literature reveals the most popular views of digital literacy including skill-focus, pluralism, and social contextualisation (Smythe, 2012), which are evident in the emerging definitions.

The term digitalliteracy was originally introduced and widely popularised by Gilster (1997), who defined it as “the ability to understand and use information in multiple formats from a wide variety of sources when it is presented via computers”(p. 1)and emphasised critical thinking rather than technical competence as the core skill. This idea of educated judgment has been central to most understandings of digital literacy (Gillen & Barton, 2010). By the same token, Payton and Hague (2010) further highlighted the importance of critical engagement with technology and the social awareness of factors influencing
how technology is used to convey meaning. These authors also developed a list of interrelated components of digital literacy as shown in the following diagram.

![Figure 2- Components of digital literacy (Payton & Hague, 2010, p. 6)](image)

Pluralism is a more recent trend towards conceptualising digital literacy. In a notable work that was an outcome of his earlier study in 2011, Belshaw (2012) proposed the notion of digital literacies, making up of eight essential elements, namely, cultural, cognitive, constructive, communicative, confident, creative, critical, and civic literacy. The author also indicated that, despite variations in the components, these skill-focused definitions, at various points, centred on content evaluation and critical thinking (Belshaw, 2011). At other points, the abilities to read, understand and manipulatedynamic non-sequential information were identified by Belshaw (2011) as the basis for the concept. The general consensus among these researchers, as Eshet-Alkalai (2004) points out, appears to be that digital literacy goes beyond the mere ability to operate a device and encompasses a variety of complex cognitive, motor, sociological, and emotional skills necessary for effective functioning in digital environments.

With respect to the social aspects of digital literacy, Gilster’s (1997) conceptualisation also implies that it is more than a skillset, but the relevant
usage of the skills in one's life. The view of digital literacy as a survival skill, a
life-skill or a way of life and not particularly associated with formal education,
has recently been advocated (Eshet-Alkalai, 2004; European Commission,
definition, Bawden (2008b) points out that digital literacy could be seen as the
current form of the traditional concept of literacy - the ability to process
information using the technological formats of the time. This might serve as a
sound reason for Gilster’s (1997) generic view of digital literacy, without any
lists of particular skills, competences or attitudes, being the one to which
apparently most literature reviews have referred and from which many
definitions have derived (Bawden, 2008a, 2008b).

Of all definitions, the most holistic was developed as part of the outcomes of the
DigEuLit project, funded by the European Commission eLearning Initiative, with
the view to defining digital literacy and developing a framework and tools for
digital literacy development in European educational settings.

    Digital literacy is the awareness, attitude and ability of individuals to
    appropriately use digital tools and facilities to identify, access, manage,
    integrate, evaluate, analyse and synthesise digital resources, construct
    new knowledge, create media expressions, and communicate with
    others, in the context of specific life situations, in order to enable
    constructive social action; and to reflect upon this process (Martin &

With its generic and comprehensive nature, this definition was adopted for this
study and used as a reference for leaders and teachers prior to the interviews.

Clearly, digital literacy goes beyond the simple mastery of technological skills
and knowledge to the engagement in complex, non-linear, cognitive and social
processes that empower an individual to live, learn, and work in a digital
era (JISC, 2012); and as noted by Beckingham and Belshaw (2012), it requires
contextualisation. In this light, Newman (2009) devises a comprehensive
formula of digital literacy with three main elements of knowledge of digital tools,
critical thinking, and social awareness. In her later work, this author adds a
fourth component called “transformational skills” which involves awareness of non-stop development of self and the ability to make a difference in a changing world (Newman, 2012b). Holding a similar view, Fraser (2012) offers a modification of Newman’s (2009, 2012b) definition that describes digital literacy as the sum of digital knowledge, critical thinking, and social engagement. This formulation marks the importance of real world practice and activity as central to socially-situated digital literacy (Fraser, 2012). And yet digital literacy is not just about supporting individuals to understand and engage with the world, but about enabling them to challenge, shape, and change their worlds.

In conceptualising digital literacy, Gillen and Barton (2010) suggested looking for continuities and commonalities instead of clear distinctions to demarcate the various concepts, though it is important to examine other related terms causing confusion. Another recommendation by Beckingham and Belshaw (2012) is to track the definitions’ origins, purposes and contexts, where they have been formed and used. Conventionally, digital literacy has been interchangeably referred to as ‘e-literacy’ coined by Martin (2003, p. 18) as “the awarenesses, skills, understandings, and reflective-evaluative approaches that are necessary for an individual to operate comfortably in information-rich and ICT-supported environments.” Apart from e-literacy, there are a number of other literacies under different headings such as information literacy, media literacy, and computer literacy. Interestingly, digital literacy is broader than such terms and even subsumes some of them (Beetham et al., 2009; Martin, 2006). Likewise, Belshaw (2012) explains that digital literacy is a ‘umbrella term’, a general concept with no restriction to any particular forms of technology, hence, it is flexible and adaptable to any changing times and concerns.

To sum up, there is a considerable overlap among these definitions of digital literacy using different terminology (Gillen & Barton, 2010). And yet, despite some continuing inconsistency, digital literacy seems to be the most appropriate name to date, especially in an age when information comes mainly in this form (Bawden, 2008a). It can be regarded as a general framework for integrating
various other literacies, even though digital literacy does not need to encompass all of them (Martin, 2006). Another important point to note is that digital literacy is a quality varying from one individual to another or even from one life phase to another of a person (Bawden, 2008a; Martin, 2006). Thus, while it may be possible to produce lists of digital literacy components, it is not sensible either to limit the notion to a finite number of linear stages or to suggest one specific model of digital literacy for all people.

In Vietnam, according to my personal observation and discussions with a number of senior ELT educators and ELT technology specialist (V. Khoa, personal communication, November 4, 2013; D. Lam, personal communication, March 3, 2013; L. Nguyen & V. Nguyen, personal communication, October 22, 2013), Vietnamese EFL teachers have apparently not been familiar with the concept of digital literacy. The notion is often referred to more often as ICT or computer competency and more recently ICT or computer literacy. One of the purposes of the current study was to examine the teachers’ conceptualisation of digital literacy and how it was linked with their ELT technology practice.

**CALL vs. TELL**

Computer-Assisted/Aided Language Learning or CALL is defined by Levy (1997) as “the search for and study of applications of the computer in language teaching and learning” (p. 1). The precise teaching and learning practices encompassed by this definition have evolved with computer technology to include use of interactive CALL programs, linguistic and informational resources, and communications programs, but the most telling aspect of the definition remains: the definition portrays work in CALL as inquiry which includes the activities of development, discovery, selection, use, and evaluation of language learning activities that draw upon technology (Chapelle, 2010).

As the title suggests, Technology-Enhanced Language Learning or TELL, refers to the use of technology as a supporting tool for learning and teaching languages (Bush & Terry, 1997). “The difference stems from the fact that the computer component has at the same time become less visible and more ubiquitous. The change in emphasis from computer to technology places direct...
importance on the media of communication made possible by the computer, which itself often remains unseen, rather than on the computer itself” (Bush & Terry, 1997, p. vii). Further, there have also been significant paradigm shifts in CALL pedagogy from a behaviourist to a communicative and, more recently, constructivist and integrative approach since the advent of Internet in association with emerging Web 2.0 and 3.0 tools (Fitzpatrick & Davies, 2003). For this reason, in this context, TELL is used to refer to English language education, which is supported by technology. For these reasons, CALL is used interchangeably with and is likely to be replaced by TELL (Bush & Terry, 1997).

From my discussions with some Vietnamese TELL experts (L. Nguyen & V. Nguyen, October 22, 2013) and personal observation, the term CALL has been more established among Vietnamese ELT practitioners; however, it has now been used interchangeably with TELL, which has also become more familiar. It was important to study the perceptions of Vietnamese EFL teachers of this ELT methodological approach. In addition, it was also interesting to explore whether and how the above-discussed change in the teaching and learning theoretical approach has been experienced in ELT in the context of Vietnam.

**Benefits of Technology-Enhanced Language Learning**

The value teachers place on technology in ELT is worth examining because of their role as TELL practitioners (Ertmer, 2005; Park & Son, 2009; Suwannasom, 2010). Added to this, technology implementation is, in Brown’s (2004) words, “a mutually adaptive process” (p. iii), in which teachers, as the implementers of the technology, can and actually do reshape technology according to their pedagogical beliefs as well as lived experiences.

Brown’s (2004) investigation into New Zealand teachers’ evaluation of the impact that the Internet has had on teaching and learning involved three phases of baseline questionnaires in 104 schools, follow-up interviews, and biographical and micro-ethnographic case studies of three teachers, over a three-school-year period. This study reveals clear evidence of how the Internet has significantly changed the nature of their teachers’ professional practice and, more importantly, of how the teachers equally affected the Internet. Aspects,
most highly influenced by the Internet in the teachers’ work, included school organisation, classroom management, displacement costs, collegial relationships, workload considerations, and globalised teachers’ perspectives. More importantly, these teachers were reported having reshaped and reframed the Internet in accordance with their pedagogical beliefs and lived experiences, which were reflected in their diverse uptake and progress (Brown, 2004).

Other positive findings about teachers’ perspectives on the use of technology in English language instruction are reported in studies by Lam (2000) and Park and Son (2009). Surveying in-service secondary school teachers, both studies came to the conclusion that most teachers have favourable attitudes towards TELL and consider technology as a useful tool that can significantly contribute to improving the quality of English language education. Teacher informants tend to believe that using technology enriches teaching and learning experiences with diverse language inputs and authentic learning environments (Fitzpatrick & Davies, 2003; Park & Son, 2009). Since authentic resources are often the biggest concern in EFL educational settings where most teachers are non-native speakers of English, technology is highly beneficial as it provides increased opportunities for target language communication (Facer & Owen, 2004). Teachers surveyed in Lam (2000) shared the belief that ELT technologies could foster learning and teaching of this language by making these processes easier and faster. For this reason, TELL implementation is the focus of Korea Educational Reform Plan in ELT (Park & Son, 2009).

Another benefit that TELL offers is the shift from teacher-centred to more student-centred classrooms (Brandl, 2002) since it allows more self-paced, personalised learning and encourages learners’ autonomy (Bush, 1997; Fitzpatrick & Davies, 2003; Jung, 2005; Lam & Lawrence, 2002). Since learners can become more active and independent, learning processes are more learner-driven. Added to this benefit, deploying technology can enhance students’ motivation and confidence (Facer & Owen, 2004; Park & Son, 2009) as well as foster more equal contribution and participation among them (Jung, 2005). More importantly, effective technology employment can lead to improved learning outcomes (Brandl, 2002) and increased retention rates (Ioannou-
Georgiou & Michaelides, 2001). Further, integrating technology in ELT can help students become more proficient in communication not only within the traditional media (listening, speaking, reading and writing) but also within the framework of today’s ICTs (C. Lee, 2002). As a result, it can also promote a more cooperative and socially inclusive community of practice (Bush, 1997) and open up greater opportunities for communicating with a wider network outside the classroom (Fitzpatrick & Davies, 2003) which is crucial in learning English. As a result, technology makes ubiquitous learning possible and gives both teachers and students more freedom in their choice of teaching methods and learning styles (Bush, 1997; Jung, 2005).

In reviewing literature on the effectiveness of technology in ELT, Bush (1997) attempted to justify its educational role by pointing to its added values including unique pedagogical strengths, the possibility of higher-level cognitive development, connections to real-life experiences, and the imperative of an increasingly digital era nowadays. Along similar lines, other scholars also emphasised technological application as a stimulus for today’s ELT because digital technologies are radically altering the nature of, and expanding the opportunity of, learners’ exposure to the target language across all dimensions (Chapelle, 2003, 2007; Cowie, Jones, & Harlow, 2005). Added to this, Grgurović and Chapelle (2007) reviewing 200 experimental and quasi-experimental studies between 1970 and 2006 concluded that TELL is better than traditional or conventional instruction including that under the most rigorous pedagogy. The research synthesis also found learning and teaching improvement in the majority of TELL practices (Grgurović & Chapelle, 2007).

Critics of digital integration may argue that involving technology is creating unnecessary problems such as technical and practical issues or demand for new literacy practice, which is true to some extent. Yet, it is not a good idea to ignore technology since it is an integral part of student’s and teachers’ life (Beetham et al., 2009) and it can potentially support learning and teaching in various ways, as earlier mentioned.

In short, the above reviewed evidence confirmed the significant impact that technology can have on English language learning and teaching (Bush,
1997; Fitzpatrick & Davies, 2003; Park & Son, 2009). For the added educational values and potential benefits of TELL, policy-makers, ELT researchers and educators have reached a consensus that digital inclusion must be paid proper attention to and given high priority in educational institutions (Chapelle, 2007; Krumsvik, 2006). It was interesting to discover which benefits of TELL Vietnam experienced and how such values were perceived from the perspectives of Vietnamese teachers and leaders, which was one of the main objectives that the current research set out to achieve.

**English Language Teachers’ Use of Technology**

**Commonly used tools**

Teachers’ technology use varies across contexts and is markedly different in respect to preferred tools, focused activities and instructional goals (Fitzpatrick & Davies, 2003; Suwannasom, 2010). A recent survey by Son, Robb, and Charismiadji (2011) on personal and professional computer use of 73 Indonesian EFL teachers discovered that their use of technology was limited to a few types of applications such as word processing and PowerPoint. Unlike these teachers, Korean EFL teachers in Park and Son’s (2009) and Thai EFL teachers in Suwannasom’s (2010) studies expressed their preference for using the Internet and online tools in designing learning tasks and assignments as well as giving lectures to their students. While teachers in these three studies mainly utilised technology resources provided by their institutions, others start using their own, and in some cases, their students’ portable devices such as laptops, notebooks and smartphones in classroom practice (Dudeney, 2012; Meurant, 2009b, 2009c, 2010a, 2010b, 2010c; Rahimi & Yadollahi, 2011).

**Common uses**

A closer look into how foreign language teachers are using technologies in their classrooms reveals seven common ways (Fitzpatrick & Davies, 2003). First, presentation, using wide-screen, overhead projectors, and interactive whiteboards, were found to be the most popular technology-supplemented activities by teachers in their instruction delivery. Text-based and audio-visual materials are used to present or recycle target language content to learners
and technology is used in oral skills (listening and speaking) more than others (reading and writing) (Rahimi & Yadollahi, 2011).

Another common use of technology involves designing different practice tasks with authoring tools incorporating a large array of material formats. In addition, computer-assisted and web-based tools have been employed in aspects of assessment, although this use has not been very widespread. Referencing is another common application in which e-resources including teaching and learning materials and activities are made available and accessible on CD-ROMs and Websites for both teachers and students. Another use of digital tools, especially Web 2.0 tools such as wikis and blogs, to publish and share personal work is now gaining popularity. Also related to social tools, communication is the field wherein digital technologies nowadays are mostly deployed. Language teachers are now using such tools as discussion forums and videoconferencing in supporting both on-site and off-site teaching. Finally, digital technologies have also been used as simulations, for instance, language learning games, artificial language programs, and most recently, virtual learning environments (Dudeney & Hockly, 2009b; Fitzpatrick & Davies, 2003).

Graham’s (2005) longitudinal larger-scale survey of 8000 New Zealand teachers over a four-year period showed that their main technology uses (apart from classroom use) are for lesson planning and preparation and administration. According to the researcher, this finding “suggests ICT is currently being ‘undersold’ as a tool for teaching and learning” (Graham, 2005, p. 4). Similarly, Hassan’s (2010) collective case study of 44 Malaysian teachers, employing mind maps, factor sheets and interviews, indicated “teachers’ ICT adoption in teaching and learning was low and superficial” (p. i). In Vietnam, X. T. Dang’s (2009) survey of 222 EFL teachers and interviews with 43 academic, ICT staff and senior leaders at a tertiary institution found four common uses of ICT among the teachers including searching for resources, preparing lessons, delivering instruction and communicating. His case study and Meurant’s (2008, 2009a, 2010a, 2010c) series of extensive Korean-based studies also reached a similar conclusion to Graham (2005) and Hassan (2010).
Factors influencing teachers’ use of technology

Research into what influences technology-supported instruction (Ertmer, 2005; Lam, 2000; S. Lee & Son, 2006; Park & Son, 2009) shows that teachers’ beliefs and perceptions of TELL, teachers’ training, prior teaching experiences with technologies, and most importantly, teachers’ own digital literacy skills, are among the most critical teacher-related determinants. Interestingly, results from Lam’s (2000) study indicated that teachers’ use of technology was related to their pedagogical beliefs and not a resistance to technology. This finding is also supported by the work of Ertmer (2005), Park and Son (2009), and Suwannasom (2010) which contended that teachers’ own teaching contexts and pedagogical beliefs about English language acquisition and TELL strongly influenced their cognition and practice of technology-mediated instruction.

As teachers tend to apply what they themselves have learned as student-teachers and what they have experienced as practitioners in their present teaching (Egbert, Paulus, & Nakamichi, 2002), previous education and experiences concerning technological integration may profoundly affect their confidence, motivation, and awareness of the educational values of technology in ELT (Atkins & Vasu, 2000; Park & Son, 2009).

Motivation also has considerable impact on teachers’ adoption of technology in their teaching practice. Through interviewing 10 English language teachers, Lam (2000) found a number of motivations behind second language teachers’ use and non-use of technology including sense of success, role models for students, and confidence in their self-efficacy. A mixed method study by Abdullah, Abidin, Luan, Majid, and Atan (2006) of 62 English teachers from 12 schools in Malaysia explored both intrinsic and extrinsic contributors to the teachers’ positive attitude and motivation associated with computer use. Intrinsic rewards included responsibilities, a sense of self-worth and satisfaction, determination, competence, and interest. Extrinsic motivation entailed, in the first place, organisation and administration, then career advancement and promotion, followed by recognition of accomplishment, working conditions, incentives and other benefits (Abdullah et al., 2006).
Finally, it has been increasingly reported by researchers that teachers’ own limited digital literacy and hence, technological anxiety, significantly affect their adoption of technology and technology-integrated teaching practice. Rahimi and Yadollahi (2011), for instance, examined the effects of EFL teachers’ personal technology-related characteristics in ICT use in English classes by surveying 248 teachers using multiple quantitative methods. These researchers discovered that teachers’ ICT use correlated with computer competence but inversely with computer anxiety. On the other hand, Lam’s (2000) empirical research on the perceived ‘technophobia’ of Canadian teachers does not lend support to this conclusion. His critique was that teachers are not really ‘technophobic’ and institutions are perhaps, overly ‘technophilic’ in their rush to obtain the latest innovations without considering teachers and students’ needs.

Other external factors involving financial resources, administrative and technical training and support, curriculum flexibility, and technology infrastructure are also found among common barriers to teachers’ use of technology (Graham, 2005; Park & Son, 2009; Rahimi & Yadollahi, 2011; Raob, Al-Oshaibat, & Lan, 2012). Interestingly, lack of time and limited accessibility remained concerns of all teachers as revealed in a number of studies in Korea (Atkins & Vasu, 2000; Park & Son, 2009, p. 4) and in Malaysia (Abdullah et al., 2006). Notably, difficulties in finding appropriate teaching materials and the inconvenience of using separate computer or language labs were also reported as impeding teachers’ integration of technologies (Ertmer & Ottenbreit-Leftwich, 2010).

Overall, teacher’s use of technology varies across contexts and individual perceptions of TELL. Integration of technologies into ELT is also influenced either directly or indirectly by a complex set of interactive factors including both technology and human resources. As remarked by Swenson, Rozema, Young, McGrail, and Whitin (2005, p. 211), “teachers, individually and collectively, have the capacity and the responsibility to influence the development, modification, adoption, and/or rejection of newer technologies”. Evidently, teachers with diverse educational and professional experiences in the use of digital technologies as well as pedagogical stances are the key element contributing to the success or failure of TELL practice (S. Lee & Son, 2006). As it is an
important aspect, the current case study was designed to test these findings in order to hopefully gain a more insightful understanding of what and how technologies have or have not been used by the Vietnamese EFL teachers’ in personal, educational and professional practices.

**English Language Teachers’ Digital Literacy**

As previously discussed, it appears that many teachers only use a limited range of tools and their technology still stays at a personal, rather than pedagogical, level (Ertmer & Ottenbreit-Leftwich, 2010). Attempts to evaluate teacher’s technology competencies revealed that many teachers are still novice users of digital technology and their positive attitudes cannot always be translated into high competencies (Razak, Lubis, Embi, & Mustapha, 2010). There is also a discrepancy or mismatch between teachers’ self-rated abilities and their actual levels of technology knowledge and skills (Son et al., 2011).

In explaining teachers’ inadequate digital literacy, researchers point to the insufficient digital literacy education and PD, the limited infrastructure and support, the exponential technology diffusion, and teachers’ workload (Anderson-Inman & Ketterer, 2003; Razak et al., 2010; Son et al., 2011). However, according to Ertmer (2005), such explanations tend to overlook the fact that “teacher pedagogical beliefs” are the “final frontier in our quest for technology integration” (p. 25), which was verified by his comprehensive cross-country analysis. Teachers should be viewed as the agent of change with their variables of “knowledge, self-efficacy, pedagogical beliefs, and subject and school culture” having significant impact on their decisions of technology uptake in their classroom instruction (Ertmer & Ottenbreit-Leftwich, 2010, p. 255). Recent research by Yeung, Taylor, Hui, Lam-Chiang, and Low (2012) into Singapore’s mandatory use of technology in teaching found negative correlation between compliance and competence and frequency of technology application, and a positive correlation between competence and value and frequency of use.

To evaluate teachers’ digital literacy, considerable efforts have been devoted to creating different tools. One of the most frequently referred to models is Rogers’ (2003) *diffusion of innovations*, which consists of five distinctive level groups:
innovators, early adopters, early majority, late majority, and laggards. For its ease of use and the straightforwardness of its categories, this scale was adopted as a reference for teachers and leaders to evaluate the teachers’ digital literacy in the interviews with leaders and teachers.

Another significant contribution is the skills pyramid by Hampel and Stickler (2005), as seen in the figure below:

![Skills Pyramid](image)

**Figure 3–Skills pyramid (Hampel & Stickler, 2005, p. 137)**

The system is constructed of seven groups of skills at different levels of necessity and complexity, from the most general skills forming a fairly broad base to an apex of individual and personal styles. The authors espouse that of these skills, some are prerequisite, some are desirable, of language instruction, especially online tuition (Hampel & Stickler, 2005). Brooks-Young (2007) also developed the Educational Technology Standards and Performance Indicators for teachers across levels and disciplines. Hampel and Stickler’s (2005) Skills Pyramid focuses more on online language teaching, while Brooks-Young’s (2007) rubric is more generic and hence, more suitable for evaluating ICT practice of teachers in general. As online and hybrid education has started to form a popular trend in ELT in Vietnam (V. Khoa, personal communication, November 4, 2013; T. Nguyen, personal communication, October 29, 2013; V. Nguyen, October 22, 2013), this model can serve as an useful general
reference for evaluation of the EFL teachers’ digital literacy.

Different from the devices mentioned above, the TESOL Technology Standards Framework, developed through TESOL International Association’s project of the same title (Healey et al., 2008), particularly aims at the digital literacy standards required of English language teachers. The system also entails a detailed explanation of specific standards and comprehensive guidelines for application. For these reasons, it was chosen for this study as a framework analyse teachers’ digital literacy and to identify their relevant strengths and weaknesses based on the data collected by multiple instruments including the interviews and classroom observations.

**English Language Teachers’ Digital Literacy Professional Development**

As discussed earlier, teachers are believed to play a key role in the deployment of technologies in ELT while their digital literacy obviously needs advancing. For these reasons, teaching staff PD with regard to technology is another focal concern shared by ELT researchers and educators in the literature.

Recent studies have started exploring ways in which teachers’ digital literacy can be enhanced in classroom instruction integrating technology (Chapelle, 2007). Whilst on some occasions, it may be possible to upgrade teachers’ digital literacy discretely; developing it from within their teaching practice is believed to be more meaningful and effective (Brooks-Young, 2007). There are a growing number of comprehensive guidelines for EFL teachers’ technology integration (see for example, Davies & Hewer, 2012; Dudeney & Hockly, 2007; Erben, Ban, & Castaneda, 2009; Levy, 2012) and various digital literacy development projects and programmes developed especially for these teachers (ClassroomAid, 2012; Macmillan, 2012; Microsoft, 2013; Peachey, 2010; Pegrum, 2012; Stannard, 2006). These efforts have been recognised by ELT experts and appreciated among ELT practitioners who have anecdotally reported positive experiences utilising these resources in their classrooms via discussion forums (Peachey, 2010; Pegrum, 2012; Stannard, 2006). These useful openly-accessible resources can also be integrated into a staff PD plan or used by teachers as part of a self-study PD plan (Hockly, 2012a).
Also apparent in many studies on teachers’ digital literacy development is the provision of technology-focused PD for in-service teachers (Tai & Chuang, 2012). As a result, numerous models and frameworks have been developed. One of them is Newman’s (2009) five-step process model made up of define - access - understand and evaluate - create - communicate, designed with intention to shift from terminology to action approach. This model has strong echoes of moving up Bloom’s (revised) taxonomy (Anderson et al., 2001) and complements JISC’s (2011) Development Pyramid model. Apparently, the Technological Pedagogical Content Knowledge (TPCK or TPACK) model by Mishra and Koehler (2006) has been more widely nominated by educators and practitioners. A good example of innovation deriving from this holistic framework is the TPACK-in-Action proposed by Tai and Chuang (2012) aiming to provide a model for designing workshops for in-service teachers’ developing of ICT proficiency as well as TPACK knowledge. With five-steps of Modelling-Analysis-Demonstration-Application-Reflection, it is hoped to guide teachers to successfully transfer the gained knowledge and skills related to TELL into their teaching. This model embraces the belief that teachers’ technology-focused PD not only needs to focus on developing the technical skills to use the technologies, but to also increase teachers’ pedagogical knowledge of how these technologies can be successfully integrated into developing effective student learning (Ingham, 2008).

Apart from formal education and training, which is not always feasible and effective, alternatives such as expert-novice teacher mentoring, communities of practice, and self-training, have been put forward (Hubbard & Levy, 2006). One successful example of these practical approaches, confirmed by empirical research, is T. T. H. Lee’s (2007) peer-support enhanced model. This social approach to PD was introduced, via a conference, to a group of 10 Hong Kong secondary school teachers who worked in five peer support groups to apply the principles into their own contexts. Individual interviews and peer-group conferences reflected a strong professional partnership established among participants. Results from the research also showed peer support as an effective means of PD in “increasing professional interactions; broadening
perspectives of ICT; increasing reflection; and providing personal and emotional support” (T. T. H. Lee, 2007, p. i).

Another success story, narrated in Ingham’s (2008) study, is student-teacher mentoring. Analysing data from interviews and focus groups and reflective diaries of seven New Zealand Year 12 teachers, the study tested and confirmed the hypothesis that when teachers had an authentic purpose for PD, then their learning resulted in a greater impact for their own as well as their students’ learning. Ingham’s (2008) project also succeeded in setting up a programme where teachers have a student mentor who has both knowledge and skills in technology, which is a valuable component of their PD. Regarding this key PD aspect, it is important that the student-teacher partnership develop goals, which are focused, obtainable and have a specific purpose to ensure the process is completed and is made available for teachers to link into their appraisal goals (Ingham, 2008).

In addition, Stevens’ (2009) Web Heads in Action set a good example of a vibrant online teacher community of practice where teachers learn by exchanging experiences, discussing ideas, and reflecting on their uses of educational technologies. With respect to self-training, Ray and Coulter’s (2008) investigation of 21 teacher-created language journals using blogs found effective teachers’ reflection on professional practice leading to positive changes in practice.

Further efforts have been recorded in post-training and on-going PD of teachers’ digital literacy. For instance, Okey’s (2006) participant case study of the lead teacher’s PD model in New Zealand looked into its sustainability aspect. The research found a number of criteria for the model to be sustainable. These entailed a clear identity of the lead teacher group in the institution, integration into the ordinary administration, a clear purpose, and regular reviews (Okey, 2006). Another example is Wong and Benson’s (2006) observation of the differences in teachers’ performance after the training. Contrasting the differences during and after a 15 hour in-service TELL training course of two experienced EFL teachers in Hong Kong, this 18-month case study found positive changes in teachers’ practice and unravelled some
difficulties that they encountered in applying their acquired ICT knowledge, skills, and integration strategies (Wong & Benson, 2006).

In short, the literature review has shown a general overview of the contemporary TELL with diverse aspects unveiled, from teachers’ technology use in teaching practice to teachers’ digital literacy evaluation and related PD practice. And yet, there seems to be an apparent void of empirical research in this field, especially with regard to in-service English language teachers’ digital literacy PD in the EFL context of Vietnam. This identified research gap inspired the project and the lack of evidence in the literature regarding Vietnamese EFL teachers’ digital literacy and PD practice informed the research questions, as discussed earlier in the previous chapter. The Methodology chapter, which follows, describes the process designed to ascertain whether findings from the literature review were true for the EFL lecturers in the ISP in this case study.
CHAPTER 3: METHODOLOGY

This chapter focuses on the methodology and related issues. It starts with an explanation of the epistemology and methodology employed in this study. In the subsequent section, the sampling of this study is described. The chapter then continues to discuss the methods for data collection and analysis in terms of their relevance, purposes, principles, and practice. Finally, it attempts to justify the research rigour by ensuring validity, reliability, and relevant ethical issues.

Epistemology and Methodology

The epistemology and methodology for this study were chosen with reference to the research questions, based on the principle of “fitness for purpose”, as recommended by Cohen, Manion, and Morrison (2011, p. 73). This framework also guided methodological choices in relation to data collection and analysis.

Epistemology: Interpretive – Qualitative approach

The nature of this research problem and its aims entailed an in-depth investigation into a specific group of teachers’ perception of practice, and hence required an exploratory, descriptive approach in the qualitative, interpretive paradigm (Robson, 2011; Yin, 2003). More specifically, this study embraced the key target of qualitative research, which was to explore and describe participants’ understanding and interpretations of social phenomena in a way that captured their inherent nature. Emphasising context and description (Bryman, 2012), this method enabled the study to generally aim at providing an in-depth and interpreted understanding of the social world, by learning about people’s social and material circumstances, their experiences, perspectives and histories (Snape & Spencer, 2003).

This framework helped yield qualitative information that “reflects the experiences, feelings or judgment” of the institution and programme leaders as observers and informants, and of the teachers as the subjects as well as key participants (Verma & Mallick, 1999, p. 27), in this investigation of the teachers’ digital technology use and digital literacy development. In other words, the adoption of an interpretive qualitative approach stemmed from the aim to
uncover teachers’ use of technology in their teaching and their digital literacy PD needs, as perceived by the leaders and the teachers themselves. It was also driven by the need to unravel the current situation of teachers’ technology-focused PD practice and their actual beliefs of effective digital literacy PD.

The approach was a “best fit” because it allowed meaningful explanation of such “social activities” as teachers’ technology practice and PD activities to be achieved through “a substantial appreciation of the perspectives, culture and world views” of the involved actors who, in this case, were leaders and teachers (Verma & Mallick, 1999, p. 28). Another rationale for embracing this research tradition is the ample opportunity to collect detailed information about the targeted subjects (the teachers) and their ongoing and changing activities (the teachers’ teaching and PD) (Lankshear & Knobel, 2004).

**Methodology: Single case study**

In the search for a method, a case study is one of the most commonly utilised and highly recommended methods in the field of applied linguistics and ELT (Dörnyei, 2007; Nunan & Bailey, 2009); and hence, was the most appropriate for this research because of both methodological and pragmatic reasons.

Focusing on contextualisation (Cohen et al., 2011), this qualitative research design enabled the study of complex social and organisational phenomena within its real-life contemporary context (Yin, 2003). By the same token, Dörnyei (2007) characterises case studies as the ultimate qualitative method, focusing on the “particular one” (p. 152) for the opportunity to gather data in order to maximise our understanding of the unitary features of the social being or object studied. The core value of case studies lies in the potential of achieving thorough explanation (Yin, 2003) with “a thick description of a complex social issue embedded within a cultural context”, offering “rich and in-depth insights that no other method can yield” (Dörnyei, 2007, p. 155). Targeting a unique EFL context in Vietnam, with this method, I managed to obtain an insightful understanding of teachers’ cognition and actual proficiency in terms of ICT integration as well as an in-depth look into how their digital literacy has or has
not been developed.

Pragmatically, considering the practical issues of the study time frame and its scope, I decided to focus my survey on a particular group of teachers, the ISP teaching staff, in their own working environment. A single case study offered the ability to set specific boundaries around this unit of analysis, giving me as the researcher a certain degree of control over the type and amount of data (Yin, 2003). Accordingly, it was a suitable method since this research was a small-scale in-depth examination of a specific group in situ. Being aware that the process of doing research is incursive and flexibility is critical, especially in the relatively reserved culture in Vietnam (Gorsuch, 2006), I also chose the case study because of its negotiated, adaptive approach, sensitive to the changing context (Scott, Miller, & Lloyd, 2006). No aspect of the research design was tightly prefigured, allowing the study to be open and fluid so that it could respond in the most flexible possible way to new details or openings that might emerge during the process of investigation (Bryman, 2012; Dörnyei, 2007).

The most common critique of qualitative research, especially of single case studies is the potential risk of getting subjective data (Bryman, 2012). However, this study was intended by and for the ISP group of teachers so obtaining their personal views as the main findings was the key to improving the current situation in which they are the main actors. Other critiques of this research design include difficulties in replication, generalisation problems, and lack of transparency (Bryman, 2012). These challenges were taken into consideration in the design of data collection and analysis, discussed later in this chapter.

**Sampling**

This study was carried out at a Vietnamese university of languages and international studies, using a sample of eight teachers drawn from a total of 29 English language teachers in the ISP, including the Head of the group, and four other senior staff of the university. This case has been selected for the opportunistic convenience of accessibility and learning opportunity rather than representativeness (Bryman, 2012; Duff, 2008). As advised by many scholars, representativeness is not necessarily a concern in selecting a case study;
rather, accessibility and the learning opportunity it offers to the researcher are what matter. Stake (2000), for instance, pointed out that in doing case studies, the researcher leans “toward those cases that seem to offer opportunity to learn”, which is “sometimes superior criterion to representativeness” (p. 446).

Knowing the participants professionally made it easier to obtain access and gain informed consent from them. More importantly, the familiar participants and sites enabled me to observe and interact with them for a more extended or intensive period, and as a result, to gain rich data about the case. Also, my prior understanding of the context was useful in not only the collection but also interpretation of data, which was pointed out earlier by Duff (2008). Finally, because of its time allowance and scope, the study aimed at neither the whole population of the ISP group nor the whole university board of management. This purposive sampling, based on my prior understanding of the context, helped ensure that the chosen participants were potentially rich sources of data; and hence, provided sufficient data for well-informed interpretation (Duff, 2008).

In fact, more teachers than expected were willing to participate, so 12 individuals were selected with considerations about the opportunity to generate rich information, using the cross-section method, which involves a balance in gender, a variation in age range, and a diversity in background (for example, teaching experience and PD) to maximise the data richness and variety (Bryman, 2012). Out of 14 people showing interest and willingness to be involved in the research, two teachers were chosen for trial interviews and seven teachers together with five senior leaders were chosen as key participants. While the original plan was to involve 10 participants including only three leaders (the Head of the ISP group, the Faculty Dean, the Vice-President of Academic Affairs), I decided to engage two other leaders (an educational technologist from Department of Academic Affairs and the Director of Information Technology (IT) Centre) because their expertise offered useful data and different perspectives on the research topic.
Data Collection Methods

To find out the answers to the research questions, interviews and observation were employed as the two main methods of data collection, which were supplemented by document retrieval and other related observations.

Semi-structured interviews

The interviews collected qualitative data with the main focus on in-depth investigation into perceptions, beliefs and experiences (Borg, 2006). The rationale for the adoption of interviews was to gain further detailed information and possible explanation that might not have been fully achieved through observation (Hinds, 2000). In this study, one-to-one, semi-structured interviews were deployed for the flexibility it offered and the consistency ensured with a set of predetermined questions intended for all interviewees (Heigham & Crocker, 2009). Additionally, the informants were given a certain degree of power and control over the course of the interviews (Borg, 2006). Methodologically, using this method made it possible to compare the collected responses and made the generation and analysis of the data much easier (Cohen et al., 2011). Practically, it guaranteed a potentially high response rate since answers were given directly by the respondents in person (Cohen et al., 2011).

In this study, interviews were conducted with the five leaders and seven ISP teachers (including four observed teachers). While the interviews with teachers sought explanation for their colleagues’ or their own classroom practice, all the interviews aimed to discover both leaders’ and teachers’ viewpoints about digital literacy PD for the ISP teaching group and their thoughts on how this activity could be more effectively fostered.

The interviews involved semi-formal discussions ranging from 20 to 50 minutes with both teachers and leaders. There were two separate interview schedules, comprising mostly open-ended questions and appropriate prompts, for each group of participants (see Appendices G & H). Both of them consisted of four main parts: introduction and questions and answers, settings, personal information, and the actual questions. The substantial difference between the two schemes was in the set of questions. To estimate the approximate interview
time and diagnose potential problems with the questions, I piloted the schemes with two teachers. This process helped refine the interview schedules and prepare me for the actual interviews. For example, specific suggestions were added as prompts for the interviewees (if necessary) in questions 1, 5 and 9 in the teacher interview schedule and questions 1, 6, and 10 in the leader interview schedule. Also, a number of prompting questions were on standby to help the respondents give more elaborative answers. Take question 9 and 10 in the teacher interview schedule for instance. Some standby questions used in the actual interviews included “Have you thought of taking any of such opportunities?”; “Would you mind sharing your own plan for digital literacy professional development?”

Possible problems related to interviews might have included refusals to be recorded and hardware malfunctions (Bryman, 2012). Hence, I asked the all interviewees for permission for audio recording before conducting the actual interviews. Fortunately, they were all willing to give permission for and comfortable with audio recording. Also, to ensure the success of the interviews, I combined audio recording using two recording devices with post-interview note taking. This strategy was not only vital in case of respondents’ disagreement of being recorded and hardware malfunctions, but also useful in supporting subsequent data processing and interpreting. I also tried to avoid other potential pitfalls including unexpected noise or fatigue.

**Non-participant observation**

Observation, yielding both quantitative and qualitative data, was employed for its potential to provide a rich source of information by enabling the capture of what teachers were actually doing rather than what they said they were doing (Borg, 2006; Wisker, 2001). Additionally, this method of data gathering allowed me to observe the teachers in action in their original context with reference to the research questions (Wisker, 2001). With the intention of uncovering a more informed picture of the ISP teachers’ current practice in technology integration and digital literacy, I carried out classroom observations with four teachers. More specifically, the primary objective of observing classes was to gain information to address the first research question of how these teachers had
currently used digital technologies in their teaching. Together with the interviews, observations contributed to triangulating the validity of the data obtained through the interviews by complementing the findings from the interviews in the data collection along with data interpretation. This powerful combination could “ascertain selected participants’ perspectives on their actions or behaviours” (Duff, 2008, p. 141).

A necessary note of caution for researchers using this method is the risk of bias resulting from, for instance, their selective attention and memory, their attention deficit, the participants’ reactivity and the problem of inference (Cohen et al., 2011). Being aware of these potential difficulties, I managed to maintain validity and reliability by using a thoroughly planned and trialled observation scheme for recording focused aspects of teaching and learning in the classroom, relevant to the aims of this study (Bryman, 2012). Structurally, the observation scheme (see Appendix I) comprises two main parts; one describes general information about the observation settings and the other is for observation notes and comments concerning such information as what technologies were used, their frequency, their purposes, and their effectiveness.

To better record data, I utilised note-taking techniques and fresh memory recalling to write up notes right after each observation session ended. Also, the processes of conducting observations as well as interpreting data were kept consistent. Concerning the issue of reactivity, wherein participants might have changed their behaviours knowing that they were being observed, I adopted habituation strategy (Cohen et al., 2011) by remaining in the situation for sufficient time, allowing the teachers and students to get familiar with my presence and revert to their natural behaviours. Accordingly, each teacher was observed three times in three different classes, for 100-110 minutes each. Further, to ensure reliable inferences about data, interviews were employed for corroboration and triangulation (Cohen et al., 2011).

On the practical side, due to time constraints and physical distance between my location and the research site, online means of communication such as personal emails, ISP group email, and short message services (YahooMessenger, Skype, and Facebook) were utilised for correspondence
with the participants. Before approaching the potential participants, I asked for permission from the relevant Head of Faculty (see information sheet Appendix A and consent letter Appendix B). In advance of the fieldwork, invitation letters with information sheets and consent forms were sent via email to all prospective participants including the whole ISP group and relevant leaders to check if they were willing and able to take part in the research.

I then negotiated with the agreed participants to arrange suitable times and venues for the interviews and observations with priority given to their convenience. Out of these arrangements, a specific schedule as an action plan was created. However, this plan was changed several times due to changes in the ISP timetable and, as ISP teachers were in charge of other teacher training programmes at the same time, they also changed their shifts. Fortunately, as the ISP commenced a week before my trip to the research site and the timetable was also adjusted within that first week, I was able to make all necessary arrangements in advance.

Also because of the above-mentioned limits, the interviews and observations were carried out in parallel. For teachers who took part in both activities, however, the observations were conducted before the interviews of the same teachers to avoid the risk of capturing unwanted inaccurate observational data, which might have potentially been affected by any previous interview conversations. Prior to the events of the observations and interviews, a formal briefing on the study and the research aims was given to the participants involved and there was opportunity for further explanation (if necessary) or questions (if any) before they signed the consent forms (in hard copy). The most commonly asked question was about the term digital literacy since the participants often knew it as ICT competency or computer literacy. Hence, I added the definition and a brief explanation of the concept as a note in interview schedules and the observation schemes for a quick reference when needed.

Supplementary document analysis and observation

Despite not being a major source of data, documents and activities regarding teachers’ use of technology in teaching and learning, teachers’ PD in general
and ICT-focused PD in particular, for EFL Vietnamese teachers nationwide and for the ISP teachers in the investigated institution were examined to supplement the two main instruments and add a reference for data analysis.

These unobtrusive methods were chosen for a number of reasons. They offered an opportunity to triangulate the data in particular relation to the first and third research questions by providing extra information about teachers’ technology uses outside the classroom and their PD associated with digital literacy. The broader coverage of information (Hall, 2009; Yin, 2003) obtained from the relevant documents and observations provided insights into the current situation of teachers’ technology use and digital literacy PD in a wider context.

In addition, as Cohen et al. (2011) suggest, investigating the object from the distance can be as beneficial as close examination, in this case study, these two data gathering instruments helped yield important information that the classroom observation and the interviews could not achieve. They were also useful in verifying information including spelling of trademarks, titles and other specific details to validate data from other sources (Yin, 2009).

Apart from the above-discussed advantages, these forms of data collection posed the challenge of low retrievability (Yin, 2003) due to limited accessibility which I also experienced in this current research. With this problem in the designing stage of this project, I had clearly determined the relevant documents and the potential sources as well as useful contact people from whom necessary information were obtained. Nevertheless, tracking down the documents for the digital literacy PD in this case was no easy task since there were no written proposals or plans, but only minutes of meetings among the leaders from the Department of Academic Affairs and the IT centre about the training seminars and workshops before the actual events. Hence, relevant information retrieved was mainly in form of official announcements and meeting minutes or reports sent by the Head of Faculty via group email and other personal communication with Leader 4. In addition, I was lucky enough, during the data collection period, to be able to observe a workshop held by the Faculty for all the members including the ISP division.
Another rich source of data was weekly ISP group meetings in which the teachers discussed various issues concerning the programme, curriculum and extra-curriculum activities, upcoming events, and most importantly, shared pedagogical experiences and ideas. Also, the university website and Moodle page, the faculty’s groups emails, the ISP teachers and students’ Facebook pages were investigated with an intent to find out how they were used to facilitate teaching and learning as well as communicating with each other.

It is noteworthy that documents related to CALL movement in general and teacher digital literacy PD in particular were obtained mainly from personal communication with the university leaders and the technology team members of the NFL 2020 Project. Through personal communication with these contacts, I learned about the project official website and the NFL 2020 technology team - VietCALL Moodle site and Facebook and discovered CALL meetings, conferences, workshops, and other trainings. Findings from this research also better informed a wider picture of the current situation at the studied context.

**Data Analysis Methods**

The data analysis adhered to the systematic procedure of thematic analysis (Braun & Clarke, 2006) in conjunction with content analysis (Braun & Clarke, 2006; Cohen et al., 2011), including coding, categorising, interpreting, and reporting the collected information. Thematic analysis relies on categories induced from the data while content analysis depends on predetermined categories, which are informed by the related literature (Ezzy, 2002). These two strategies are used in tandem since they effectively complemented each other.

In coding the data sources, neither the teachers’ real names nor their pseudonyms were used. Instead, the participants were numbered according to the order of their interview sessions, with number 1 being the first interviewed. For example, L3 means Leader 3 in the interview, T2 means Teacher 2 in the interview. The coding system used in this study followed the format: Teacher number – order of the observation session. For instance, T4.O2 means Teacher 4, second observation. One thing to note is that quotes from Leader 2 were my Vietnamese-English translation of this person’s original speech and that the
source was referred to as *L2 Trans*. The coding classification of data involved repeated reading of the interview transcripts and observation notes to identify recurring themes and developing emerging themes. *TESOL Technology Standards* (Healey et al., 2008) and Rogers’ (2003) *diffusions of innovations* were chosen as the *priori* framework for reference since they were relevant to the research problem and prompted similar categories (Yin, 2003).

Following both the inductive and deductive method of identifying, analysing and reporting patterns within data, I desired to build on not only what had been established in the literature of similar contexts, but more importantly, to capture what emerged from the survey in this particular case. Accordingly, an adequate set of categories was developed to guide data organisation in a logical order. In doing so, the analysis of data was guided by a framework that derives from a sound theoretical foundation and responds to what I actually found in the data (Mutch, 2005). Common issues were grouped under themes and subthemes, which were then organised according to a logical order (Borg, 2006). Such data as participants’ personal information were presented in tables and appropriate kinds of graphs showing an overview of their background. Other key qualitative data was presented in the form of a summary or direct quotations.

Following the synthesising and classifying of data collected from various sources including documents, interviews, and observations of classroom and other related practices was a process of interpretative analysis through a constant comparison and contrast with reference to the research questions and relevant literature. It is noteworthy that researchers seem to have an inclination to interpret data based on their own assumptions and worldviews, which might influence the objectivity of the data analysis. It is apparently unavoidable for any analysts (Holliday, 2007); yet I tried my best to reduce this tendency in order not to affect the outcome of the study.

**Research Rigour**

The research rigour of this case study can be justified by two critical qualities of empirical research: validity and reliability, which were established by its strong rationale, appropriate design and ensured by multiple data collection methods.
as well as the systematic procedures of data collection and analysis. In qualitative research, validity is concerned with the quality of data collection procedures that enables our reading to be consistent with the ways things are (Bryman, 2012). On the other hand, reliability involves the degree of consistency that the data collection procedure demonstrates to make sure that the same reading is achieved if the same procedure is followed (Bryman, 2012). Both validity and reliability in qualitative research are represented by the criterion of truthfulness, which includes credibility, transferability, dependability, and confirmability (Denzin & Lincoln, 2000).

Credibility

Credibility (or internal validity) of this case study was guaranteed by the adequacy of collected data and triangulation in data collection and analysis (Bryman, 2012; Yin, 2003). Triangulation of data, methodology and time were employed for the present study. Specifically, data were collected from a fairly large number of participants (10 from a total of 29 teachers in the ISP group) (data triangulation) by means of interviews, observations, and supplementary document retrieval (methodological triangulation) over a period of one year wherein one month was dedicated to intensive data collection process (time triangulation). Three observations were conducted with each of the four chosen teachers, allowing time for acquiring sufficient information to arrive at a general picture of these teachers’ technology-supported teaching practice. Also, it was the search for multiple perspectives that lies at the heart of validity in this qualitative research (Cohen et al., 2011). Additionally, credibility was also evident in how data were categorised as well as how the similarities and differences among categories were judged, as carefully explained above.

Transferability

Transferability or comparability is used interchangeably with the common term generalizability and refers to the external validity of the study, which is the richness of description and interpretation that makes this particular case interesting and relevant to those in similar situations (Lincoln & Guba, 1985). Although not being eligible to generalise its findings, this case study can suggest some unique aspects as useful references for future related studies or
discussion on similar areas of interest. Arguably, the transferability of this research relies on this particularisation, which, from the viewpoint of van Lier (2005), is equally important, if not more so, than generalisation. This is because “insights from a case study can inform, be adapted to, and provide comparative information to a wide variety of other cases” (van Lier, 2005, p. 198).

In that sense, particularisation can be synonymous with transferability or comparability which imply that it is up to readers of case studies to decide for themselves “whether there is a congruence, fit, or connection between one study context, in all its complexity, and their own context, rather than having the original researchers make that assumption for them” (Lincoln & Guba, 1985, p. 51). As mentioned earlier at the beginning of this chapter, this case study focused on a specific group of English language teachers at a university of languages and international studies in Vietnam; no intention, therefore, was made to generalise the findings. However, they are likely to be relatable (Bassey, 1981) to other educational institutions of similar characteristics in the country; and yet, “it is the reader’s decision whether or not the findings are transferable to another context” (Graneheim & Lundman, 2004, p. 150).

**Dependability**

Dependability involves the degree of reliability and consistency of data collection and interpretation and can be achieved by being open to examination and changes that might be made during the research process (Bryman, 2012). This study achieved this criterion since objective judgments were deduced from not only participants in forms of confirmability and/or amendment but also from other expert scholars (including my supervisors) for their agreement and/or argument. There was also room for participants’ contribution to adjusting the interview schedules and observation schemes during piloting and opportunity for any follow-up clarification and/or withdrawal of the data they had provided. In addition, I tried to maintain a consistent focus on the research topic with the defined research questions in order to keep the case study on the right track.
Confirmability

In terms of confirmability (or objectivity), full classroom observation notes and full interview transcripts were shown to the participants to seek their confirmation. Based on their feedback, adjustments were made to the notes and transcripts. Also, a summary of the research findings and discussion were sent to all participants. By making the inferences drawn from collected data overt, not only authenticity and trustworthiness of data collection and interpretation can be ensured, but misinterpretation and unnecessary conflicts can be avoided as well (Bryman, 2012; Heigham & Crocker, 2009).

Ethical Considerations

This research complied with the Unitec ethical principles, as outlined in the Unitec Research Ethics Committee guidelines. Since this case study involved interpersonal interaction in a complex EFL context, I carefully considered the ethical issues of informed consent, confidentiality, security, and socio-cultural awareness while bearing in mind other general principles, discussed as follows:

Informed and voluntary consent

I had a relevant senior manager’s permission to approach the prospective participants for their informed consent. These participants were provided with all the relevant information including the purpose of the research, its procedures, potential risks, benefits, confidentiality and the right to withdraw, which might influence their decision to participate (B. Johnson & Christensen, 2008). In other words, potential participants were free to decide whether to take part in the case study, to know all the details about what their participation might involve and to give their consent (see information sheets and consent forms Appendices A-F) (Unitec Research Ethics Committee [UREC], 2010).

Participants were selected on a voluntary basis and there was no explicit or implicit coercion on my part regarding their participation. While I know the potential participants professionally, I had neither power nor influence over them in their decision to participate in the study, as I am only a colleague with no managerial role in relation to them. With respect to the interviews, I asked for the informant’s permission for audio recording prior to conduction. As regards
the observations, I sought informed consent not only from the teachers, but also all observed students, all of whom were at least 18 years old or more. All participants had the option of withdrawing their data up to two weeks after the completion of the data collection. This opportunity was not taken up by anyone.

Respect for rights and confidentiality and preservation of anonymity

To preserve the participants’ privacy, the case and samples remained anonymous throughout the study and the coding of data sources were used. All the documents related to this research including the interview audio-recordings, transcripts (transcribed and translated by myself), and the observation notes were kept in secure storage, to which only my supervisor and I could get access. Also, the data was discussed and presented in such a way that their identities could not be deduced (UREC, 2010). In addition, I paid careful attention to preventing unauthorised use, access, modification, or disclosure of information (B. Johnson & Christensen, 2008).

Minimisation of harm

This ethical issue concerns “lack of anonymity for participants, lack of confidentiality of information, requests for sensitive information, use of deceit, cultural insensitivity, and use of vulnerable participants” (UREC, 2010, p. 12). To protect the participants, I avoided these issues and was responsible for identifying potential risks before asking for their involvement. Also, I was willing to discuss with participants any risks of harm or concerns that they themselves might have. As interviews intrude into private and personal spheres, emotional harm might occur (Arksey & Knight, 1999). This concern includes “discomfort, anxiety, pain, fatigue, embarrassment and inconvenience” (UREC, 2010, p. 12). Some interviews were conducted with the participants after their long working day so these issues were carefully considered with this study. I tried to be sensitive and vigilant to avoid causing such harm.

Cultural and social sensitivity

This case study involved Vietnamese teachers whose English is an additional professional language. Sharing the same language and culture as the participants allowed me to be aware of and to be able to deal with potential
issues, based on a sound understanding of the cultural protocols. Concerning
the linguistic issues, the interviews were conducted in English to ensure the
authenticity and validity of the data collected. However, prior to the event, I
asked if the participants were comfortable with English as the medium, and if
not, they had total freedom to use Vietnamese instead. Despite being non-
native speakers of English, both the interviewer and interviewees were
proficient English users; thus, most of the informants were happy with
communication using English and there was no difficulty in communicating
ideas and negotiating meaning. Only one informant requested to use
Vietnamese and the recording was transcribed and translated into English
accordingly by myself.

Limitation of deception

To avoid undesirable deception and unnecessary conflicts, a transparency
policy was applied. I showed the full notes of the observations and transcripts of
the interviews to the relevant surveyed participants to seek their confirmation
and refinement if they wished. Based on their feedback, I made appropriate
corrections and adjustments. Also, a summary of the research findings and
discussion was sent to all interested participants.

Respect for intellectual and cultural property ownership

All intellectual and cultural property ownership was respected in this research,
and its authors were properly acknowledged and referenced.

Avoidance of conflict of interest

Despite working in the same university, I am not a member of the ISP group
(from where I drew my sample) and do not share the ISP curriculum at work.
Hence, there were no unnecessary conflicts of interest or any other issues. In
addition, by making the inferences drawn from collected data overt, not only
authenticity and trustworthiness of data collection and interpretation can be
ensured, but misinterpretation and possible conflicts can be avoided as well
(Bryman, 2012). I also attempted to avoid bias by being consistent in the
process of data collection as well as interpretation.
**Research design adequacy**

This issue was taken into account in relation to all other ethical issues. In order to conduct an ethically-sound study, I carefully considered its aims and objectives, its significance, time frame, sampling procedures, suitable methodology and methods, as well as “rigorous data collection tools, and appropriate data analysis and reporting” (UREC, 2010, p. 15).

In brief, with the purpose of examining the teachers’ digital literacy PD needs and current practice, this research embraced the qualitative holistic case study approach. Interviews, observation and supplementary document retrieval were employed for data collection. A combination of thematic and content analysis was devised to analyse the results in both the inductive and deductive approach. The methodological design and ethical considerations of this study were considered by the Unitec Research Ethics Committee and approved (ID number: 2013-1041). Throughout the project, I always kept in mind and attempted to meet the validity and reliability criteria as well as all relevant ethical requirements.
CHAPTER 4: FINDINGS AND DATA ANALYSIS

This chapter provides a detailed description and analysis of the data gathered in this research. First, interview results are reported in forms of relevant verbatim quotes and those by Leader 2 were my translation, as explicitly indicated in the coding of this data source in Chapter 3. Second, findings from classroom observations are reported. The final section presents relevant documents and observation of TELL practice and ICT-focused PD activities for the EFL teachers in the institution and in the wider context of Vietnam. Throughout the chapter, the data from these different sources are compared and contrasted so that consistency and discrepancy in the same issues are determined to develop a better-informed understanding of the research matters.

Demographic Information

Teacher participants

As shown in the table below, all the seven teacher participants are female, aged 25-30 years. Having up to six years of teaching experience, the teachers can be considered at an early stage of their careers. All of them had a BA in English Language Teacher Education; some have completed Masters degrees while others were pursuing postgraduate study in either TESOL or Linguistics. Of the seven teachers, only one had learning experiences overseas, another was taking a blended learning programme in Vietnam while the others attended programmes offered at the university (their workplace) or at another Vietnamese language institution in cooperation with an Australian university.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Age</th>
<th>Years of experience</th>
<th>Qualification</th>
<th>Programme type/venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>F</td>
<td>26</td>
<td>04</td>
<td>MTESOL</td>
<td>Cooperation, Vietnam</td>
</tr>
<tr>
<td>T2</td>
<td>F</td>
<td>28</td>
<td>04</td>
<td>MTESOL</td>
<td>Vietnam</td>
</tr>
<tr>
<td>T3</td>
<td>F</td>
<td>28</td>
<td>06</td>
<td>MTESOL</td>
<td>Cooperation</td>
</tr>
<tr>
<td>T4</td>
<td>F</td>
<td>26</td>
<td>04</td>
<td>MA (Linguistics)</td>
<td>Vietnam</td>
</tr>
<tr>
<td>T5</td>
<td>F</td>
<td>24</td>
<td>02</td>
<td>MTESOL student</td>
<td>Cooperation, Vietnam</td>
</tr>
<tr>
<td>T6</td>
<td>F</td>
<td>26</td>
<td>04</td>
<td>MTESOL</td>
<td>UK</td>
</tr>
<tr>
<td>T7</td>
<td>F</td>
<td>25</td>
<td>03</td>
<td>MTESOL student</td>
<td>Blended learning, Vietnam</td>
</tr>
</tbody>
</table>
Leader participants

Unlike the teachers, only one out of five participating leaders was female. All of them were over 30 with at least 10 years of experience in both EFL teacher and leader positions. Regarding qualifications, two senior leaders had PhDs in Linguistics and Applied Linguistics while the rest had Masters in TESOL. Notably, all the leaders had experienced some kind of PD overseas. Details about their positions are in the table below.

Table 2–Leader participants' information

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Age</th>
<th>Years of experience</th>
<th>Qualification</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>M</td>
<td>46</td>
<td>25</td>
<td>PhD (Linguistics)</td>
<td>FoE Dean</td>
</tr>
<tr>
<td>L2</td>
<td>M</td>
<td>41</td>
<td>19</td>
<td>PhD (Applied Linguistics)</td>
<td>Vice-President of Academic Affairs</td>
</tr>
<tr>
<td>L3</td>
<td>F</td>
<td>32</td>
<td>10</td>
<td>MTESOL</td>
<td>FoE Vice-Dean, Head of ISP</td>
</tr>
<tr>
<td>L4</td>
<td>M</td>
<td>34</td>
<td>11</td>
<td>MTESOL</td>
<td>Educational technologist</td>
</tr>
<tr>
<td>L5</td>
<td>M</td>
<td>35</td>
<td>12</td>
<td>MTESOL</td>
<td>IT Centre Director</td>
</tr>
</tbody>
</table>

Findings from Interviews

Teacher technology use

Frequency of use

All the teachers said they were using technology in their teaching practice and they all reported high frequency of their technology usage. Common responses were “quite often” (T1) or “always” (T2, T7). Even those who considered themselves not very confident and competent said that they used technology on a daily basis. Teachers’ frequent use of technology was confirmed by leaders, who all saw this as an integral part of their teaching in the programme.

Teachers need to use technology everyday and it’s part of their job. (L4)

Applications and purposes

The most commonly used technologies were reported to be CD players, computers, and projectors that were already available in the classrooms. Leaders confirmed that teachers used what the university equipped them with.
Some also mentioned teachers’ use of their own devices; however they were not employed as often as classroom facilities.

Teachers use their own laptops or other digital devices to prepare their lessons. Some use it in class as well. (L1)

Except for laptops used predominantly in case of classroom computer breakdown, most teachers had not used their own or their students’ PDAs, such as tablets, smartphones, and laptops, while they used these technologies every day for other purposes outside the classroom. A big gap seemed to exist between teachers’ use of technology in teaching and that in their daily life. Even those who used these technologies for learning and teaching purposes did not make use of them in the classroom. Teacher 3 talked about her mobile phone use to support her students’ learning outside the classroom. Her reason for not using it in class was because of the conventional assumptions of her students and particularly, the university inspectors about the use of mobile phones. Likewise, her perception of using tablets was for personal purpose and fun only.

I use my phone for checking emails and messages including Facebook and text messages from my students. Sometimes, I help them with their assignments by answering their questions via email or Facebook, but I’ve never had a chance to use those devices like smartphones or tablets like iPads in class. It’s not welcome. We’re not allowed to use mobile phones or iPads in class as some people and some students might think that I use them for personal purposes outside teaching. Also, the university inspectors will never like it, they will never believe you’re using mobile phones for teaching and you may get yourself into trouble doing it. (T3)

For Teacher 4, using PDAs was not a good idea because of the unwanted side effect of distraction, especially when students’ self-discipline was poor.

They [students] will be distracted by texting each other and Facebooking and surfing their favourite websites, not for learning English of course. It’s hard to control when students don’t have much self-directed learning ability and good intention of learning with technology. (T4)
Teacher 6 mentioned her use of blogs and wikis only for personal purposes and explained why she did not use them in her classroom.

Maybe they’re famous for educational purposes, but students are more familiar with some kind of social network like Facebook so I tend to use it instead of blogs or wikis for teaching. (T6)

Sharing her habit of online reading, Teacher 7 confessed that she failed to realise her intention to encourage her students to do the same due to time constraints and the rigid curriculum.

As part of my routine, I read online ELT journal articles and read news in English. I want to create that habit for my students, but I just can’t. I can’t find time for it, especially in class; we have loads of things to cover. I’d have given it a go if the curriculum weren’t too heavy, if we were given more right to be flexible with the curriculum. (T7)

This teacher also commented unfavourably of her students’ use of digital dictionaries. She even banned this resource in her classes.

Some students use e-dictionaries, some use dictionary apps in their mobile phones. Some are Vietnamese-English translation. It’s not good. I don’t want my students to use any of them. I think it’s better to refer to paper dictionaries or me. No e-dictionaries are allowed in my classes. (T7)

With regard to software, apart from some basic programmes including Word and PowerPoint, which were the most commonly used among teachers, other ELT resources were also mentioned. Most talked about was the usage of pronunciation software including Speech Solutions, Languages of the World, and Pronunciation Power (T7). Other software uses were also mentioned.

I use another website for speaking, TalkGroup or something, I post a topic on the forum where students discuss and post their voice recordings. (T6)

(…) authoring tools like Hot Potatoes, Quiz Maker, or something like that to make the quizzes and tests online. (L4)
Apparently, the teachers were making use of a good variety of technology resources for classroom teaching and assessment. There was a wide spectrum of competencies from immediate use of what were available to selective adoption, adaptation and even creation of resources using the tools.

The above quotes also show that teachers used technology for various purposes including both inside and outside the classroom. Technology has been used for both lesson preparation and instruction.

I often use technology in the phase of preparation or lesson planning and while delivering my lesson in class. (T1)

According to all the interviewed teachers and leaders, PowerPoint presentations seemed to be the most common usage of technology.

Most of the teachers prepare the lessons using the PowerPoint and the projector to show the slides. (T3)

The teachers said that they often used PowerPoint to deliver their prepared-in-advance lecture notes and setting the tasks, which reflected a teacher-centred approach of their pedagogy. Moreover, some leaders criticised the teachers’ overuse of PowerPoint presentations, arguing that it was not always necessary and effective. They even pointed out that it was a waste of time and energy.

Many teachers seem to overuse it and turn their lessons into watching shows and students become very passive recipients of information. I saw teachers sometimes use several PowerPoint slides at the beginning of the lesson only, but leave them on the whole time. (L2 Trans.)

In lesson planning, the teachers explicitly said that they used the Internet for referencing purposes. They looked for teaching materials and ideas and then adapted them to suit their students and the lesson focus.

When I run out of ideas for activities, I often Google. Also, I go to some websites for printable ready-to-use worksheets and handouts. (T2)
The teachers also used technology for administration, involving mostly recording students’ progress, assigning homework and providing feedback, which were done via *Facebook* and email.

I ask them to write something about themselves and ask them to post it on *Facebook* and I give them some comments. When they send some writings via email to me, I often send feedback via email as well. (T3)

For teacher 4, combining the traditional and modern way in dealing with students’ assignments worked better.

I can’t read on the screen. And so, when I get students’ papers via email, I have to print them out to mark in the traditional way. (T4)

Using *Facebook* was becoming so popular among the ISP teachers that the leaders, in their interviews, also repeatedly commented on this trend.

They also keep in touch with and assign homework to students using the Internet like *Facebook* or something like that. (L3)

Observation of teachers and students’ *Facebook* pages found numerous posts and discussions related to home assignments and sharing of useful learning materials and resources. However, as teachers and students used their private *Facebook* accounts for this purpose, their personal interactions made learning disruptive. Some students’ comments showed that they were too confused to get on with the tasks due to off-topic conversations that constantly popped up. There was hardly any teacher monitoring to direct students’ attention. Most students did not use English in commenting and asking for clarification and they only switched to English when explicitly required and reminded by teachers.

A different use of technology for administration was between teachers and their colleagues, using group email and *Google Drive* as the main channels.
It’s difficult to gather all [150] faculty members for disseminating information or making collective decisions. We use group emails a lot. We also use, for example, Google Drive to solicit our votes on something. (L1)

With respect to PD, teachers used technology in their learning, but it involved mainly searching for information, reading articles, and download materials.

I usually use the Internet to read some articles and download some available resources for my teaching only. (T2)

Leader 1 added the use of university e-library although none of the teacher respondents mentioned using it.

The library provides us access to a lot of online databases. A number of them can provide not only abstracts but also full text materials. (L1)

Unlike other participants, Teachers 6 and 7, whose learning was linked to overseas universities, saw more benefits of technology and made more use of it in their PD. Teacher 6 shared how she benefited from using the Internet.

Through the Internet, I know about different PD opportunities like conferences and workshops, both national and international. (T6)

Teacher 7 who was taking a blended-learning Masters programme at a university in Australia exploited its e-resources as well as e-platform.

I log into the university library for e-journals. I also contact and exchange ideas with my professors and classmates via the discussion forum. (T7)

Factors influencing teachertechnology use

Talking about what affected teachers’ use of technology, teachers and leaders tended to regard classroom facilities as one of the key determinants.

It really depends on the availability of technology in the classroom. (T4)

If the facility is not so good, I try to avoid using it. (T6)
The lesson focus was also a consideration when using technology. The teachers said they used different tools for teaching different skills and language areas. Teacher 5 added a point that students’ proficiency level should also be taken into account in choosing appropriate technologies.

Actually, it really depends on students’ level. (…) For the lower level classes, I don’t think I need much technology. (T5)

The teachers also demonstrated their careful consideration of students’ digital literacy in choosing relevant technology. Teacher gave an example of her decisions about means of communication.

I use emails and Facebook as first-year students are more used to them. I don’t use blogs or wikis since they’re not so competent at these tools. (T5)

**Focused language skills and areas**

On the question of which languages skills and areas they used technology most, teachers’ answers varied considerably. Commonly cited by teachers were listening, speaking, pronunciation and vocabulary. According to some teachers, they needed technology more when it came to audio-visual materials as authentic input.

For listening, of course, we need some audio recordings so I use the CD player or sometimes, computers and loud speakers. For speaking, I often show students samples of pronunciation and speaking models (…) because these authentic materials are crucial to their learning. (T5)

The least technology uptake was found to be for reading and grammar. Teacher 5 admitted having no rational reasons for using technology for these lessons.

I don’t see any need in using technology in grammar or reading. I think it’s more effective to teach these skills and areas in the traditional way. So if I use any, it’s for fun or relaxation. (T5)

From what these teachers said, it was probably more difficult to justify the use of technology in grammar and reading. For some teachers, it was not easy to
use technology effectively in those lessons because it required an elaborative process involving significant investment of time for materials preparation.

It takes time to create concise grammar slides. For reading, it's just text. There're ways to use technology for them, but I can't think of any. (T3)

**Applied strategies in teacher use of technology**

Strategies teachers applied in classroom use of technology varied across students’ levels, lesson topics, focused skills, and among individual teachers. Some of them were shared among teachers, especially for audio-visual materials. The basic techniques included finding suitable authentic materials for use in class as models or samples of the target language.

In speaking lessons, for example, I usually show my students some kind of videos with situations so that students will later role-play those situations, like in hotels or restaurants, for example. It’s to show my students how the situations happen in real life. (…) when I teach students vocabulary on the topic of jobs, I show them pictures of different kinds of jobs. (T1)

Teacher 2 seemed to be more strategic in using audio-visual materials.

For speaking, some pictures and videos really inspire them to speak. For reading, it saves time to use some mind mapping tools to draw a map for students to follow and they can use the strategy easily. (T2)

In contrast, Teacher 4 admitted having no particular strategies but her intuition. Her tip was planning ahead what was needed in class with the lesson aims in mind.

For example, I have to check Listening homework so I need the CD player. But if I need to play back and forth to highlight important language points, I’ll use the computer to make it easier. So, simply when I prepare the lesson, I anticipate the problem and think about possible solutions including what facilities needed for the activities in the lesson. (T4)
Teacher 6 showed her concern about students’ level of language proficiency and explained how she adjusted the task accordingly.

For vocabulary, there are too many activities, for the low- to mid-level students, I often pair up students, one tries to explain the vocabulary item and if their level is low, they can use their body language as well. Sometimes, I use pictures to illustrate the word quickly. (T6)

Other interesting techniques for more interactive tasks were also reported.

When students speak, I type and show the whole class the notes. I also show my students’ writings for open class analysis so that they know what kind of mistakes they made and also some good points and bad points about their language use. (T6)

**Perceived effectiveness of technology use**

All the interviewed teachers were confident and positive about the effectiveness of their use of technology and some were very explicit about it with specific examples. It was interesting that most teachers cited positive reaction from students as an indication of effectiveness.

It’s quite effective in my opinion. You know, it’s a great way to stimulate students and get them engaged when they see the videos. They get excited and motivated. (T1)

In the same vein, Teacher 7 saw effective use of technology in students’ enjoyment and engagement. For this teacher, being effective in the use of technology also meant time saving and lesson fulfilment.

It’s when I can cover the content of the lesson within the given time as planned. You know, using technology helps me save a lot of time. (T7)

Teachers also pointed at students' uptake and their increased confidence as evidence of their effective technology application.
They [students] tell me that they feel more confidence to do the assignment again. (…) The next time they produce the recordings, they make fewer mistakes and there’s a lot of improvement. (T3)

On the other hand, some teachers admitted that their technology practice was not always up to expectation. Teacher 1 shared an example of her carefully planned lesson, which turned out to be not very successful. She said the topic might not have been of her students’ interest, which could possibly explain their “indifferent” attitude (T1). Teacher 6 also had some negative experiences.

It’s not effective all the time. Sometimes it’s even a disaster because of all sorts of different problems. (T6)

Despite the above-mentioned critique about abusing PowerPoint, the leaders, in general, commented favourably on the teachers’ technology practice.

Teachers’ use of technology is very good and effective and it’s an upward trend. (L2 Trans.)

**Difficulties in teacher use of technology**

When asked about the difficulties that teachers often encountered, all the respondents pointed to limited infrastructure. According to Leader 3, not all the classes were equipped with computers and projectors (L3). Teachers also complained about the unavailability of the Internet in the classroom.

We don’t have access to the university Wi-Fi. I mean, we do have Wi-Fi, but we don’t have password to use it. (T2)

Those who even appeared to be content with the available facilities at the beginning of their interviews also shared concern about their poor quality.

The firewall and security system don’t work. And very often, the computer becomes frozen, which is really annoying. (T1)

Added to this, Leader 1 brought up the issue of poor information services.
Teachers can get access to rich source of materials in the e-library; however, no one does because they are not aware of its existence. (L1)

Another identified problem was lack of financial support, which had a direct link with teachers’ decisions whether to use technology in their teaching.

Teachers are paid for their teaching, it doesn’t matter how they teach, they can use traditional and cheap method or they use the modern and costly method. Either way, their salary stays the same. They don’t get any bonus or extra money for their effort so they weren’t so keen. (L4)

Also related to motivation, Leader 5 added the teachers’ and students’ reluctance as another barrier in integrating technology into classroom practice. Some teachers and leaders held opposite perspectives about students’ attitudes toward teacher technology use. They saw students, with their ability and “welcoming” attitude in learning with technology, as a source of motivation rather than a hindrance for teacher practice.

Students are now very quick at technology uptake, encouraging teachers to use technology in the class and facilitates the application process. (T5)

Students are very keen on using technology and they like teachers to use it. Even when technology’s a bit challenging, students tend to stay more motivated than teachers. (L2 Trans.)

Sharing the same opinion, Leader 2, pointed at the teachers’ negative attitudes.

It’s the teachers’ excuse, which is actually their reluctance to use technology for fear of having to cope with technical problems, especially those who aren’t very experienced in using technology. (L2 Trans.)

Surprisingly, Teacher 2 claimed their students’ lack of access to technology to be an obstacle to their use of technology in class.

A third of my students don’t have computers so I don’t want to force them to use computers after class, as it’ll create lots of pressure for them. (T2)
Teacher 6 refuted this claim, arguing that most students had their own devices; otherwise they could still get access to technology in various places.

Students always have access to technology, living in today’s digital world. Nearly all of my students have some sort of personal computers, very few don’t. Some even have iPhone, iPad, and things like that. They can always use computers in the IT centre, library, or Internet cafes. (T6)

Also, whether students had their own devices seemed not to count as an issue because, as analysed above, the teachers reported no intention of integrating students’ technology in classroom practice for different reasons.

Unexpected technical problems, which, according to some teachers, resulted from poor facilities, were seen as the most prevailing.

The projector can also fail a beautiful lesson due to its bad quality. (T1)

The worst problem comes from the facility in the classroom. (T5)

The teachers also confessed their limited expertise as another source of problem, which was also reinforced by the leaders.

Maybe it’s my IT level because I’m not very good at technology. (T4)

Some of them are not used to applying technology in teaching. (L3)

Notably, Teacher 4 made a critical comment on teachers’ attitudes and irresponsibility in using the shared facilities.

Some teachers want to use their own laptops. They connect their laptops with the projector and loud speakers but leave all the cables unplugged afterwards. Then it’s my session, I want to use the classroom computer and I’m in trouble because I don’t know which one is which one. (T4)

Leader 4 looked at the overall development of the university in the application of technology and noted being at early stage as another challenge.
Everything in our university is under construction so it takes a lot of time. The challenge here is that we must be patient. (L4)

**Attempts to solve the problems**

To deal with the problems, teachers used various strategies including choosing familiar tools, anticipating possible problems and preparing back-up plans.

I always try to use the simplest technology in my lessons. I also try to prepare handouts to back up for audio and video recordings. (T5)

And now, after a lot of bitter experiences, I decide to create more activities so if anything goes wrong I have something in hand. (T7)

When it happened, they tried to deal with it themselves, sought help from technicians, their colleagues, and most of the time, their students.

I try to deal with it myself and then if I can’t, I usually consult with more experienced colleagues (…) Actually, some of my students can help me to fix it. The last option is calling the technician. (T6)

The least favoured solution was to exchange classrooms, which according to Leader 3, happened “very often”. This leader also gave an example of delayed response and support from the technical staff.

Once it took half a semester for them to finally fix the projector after a lot of complaints. And during that time, all the teachers using that classroom had to exchange with others who don’t use projectors. (L3)

Teachers’ responses indicated that they did not receive effective technical support from the institute and preferred helping themselves or asking their students and fellow teachers for help with technical problems. Many unfavourable comments on the service were made.

Apparently, the technician’s not very technologically competent. I don’t think he’s taken any ICT training, maybe only some mechanical things like
fixing machines. Sometimes, it takes him a long time to figure out what’s wrong so the best way is to help myself or ask students for help. \( \text{T2} \)

I think they are available, but they don’t make themselves available. When we need them, we phone and they may appear later, but they simply ask what’s wrong, keep going in and out interrupting my lesson without fixing anything. Until now, I haven’t received any useful support from them. \( \text{T4} \)

If none of the above worked, teachers had to move on without technology. The youngest teacher even confessed that she did not want to fix the problems for different reasons. One of them was a rather personal fear.

I don’t trust technicians and I don’t want to bother my students while they’re studying. Sometimes, I don’t want to lose face in front of my own students so I just move on without using the planned technology. You know, I’m young and I don’t want my students to feel like I’m inexperienced and look down on me. \( \text{T5} \)

Some leaders even asserted that there was insufficiency or even absence of technical support in relation to technology use to the ISP teachers.

There’s no technician in our university; teachers must deal with everything. We’re in need of in-service guidance and support from the university. \( \text{L4} \)

On the other hand, others argued that the institute did provide support by means of training in order to upgrade teachers’ technical skills.

So far, we have built a centre of ICT, which is functioning quite well. They set up some conferences and workshops. Besides, the university website has embedded an e-learning platform so that teachers can contribute e-courses. Teachers are trained and will be trained to master the site so that they can create their own webpage on \textit{Moodle}. \( \text{L5} \)

In spite of those above pressing problems, leaders still held a very positive outlook for the future development of technology use in the ISP programme.
I can see that technology will continue to be used to a larger extent with
the development of technology and provision, of course, when we are
provided with more facilities and more budget. (L1)

Most of the promising plans for ICT integration, according to the interviewees,
focused on investment in upgrading infrastructure and e-resources yet none
was about advancing teacher digital literacy or improving technical support.

The authority is aware of this situation and there are a lot of plans and
investment to come. We’re waiting for some new servers and also, the
university has the intention to upgrade the Internet connection (…) At the
moment, we are offering the online course on Computer Science or IT for
students and this is the second course. There’ll be other subjects offered
online in the future and things like virtual learning environment. (L5)

**Teacher digital literacy**

*Basic knowledge and skills*

Most teachers considered themselves confident and competent users of basic
technologies. They explained that such confidence and competence resulted
from frequent use of those technologies.

I often have to design handouts in *Word* and make presentation slides
using *PowerPoint* so I’m quite familiar with those programmes. (T1)

In contrast, Leader 3 challenged this evaluation by arguing that they were not
that competent in using the projector, which they actually used very often.

Usually, when teachers set up the projectors, some still don’t know how to
control the projector and they often ask students to it for them. (L3)

Similarly, Leader 2 remarked on teachers’ overuse of email, which, she
believed could actually be made more efficient by other methods of
communication.

They use email for everything including trivia and those that could have
been way more efficient with texts or phone calls. Also, many teachers
aren’t so good at using email that very often, they spam a lot of people who actually don’t have anything to do with the message. (L2 Trans.)

**Teaching materials development**

In terms of teaching materials, most of teachers said they used downloadable online resources. Some just used the materials with no or minimal adaptation.

Most of the things we do, in Listening, for example, is downloading the audio files to play them in class with speakers and computer. (…) I only download and use something that is already available. (T3)

Similarly, Teacher 7 shared her awareness of the need to modify the materials according to her lesson, but found it hard to be efficient.

I know how to do things, but still it takes time. I want to change them to suit my class and tailoring materials is not easy. (T7)

Other teachers seemed to be more experienced in dealing with the materials. They shared how they chose the right materials that matched students’ levels of language proficiency and manipulated the files to suit the task objectives.

I often edit [VOA recordings] to design exercises for my students and use videos from *National Geographic* that are suitable for their levels. (T2)

I often adapt materials. For example, I can add the lyrics to the song so that students can see the lyrics and understand what's happening. (T5)

And yet, when it came to producing new materials, teachers appeared to be less familiar and confident. Some confessed that they hardly ever did this, whereas others admitted not having much experience in doing this.

To be honest, I’ve never made any myself. (T1)

I seldom create any audio-video files, just once or twice so far. (T2)
Teacher 6, however, showed more interest and confidence in creating teaching materials. She shared her attempt to use Wordlesoftware to create images in forms of word clouds, which had a positive effect on her students.

In general, the ISP teachers tended to overlook the development of audio-visual materials. Apparently, their ability in this particular aspect was rather limited.

**More advanced digital competencies**

To all the teacher interviewees, such advanced technologies as authoring tools and Web 2.0 tools seemed to be new. When asked about these technologies, they appeared to be not so confident or knowledgeable.

I’m not really sure how to use them effectively. For example, Twitter and Moodle, I’ve heard about them, but not sure how to use them. (T3)

I’m not too sure. I’ve used them once or twice in my life. (T7)

Even for Teacher 6 who appeared to be enthusiastic about applying technology into teaching, authoring tools required more time and effort.

I still lack some kind of high-level technological skills like how to create the crosswords. I haven’t learnt it so I often draw them manually. (T6)

The leaders also confirmed teachers’ insufficient literacy and lack of confidence in relation to more complex technologies.

They can use Hot Potatoes, but not all the teachers are confident in using these tools. I think that they should also be able to use Moodle as the LMS, but it still seems new to them. (L5)

In justifying such incompetence, Teacher 1 pointed at a lack of infrastructure as what hindered their effort.

I think producing audio-visual materials requires special equipment (…) we don’t have enough conditions for this kind of thing. (T1)
Teacher 6, however, did not share this view. This teacher was the only one who mentioned the possibility of using available accessible hardware including computers, laptops, and mobile phones with built-in microphones, cameras, and other audio-visual recording hardware and software. She also shared her observation of her students’ using their simple devices such as their mobile phones to do assignments requiring audio-video production.

Most of them use their mobile phone with recording apps [to record their Pronunciation exercises]. Some uses their cameras to video their plays. If they have or can borrow a camcorder, they use it. I saw some. (T6)

Another excuse made by most teachers was, unsurprisingly, time constraints. They claimed that material production was time consuming and that they could not find time to learn to use any tools for this purpose. Teachers also saw no need for using these authoring tools in their teaching since they seemingly did not find these educational technologies beneficial or useful.

**Perceived teachers’ overall digital literacy**

Talking about overall digital literacy, all the teachers indicated that their knowledge and skills were basic or poor. As mentioned in the previous chapters, Rogers’ (2003) diffusions of innovations was used as a reference for teachers to evaluate their digital literacy. The table below shows where teachers placed themselves into Rogers’ categories of innovativeness in technology adoption.

**Table 3— Teachers’ self-rated overall digital literacy**

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<tr>
<th>Category</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
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<td>Innovators</td>
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</table>

When asked to group teachers according to Rogers’ framework, the interviewees’ responses were either late majority or laggards, except for Teacher 6 who placed herself in early majority.
Leaders were even more critical in evaluating the teachers’ digital literacy.

I think teachers are confident, even extremely confident, but their competence is not that high. It’s more or less average only. (L2 Trans.)

Notably, two leaders (L1&L2) changed their opinion during the interviews. At first, when asked about the effectiveness of the teachers’ use of technology, they spoke highly of the teachers’ digital literacy. Take L2, for example.

The ISP teachers are very skilful in using technology in their lessons. Besides, they are very good at basic computer programmes. They are highly competent in searching for teaching materials online and designing extra-curriculum practice exercise for students to do at home. (L2 Trans.)

However, as the interviews went on, they revealed more critical view. They related their observations to indicate teachers’ insufficient digital literacy.

Not many teachers know how to use technology properly and effectively. Some are inexperienced and they tend to be too dependent on technology. When an unexpected technical problem happens, they get nervous and lose control of the lesson easily. (L2 Trans.)

**Teacher awareness of TELL pedagogy**

An important finding was that some teachers had a limited view of technological pedagogy since there was an obvious lack of reason behind the use of technology. Teachers did not show a strong rationale for their classroom use of technology. More than half of them only used technology for stimulation purposes. They used technology merely for entertainment, arousing students’ interest, drawing students’ attention, delivering lecture notes and assignments and for either time-saving or, even worse, time-killing.

I usually use games in Vocabulary and Grammar. (…) Sometimes I use funny pictures or slides to draw students’ attention to the point. (T5)

Noticing this situation, Leader 5 described what often went wrong, leading to classroom management problems when teachers used technology in class.
These activities [playing songs, video clips, and games] even designed with the good intention of intriguing students and learning via playing, often lead to unexpected students’ reactions. Naughty students usually take it off track because they prefer playing to learning. (L5)

Leader 1 remarked on another example of a language game activity, which was not carefully thought through in the designing stage, and not successfully implemented. As he described, the task was not challenging enough and the unnecessarily long procedures was a time waster. Recommending alternative games which could have been much more efficient, he then referred to the teacher’s limited experience and competence as the reason for such failure.

Teachers have to judge whether they need to use the technology or not and if yes, they have to think about how to use it effectively and efficiently, not just for fun. These processes involve a lot of critical thinking based on a sound understanding of the TELL pedagogy. (L1)

Even for tech-savvy teachers, it was still challenging to be efficient in using instructional technologies. Teacher 6, for instance, often experienced time pressure and time-management difficulties, which exemplified her weakness.

I prepare a lot of activities using technology, but I can’t fulfil all of my aims. (...) When they watch a video for the first time, they don’t focus on the language but other things instead. So we have to watch two to three times and it’s a bit time-consuming. We don’t have time to do all that. (T6)

Teacher 4, despite seeing herself as not a keen user of technology, clearly deliberated her justification for her use of relevant technologies.

We can show some pictures in the warm-up activities (...). It’s visually beautiful and eye-catching to students and so they can help students remember the lessons easily and retain information for a longer time. (...) For Grammar, I also use technology to present the theory and make use of pictures to elaborate the Grammar points, (...) but to highlight key points and for practice, using chalk and board is much easier. (T4)
Digital literacy professional development

Perceived importance of digital literacy and digital literacy PD

All the informants considered using technology as a must in the era of technology. They naturally accepted technology use as inseparable to instruction. Their responses indicated a general awareness of the roles and benefits of technology and the importance of digital literacy PD. One identified benefit was found to be better quality of teaching as the ultimate desire.

It’s very important because using technology is very useful and motivating for the students. And so, being able to use technology is one of the very important skills for EFL teachers. (…), you’ll have a lot of useful techniques and useful tools to improve your teaching quality. (T1)

By the same token, Teacher 2 asserted her need of technology both personally and professionally.

I have to say that using technology is very helpful for my teaching. I cannot imagine how I could conduct a lesson without it. You know, we’re living in the information age. If teachers don’t update the latest knowledge and information, they can’t meet the demand of today’s learners. (T2)

Teacher 6 made a very similar statement and stressed that it is even more important for Vietnamese teachers to improve digital literacy professionally.

It’s now the age of technology and globalisation so the teachers do need to develop their digital literacy to improve their teaching method and also to know more about the outside world. It’s especially good for Vietnamese teachers whose ability is sometimes limited by traditional methods or because of the teaching facilities or students’ habits. (T6)

For Teacher 4, teacher technology uptake and advancement in this ability could benefit herself in teaching and learning, her students and the administrators.

It's not only beneficial to my students and to me as a teacher but also to observers like you. Also for administrators, (…) they only have to look at
my PowerPoint slides to have a general picture of the activities in my lesson. With better digital literacy, I can study in a more efficient way. (T4)

Highlighting digital inclusion as today’s trend in education in general and ELT in particular, Teacher 7 viewed technology as crucial in all aspects of life.

It’s a trend of the whole world to use technology as a useful tool at work, in study and life. (…) Traditional teaching only cannot work anymore and it’s something like “behind” everyone. (T7)

Sharing similar views on the significance of developing teachers’ digital literacy, leaders noted teachers’ concern about their digital literacy and their positive attitude toward developing it professionally.

I think they are very well aware of ICT movement and they are very concerned about their IT skills. Actually, this morning, I had a chance to supervise a training session on Moodle to two ISP teachers. They’re very interested in the system, very confident and eager to learn. (L5)

Leaders stressed that digital literacy is an expectation of today’s teachers. According to Leader 4, the teachers needed to be aware of who their students were and what they might bring to and desire for in their learning.

Teachers need to be able to catch up with students’ technology competencies. Also, they somehow expect their teachers to be role models of efficient use of technology. It’s pressure, yet, a demand. (L4)

Other leaders looked at what teachers were required to do at work as both teachers and teacher trainers that requested being digitally literate.

ISP teachers’ mission is to prepare today’s students to live and work in a digital age. It’s their job to develop not only students’ academic knowledge and skills but also digital literacy. To produce digitalised citizens, teachers must, first and foremost, be digitally literate themselves. (L2 Trans.)

The teachers have to train teachers at other institutions and TELL is a part of it. A future task is to build e-courses so they must learn to do it. (L5)
**Perceived professional development needs**

There was a mixture of teachers’ needs across tools and purposes. Some intended to enhance their ability to use of technology in teaching in general.

I haven’t made use of all the technologies that I have. (…) I want to have intensive training on how to use technology in teaching English. (T1)

Others had more specific ideas about what they needed to improve. For Teacher 2, it was how to use social networks to facilitate communication with her students and some Web 2.0 tools for online learning.

I want to learn how to incorporate the software into a website so that I can check the result of their homework. (T2)

Another need, as identified by Teacher 3, was to upgrade teachers’ ability to use English language software and programmes more effectively in classroom. There was also a common urge to acquire knowledge and skills to use authoring tools in assessment, administration and material development.

Definitely how to use some tools effectively in designing materials, tests, and keeping track of students’ progress. (T6)

Only Teachers 4 and 6 showed pedagogical concern in using technology. Teacher 4 emphasised the necessity of critical thinking and evaluative skills in the search for appropriate resources meanwhile Teacher 6 paid special attention to TELL methodology.

Lots of resources are available online but not all are reliable so I need to evaluate them before using them. I need to learn the skills to do that. (T4)

Things can go wrong even with good resources. Intuition is not enough; we have to develop good method to use technology efficiently. (T6)

More explicit about this concern, leaders highlighted the importance of pedagogical skills over technical ones. Leader 4 provided thorough reasons.
The technology itself often comes with a manual or guidance of some sort. All kinds of software also have a Help function and instructions that can be achieved with a click, but teachers really need to understand pedagogical aspects in using technology. (L4)

Leader 4 also noted a key point that, like other learners, teachers also needed to develop independent learning ability for the sake of autonomy.

They need to know how to develop digital literacy themselves, so they need to firstly, enhance useful learning skills to keep upgrading it. (L4)

When asked about how the teachers’ needs had been identified, all leaders reported no official evaluation or diagnostic tools, but their own observation of the teachers’ technology for instruction and other administrative tasks. Notably, no attempt to survey teachers’ PD needs associated with digital literacy was reported. Clearly, no attention had been paid to this issue.

A number of observations were given to illustrate the argument that teachers needed to relearn basic skills and improve their attitudes in using technology.

When I shared a document on Google Drive, some teachers immediately found it a little bit strange or difficult. At first, almost all teachers ignored it because they did not know it. It took a lot of time for them to get familiar with it and then apply it. Sometimes, I receive some paper or request they write in Vietnamese. I can see that they may not pay much attention to the layout, wording or rubrics in such kind of formal letters in Vietnamese. So, I have to provide them with instructions and sometimes, I even send them the templates, but some of them may not use the templates and continue with their own fantasy and I must say that there’s no pleasure in that. (L1)

Leaders also listed other aspects, which they believed, were crucial to teachers’ job. Identified needs ranged from being able to operate projectors to managing the online learning environment. Leader 3 stressed that it was high time for teachers to get to know and learn to use Moodle for administration.
Teachers can’t be ignorant of the university Moodle anymore. They need to be able to create their own website to control students’ learning, for instance, give homework or feedback to students using Moodle. (L3)

From a similar standpoint, Leader 2 recommended the teachers focus on what they actually needed in teaching practice. He suggested teachers refer to the TESOL technology standards framework by Healey et al. (2008) to identify what they were already good at and what they needed to improve.

Teachers’ knowledge and skills are different and what they need to use and improve is also different for each of them. Teachers have to refocus their learning on what they need to use in their job. There’s a TESOL technology standards frameworkand we are working on one for Vietnamese EFL teachers. They should also be based on these standards to identify room for improvements. (L2 Trans.)

Past experiences in digital literacy professional development

There was seemingly no consistency in teachers’ as well as leaders’ comments on digital literacy PD undertaken by teachers in the past two years. Notably, three out of seven teachers reported that they had not taken any related PD. Seemingly, ICT-focused PD by and for teachers was insignificant and this was very limited to hands-on experiences with a main focus on technical aspects. Teachers’ responses also reflected their vague impression of such experiences.

No, nothing. (T3)

There’s only one workshop that I attended last week about how to use the search engines more effectively. That’s all. (T5)

Apart from what the university provided, Teacher 6 also mentioned her experiences outside campus.

I’ve attended a workshop organised by IIG [International Investment Group]. They wanted to apply an ESL programme EDO [English Discoveries Online], so they trained some teachers how to use it. (T6)
Teacher 2 also shared a unique learning-via-doing experience that was earned from her previous work involving e-lesson designing with the company IT team.

I have experienced working in the field [TELL] for a company providing distance-learning programmes. (...) I think I learnt a lot from that. (T2)

Leaders seemed to be more positive in reviewing the provision of PD for teachers. According to some, digital literacy development was embedded in both pre- and in-service teacher training programmes.

There is a course called *ICT in Foreign Language Teaching and Learning* in our teacher-training programme at both undergraduate and postgraduate levels and so teachers should have been well equipped with necessary knowledge and skills to implement TELL. (L2 Trans.)

In addition to those official programmes training programmes, the Department of Academic Affairs and its IT centre also conducted short training courses. Repeatedly mentioned by leaders were workshops wherein an educational technologist shared his or her hands-on experiences on a particular topic. Past workshops included developing e-lessons and e-courses.

One is how to edit and adapt their teaching materials including audio-visual files and texts, how to make effective power point, quizzes and make interactive e-lessons. Another is on creating e-courses in groups to make it ready for other teachers to post their lessons online. (L4)

Notably, Leader 5 also added a training course on *Moodle* that they tried but failed to launch last summer due to other commitments. However, the course content could be accessed online and they would implement it soon.

**Effectiveness of past digital literacy professional development**

Most teachers had unsatisfactory experiences of their past digital literacy PD.

It’s [the workshop] just half of the day so it doesn’t really count and it’s not very useful. It’s like a flash. Others are not effective either. (T3)
Still, others appreciated what provided for being applicable to their teaching.

Yes, they were helpful to some extent. I tried to take away some useful techniques to apply in my teaching. (T6)

Despite claiming no official PD but informal sharing among colleagues, Teacher 4 still considered joining such events beneficial to her.

From what my community share with me, I can improve myself. I can cut short the time I need to learn and improve my ability more quickly. (T4)

The leaders held a more positive view on the past digital literacy PD activities.

Immediately! I can see their improvement in practice, of course if they do apply what they learned appropriately. (L4)

From a more balanced standpoint, Leader 5 delineated between the success of the training and the effective implementation of teachers afterwards.

The courses were successful, but it takes time to check whether they are effective or not. After the training, teachers might not have a chance to use the knowledge and skills right away so some may forget. (L5)

Interestingly, almost all the interviewees commented that those trainings mainly focused on technical skills and very little attention was paid to pedagogical aspects. A teacher complained that they still stayed at a superficial level.

The workshops offered very basic skills, technical skills only. I feel that teachers walked away with nothing from those workshops because they had no idea of how to go about applying it in their own classroom. (T7)

Another critique about the past training courses related to the capacity limitation. Only a small number of teachers were selected to participate.

They [the university] selected some teachers who are more innovative and are already experts in using teaching technology, I guess, in the hope that they will spread their expertise with less experienced teachers. (…)
There're always more teachers in need than the spaces available for the training, especially longer courses. (T4)

The situation was the same for other PD programmes offered by other institutions. Most of them followed the cluster model where only a few teachers trained to become trainers of their colleagues. They were expected to share their acquired knowledge and skills with their fellow teachers who did not have the chance to participate. This step was often up to the trained teachers and there were no guidelines for this. Yet, the clustering was not very effective as sharing, if any, happened in form of casual conversations among themselves only.

Also reported was a difficulty in arranging time for the workshops for different teachers’ schedules. Consequently, even though most PD activities were open to all teachers, not many of them could attend. Teacher 3 complained that she missed all the events due to teaching commitments and that there were no follow-up activities or materials for those who could not be present.

I haven’t got any chance to train so far as all training took place when I was teaching. And I could not retrieve the content afterwards either. (T3)

**Preferred and recommended professional development strategies**

Apparently, the teachers with different academic and professional experiences and backgrounds held different perspectives on digital literacy development. Keener interest, stronger motivation, and better awareness related to digital literacy PD were seen in those with more technology-supported learning and teaching experiences, especially Teacher 2 (used to work in an educational technology provider) and Teachers 6 and 7 (studied overseas and online). This situation was also true for the leaders who all undertook certain PD abroad.

The teachers’ preferences for digital literacy PD were diverse. Self-study was the most common strategy used by teachers and leaders. One of the reasons, as discussed earlier, was that they had no chance to take part in any PD programmes and hence, had no choice, but to teach themselves.
So most of the time I self study. When I need to use the new software, I just search the Internet and learn how to use it. (T6)

In addition, due to their tight schedules, the teachers found self-study more manageable as it allowed them to learn at their own pace. Also, self-study enabled them to direct PD according to their needs, strengths and weaknesses.

So online conferences or courses on digital literacy development may work better so that I can learn in my own time. (T1)

Also, most teacher and leader respondents agreed that developing the teachers’ digital literacy was, first and foremost, their own responsibility.

Teachers should be well aware that developing digital literacy is for their own sake and that they have to take an active part in their professional development. Also, they are the role models for their own students so it’s best if they can learn whatever they need by themselves. (L2 Trans.)

Leader 4 further heightened the importance of self-study by linking it with autonomy and motivation as the key to success in any type of learning.

If they don’t know how to teach themselves or how to find out their own way, even when they are surrounded by IT experts, they cannot develop it. And they won’t learn anything if they’re not eager to learn. (L4)

Confirming this, Teacher 7 pointed to the nature of independence in learning technology as another reason for teachers’ choice of self-learning.

Technologies nowadays come with easy-to-follow instructions and they’re user-friendly. (…) We can easily search for video tutorials as well, in YouTube, for example. (T7)

The teachers’ self-training was said to have so far been very effective and even the most effective strategy for some. Some leaders also supported this opinion.

Until now, I think self-study is the most effective way for me. (T7)
A lot of the improvements are self-initiated and sometimes we do not have any official professional development programme, but the teachers can discover what they are not very good at and find out remedies. (L1)

On the other hand, some other teachers did not favour this method due to the downside of self-teaching, which, they believed, was not always efficient.

I can’t study myself. Spending lots of time to read manuals or instructions is hard work for me. (T1)

Most of the time, teachers are so busy with their work so they don’t have time to learn themselves. Some aren’t good at self-study when it comes to technology and so it’s even more time-consuming to do so. (T3)

Another effective way of improving digital literacy was shared by Teachers 4 and 5 who utilised their network of students, friends, and colleagues. When they encountered “tricky situations”, they asked experienced friends or colleagues. For these teachers, “that’s the best way of learning”. (T5)

They [students] study Computer Sciences so they are the experts in that field. Whenever I need help, I’ll pick up the phone and they will be there for me. Also, my boyfriend is also an expert in this field and I just ask for his help whenever in need. I have my idea and I just ask for their help with technology to realise my idea only. I have some colleagues who are really professional in this aspect so I can ask them for help, too. (T4)

Similarly, a community of practice was nominated as a useful way of developing teachers’ digital literacy.

I think an active community of practice is a brilliant idea and I really want to join such kind of event. Some of us know this some others know that and we really know exactly what we are doing and who our students are. That must be really useful for all of us to learn from each other. (T7)
According to Leader 3, the Head of the ISP group, it had been a useful strategy for staff PD. She appreciated this growing community of practice while commenting on how the teachers exchanged related ideas and experiences.

The team building in ISP is quite strong and teachers often share experiences with each other including using technology. We don’t often see each other, but we have regular meetings and we often share experiences and exchange ideas through group email or Skype. (L3)

The idea of establishing a community of practice was in fact, one of the development plans, as revealed by some leaders in their interviews.

The IT centre is assigned to build up an e-learning forum for teachers to share experiences, post questions and answers related to using ICTs in ELT. This will help utilise our own resources and hopefully contribute to developing a bigger and stronger community of practice. (L2 Trans.)

In contrast, others said that they could not benefit much from peer learning.

I think it’s not so useful to study in groups as we are at the same level and we can’t learn much from each other. (T1)

I don’t think it’s possible. We’re too busy with our own work so we don’t have time to help others, especially when technology isn’t our major. (T7)

Mentoring and training seemed to have more votes than all the other PD methods. All teachers thought that they could benefit from learning with their colleagues with more ICT expertise. Teacher 4 advocated the method because she had benefited from mentoring with more experienced people around her.

I like the idea of informal mentoring and tutoring. I learned most from my students, peers, and friends. (T4)

For Teacher 5, this form of learning was the best way to learn. Teacher 3 saw it as a good after-training activity to encourage continuous development.
I think mentoring or peer coaching can be very useful as a follow-up activity after the training. We’ll stay motivated and keep learning. (T3)

Leader 3 described their existing mentoring programme and put forward the idea of integrating digital literacy development throughout the programme.

We’ve got a mentoring programme in which senior teachers observe and give comments on the young teachers’ lessons throughout the course. We can always integrate using ICT in ELT and we’re actually doing so. (L3)

Given two choices of learning with an IT expert and a teacher experienced in using technology in teaching, more teachers chose the latter. Teachers chose the latter for teaching background, which would be more helpful to them.

They know what we need and how technology can be used effectively in the class. Experienced teachers are experts in this particular field. (T5)

Only Teacher 2 who had a positive experience working with technologists preferred an IT expert since this teacher believed the cooperation between a teacher and a technician would ensure success in developing digital literacy.

I want to learn from an IT expert because I want to learn the nature of the technology and I myself will adapt my teaching to incorporate with them. And I will explain my needs so that they can adjust as well so both of us can work together and develop ourselves. (T2)

It can be seen that teachers were somehow aware of the significance of pedagogical aspect of using technology in developing their digital literacy even though this awareness was not clearly evident in their classroom practice.

**Perceived opportunities for digital literacy professional development**

Regarding PD opportunities associated with digital literacy, informants named a few, but most of them appeared to be unsure about what were available.

There are some courses and workshops held by British Council and other organisations, which I don’t remember. (T4)
Only Teacher 6 seemed to be most aware of the current PD opportunities.

We have a chance to attend a lot of workshops (...). Our department is going to hold a workshop on ICT next month. Actually, Intel has had a training course and now the trainees come back to train their fellow teachers. (T6)

The leaders added a few more relevant PD opportunities available for teachers. However, some, for example, Leader 3 still had only a vague idea about this.

Some organisations in Hanoi also offer training courses and last year, we also had the course, IT applications in teaching English. I don’t remember the organisation’s name, but there’re several. They now offer some courses for teachers to self-study like VDCNet2. (L3)

Others seemed to know more opportunities offered by other organisations. Leader 4 and 5, whose jobs directly involved digital literacy PD for teachers, appeared to be fully aware of what was offered to teachers.

There’re online programmes for teachers. Last year, two ISP teachers took part in two online courses offered by the U.S Embassy, the E-Teacher. There’s also an e-Learning programme in our university. (L4)

**Perceived challenges to digital literacy professional development**

Apart from the opportunities, teachers reported a number of challenges they were facing in developing their digital literacy. One of the biggest concerns among teachers was the timing of the PD activities.

The training courses are not always at the right time. For example, I often have classes at the time they are running. So, I cannot quit my classes to go to those courses or conferences. (T1)

Time constraints and workload were also mentioned among heatedly debated issues. For Teacher 1, after working long hours, it was hard to concentrate on learning. Teacher 7, who was responsible for extra curriculum activities at the same time, found it even more challenging.
The biggest problem for me now is time. I don’t have time. Too busy with workload and extra curriculum activities and different tasks in our life so we don’t have much time to work on further learning. (T7)

Added to this, Teacher 2 pointed out that the teachers were also in charge of other programmes including EFL teacher training alongside with the ISP.

At present, I think the teachers in our university are overworking because we have a lot of programmes running in parallel. In principal, on average, we have only 10 periods a week, but actually, I myself have to teach 32 periods. Even that I want to learn and develop myself, but I don’t have time for that. Finding time to learn and work and apply, and assess the effectiveness of the technology is really challenging. (T2)

On the other hand, the leaders were not convinced by these two excuses. Similar to what has been discussed in the difficulty of using technology in the earlier section, leaders pointed to teachers’ motivation instead. Some counter arguments were made with factual evidence and links with lack of motivations. Leader 2 rejected time constraints being a barrier to teacher learning. He argued that teachers should have been motivated to continue PD if they appreciated that efficient use of technology would save time, as some teachers also said before, and that developing digital literacy could even boost the process.

I think a teacher’s job is always hard work and I believe using technology should contribute to reducing their workload. Again, it’s the teacher’s awareness and understanding of TELL. If they’re better informed and truly convinced of its benefits, I don’t think they’d still consider integrating technology in teaching as extra work anymore. (L2 Trans.)

Added to this argument, Leaders 3 and 4 pointed at the teachers’ insufficient income and lack of incentive policy by the university as the underlying reasons for their low motivation towards technology adoption and digital literacy PD.

I don’t think that they don’t have time. In the ISP programme, they only have to teach from 15 to 20 hours a week so they have a lot of time for
themselves to improve their skills. The problem is their low salary so they have to work part-time with no time left for professional development. (L3)

In fact, teachers get nothing for their efforts (...) Teachers didn’t have any type of appraisal in doing this so they tend to give priority to other things. They’d rather not bother doing this especially when it takes time. (L4)

Leader 4 further emphasised teachers’ motivation as the determining factor in their digital literacy PD. He illustrated this argument with an example of a seminar in which he shared experiences in information searching.

I gave a speech to 60 people, but they kept talking and making noises because they weren’t interested and motivated to learn. However, some particular groups were really engaged and asked me for more tips. If they have motivation, they can find tons of ways or opportunities to learn. (L4)

Likewise, Leader 2 confirmed that teachers’ lack of motivation was a genuine reason for teachers’ low uptake of technology as well as neglected improvement of digital literacy.

Lack of time is just an excuse for low motivation towards using technology. If they don’t want to use it, they won’t learn to apply technology. Again, it’s teachers who direct their own professional development. If they’re highly motivated, they’ll find ways to enhance their competency. (L2 Trans.)

The issue of limited infrastructure was brought up again. Both leaders and teachers agreed that insufficient resource was a considerable obstacle.

We don’t have enough facilities to help us use technology and develop our digital literacy. We have one big library, but it doesn’t have any kind of software for teachers or students. (T2)

Financial support was also mentioned as a discouraging factor and similarly, the financial problem remained challenging.

The thing is sometimes you have to pay for them [digital literacy development courses]. This may demotivate teachers to learn. (T3)
To upgrade all of the system at the same time may not be feasible. We do not have sufficient budget to upgrade the whole system. (L1)

Another acute problem was poor technical support. Despite its IT centre, the university seemed incapable of providing a resourceful IT support team for teaching staff. Although Leader 5 asserted that the role of IT centre was a source of support for the teachers institution-wide, the teachers apparently had no idea about the existence and the functions of this centre.

And we [the IT centre] have technical support for the teachers so that they can always consult with us. That’s one of the functions of the IT centre to develop the staff’s digital literacy. (…) We organise some workshops and we provide support to them. (L5)

We have no technical support. There aren’t any technicians or IT specialists who are available and able to help us with the use of technology in our classroom, let alone online and offsite. (T4)

Leader 3 added some more personal issues, which, in fact, also strongly influenced teachers’ decision in further PD.

I think we have our own plans because the most of the ISP teachers are very young and they are in the age of marriage. They are distracted by many things, which can be a challenge, too. So, I think that we have to build the team so that teachers here can share experiences and support each other in teaching using technology. (L3)

**Other recommendations and remarks**

Considering better digital literacy PD for teachers, a number of suggestions were made. Commonly cited were reducing the workload, improving technical support service, increasing training courses, and repeated strategies for digital literacy PD. Interestingly, teachers expected more provision of digital literacy PD with the teachers’ context and their needs carefully considered.

The university should have some training courses that must be practical and effective in order to really show the teachers can implement the
technology in their own classrooms. (…) There should be some training programmes for teachers with experts really showing the teachers how to use it in their own contexts and customised to their actual needs. (T3)

Another suggestion was that the library should be more resourceful in providing not only materials, but also technical support to the teachers in classroom technology integration and digital literacy development through this process.

I think the library should be responsible for providing some software and they can offer some short courses for about five or ten sessions that teach teachers how to, for example, create their own website and incorporate the software into it, or any other tools for teaching. (T2)

The leaders also contributed some practical solutions to the existing problems. One recommended pursuing further digital literacy PD in a more advanced environment, which is always worth considering.

We may need to think of future plan for their professional development and they have to go abroad to study in order to improve their skills. (L3)

Another suggestion made by Leaders 4 and 5 was appraisal for the teachers as recognition of their useful contribution and effort in improving their quality of teaching and advancing in their colleagues’ and their own digital literacy.

We should have more incentives. At the moment, we only have contracts and a little increase in salary as appraisal for teachers’ contribution. (L5)

It was interesting to note that Leader 5’s recommendation about appraisal was added after the interview in the data validation stage. He said that he had found it a bit uncomfortable talking about incentives including extra bonus. However, being recognised for their contribution was highly appreciated and motivating for the teachers so he decided to explicitly say it.He also added that in the disciplinary culture of Vietnam, implementation of TELL and teacher PD can possibly be far more effective if they are made compulsory. He believed that the situation “can be changed when we have strict policies” (L5). Leader 2
supported this belief when he implied that the coming TESOL technology standards framework would potentially push teachers to take action.

Findings from Observations

General information about observations

The table below summarises general information about the observations in this present study. Four teachers were selected for observation three times in three different classes for about 100 minutes each, making a total of 12 sessions. The class size ranged from 17 to 27 students, which made the attendance approximately 90% of the full class lists. There were four lesson types, namely, integrated skills, practical English & writing and revise & check (PE, Wr, R & C), grammar and pronunciation.

<table>
<thead>
<tr>
<th>Teacher / Observation</th>
<th>Group</th>
<th>Number of students</th>
<th>Lesson focus</th>
<th>Facilities (technologies) used</th>
</tr>
</thead>
<tbody>
<tr>
<td>T4.O1</td>
<td>8</td>
<td>24</td>
<td>Integrated skills</td>
<td>CD player</td>
</tr>
<tr>
<td>T4.O2</td>
<td>3</td>
<td>26</td>
<td>Grammar</td>
<td>None</td>
</tr>
<tr>
<td>T4.O3</td>
<td>4</td>
<td>23</td>
<td>PE, Wr, R &amp; C</td>
<td>CD player</td>
</tr>
<tr>
<td>T5.O1</td>
<td>5</td>
<td>22</td>
<td>Grammar</td>
<td>Classroom computer, loud speakers, laptop</td>
</tr>
<tr>
<td>T5.O2</td>
<td>15</td>
<td>25</td>
<td>Grammar</td>
<td>Classroom computer, loud speakers, OHP</td>
</tr>
<tr>
<td>T5.O3</td>
<td>10</td>
<td>26</td>
<td>Integrated skills</td>
<td>Classroom computer, loud speakers, CD player</td>
</tr>
<tr>
<td>T6.O1</td>
<td>5</td>
<td>27</td>
<td>PE, Wr, R &amp; C</td>
<td>Teacher’s laptop, loud speakers, OHP, stand-by CD player</td>
</tr>
<tr>
<td>T6.O2</td>
<td>6</td>
<td>24</td>
<td>Integrated skills</td>
<td>Classroom computer, CD player, OHP, stand-by laptop</td>
</tr>
<tr>
<td>T6.O3</td>
<td>18</td>
<td>17</td>
<td>Integrated skills</td>
<td>Classroom computers, CD player, OHP</td>
</tr>
<tr>
<td>T7.O1</td>
<td>14</td>
<td>20</td>
<td>PE, Wr, R &amp; C</td>
<td>Classroom computer, loud speakers, OHP, CD player</td>
</tr>
<tr>
<td>T7.O2</td>
<td>15</td>
<td>22</td>
<td>Integrated skills</td>
<td>Teacher’s laptop, loud speakers</td>
</tr>
<tr>
<td>T7.O3</td>
<td>16</td>
<td>25</td>
<td>Grammar</td>
<td>None</td>
</tr>
</tbody>
</table>
Classroom settings

Settings of the observed classrooms were all the same. The teacher’s table was at the corner, next to the chalkboard. There was one computer locked underneath the teacher’s table. Two loudspeakers were on two sidewalls of the room. There was one overhead projector (OHP) with the slide hanging over the chalkboard. All the keys (for the room and the computer desk) and OHP remote controls were kept by the technicians who were responsible for opening the rooms and turning on the equipment. There was no Internet connection in the room. The university Wi-Fi could sometimes be detected, but inaccessible for teachers and students who did not have authorisation.

On average, there were two rows of about 10 sets of table and bench, which could sit 4 students each. These sets of table and bench always faced the chalkboard and this type of setting seemed never change. There was not much room left for moving, only some limited space in the front and the aisle, which obviously challenged teachers’ flexibility and creativity in organising activities involving physical movement. Teachers had to ask students to turn around to form groups of three to four students, which appeared to be uncomfortable for them. Sometimes, students worked with their peers sitting in the same table, but it was hard to have face-to-face interaction.

Teacher technology use

The observations found that teachers did use the classroom facilities; however, most of them did not utilise these technologies. As shown in the table above, the range of technology uptake was rather limited. Though their techniques and performance were different, teachers shared some common patterns in their technology use. All the teachers used CD players to play audio files in the course book (T4.O1, T4.O3, T5.O3, T6.O2, T6.O3, T7.O1).

When it came to audio and audio-visual files outside from the course book, mostly downloaded from the Internet, teachers chose to use the computer and loud speakers instead. Teacher 5 played songs in her Grammar lessons (T5.O1, T5.O2). Teacher 6 showed students a sample video of a real-life
situation and facilitated student’s analysis of both verbal and non-verbal features before asking them to role play the situation and produce their own version in a Practical English section (T6.O1).

Classroom computers and projectors were mainly used for showing audio-visual materials and prepared-in-advance lecture notes. Teacher 6 displayed pictures in lead-in activities and Vocabulary section (T6.O1, T6.O2, T6.O3). In T7.O1, a map was shown to students for them to practise giving directions.

None of the teachers’ own devices were integrated into their lessons except their laptops, which were low in frequency. In 12 sessions, the teachers’ own laptops were used only once by two Teachers (T6.O1, T7.O2). While Teacher 7 only used it as her plan B when the classroom computer broke down (T7.O2), Teacher 6 intentionally used it in order to use the timing software that could not be installed and used in the classroom computer (T6.O1).

More various uses of technology were seen in teacher 6’s lessons. She used timing software in her laptop and displayed it on a slide to time student’s group activities and to get them right on task (T6.O1). She also highlighted words in a Word document shown on the slide for students to draw out patterns of plural forms and identify common mistakes (T6.O2). Additionally, her PowerPoint use was more interactive and engaging for the students. She quickly typed students’ ideas from their group brainstorming before students further discussed and developed an argument message based on the notes (T6.O3). Another creative employment of technology was using Wordle, word cloud software, to create a word search exercise in reviewing vocabulary from previous lesson (T6.O3).

With respect to technology distribution over lesson types, it was clear that teachers used technology in teaching listening, speaking and vocabulary most often, which was the same as the interview findings. For grammar, teachers still used conventional teaching methods of either grammar translation or presentation-practice-production; and hence, technology, if any used, was minimal. Although most interviewed teachers and leaders said that PowerPoint slides were frequently used to present grammar points to save time, none of the observations showed this. Notably, two out of four observed grammar lessons
employed no technology used in the two lessons (T4.O2, T7.O3). Unlike Teachers 4 and 7, Teacher 5 did use technology in her grammar lessons; however, merely to refer to the answer key shown on her laptop (T5.O1), show them to the students on a slide using the classroom computer and OHP (T5.O2) or play songs as “interludes” (T5.O1, T5.O2).

Strangely, none of the teachers made use of the *Listen and Check* audio files provided in the course book CD for students to check the answers, peer check, and discuss them before checking with the whole class. By doing this, students could have more opportunity to process the target language, recognise its sounds and even practice talking while working with the form. Clearly, pronunciation seemed to be completely neglected in all the observed grammar lessons whereas it should have been considerably attended to as an inseparable area of the target language. Teacher 6, however, paid close attention to pronunciation when she taught vocabulary. And yet the drill only involved the pronunciation of individual words.

There were a few contradictions between what the teachers said in the interviews and what they actually did in the classroom. Teachers said they used technology everyday in nearly every lesson, but in fact, as shown in the observations, three out of four teachers sparingly used technology.

Observations of Teachers 4, 5 and 7 showed that they did not often use technology and their adoption was also limited. One thing to note was that Teacher 7 claimed that she had to spend hours preparing for the lessons and yet the observations showed the opposite. She was late for two out of three observed sessions and it took her a lot of time to not only get started, but also get ready for the activities throughout the lessons.

Noticeably, only Teacher 6 showed enthusiasm and elaboration in her classroom use of technology. Other teachers were not so keen. Teacher 4 only used CD players and only when she had to play the audio files from the course book (T4.O1, T4.O3). Teacher 5 added the use of technology only as entertainment and stimulation for students (T5.O2, T5.O3). Teacher 7, though she claimed interest and investment in using technology, dropped it as soon as
equipment malfunction happened with no attempt to fix the problem (T7.O3)

Problems related to teacher classroom technology use

In all observations, preparation for the use of technology consumed a significant amount of in-class time. The main reason seemed to be lack of careful preparation and planning. Sometimes, it took the teachers a lot of time to find the files to show students (T6.O1; T7.O2). Other times, some teachers forgot to copy the files needed for the lesson into their memory sticks so they had to turn on their laptop, search for the files and load them from there (T6.O2; T7.O1).

Another source of problem, as complained by Teacher 4 and Leaders 1 and 2, was the way teachers treated the classroom facilities. When teachers used the OHP, they tended to leave it on even when not using it (T6.O3, T7.O1). Some did not even turn off the computer after use even when they were supposed to do so as the last teacher of the day (T7.O2). Sometimes, they also did not inform the technicians or their colleagues of the technical problem they had in their lesson; and so, the following teachers had to deal with it in theirs. At other times, teachers used their own laptop and connected it to the loudspeakers and OHP (T7.O2, T6.O1), but they did not reconnect them with the classroom computer after their lessons, which might have caused trouble to the following teachers, especially for those who did not know how to do that. Teacher 5 had this negative experience very often. In two of her observed lessons, the cables for the loudspeakers and OHP were unplugged and so mixed up, she could not tell which was for which and had to ask students to help her out (T5.O2, T5.O3). As this was an annoying start for her lessons, she had to asked students to remind other teachers to reconnect the devices after using them next time (T5.O2, T5.O3).

Poor set-up of the classroom equipment was not always the teachers’ fault. Technicians sometimes forgot to turn on the computer or/and the projector. Consequently, teachers had to call them to come and turn them on (T5.O2, T6.O1) for the key for the computer locker and the remote control for the OHP were in the technicians’ hands. Since calling and waiting for the technicians to come often took approximately 10 minutes or more, sometimes teachers did not
want to call for the technicians to turn on the OHP, they had to manually turn it on instead, which was not convenient and time wasting (T6.O3, T7.O1).

Improper technology use was also wasted time. Teacher 5 once used her laptop only to read the answers of the exercises, one by one, to the students. By doing this, she had to sit at her table looking at the laptop screen instead of monitoring and providing corrective feedback when needed to her students (T5.O1). The answers could have been provided to students in a number of much more efficient ways, using a single slideshow or handout, for example. When asked about this activity, the teacher confessed that she did not have time to print out the answer sheet and she could not think of using the OHP to show it instead of reading it to her students from a personal computer screen.

The most time-consuming of all were unexpected technology malfunctions, which happened so often due to poor equipment. They happened at the beginning of the class (T5.O3) or anytime during the lesson (T6.O3, T7.O2). As reported in the interviews, the technical support was very poor while most teachers were not very experienced in dealing with the problems themselves. Most of the time, technicians failed to solve the problem if it was not as simple as turning on the devices. For example, in T7.O2, the computer could not start, the teacher called the technician only to come back and forth, interrupting the lesson without fixing the problem. After 20 minutes, the teacher decided to stop waiting and carry on the lesson with her laptop instead.

Another solution was exchanging classrooms with the other teacher, which was the last option to choose from due to time wasting and other inconveniences. This happened during the second observation with Teacher 4 when another teacher asked her for permission to swap classrooms due to her computer breakdown (T4.O2).

Classroom management seemed to be another outstanding issue in using technology, which also implied teachers’ lack of competence and experience. When teachers prepared to use the technology or dealt with technical problems, students were often left talking to each other or doing other trivial things (T5.O1; T7.O1). This was not only an interruption to the flow of the lesson, consumed
the in-class time, but also a cause of unnecessary distractions to the learning process. When using technology, sometimes teachers also lost control of the class and worse still, even at the expense of monitoring necessary for students.

Apparently, when it came to competitions, students got overexcited and often went off track trying to win with tricks without paying attention to the target language as expected. In T5.O2, some students used their mobile phones to search for the lyric of the song they had to listen and fill in the gap. In T6.O2, some students used their mobile phone and electronic dictionaries to check the meanings of the new words in a matching picture-to-word exercise.

Time management was also a problem. In all the observed sessions, the lesson ended before all of its content was covered even when there was no break in between the two periods of 50 minutes. The time might have been spent setting up, dealing with technical problems, classroom management, entertainment, task design and management, teachers’ talking time and extensive board work. Notably, in T4.O1 and T6.O2, the groups who lost the game had to sing and dance in front of the class and the activity was really a great time-killer, only to result in unnecessary classroom management and challenge in gaining back students’ attention to the lesson focus.

**Effectiveness of teachers’ technology use**

It was clear by observation that teachers’ use of technology brought more energy to the class. Activities employing technology appeared to be more engaging than those without it and students seemed to enjoy them more. In general, teachers did achieve their goals in using technology, but it was not as effective as claimed in the interviews.

The most effective use of technology shared among teachers was no doubt CD players for listening activities. Teacher 4 was a good example of this deployment. Using the functions of pausing and rewinding skillfully, this teacher helped students to identify and analyse important expressions and their functions (T4.O1, T4.O3). Interestingly, her grammar lesson with the grammar translation approach appeared to be even more effective and engaging than Teacher 5’s using the same method that integrated technology (T4.O2).
Teacher 6 seemed to have the most critical uptake of technology and effective deployment in her lesson planning as well as classroom practice. She also demonstrated skilful control over technology and handled unexpected technical problems fairly well. Though the observations were not enough to come to a general conclusion about teachers' digital literacy, they suggested that it was rather basic for Teachers 4, 5 and 7.

And yet, teachers’ use of technology was not always efficient. They tended to use different devices while they could actually have saved a lot of time in transitioning from one activity to another by utilising one. For example, T6.O3 could have copied the audio file along with the PowerPoint slides at the beginning of the lesson and played it with the computer already connected with loud speakers. However, after using the computer to show some slides, she switched to use the CD and CD player only to waste time finding the right CD and navigate to the right track. Likewise, Teacher 5 also switched to using the CD player for a listening exercise in the course book right after a listening activity with a song played with the computer, which apparently interfered with the flow of the lesson for no good reason (T5.O3).

Another interesting finding, also evident in the interviews, was that teachers could not always justify their use of technology. For example, Teacher 5 played a song, without any focus on the lesson’s Grammar points, only to stimulate her students (T5.O1; T5.O2). It did shake up the class atmosphere and as she explained later, it entertained her students and gained their attention back in long tough Grammar lessons. However, it could have been a more meaningful practice if the song and the task had involved the focused topic, reinforcing the meaning, form, and pronunciation of the target language.

Surprisingly, teachers rarely used PowerPoint slides to deliver lecture notes, which was opposite to what was reported in the interviews. Instead, the observations witnessed extensive teachers' board work. They seemed to prefer ‘chalk and board’ method to present the target language even when there were several full board lists of structures and expressions (T5.O1, T7. O1, T7.O3). Besides, teachers tended to over-rely on the course book materials and did not
attempt to lift the materials off the pages, especially in Grammar and Reading sections (T4.O2, T5.O1, T5.O2).

Findings from Document Retrieval and Other Observations

As mentioned earlier in Chapter 1, Vietnam has implemented the NFL 2020 Project since 2008. This project has inspired a growing number of initiatives to improve EFL teachers’ technological competencies. One of them was the foundation of NFL 2020 technology team, known as VietCALL-Vietnamese Association of Computer-Assisted Language Learning. VietCALL had 16 members who are key personnel from prestige universities including the one of this present study with two team members being the participating leaders. This organisation aims at training teachers of English in CALL so that they will use technology in their daily lessons and use online courses for their PD.

In realising its aims and mission as part of the NFL 2020 Project, VietCALL has organised and coordinated various conferences, workshops, and training courses. For instance, they held a series of ICT in ELT workshops in 2013. The team also created their Moodle site, Wiki, and Facebook page while they were working on their official website at that time. As stated in VietCALLMoodle page, these channels were built to provide teachers with “useful courses, forums and other platforms to share ICT literacy and expertise in language teaching in general and English in particular” in promoting the use of technology in EFL and ELT practice. Updated information about the VietCALL activities including conferences, seminars, workshops and training courses were posted via all the channels. The VietCALLMoodle site also offered freely online ICT training courses for teachers across levels from primary school to university. The VietCALLFacebook page was vibrant with postings of learning, teaching, PD, and sharing of experiences and materials.

More recently, VietCALL has developed the ICT Standards for Language Teachers based on the TESOL Technology Standards by the TESOL International Association. This document will serve as a reference framework to evaluate digital literacy of EFL teachers nationwide.
Also in implementing the NFL 2020 Project, the VMOET has cooperated with a number of expertise organisations in developing and implementing a range of digital literacy PD programmes. The VMOET and Intel Corporation trained 80,000 English teachers and ‘master’ trainers in ICT for language teaching, in which 30 places were for teachers at the university of this study, and only five were from ISP division. Another programme was the Vietnam’s Virtual Teacher Support, established by VMoET in cooperation with British Council with an aim to provide a network of supporting ELT professionals.

The U.S. Embassy was also an active contributor. They held the First Teleconference on ICT in ELT in Vietnam co-sponsored by the U.S. Embassy Hanoi, the NFL 2020 Project and Pearson in 2012. The invitation was sent from the U.S. Embassy Hanoi to the university and forwarded by the Vice-President of Academic Affairs to the whole university staff. There was also a viewing session at Hanoi Open University where teachers could come and join other colleagues from there. In this four-hour long conference, burning issues concerning TELL and teachers’ digital literacy PD were debated.

Another initiative was the E-Center - a non-profit project co-sponsored by U.S. Embassy Hanoi and VMoET under the NFL 2020 Project. The E-Center provided open PD online courses for teachers. The first course in this series was the Introductory Computer-Assisted Language Learning. Information about the CALL courses was announced via newsletters to subscribed public and ISP teachers were also informed via group email. According to the ISP group leader (L3), there were a few ISP teachers registered and participated in the course, including two informants of the current study (L3&T6).

The Independent Investigations Group (IIG) also offered a training course on using English Discoveries Online learning tool in distance and blended learning by the Educational Testing Service (ETS). Attending the event was a good number of EFL teachers including two surveyed ISP teachers (T2&T6).

However vibrant the movement of upgrading ICT competency for foreign language teachers, digital literacy PD provision for the teachers in the university was still at an early stage of development. To date, there have still been very
few opportunities for teachers. Over the past two years, there have been no training courses and the technology-focused PD was mainly in the forms of short talks, seminars and workshops in which some IT experts or experienced teachers gave technical instructions on how to use certain technology and shared hands-on experiences in using certain kinds of technology.

In 2011, the faculty created a collective list of official staff, experimenting with Google Drive. At first, the leaders experienced difficulty using it in place of Excel and all the teachers were reluctant and even resistant to using the tool. It took a year for the list to be completed after numerous detailed instructions and reminders and many correction feedback emails were sent back and forth. The same situation happened in 2012 when the university developed its staff online database and requested all the members to create their own account and profile with both personal and professional updated information. Until December 2012, the task had not been done and so in January 2013, the university decided to organise a one-day face-to-face workshop, which teachers had to attend and complete their profile with support from the university technicians.

In April 2013, there were two half-day sessions on using ICTs in ELT. A month later, two four-hour training sessions on building e-lessons, online courses and teachers’ personal webpages in the university website were held. However, up to now, no further progress has been made. Observation of the university Moodle and e-office also showed no active participation and contribution of the teachers. More recently, in September, there was a one-hour training on using the eLibraryUSA by a librarian expert from the Southeast Asian Information and Library, and yet, very few teachers participated. Also in the same month, another seminar on information searching techniques was given by an educational technologist, which I had a chance to observe. The seminar was supposed to be practical, but there was no hands-on practice due to unexpected technical problems with Wi-Fi connection and the OHP. These problems were unsolved and prolonged the seminar for another two hours. Unfortunately, teacher participants talked to each other about other issues, which was challenging for the speaker to regain their attention.
It is noteworthy that these workshops were free and open to the teachers in the whole university and more importantly, they were not compulsory. This voluntary registration might be a reason why teachers’ participation rate has always been low. For example, only four teachers registered for the Using ICT in ELT workshop. Another important thing to note is that, very often, most of the participants did not show much interest in, attention to, or engagement with these workshops. In my conversations with the participants after the seminar on information searching, they commented that it, like many other ICT-focused training, was “superficial”, more theoretical than practical and that such training failed to respond to their actual needs. Some even said that the training workshops offered by the university were “a waste of time” as they were not useful and that they would prefer learning from their experienced colleagues.

For the ISP teachers, apart from the shared PD with the bigger Faculty of English and the university, they also had a series of theme-based PD in forms of weekly meetings and seminars where teachers reviewed highlights of the last week, shared opinions and experiences, discussed issues and concerns related to the topic of the week, and planned for the next. One observation of their first meeting of the school year showed it was very effective and timely in addressing issues and exchanging ideas and experiences related to head teacher tasks and using means of communication among teachers and between teachers and students, particularly email, Facebook, and mobile phones. The ISP teachers were open and enthusiastic about sharing their own problems, strategies to deal with them, and effective teaching techniques.

To sum up, this chapter has reported data collected in this research project and presented the results under common themes and sub-themes and analysed the data using both inductive and deductive methods. The key findings will be discussed in greater depth, setting the foundation for implications and recommendations in the following chapter.
CHAPTER 5: DISCUSSION AND CONCLUSION

To recap, the research set out to investigate English language teachers’ views on the use of technology in ELT, their digital literacy as well as PD related to digital literacy. It also aimed at exploring teachers’ perceptions of relevant professional needs and expectations of PD with respect to digital literacy. The study was guided by the following research questions:

- How do International Standard Programme teachers at a Vietnamese university currently use digital technologies in their teaching?
- What are the teachers’ professional development needs in the use of digital technologies, as perceived by the university leaders and themselves?
- How effective is the teachers’ current digital literacy professional development and how should it be further developed?

The previous chapter presented and analysed the data collected in this study. In this final chapter, the main results are discussed with reference to each of the research questions, in relation to previous studies reviewed earlier in Chapter 2, and in the light of the theoretical framework set out in Chapter 3. Based on these key findings, implications and recommendations for teachers’ digital literacy PD are made. Also, the limitations of this current study are described and suggestions for future research are put forward.

Discussion of Main Findings

Current situation of teachers’ use of technology

Findings about the current situation of the ISP teachers’ technology practice support those of many documented studies in the field in various ways. Like teachers in similar Asian EFL contexts (Park & Son, 2009; Son et al., 2011; Suwannasom, 2010), the ISP teachers mainly used classroom equipment including CD players, computers and projectors, with CD players being the most frequently used in their lessons. Teachers also used PDAs such as laptops and smartphones; however, unlike those in Iran, Korea and elsewhere (Dudeney, 2012; Meurant, 2009b, 2009c, 2010a, 2010b, 2010c; Rahimi &
Yadollahi, 2011), their use was mostly for lesson planning, administration and communication outside the class. An apparent gap seemed to exist between teachers’ professional and personal use of digital technologies.

Six out of seven common ways of using technology identified by Fitzpatrick and Davies (2003), as reviewed earlier in Chapter 2, were evident in the teachers’ practice in this present study. However, these uses were found to be very basic. Very similar to what X. T. Dang (2009) found through a case study of Vietnamese EFL teachers at a tertiary institution, PowerPoint presentations were reported to be the most popular application among the ISP teachers; however none were observed in the teachers’ lessons during this research project. Referencing or finding online resources was also popular because searching for teaching materials and ideas was considered an indispensable part of the teachers’ job. Communication and stimulation purposes were also apparent in teachers’ technology practice in this current study and X. T. Dang (2009). However, except for some language games and software, other more recent technologies such as videoconferences and virtual learning environment remained unfamiliar to the ISP teachers.

Regarding social networking, Facebook was becoming more popular among the teachers in the service of communication and administration, which mainly involved giving feedback and facilitating students’ assignments. Only two out of seven teachers mentioned limited use of authoring tools for designing exercises and tests while none made use of technology for publishing personal work, which was different from many other previous studies’ outcomes (Rahimi & Yadollahi, 2011; Suwannasom, 2010). However, in general, the highest frequency of technology-supported instruction was found in oral skills lessons involving audio-visual materials, which again matches the literature.

Notably, like other investigations into teachers’ use of technology (T. T. H. Lee, 2007; Son et al., 2011; Yeung et al., 2012), data collected from this case study revealed that the classroom technology application was predominantly teacher-oriented. In this research, only teachers used technology in class and students were not encouraged or, in some cases, not allowed to use technology during the lessons to support their learning. This finding highlighted the digital divide
between formal education and real life, as documented in the literature (Buckingham, 2007; Smythe, 2012).

There seemed to be a mismatch between teachers’ and leaders’ evaluation of the classroom use of technology by the ISP teachers. While the teachers believed that their application of technology was quite effective based on students’ positive reaction and progress, the leaders described it as not very efficient with a number of relevant examples of teacher’s “abusing” PowerPoint presentation, games, and emails. The observational data confirmed the leaders’ comments about teachers’ lack of efficacy in the use of technology with evidence of not-very-well planned, designed, or organised activities involving technology. Added to this, later in the interviews, many teachers confessed that using technology in teaching made preparing for lessons more time-consuming and lesson delivery more challenging. Even those teachers who were confident in using technology agreed that it could be counter-productive. These findings support those from the Malaysia-based study by Darus and Luin (2008); however, they differ from those reported in Dang’s (2009) research in Vietnam.

It was interesting the way participants interpreted the word ‘effectiveness’ and the limited amount of hard evidence they could point to in evaluating their technology use for teaching purposes. Apparently, teachers’ self-reflection was less critical than leaders’ evaluation of the effectiveness of teachers’ technology use. Overall, this study’s findings lend support to the claim made by earlier research (X. T. Dang, 2009; Graham, 2005; Hassan, 2010; Meurant, 2008, 2009a, 2010a, 2010c) that teachers’ technology uptake was basic and technology had not been utilised to fully reach its potential educational values, or in Graham’s (2005) words, it was “‘undersold’ as a tool for teaching and learning” (p. 4).

The study also found a number of difficulties faced by the teachers in the use of technology for teaching purposes, which are very much the same as what has been established in the literature (Afshari, Bakar, Luan, Samah, & Fooi, 2009; X. T. Dang, 2009; Khan, Hasan, & Clement, 2012; Lam, 2000; Zhao & Frank, 2003). The most commonly shared concerns among the participating teachers
and leaders included a lack of resources in terms of financial, technical assistance, expertise, and infrastructure factors.

Both teachers and leaders agreed that challenges also came from students. The contradiction in their perceptions was that some teachers saw students’ digital literacy and technology accessibility as inhibitors to a technology-mediated instruction whereas other teachers and leaders viewed students as technology advocates and believed in their capability to learn even better with technology. Unlike what was reported by Beetham, Sharpe, Benfield, and Knight (2011-2012) and some teachers in this study, most informants tended to be concerned more about teachers’ conservative attitudes and fear of adoption of new technologies. The observational data also showed students’ positive reactions to their teachers’ technology use. In this light, a further investigation into students’ perception of teachers’ technology practice would yield a better-informed conclusion.

Similarly to Ertmer (2005) and Lam (2000), data from this current study pointed to teachers as the main actors and barriers in the use of technology. On one hand, while these two researchers claimed teachers’ pedagogical beliefs as the ‘final frontier’, this current case study indicated that motivation (both intrinsic and extrinsic) was even a stronger determinant in their decision-making (whether to invest time and energy) in using technology for teaching. On the other hand, this study’s findings totally agree with those of Lam (2000) and Abdullah et al. (2006) that the crucial contributors were teachers’ levels of interest, degrees of responsibility, sense of competence and confidence in self-efficacy, regulation, career advancement and promotion, recognition of accomplishment, working conditions and incentives and other benefits.

Apart from these encouraging factors, what seemed to be missing in this current research were teachers’ clear purpose, determination, and a sense of self-worth in their use of technology for teaching purposes (Abdullah et al., 2006; Okey, 2006). As analysed in Chapter 4, except for stimulation purposes, most teachers did not show a strong rationale for their classroom use of technology. Many of them also said that the inconvenience resulting from, most of the time, technical problems, demotivated them easily. The observational data show that
though all the teachers appeared to be TELL advocates, only two seemed to be really keen users of technology while others did not show much effort in doing so. None of the informants indicated the teachers’ sense of self-worth in using technology. These findings suggest that the teachers might not have had strong interest or motivation in the use of technology for professional purposes.

Digital literacy and digital literacy professional development needs

Similar to what was found by Ertmer and Ottenbreit-Leftwich (2010), the data about ISP teachers’ use of technology suggest that teachers’ digital literacy, on average, was rather basic. The interviews and lesson observations also showed a distance between teachers’ self-evaluated and actual ability in the use of basic ICTs. This finding corresponds with that of Son et al.’s (2011). However, it was clear from teachers’ self-rated overall competency (see Table 3, p. 63) that they were aware of where their current digital literacy was at, mostly late majority and laggards, on Rogers’ (2003) scale.

Concerning teachers’ digital literacy PD needs as perceived by leaders and teachers, the majority of informants’ responses to the question of what digital literacy aspects teachers needed to develop derived from teachers’ classroom practice and the institutional goals in digital integration. Additionally, teachers’ awareness and understanding of TELL pedagogy was highlighted, mostly by leaders, as a priority for teachers to develop. The view that pedagogical rather than technological skills should be the focus matches many previous studies’ conclusions (Attwell & Hughes, 2010; Graham, 2005; Rahimi & Yadollahi, 2011).

The observation of the ISP teachers’ lessons along with other instructionally driven technology practice outside the classroom such as Facebook pages and group email, added more to the picture of their current performance of digital literacy. More specifically, according to TESOL technology standards by Healey et al. (2008), teachers’ current technology practice suggest their relative level of digital literacy was either below or at the standards required for effective TELL implementation. A comparison of collected data following Healey et al.’s
(2008) guidelines showed greater details about what the ISP teachers had already achieved and hence, what they might need to further acquire.²

**Digital literacy professional development**

All the teachers and leaders claimed the necessity of developing the teachers’ digital literacy professionally and confirmed willingness to take part in relevant PD. However, these positive attitudes did not necessarily result in motivation towards digital literacy PD. In contrast to Lam’s (2000) research findings, this current study found that teachers were reluctant and even resistant to technology-focused PD, which was closely linked with motivation and the insufficient institutional provision in this area. It was reported that the university failed to meet the demand for teachers’ digital literacy PD and did not match very well with their needs in both quantity and quality. A similar situation was depicted in a few studies in similar EFL contexts (Son et al., 2011; Suwannasom, 2010; Yeung et al., 2012). Meanwhile, a greater number of studies reported opposite experiences (Ingham, 2008; T. T. H. Lee, 2007; Okey, 2006; Stevens, 2009; Wong & Benson, 2006).

According to the participants, such unsatisfactory TELL PD could be attributed to the same existing obstacles that the institution and the teachers were facing in the use of technology, as reported and discussed earlier. Similar to what has been documented in the literature (Hassan, 2010; Peeraer & Petegem, 2012; Raob et al., 2012), the ISP teachers believed that workload and insufficient resources including poor infrastructure and limited expertise were the key barriers. However, leaders did not acknowledge them as the major challenges and completely neglected the institutional limited expertise in providing the teachers effective digital literacy PD. Again, leaders pointed to the teachers’ motivation as the most decisive factor influencing their PD. The data from the documentary analysis and supplementary observation of institutional practices of the digital literacy and relevant PD confirmed the both the leaders’ and teachers’ claims and revealed limited expertise and teachers’ motivation being the main problems, which is different from the findings from other contexts.

² Refer to Appendix J for detailed analysis of teachers’ digital literacy. Please note that the highlighted areas were what the ISP teachers lacked or needed to further improve.
Surprisingly, according to the interviews and document retrieval, some teachers had not received any digital literacy PD over the last two years and there seemed to be a disparity of such opportunities among the teachers within the ISP group and between these teachers and other colleagues at the university. Other hindrances evident in teachers’ reflections included inappropriate timing that usually conflicted with teachers’ teaching schedules and poor infrastructure and technical support services that frequently caused technical problems. Overall, the digital literacy PD offered by the university did not receive very high ratings by the teachers or even by the leaders. Even those who did have the chance to attend these PD activities did not often have positive experiences and their participation did not always lead to changes in classroom practice.

Due to the obvious lack of effective formal PD, the ISP teachers sought a number of alternatives, which complemented what Hubbard and Levy (2006) reviewed in the literature. Most teachers in this study had learnt to use technology on the job - in their teaching practice. The findings show that a particular strategy for using an application or tool required a lot of practice to develop. Also because of this challenge, such trial and error processes seemed not to be very efficient, especially when many teachers were face-threatened by possible failure. However, due to insufficient and ineffective PD with a focus on digital literacy, self-study was still the strategy that teachers applied and favoured the most and they also believed that it had been the most effective.

The second most popular method was peer and group learning. In fact, communities of practice seemed to have potential thanks to the strong teamwork spirit of the ISP staff. Three types of training (self-studying, learning from colleagues, and attending university-based training) that the teachers in X. T. Dang (2009) undertook were also reported by the ISP teachers in this current research. More surprisingly, data from this present study showed the same order of frequency and preference for technology-focused PD. Nevertheless, this current research found that the most desired PD type, shared by all the teachers and leaders, was still mentoring and training, preferably with senior teachers who had adequate TELL expertise. This preference clearly reflected teachers’ general awareness of the importance of pedagogy over technology.
per se in TELL practice, which is well demonstrated in the literature (Attwell & Hughes, 2010; Graham, 2005; Krumsvik, 2006; Rahimi & Yadollahi, 2011).

Added to these training methods, the ISP teachers seemed to know other strategies, yet only by name - they had little idea of what was available for them. Generally, the teachers were aware of different ways to develop their digital literacy; however, their practice appeared to be rather limited. Also, as shown in data from the interviews and relevant documents, the teachers, despite claiming positive attitudes and values towards the potential benefits of TELL and digital literacy PD to their profession, were not fully aware of TELL PD opportunities openly available for them, which really contradicted with the common assumptions about these teachers’ activeness and ability to innovate.

To sum up, in spite of its small scope, the present study’s findings highlight a number of interesting insights into Vietnamese EFL teachers’ practice and perspectives in relation to the teachers’ instructional use of technology, their digital literacy and PD regarding digital literacy. Drawing on these major findings, the following section discusses relevant implications.

**Implications of Main Findings**

**Teachers’ use of technology**

An important point to note is that the teachers’ positive attitudes and views about TELL educational benefits could not always be translated into their classroom practice. The data also found no link between teachers’ positive attitudes and pedagogical beliefs with motivation related to technology uptake. However, inexperienced TELL practitioners are less likely to apply technology due to their lack of confidence or technophobia, most often associated with the pressure of being success role models in the use of technology for students and the risk of losing students’ respect. Teachers’ technophobia may be explained at least in part by Vietnamese culture wherein teachers are expected to know or be able to master everything (N. T. Dang, 2009; Lam, 2000; Nguyen, 2003).

Although ISP teachers were quite confident using such technologies as laptops and other personal digital assistants (PDAs) in their social and personal
practice, it seems that these competencies have not been exploited in their classroom instruction and other work-related tasks. Given teachers’ perspectives of TELL potential, it was surprising to discover that teachers and students’ uses of PDAs are regarded as non-educational. In the class, teachers were the only ones who used technology and students’ use was banned for fear of false interpretation or judgement from authorities and unwanted distractions. This situation implies limited views by most teachers and relevant authorities about the use of technology as a learning tool with added value. This problematic pedagogical belief might require a radical paradigm shift in the EFL education system and time for such a change to occur. Leaders were, however, more open to the idea of digital integration; and yet, there was little done to encourage teachers to embrace TELL more in their teaching practice.

Another implication to emerge from the data is the high degree of correlation between teachers’ prior learning and teaching experiences and their adoption of technology. The teachers’ technology use was found to be positively and significantly related to their academic credentials, technology ownership and digital literacy whereas technology usage was not related to their attitudes. In addition, the teachers’ can-do-attitudes and willingness to use technology in this study does not always connect with their ICT classroom practice. Findings from this study show that the teachers did not demonstrate a sound understanding of or hold a strong rationale for their use of technology in teaching practice, as previously discussed. It was also clear from the observational data that most teachers were discouraged about using technology to teach if they had to solve the technical problems by themselves, which is shared by Darus and Luin (2008) in their observation of Malaysian teachers. Once they encountered difficulties in the classroom, the ISP teachers tended to give up their original plan and switch to their plan B without attempting to fix the problems. This finding also suggests teachers’ low motivation and determination in the use of technology for professional purposes.

Interestingly, linguistic issues were not mentioned and never considered as a hindrance to technology uptake, which is in contrast with Meurant’s (2008, 2009c, 2010b) concern in the Korean EFL context. For the EFL teachers in this
study, all were comfortable using technologies including their PDAs in English as the medium. Some even preferred using English to Vietnamese claiming that they were more familiar with the technical terms in English.

As suggested by previous studies (Graham, 2005; Rahimi & Yadollahi, 2011), the gap between beliefs and practice requires further investigation; however, by looking at the results of this study, it would appear that there was a lack of sound rationale for teachers’ use of technology and their PD with respect to digital literacy. Different from other studies in the same field, as cited in this section and in Chapter 2, findings from this study indicate that the espoused views of these teachers, at some points supported their practice while at other points were not aligned with their practice both inside and outside classroom.

**Perceptions of teachers’ digital literacy and PD needs**

A considerable range of abilities existed within a small group of participating teachers and an even more modest number of teachers observed in such low-resource, low-access settings of classrooms (with only one computer, one OHP, and no Internet connection). Likewise, digital literacy PD needs also varied from one teacher to another, depending on the teachers’ preferences in their uptake of technology, pedagogical approaches and/or number of their responsibilities. The data from the interviews indicate the teachers’ and leaders’ awareness of these existing differences as well as the quest for digital literacy PD that caters for the teachers’ needs at both general and individual levels.

Results from this case study also imply that positive attitudes towards the pedagogical use of technology cannot always be interpreted as potentially high levels of digital competency, also reported by Razak et al. (2010) in their study three years ago in Malaysia. Added to this, the interview data show that teachers tended to be unclear about their professional needs as regards digital literacy development. They either stated general needs or listed too specific technological skills or tools they wished to master. All the participants shared the view that the ISP teachers need to learn how to use technology more effectively in classroom practice and that they need to learn what is required of them. Nevertheless, as shown in the interview findings, most of them did not
have a clear vision or idea of what the ISP teachers exactly need beyond a random sum of “nuts and bolts” such as how to edit video files. Therefore, it is important to use particular tools to measure and analyse the teachers’ digital literacy level and to identify their needs accordingly.

**Teacher digital literacy professional development**

Despite the consensus among the leaders and teachers that digital literacy and ICT implementation must be given high priority, the research findings revealed that implementation of ICT in the Vietnamese context is stronger in rhetoric than in practice. Similar to the findings from Meurant’s investigation (2009b) in Korea, this study found that institutional recognition of the importance of teachers’ digital literacy and PD in this aspect was marginal. Meanwhile, the teachers’ motivation appeared to be low and affected by various factors including limited PD opportunities, poor PD organisation and lack of relevant appraisals. Therefore, if teachers are not explicitly encouraged or required to develop their digital literacy, this is not likely to spontaneously occur.

The outcomes of this study suggest that voluntary registration might be associated with low uptake of technology as well as participation indigital literacy PD. In Vietnamese disciplinary culture, making TELL and TELL PD compulsory might result in a positive effect, as successfully proved in Malaysia (Abdullah et al., 2006) and New Zealand (Okey, 2006). However, compliance might be a short-term effect and mandatory TELL practice and PD might not be a sustainable solution, especially when teachers were not ready and willing to embrace TELL, as shown in this case and indicated by another study done in the even more disciplinary culture of Singapore (Yeung et al., 2012).

Another major block for the development of digital expertise was digital divide, conventionally known as the gap in equity between those who have already got access to such technology as computers and the Internet and those who have not (Bernard, 2011). This was, as Vega (2011) argued, causing the widening knowledge gap between the information-rich and the information-poor with the diffusion of new technologies. Additionally, digital divide, once seen as an issue of wealth, is now also seen as a matter of education (L. Johnson, Adams, &
Haywood, 2011), which was also confirmed by this study’s findings. More importantly, researchers point to a ‘participation gap’ which signals unequal access to the opportunities, skills and experiences that will prepare not only teachers but also students for life in the 21st century (Payton & Hague, 2010). In the context of the present research, this digital divide has resulted from the misconceptions of some authorities and even some teachers about students’ use of technology and teachers’ use of PDAs in classroom practice, as discussed above. This widening gap between the culture of the classroom and that of learners’ lives outside classroom involves not only issues of access to technology tools and infrastructure but to the forms of literacy practice in formal and informal settings (Buckingham, 2007; Smythe, 2012).

**Recommendations for Practice**

**Pedagogical use of technology**

The study found major concerns of the Vietnamese EFL teachers over poor resources, as previously discussed, which need to be fully addressed. The university needs to provide more adequate, timely and efficient technical and administrative support, prompter maintenance of the classroom equipment and reasonably updated hardware and software. In addition, utilising the teachers’ and students’ own devices can be advantageous (Dudeney, 2012; Hockly, 2012b; Meurant, 2009b, 2009c, 2010a, 2010b, 2010c; Rahimi & Yadollahi, 2011) since it not only helps solve the problem of insufficient facilities but promote fully digital integration as well. However, as the study’s findings show a number of potential problems with the teachers’ use of personal digital devices in the classroom, it might be more useful and encouraging for teachers if they are provided with comprehensive instructions, for example, how to connect the laptop with the OHP and speakers. More importantly, there is a need to have comprehensive guidelines with clear vision and rationale for digital integration to raise their staff’s awareness as well as lead their practice. In addition, financial support is also crucial to increasing teachers’ motivation to use technology. Other forms of appraisal are discussed in more detail later in this section.

Data about teachers’ technology practice also suggest that teachers should be encouraged and supported in their use of technology for teaching and other
work-related purposes both inside and outside classroom. Also related to this change is an important implication for more students’ engagement in the use of technology not only outside the classroom, as they already do, but also in the lessons so that their ELT will shift from a teacher-centred to a more student-centred approach and the teachers’ burden and pressure will be lessened.

Since motivation and other interrelated factors seemed to be the prominent factors affecting teachers’ digital literacy PD, greater attention should be paid to raising not only teachers’ awareness of advancing digital literacy benefits but also their motivation. There are a number of applicable forms of appraisal including organisational recognition (promotion opportunities, badges, awards, incentives) for accomplishment and contribution, responsibilities (assigned projects and tasks), and improved working conditions. In addition, competition in innovation in TELL practice is likely to encourage teachers to further develop their digital literacy and potentially, create a dynamic TELL movement in the whole organisation in the long run. This strategy will probably work for novice TELL practitioners with technophobia as it can help increase their sense of success role models for students and eventually their confidence (Lam, 2000).

As reviewed in Chapter 2, the teachers can refer to a number of resources for ideas, experiences and instructions about how to effectively use technology in teaching. Dudeney and Hockly (2007) offer specific guidelines about what and how technology can be used in different language skills and areas. Similarly, Stanley (2013) puts pedagogy first, with the content organised around areas of language learning rather than technology types. The book contains 150 classroom activities for beginner to advanced level learners, incorporating a wide range of up-to-date technologies, such as mobile technologies and social networking. Carrington and Robinson (2009) suggest various ways to make use of popular digital technologies such as Facebook, blogs, texts, computer games, instant messages in the classroom, explaining the theoretical issues and demonstrating their practical implementation. Other useful referencing books include Dudeney (2007), Erben, Ban, and Castaneda (2009), and Smith and Baber (2005). These documents can possibly contribute
to addressing the current lack of institutional guidance and technical support on how teachers’ digital literacy might be improved through teaching practice.

As reported in this study, preparation for technology-mediated lessons is among the biggest challenges to the teachers in their use of technology. It might be helpful for the teachers to consider some criteria for designing materials and tasks, including relevance to the content and objectives, appropriate level of difficulty as compared to students’ level of linguistic and technological proficiency, authenticity, quality, variety, and most importantly suitability for the students’ interests (O’Brien, 2012; Payton & Hague, 2010).

**Evaluation of teachers’ digital literacy and analysis of PD needs**

To better assess teachers’ digital literacy, it is necessary to use a test or questionnaire in combination with observation of teachers’ TELL practice both inside and outside classroom. The next step is to analyse the data collected from both survey and observation. As discussed earlier in Chapter 2, Healey et al.’s (2008) framework can be used for these purposes since it offers comprehensive guidelines, detailed description of the standards, and easy-to-follow explanation of implementation, which enables efficient identification and analysis of teachers’ strengths and weaknesses. Hopefully, when VietCALL finished the adapted version of TESOL technology standards, the tool can be even more context-appropriate and hence, helpful.

This study, despite being small in scale, still found a range of needs different for each teacher due to diversity in personal traits, interests, and educational and professional background. Thus, it is important to for evaluators to be careful of making generalisations about teachers’ digital literacy and needs for PD. Also, to define the teachers’ needs, it is equally important to identify those of learners in the search for a match between teaching and learning. As regards the authorities evaluating teachers' digital literacy PD needs, it is crucial for them to be equipped with this awareness and sound understanding of TELL pedagogy and more importantly, what teachers really need for their current practice.
Improving teachers’ digital literacy professional development

The study’s findings suggest that timing is an important consideration in PD. Teachers’ schedules should be taken into account to reduce the unnecessary pressure and feeling of workload, created by overlapping in time. Above all, PD should be on-going and go hand in hand with practice (Hubbard & Levy, 2006), and hence, rather than offering only intensive short workshops or summer block courses, the institution can consider providing a number of options for teachers to suit their timetable and other personal plans. Circulation of various activities will probably address the timing issue especially when the teachers have heavy curriculum and extra curriculum responsibilities. Variety in PD options is likely to better cater for teachers’ interests and learning styles, supplement formal PD and promote continuous PD (Hubbard & Levy, 2006).

As implied in the literature and this study’s results, it is important that the PD plan attends and is tailored to the identified needs of teachers and students in their instructional use of technology both inside and outside classroom. Alongside with the above recommended instruments to determine and analyse teachers’ PD needs, it might be helpful to use relevant surveys to predict potential problems to better inform the designing and implementation of the PD programme. This evidence-based approach to PD plan is likely to ensure success (Elliott, 2007) with learning and teaching as the focal concerns (Sweeney, 2005). In designing the PD, it can be useful to refer to some available well-developed and implemented models, as mentioned in Chapter 2 (Healey et al., 2008; Tai & Chuang, 2012), to adopt and adapt content, tasks and strategies that are context-, subject- and object-relevant. It is worth considering whether a mixed-level or same-level PD approach suits the teachers more. It can also be a good idea to maximise the potential of the diverse community of the ISP group, as discussed earlier.

Evaluation is also an essential aspect. It is increasingly evident in the literature as well as in the everyday conversations of educators that effective evaluation of a PD plan is no less important than the plan itself in improving teaching and learning practices (Guskey, 2000). Well-designed evaluation can inform the effectiveness of current PD practices and guide the content, form, and structure
of future endeavours. Poorly designed evaluation, on the other hand, can waste time, energy, and other valuable resources. They can even be impediments to the implementation of more productive PD models. Guskey (2000) also points out the common pitfalls of evaluation approaches including the focus on documentation rather than actual evaluation, failure of surface measurement in addressing meaningful success indicators and limited time scale observation.

The central question, again, is how to determine the effects and effectiveness of the PD strategies aiming to enhancing the expertise of the teachers so that they might, in turn, improve the students’ learning. In this light, Guskey’s (2000) model (see Appendix K) can be adopted for measuring the effectiveness of the employed strategies. Based on Kirkpatrick’s earlier model with four levels of evaluation essential in determining the value and worth of training programmes in business and industry and grounded in solid educational research, this systematic model offers methods, which can be contextualised to successfully evaluate the effectiveness of the PD in education in general and in ELT in particular (Chapman, 2012; Zepeda, 2008). In this framework, evaluating PD involves how to ask the right questions to effectively measure PD outcomes, understanding its dynamic nature, identifying what contributes to improving student learning, and demonstrating results and accountability (Guskey, 2000). Based on this foundation, the authorities need to thoroughly discuss five hierarchical levels of PD evaluation and critically analyse the suggested methods with particular reference to the university context.

It might also be useful to consider Killion’s (2002) Eight-step Evaluation Model (see Appendix L) and Ponticell and Olivarez’s (2000) Evaluation Planning Matrix (see Appendix M) in designing appropriate assessing and recording tools; and refer to Craft (2000) and Zepeda (2008) for suggestions concerning follow-up actions. Teachers’ PD can be regarded as effective when improvement in instruction leads to not only positive change (Guskey, 2002) in their teaching but more importantly, progress in the learning of their students (Guskey, 2000; Reeves, 2010). Hence, it is equally important to evaluate the effectiveness of teachers’ practice of TELL and PD in parallel with students’ learning. In short, evaluation of PD is a continuing process, which should entail both summative
and formative forms of assessment and follow the theory of change proposed by Killion, Munger, and Psencik (2002), as illustrated in the following figure:

**Figure 4— Theory of change for technology integration (Killion et al., 2002)**

The data from this study also suggest the search for more opportunities for the teachers to be exposed to technology-rich and -enriched environments by means of PD and collaborative projects. Questions of affordability are then raised and there is a need to secure funding or invest in developing resources, key personnel to carry out the cluster model wherein the trained teachers will coach their fellow teachers to multiply the net effect. This model has been implemented successfully in many countries (James, 2005; Okey, 2006) and become popular in Vietnam, such as the IIG training programme on using EDO.

Apart from the institution-based workshops and seminars, there are other PD strategies that can be used as supplementary or alternative to formal training. As discussed above, the ISP strong teamwork suggests the potential possibility of developing a collaborative approach. Both group and peer-to-peer mentoring and observation, which have already been effective to some extent, can be utilised (Diaz-Maggioli, 2004). This strategy embraces the value of scaffolding and learning by teaching, which is prominent in teacher education and training (California Adult Literacy Professional Development Project [CALPRO], 2007; Gordon, 2004). As teachers are getting more familiar with online discussion forums, it is likely to be even more effective with an online platform based on teachers’ preferred and familiar web tools (Stevens, 2009). This asynchronous form of communication might possibly encourage more collaboration among teachers as it allows them to learn in their own time.
Collaborative projects can be another consideration. Teachers can benefit from experiencing a wide variety of cooperative activities during the PD program both face-to-face and online. A project can be co-building a discursive platform that targets not only cooperative teaching and learning but also teacher and student active involvement and motivation in a socially dynamic learning community. This involves the whole team collaboration in building an e-platform, by means of which they will explore how it works, how to plan, design, and facilitate various activities online (Stevens, 2009). In light of this constructivist approach (Hanson-Smith & Rilling, 2006), teachers’ experience will grow as they participate in the project offering great opportunities for them to learn in a collaborative, experiential, meaningful way (i.e.: creating artefacts together) (Muijs, Ainscow, Chapman, & West, 2011) that they may adopt in their own teaching practice, evidently aiming at the highest level of in Bloom’s taxonomy. This method also highlights transformative learning in the sense that it brings out radical changes in practice (CALPRO, 2007; Elliott, 2007).

It is also recommendable for the authorities to visit other institutions, especially those who have successful practice in the field. These off-site visits can be at any time but preferably prior to the planning stage, as they can be beneficial to the process afterwards. The institution may also consider sending 2-3 teachers to prestigious institutions in other countries, especially where English is an official or native language on short trips, which can then benefit the whole teaching staff with more expert input (Gordon, 2004). As suggested by the study’s findings, it might also be beneficial for the teachers to be encouraged and supported in pursuing PD in other countries which are more developed in the application of TELL and the implementation of teachers’ digital literacy PD.

Together with the above-mentioned strategies, it is recommended for each teacher to develop their own DP plan according to their needs, current level of expertise, and interests. This is an on-going process, which can be integrated with their action research as they share the foundation of inquiry-based and reflective practice (CALPRO, 2007; Gordon, 2004). The teachers can conduct action research to trial their ideas, especially when it comes to using new
technologies or pedagogical methods, to find solutions for any problems in their class or to better their teaching practice (McGill & Brockbank, 2003; Sweeney, 2005). The results and experiences can then be shared and discussed among teachers either via the e-platform or group meetings to help each other overcome similar difficulties (Elliott, 2007).

For self-training, it is important for the teachers to refer to different resources in various forms including books, e-guidelines, e-forums, and so on, also reviewed in Chapter 2. It is also advisable for them to create portfolios or write journals that are not only a useful learning method but also a valuable evaluation tool. By doing this, the teachers can constantly reflect on their PD process and progress. Also being rooted in reflective practice (Gordon, 2004), these forms of self-reflection are considered as integral part of PD (Diaz-Maggioli, 2004).

In addition, participating and creating wider networks with scholars and professionals with relevant expertise will possibly help teachers to stay posted with and to be able to grasp the opportunities to develop digital literacy. The teachers themselves need to take initiatives to actively engage themselves in all the possible activities to stay in the loop, for instance, subscribing to email lists of relevant associations nationwide and worldwide as mentioned in Chapter 1, 2 and 4. The IT Centre, the university library and website can be more resourceful by providing helpful resources including useful information, technical support both onsite and online. In order to optimise these functions, not only the administrative, academic staff but also the technicians, librarians, officers, and other staff need to develop their digital literacy professionally.

Finally, it is helpful to acknowledge that the university still has to recognise and cope with often-stated fears that they have to keep up with students’ demand and with the speed of technology advances. More importantly, as suggested by findings from this current research, it is necessary to avoid an uncritical valuing of superficial criteria rather than the deeper development of criticality (Gillen & Barton, 2010). There are also some other important issues, not mentioned in this survey but worth considering, involving attendant ethical issues such as e-safety or legitimate problems, for example, copyright and intellectual property.
(Garnett, 2010; Payton & Hague, 2010), and political and socio-cultural forces governing what can be integrated into educational institutions (Martin, 2009).

**Limitations and Suggestions for Further Research**

**Limitations of the current study**

As with all research of this type, certain inevitable limitations can be detected in this study due to time constraints, the restricted scale of the study, and obviously the nature of case study as an interpretive qualitative research.

Owing to the limited time allowance, the data were collected intensively in only one-month’s time with a modest number of 12 interviews and observation sessions with only four teachers. Also, constrained by time and by participants’ schedules, I did not have opportunities to observe the teachers in all four types of lesson and did not have a chance to observe any pronunciation lessons (see Table 4). In fact, for two teachers, I had to observe the same lesson type twice. Consequently, the research could only capture a modest angle of teachers’ practice in that particular time and not many changes or improvement could be expected to be made over that short period of time. Given a wider frame of time, the study could have yielded richer data to come up with a more informative picture of teachers’ technology practice with the participation of a greater population and observation of all the interviewed teachers over a longer period. However, the data was supplemented by means of a document analysis, other observations of teachers’ technology-related practice and digital literacy PD and correspondence with the participants and other educational technologist and IT experts about issues relevant to the research topic. These data collection methods, despite being mostly informal, added various interesting perspectives and useful information to the outcome of this research.

Because of its scale, not only the sampling population but also the methods of data collection were limited as well. It would be useful to survey both teachers’ technology use in teaching and their digital literacy with a set of questionnaires and a number of tools to make an evaluation of the effectiveness of their technology practice as well as digital literacy and digital literacy PD needs.
As regards the subjective nature of case study as interpretive qualitative research, a wider population of the whole ISP division and other divisions in the Faculty of English, or the university (across disciplines) would be desirable for more objectivity as well as better quality of ideas contributed. Also, it might be interesting to gather data from focus group discussions among teachers, among leaders, and between teachers and leaders. In addition, it might be helpful to video-record the lesson observation as well to supplement observation notes. Another issue was the gender imbalance due to the nature of a university of languages and international studies (only one in 29 teachers was male). While it might be interesting to see if there would be any differences between male and female teachers’ in this practice, gender bias, according to recent literature, is no longer an issue in this field (James, 2005; Okey, 2006). As the ISP group also had a number of part-time English native-speaking teachers, involving these teachers might add an interesting dimension to the overall findings.

**Suggestions for further research**

Apart from the above-discussed considerations, future research may focus on one or a number of the following areas in greater depth and/or width in the context of interest and relevant methods:

**Topic areas:**

- Teachers’ professional needs in relation to digital literacy
- Teachers’ perceptions of effective PD in relation to digital literacy
- Impact of teachers’ digital literacy PD on their classroom practice
- Impact of teachers’ technology use on students’ learning
- Teachers’ TELL practice before vs. after digital literacy PD
- Factors influencing teachers’ use of technology/digital literacy PD
- Teachers’ motivation in the use of technology/digital literacy PD
- Teachers’ personal beliefs and their use of technology/digital literacy PD
- Teachers’ technology use inside vs. outside classroom; in-class vs. online
- Pre- vs. in-service teachers’ use of technology/digital literacy development
- Challenges and opportunities for EFL teachers’ ICT use/digital literacy PD
- Teachers’ prior learning and teaching experiences and their digital literacy practice and digital literacy PD
**Methods/Scope:**

- Single/multiple case study
- Nationwide/cross country
- Comparative analysis
- Longitudinal study
- Action research
- Controlled group experiment
- Experimental and quasi-experimental study

**Conclusion**

It is important to note that as teachers’ digital literacy PD is a changing process, the findings found in this research, the process of data gathering through interviews, observations and supplementary document analysis were only a snapshot of a moment of time in the participants’ professional life as well as the institution’s development. The problems identified during this research period may now have been altered or resolved and new problems may have been emerged. And thus, the conclusions derived from the findings are past tense and very much established in the time of this research.

The present research project has achieved its goals by addressing all the research questions. This single case study employed a qualitative, interpretive paradigm, utilising nonparticipant observation, semi-structured interviews, and supplementary document retrieval to generate data. The analysis and interpretation of data followed an iterative and triangulated procedure to develop empirical findings. The rigour of this research can, therefore, be justified on the grounds that it met the validity and reliability criteria and satisfied the ethical regulations as required by the Unitec Research Ethics Committee.

This case study shows that technology in learning is not being used to its full potential and that inadequate teachers’ digital literacy and PD in this aspect was one of the main reasons. Thus, with the weight of responsibility falling on the teachers and their work, the current research and its findings will hopefully play a positive role. More specifically, it can contribute to advancing insights into Vietnamese EFL lecturers’ technology use as well as their professional needs and current practice concerning digital literacy development. As the researcher and an EFL teacher myself, I really hope that this study’s findings will be taken forward by relevant authorities (teachers, teacher trainers, PD planners, TELL practitioners and TELL researchers, and other stakeholders) in improving the
planning and implementation of digital literacy PD for EFL teachers, the quality of their instructional technology use, and hence learning.

A final note is that “computers will not replace teachers; however, teachers who use computers will replace teachers who don’t” (Ray Clifford, Defense Language Institute, as cited in Headley et al., 2008, p. 2). To conclude, I would like to cite several participants’ comments.

All the leaders and teachers are saying that we need to update ourselves with technology knowledge and skills, but actually, we just talk about it and we haven’t done much. It’s time to take action now. (T2)

It takes time first, and a lot of patience too, but it will save a lot more time later, and we’ll thank it for that. (…) We’re always talking about something new as it’s fashionable but it’s high time to walk that talk now. (L4)
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Appendix A:
Information sheet for the organisational senior leader

INFORMATION SHEET
(for the organisational senior leader)

Thesis title: Switching on to digital literacy? A case study of English Language teachers at a Vietnamese university

My name is Xuan Thi Thanh Nguyen and I am currently enrolled in the Master of Education degree in the Department of Education at Unitec Institute of Technology. I am seeking your help in meeting the requirements of research for a thesis, which forms a substantial part of this degree.

The aim of my project is to explore the professional needs of the International Standard Programme teachers in relation to digital literacy development and critically review current digital literacy development provision for the teachers, with a view to develop their digital literacy in their educational practice.

I will be collecting data by means of non-participant observation and semi-structured interviews and would appreciate being able to conduct the research in your institution, focusing on the teaching staff in the International Standard Programme. I will also be asking you to sign a consent form regarding this event.

Neither you nor your organisation will be identified in the Thesis and all the collected data will be stored securely and kept confidentially. I will be recording your contribution and will provide a transcript for you to check before data analysis is undertaken. You may withdraw yourself from the research up to two weeks after the interview. You will also have the right to edit or withdraw any information that you have contributed before the completion of data collection in October 2013. This can be done by seeing me or contacting me personally via email xuan_nguyen_tt@yahoo.com.

If you have any queries about the project, you may contact my supervisor at Unitec, Institute of Technology. My supervisor is Dr John Benseman and may be contacted by email or phone. Phone: (+64) 9 815 4321 ext 8736. Email: jbenseman@unitec.ac.nz

Yours sincerely

UREC REGISTRATION NUMBER: 2013-1041
This study has been approved by the Unitec Research Ethics Committee to conduct from 25 June 2013 to 25 June 2014. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (Phone: (+64) 9 815 4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix B:
Organisational consent letter

30th May 2013

Address letter to: Nguyen ThiThanh Xuan
Unitec Institute of Technology, Auckland, New Zealand

RE: MASTER OF EDUCATION THESIS

Thesis title: Switching on to digital literacy? A case study of English Language teachers at a Vietnamese university

TO WHOM IT MAY CONCERN

I have been given and have understood an explanation of this research project and I give permission for the research to be conducted in my organisation. I understand that the name of my organisation will not be used in any public reports.

Signature

(Signed)
Appendix C: Information sheet for interviewed leaders and teachers

INFORMATION SHEET
(for interviewed leaders and teachers)

Thesis title: Switching on to digital literacy? A case study of English Language teachers at a Vietnamese university

My name is Xuan Thi Thanh Nguyen and I am currently enrolled in the Master of Education degree in the Department of Education at Unitec Institute of Technology. I am seeking your help in meeting the requirements of research for a thesis, which forms a substantial part of this degree.

The aim of my project is to explore the professional needs and current practice of the International Standard Programme teachers in relation to digital literacy development and critically review current digital literacy development provision for the teachers, with a view to develop their digital literacy in their educational practice.

I will be collecting data using an interview schedule with some questions and would appreciate being able to interview you at a time that is mutually suitable. This one-to-one interview will take approximately 40-60 minutes and will take place in a place on campus that is suitable for the interview and accessible for both of us. I will also be asking you to sign a consent form regarding this event.

Neither you nor your organisation will be identified in the Thesis and all the collected data will be stored securely and kept confidentially. I will be recording your contribution and will provide a transcript for you to check before data analysis is undertaken. You may withdraw yourself from the research up to two weeks after the interview. You will also have the right to edit or withdraw any information that you have contributed before the completion of data collection in October 2013. This can be done by seeing me or contacting me personally via email xuan_nguyen_tt@yahoo.com.

If you have any queries about the project, you may contact my supervisor at Unitec, Institute of Technology. My supervisor is Dr John Benseman and may be contacted by email or phone. Phone: (+64) 9 815 4321 ext 8736. Email: jbenseman@unitec.ac.nz

Yours sincerely

UREC REGISTRATION NUMBER: 2013-1041
This study has been approved by the Unitec Research Ethics Committee to conduct from 25 June 2013 to 25 June 2014. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (Phone: (+64) 9 815 4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix D:
Consent form for interviewed leaders and teachers

CONSENT FORM
(for interviewed leaders and teachers)

Research event: Individual interview
Researcher: Xuan Thi Thanh Nguyen
Programme: Master of Education

Thesis title: Switching on to digital literacy? A case study of English Language teachers at a Vietnamese university

I have been given and have understood an explanation of this research and I have had an opportunity to ask questions and have had them answered. I understand that neither my name nor the name of my organisation will be used in any public reports.

I also understand that I will be provided with a transcript for checking before data analysis is started. I am aware that all the collected data will be will be stored securely and kept confidentially and that I may withdraw myself from the research up to two weeks after the interview. I acknowledge that I will have the right to edit or withdraw any information that I have contributed before the completion of data collection in October 2013. This can be done by seeing me or contacting me personally via email xuan_nguyen_tt@yahoo.com.

I agree to take part in this project.

Signed: ____________________________________________
Name: _____________________________________________
Date: _____________________________________________

UREC REGISTRATION NUMBER: 2013-1041
This study has been approved by the Unitec Research Ethics Committee to conduct from 25 June 2013 to 25 June 2014. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (Phone: (+64) 9 815 4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix E:
Information sheet for observed teachers and students

INFORMATION SHEET
(for observed teachers and students)

Thesis title: Switching on to digital literacy? A case study of English Language teachers at a Vietnamese university

My name is Xuan Thi Thanh Nguyen and I am currently enrolled in the Master of Education degree in the Department of Education at Unitec Institute of Technology. I am seeking your help in meeting the requirements of research for a thesis, which forms a substantial part of this degree.

The aim of my project is to explore the professional needs and current practice of the International Standard Programme teachers in relation to digital literacy development and critically review current digital literacy development provision for the teachers, with a view to develop their digital literacy in their educational practice.

I will be collecting data using observation schemes and would appreciate being able to observe your classes for three sessions of 100 minutes each, at times that are mutually suitable. I will also be asking you and your students to sign a consent form regarding this event.

Neither you nor your organisation will be identified in the Thesis and all the collected data will be stored securely and kept confidentially. I will be taking notes during my observation of your lessons and will provide the observational notes for you to check before data analysis is undertaken. You may withdraw yourself from the research up to two weeks after the observation. You will also have the right to edit or withdraw any information that you have contributed before the completion of data collection in October 2013. This can be done by seeing me or contacting me personally via email xuan_nguyen_tt@yahoo.com.

If you have any queries about the project, you may contact my supervisor at Unitec, Institute of Technology. My supervisor is Dr John Benseman and may be contacted by email or phone. Phone: (+64) 9 815 4321 ext 8736. Email: jbenseman@unitec.ac.nz

Yours sincerely

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Appendix F:
Consent form for observed teachers and students

CONSENT FORM
(for observed teachers and students)

Research event: Classroom observation
Researcher: Xuan Thi Thanh Nguyen
Programme: Master of Education
Thesis title: Switching on to digital literacy? A case study of English Language teachers at a Vietnamese university

I have been given and have understood an explanation of this research and I have had an opportunity to ask questions and have had them answered. I understand that neither my name nor the name of my organisation will be used in any public reports.

I understand that I will be included in the researchers’ observations of teaching in my class. The researcher will take notes about these observations, but will not identify me or any other students in her writing about these observations. Also, I will be provided with the observational notes for checking before data analysis is started.

I am aware that all the collected data will be stored securely and kept confidentially and that I may withdraw myself from the research up to two weeks after the observation. I acknowledge that I will have the right to edit or withdraw any information that I have contributed before the completion of data collection in October 2013. This can be done by seeing me or contacting me personally via email xuan_nguyen_tt@yahoo.com.

I agree to take part in this project.

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 1</td>
<td></td>
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<td>Student 2</td>
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<td>…</td>
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UREC REGISTRATION NUMBER: 2013-1041

This study has been approved by the Unitec Research Ethics Committee to conduct from 25 June 2013 to 25 June 2014. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (Phone: (+64) 9 815 4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix G:
Interview schedule for teachers

TEACHER INTERVIEW SCHEDULE
(following completion of signing Consent Form)

Introduction
Thank you for your interest in participating in my research into English language teachers’ digital literacy. My name is Xuan Nguyen and I am currently enrolled in the Master of Education degree in the Department of Education at Unitec Institute of Technology and currently conducting this research as part of my study programme.

Settings
Date: Time: Place:

Personal information (confidential)
Teacher’s name: Qualification:
Gender: M/F Age: (years old) Years of experience:

Questions
Current situation of technology use in teaching practice
1. How have you used technologies in your teaching practice?
   - What technologies do you often use?
   - How often do you use them?
   - What do you use them for? (Planning, instruction, administration, professional development, etc)
   - In which language skills and/or areas do you use technologies the most?
   - What techniques and strategies do you use for integrating technologies into your classroom practice?
2. How do you evaluate the effectiveness of your technology use in teaching practice?
3. What difficulties have you experienced in your professional use of technologies?
4. Have you been able to address these issues and challenges? If so, how? If not, why not?

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3 “Digital literacy is the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesise digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process” (Martin & Grudziecki, 2006, p. 255). In other words, digital literacy goes beyond the mastery of technological skills and knowledge to engage complex non-linear cognitive and social processes that empower an individual to live, learn, and work in a digital era (JISC, 2012).
Current levels of digital literacy and digital literacy professional development

5. How do you evaluate your current level of confidence and competence in using:
   - Basic skills: Computer operation, file management, Office programmes (e.g.: Word)
   - Multi-media resources (e.g.: graphics, audio-video materials) and applications (e.g.: audio-video production)
   - The Internet/World Wide Web (including communication applications (e.g.: emails, video conferences) and Web 2.0 tools (e.g.: blogs, wikis, podcasts))
   - Overall confidence and competence (Use Rogers’ (2003) categories of innovativeness in technology use: Innovators, Early adopters, Early majority, Late majority, Laggards)

6. How important is digital literacy professional development to you as an EFL teacher?

7. What do you see as the most important aspects you need to develop in your use of technologies? Why?

8. What ICT-focused professional development have you undertaken over the past two years? How useful was it and why?

9. What type of digital literacy professional development would be most useful to you? (Self-study, group study/community practice, mentoring, training, etc.) Why?

10. In your opinion, what are the potential opportunities and challenges of developing digital literacy for you? How could these opportunities be utilised and how could the challenges be addressed?

11. Are there any other comments or remarks you wish to make?
Appendix H:
Interview schedule for leaders

LEADER INTERVIEW SCHEDULE
(following completion of signing Consent Form)

Introduction
Thank you for your interest in participating in my research into English language teachers' digital literacy. My name is Xuan Nguyen and I am currently enrolled in the Master of Education degree in the Department of Education at Unitec Institute of Technology and currently conducting this research as part of my study programme.

Settings
Date: Time: Place:

Personal information (confidential)
Leader’s name: Position:
Gender: M/F Age: (years old)
Qualification: Years of experience:

Questions

Current situation of technology use in the ISP
1. How have technologies been used in the International Standard Programme (ISP)?
   - What technologies are used most?
   - How often are they used?
   - What are they used for? (Planning, instruction, administration, professional development, etc.)
2. How do you evaluate the effectiveness of technology use in the ISP?
3. What constraints has your institution experienced in the use of technologies in the ISP?
4. How well has your institution been able to address these issues and challenges?

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4 “Digital literacy is the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesise digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process” (Martin & Grudziecki, 2006, p. 255). In other words, digital literacy goes beyond the mastery of technological skills and knowledge to engage complex non-linear cognitive and social processes that empower an individual to live, learn, and work in a digital era (JISC, 2012)
5. What do you think about the potential development in technology use in the ISP?

**ISP teachers’ digital literacy and digital literacy professional development**

6. How do you evaluate the ISP teachers’ current level of confidence and competence in the use of technology in teaching practice (*Use Rogers’ (2003) categories of innovativeness in technology use: Innovators, Early adopters, Early majority, Late majority, Laggards*).

7. How important is it to develop digital literacy for the ISP teachers?

8. How do you view the ISP teachers’ professional development needs in the use of technologies? How could you identify their needs?

9. What ICT-focused professional development has been provided for the ISP teachers in the past two years and how effective do you think it was?

10. What types of strategies would be employed to further develop the ISP teachers’ digital literacy? (*Self-study, community practice, mentoring, training, etc.*) Why?

11. What do you see as potential opportunities and challenges of developing digital literacy for the ISP teachers? How could these opportunities be utilised and how could the challenges be addressed?

12. Are there any other comments or remarks you wish to make?
Appendix I:
Scheme for classroom observation

CLASSROOM OBSERVATION SCHEME

Settings

Date:  Number of students:  
Time:   Lesson:   
Room:   Length of observation interval:  
Teacher:   Observation number:  
Group: 

Observation notes

<table>
<thead>
<tr>
<th>Time</th>
<th>Teacher’s activities</th>
<th>Students’ activities</th>
<th>Purpose/Focused areas</th>
<th>Teaching aids</th>
<th>Facilities (ICTs) used</th>
<th>Notes</th>
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Remarks / Comments

Notes:
“Digital literacy is the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesise digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process” (Martin & Grudziecki, 2006, p. 255). In other words, digital literacy goes beyond the mastery of technological skills and knowledge to engage complex non-linear cognitive and social processes that empower an individual to live, learn, and work in a digital era (JISC, 2012).
## Appendix J:
Teacher digital literacy by TESOL technology standards

<table>
<thead>
<tr>
<th>Goal</th>
<th>Standards</th>
<th>Language teachers’ performance indicators</th>
<th>Digital literacy evaluation</th>
</tr>
</thead>
</table>
| 1. Language teachers acquire and maintain foundational knowledge and skills in technology for professional purposes. | Language teachers demonstrate knowledge and skills in basic technological concepts and operational competence, meeting or exceeding TESOL technology standards for students in whatever situation they teach. | • Language teachers perform basic functions with available digital devices in order to accomplish instructional and organizational goals (e.g., turning the device on and off; opening, closing and resizing software windows; saving, editing, and organizing files and folders; copying, cutting, and pasting elements within a document; recognizing file times; launching and exiting software applications; and similar universal tasks).  
• Language teachers prepare instructional materials for students using basic technology tools (e.g., word-processing software, presentation software, and software that creates Internet resources).  
• Language teachers exercise appropriate caution when using online sources and when engaging in electronic communication. | To standard |
| | | • Language teachers identify appropriate technologies to support a range of instructional objectives.  
• Language teachers use evaluation tools to analyze the appropriateness of specific technology options.  
• Language teachers share information about available technology with colleagues.  
• Language teachers use online technology as available to deliver instructional or support material.  
• Language teachers locate and can adapt a variety of digital resources. | Below – To standard |
| | Language teachers demonstrate an understanding of a wide range of technology supports for language learning and options for using them in a given setting. | • Language teachers utilize technology tools to expand upon a conventional activity.  
• Language teachers keep up with information through a variety of sources (e.g., books, journals, mailing lists, conventions). | Below – To standard |
| Knowledge Base to Evaluate, Adopt, and Adapt Emerging Technologies Throughout Their Careers | Language Teachers Participate in a Relevant Community of Practice.  
Language Teachers Explore the Possibilities Inherent in Emerging Technologies with a Critical Eye. |
|---|---|
| Language Teachers Use Technology in Socially and Culturally Appropriate, Legal, and Ethical Ways. | Language Teachers Demonstrate Sensitivity to the Similarities and Differences in Communication Conventions Across Cultures, Communities, and Contexts.  
Language Teachers Show an Awareness of Their Role as Models, Demonstrating Respect for Others in Their Use of Public and Private Information.  
Language Teachers Show Awareness and Understanding When Approaching Culturally Sensitive Topics and Offer Students Alternatives.  
Language Teachers Conform to Local Legal Requirements Regarding the Privacy of Students' Personal Information.  
Language Teachers Conform to Local Legal Requirements Regarding Accessibility  
Language Teachers Conform to Local Legal Requirements Regarding Fair Use and Copyright.  
Language Teachers Follow Local Guidelines Regarding the Use of Human Subjects for Research.  
Language Teachers Demonstrate Awareness That Electronic Communication Is Not Secure and Private, and That in Some Localities, Email May Be Subject to “Open Records” Laws.  
Language Teachers Seek Help in Identifying and Implementing Solutions Related to Legal Requirements.  
Language Teachers Protect Student Privacy (E.g., Not Inappropriately Putting Student Email Addresses, Biodata, or Photos Online; Fully Informing Students About Public Sharing of Blogs and Web Sites; Using Password-Protected Sites When Possible).  
Language Teachers Respect Student Ownership of Their Own Work (E.g., Not Sharing Student Work Inappropriately; Not Requiring Students to Post Their Work Publicly). |
| Language Teachers Identify and Evaluate Technological Resources and Environments for Suitability to Their Goals. | Language Teachers Identify the Technological Resources (E.g., Hardware, Communication Technologies, Digital Material, Courseware) and Limitations of the Current Teaching Environment.  
Language Teachers Identify Appropriate Technology Environments (E.g., Lab, One Computer Class, Online, Independent Use) to Meet Specific Learning/Teaching Goals.  
Language Teachers Evaluate Technology Environments for Alignment with the Goals of the Program.  
Language Teachers Conform to Local Legal Requirements Regarding the Privacy of Students’ Personal Information.  
Language Teachers Conform to Local Legal Requirements Regarding Accessibility.  
Language Teachers Conform to Local Legal Requirements Regarding Fair Use and Copyright.  
Language Teachers Follow Local Guidelines Regarding the Use of Human Subjects for Research.  
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Language Teachers Respect Student Ownership of Their Own Work (E.g., Not Sharing Student Work Inappropriately; Not Requiring Students to Post Their Work Publicly). |

2. Language Teachers Integrate Pedagogical Knowledge

| Language Teachers Identify and Evaluate Technological Resources and Environments for Suitability to Their Goals. | Language Teachers Identify the Technological Resources (E.g., Hardware, Communication Technologies, Digital Material, Courseware) and Limitations of the Current Teaching Environment.  
Language Teachers Identify Appropriate Technology Environments (E.g., Lab, One Computer Class, Online, Independent Use) to Meet Specific Learning/Teaching Goals.  
Language Teachers Evaluate Technology Environments for Alignment with the Goals of the Program.  
Language Teachers Conform to Local Legal Requirements Regarding the Privacy of Students’ Personal Information.  
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Language Teachers Seek Help in Identifying and Implementing Solutions Related to Legal Requirements.  
Language Teachers Protect Student Privacy (E.g., Not Inappropriately Putting Student Email Addresses, Biodata, or Photos Online; Fully Informing Students About Public Sharing of Blogs and Web Sites; Using Password-Protected Sites When Possible).  
Language Teachers Respect Student Ownership of Their Own Work (E.g., Not Sharing Student Work Inappropriately; Not Requiring Students to Post Their Work Publicly). |
<table>
<thead>
<tr>
<th>and skills with technology to enhance language teaching and learning.</th>
<th>teaching context.</th>
<th>class.</th>
</tr>
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<tbody>
<tr>
<td>Language teachers coherently integrate technology into their pedagogical approaches.</td>
<td>• Language teachers evaluate technological resources for alignment with the needs and abilities of the students.</td>
<td></td>
</tr>
</tbody>
</table>

**Below – To standard**

**Language teachers demonstrate understanding of their own teaching styles.**
**Language teachers review personal pedagogical approaches in order to use technology to support current teaching styles.**
**Language teachers demonstrate their understanding of the potential and limitations in technology.**
**Language teachers embed technology into teaching rather than making it an add-on.**
**Language teachers engage regularly in professional development related to technology use.**
**Language teachers evaluate their use of technology in teaching.**

**Expert level of technology**

**Language teachers work around the limitations in available technology to achieve instructional goals.**
**Language teachers support peers in their professional development with technology.** *(Informal support may be unpaid; formal support should be paid.)*

**Language teachers design and manage language learning activities and tasks using technology appropriately to meet curricular goals and objectives.**

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>• Language teachers demonstrate familiarity with a variety of technology-based options.</td>
<td>• Language teachers choose a technology environment that is aligned with the goals of the class.</td>
</tr>
<tr>
<td>• Language teachers choose technology that is aligned with needs and abilities of the students (e.g., language learning–focused software, productivity tools, content tools).</td>
<td>• Language teachers demonstrate awareness of students’ level of digital competence.</td>
</tr>
<tr>
<td>• Language teachers ensure that students understand how to use the technology to meet instructional goals (e.g., teach students how to evaluate online resources).</td>
<td>• Language teachers enable students to think critically about their use of technology in an age-appropriate manner.</td>
</tr>
</tbody>
</table>

**Expert level of technology**

**Language teachers adapt technology-based activities and tasks to align with the goals of the class, and with the needs and abilities of the students.**
**Language teachers create an appropriate technology environment to meet specific teaching and learning goals.**
**Language teachers operate with an understanding of the underlying structure of the
<table>
<thead>
<tr>
<th>Level</th>
<th>Language teachers use relevant research findings to inform the planning of language learning activities and tasks that involve technology.</th>
</tr>
</thead>
</table>
| Below standard | • Language teachers demonstrate familiarity with suggestions from research for classroom practice using technology.  
• Language teachers use a variety of avenues for getting information about research related to technology use (e.g., communities of practice, conferences).  
• Language teachers demonstrate understanding of the temporal nature of research findings related to technology use (i.e., that technology changes over time, so older research may not be applicable to current settings).  
• Language teachers demonstrate awareness of multiple research sources and perspectives that inform technology use.  
• Language teachers discern which findings about technology use are most appropriate for their situation.  
• Language teachers share relevant research findings about technology use with others.  
• Language teachers identify the context and limitations of research about technology use and do not apply findings inappropriately.  |
| Expert level of technology | • Language teachers demonstrate their understanding of relevant research findings related to technology use for language learning.  
• Language teachers identify gaps in current research about technology use.  
• Language teachers help others recognize the context and limitations of research about technology use.  
• Language teachers produce and disseminate research related to technology use.  |

<table>
<thead>
<tr>
<th>3. Language teachers apply technology in record keeping, feedback, and effective learner assessment.</th>
<th>Language teachers evaluate and implement relevant technology to aid in effective learner assessment.</th>
</tr>
</thead>
</table>
| Below standard | • Language teachers demonstrate familiarity with a variety of forms of assessment that employ technology.  
• Language teachers employ appropriate record-keeping tools and techniques (e.g., software-based classroom management tools, electronic grade books, reports to stakeholders).  |
<p>| Expert level of technology | • Language teachers use computer-based diagnostic, formative, and summative testing |</p>
<table>
<thead>
<tr>
<th>Intersection</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>Language teachers use technology to improve communication, collaboration,</strong></td>
<td>Language teachers draw on resources (lesson plans and teaching ideas) for language teachers that are posted online. Language teachers implement lesson plans obtained from other teachers via the Internet. Teachers belong to online communities (e.g., mailing lists, blogs, wikis, podcasts) with other language teachers. Language teachers share their email address with students and peers. <strong>Expert level of technology</strong> Language teachers maintain an electronic forum (e.g., Web page, blog) to post information.</td>
</tr>
<tr>
<td><strong>Language teachers use communication technologies to maintain effective contact and collaboration with peers, students, administration, and</strong></td>
<td>Language teachers use communication technologies to maintain effective contact and collaboration with peers, students, administration, and where feasible. Language teachers use technology to illustrate learner progress (e.g., graphic representations of scores over time, revision history). Language teachers provide feedback through digital file exchange (e.g., review tools in writing; annotated comments in speaking). Language teachers use technological resources to collect and analyze information in order to enhance language instruction and learning. Language teachers demonstrate familiarity with research-based principles related to technology-enhanced assessment. Language teachers use technology-enhanced assessment results to plan instruction. Language teachers interpret computer-based test scores for stakeholders (e.g., TOEFL, other standardized tests). Language teachers elicit student feedback in order to improve teacher use of technology. <strong>Expert level of technology</strong> Language teachers apply research findings related to technology-enhanced assessment. Language teachers collect student output for analysis (e.g., concordance to analyze lexical complexity, chat logs). Language teachers use digital resources to document teaching for further analysis (e.g., digital recording of lectures and class interactions, digital logs of interactions).</td>
</tr>
<tr>
<td><strong>Language teachers evaluate the effectiveness of specific student uses of technology to enhance teaching and learning.</strong></td>
<td>Language teachers use appropriate procedures for evaluating student use of technology (e.g., rubrics, checklists, matrices—which may evaluate enjoyment). Language teachers elicit student feedback in order to improve student use of technology. <strong>Expert level of technology</strong> Language teachers develop and share procedures for evaluating student use of technology. Language teachers examine student outcomes that result from use of technology (e.g., examining chat logs for more complex language).</td>
</tr>
<tr>
<td><strong>Language teachers use technological resources to collect and analyze information in order to enhance language instruction and learning.</strong></td>
<td>Language teachers use technological resources to collect and analyze information in order to enhance language instruction and learning. Where feasible, Language teachers use technology to illustrate learner progress (e.g., graphic representations of scores over time, revision history). Language teachers provide feedback through digital file exchange (e.g., review tools in writing; annotated comments in speaking). Language teachers demonstrate familiarity with research-based principles related to technology-enhanced assessment. Language teachers use technology-enhanced assessment results to plan instruction. Language teachers interpret computer-based test scores for stakeholders (e.g., TOEFL, other standardized tests). Language teachers elicit student feedback in order to improve teacher use of technology. <strong>Expert level of technology</strong> Language teachers apply research findings related to technology-enhanced assessment. Language teachers collect student output for analysis (e.g., concordance to analyze lexical complexity, chat logs). Language teachers use digital resources to document teaching for further analysis (e.g., digital recording of lectures and class interactions, digital logs of interactions).</td>
</tr>
</tbody>
</table>

**To – Above standard**

**Below – To standard**

**To standard**
and efficiency. | other stakeholders. | for students about the class.  
| | • Language teachers view and comment on students’ electronic work (e.g., electronic portfolios, project work, Web sites).  
| | • Language teachers advise administration on the use of online technology to improve communication.  
| | • Language teachers share instructional material digitally.  

Language teachers regularly reflect on the intersection of professional practice and technological developments so that they can make informed decisions regarding the use of technology to support language learning and communication. | • Language teachers take advantage of professional development related to technology integration (e.g., conferences, journals, mailing lists, communities of practice).  
| | • Language teachers select technology resources that promote appropriate language use.  
| | • Language teachers demonstrate awareness of multiple sources and perspectives that inform technology use.  
| | • Language teachers discern which findings are most appropriate for their situation.  
| **Expert level of technology**  
| | • Language teachers stay informed about how to use new technologies for instructional and professional purposes (e.g., podcasts for listening and speaking, blogs for writing and reading).  
| | • Language teachers integrate technology in innovative ways.  
| | • Language teachers engage in research (including classroom-based) and share the results.  
| | • Language teachers advise decision-makers about appropriate technology resources and environments.  

Language teachers apply technology to improve efficiency in preparing for class, grading, and maintaining records. | • Language teachers use electronic resources to locate additional materials for lesson planning and classroom use.  
| | • Language teachers demonstrate understanding of various methods of providing electronic feedback on student work (e.g., email, insert comments).  
| | • Language teachers have a system to collect, organize, and retrieve material and student data.  
| **Expert level of technology**  
| | • Language teachers maintain a resource that allows students to locate and retrieve material.  
| | • Language teachers use electronic methods, as appropriate, for formative and summative assessment.  
| | • Language teachers encourage students to use electronic methods to document their own progress.

Below standard

To – Above standard
# Appendix K: Five Levels of Professional Development Evaluation

<table>
<thead>
<tr>
<th>Evaluation Level</th>
<th>What questions are addressed?</th>
<th>How will information be gathered?</th>
<th>What is measured or assessed?</th>
<th>How will information be used?</th>
</tr>
</thead>
</table>
| 1. *Participants’ reactions*      | Did they like it?  
Was their time well spent?  
Did the material make sense?  
Will it be useful?  
Was the leader knowledgeable and helpful?  
Were the refreshments fresh and tasty?  
Was the room the right temperature?  
Were the chairs comfortable? | Questionnaires administered at the end of the session | Initial satisfaction with the experience | To improve program design and delivery               |
| 2. *Participants’ learning*       | Did participants acquire the intended knowledge and skills?                                    | Paper & pencil instruments  
Simulations  
Demonstrations  
Participant reflections  
Participant portfolios | New knowledge and skills of participants | To improve program content, format, and organization  |
| 3. *Organization support and change* | What was the impact on the organization?  
Did it affect organizational climate and procedures? | District and school records  
Minutes from meetings | The organization’s advocacy, support, accommodation, facilitation, and | To document and improve organizational support |
<table>
<thead>
<tr>
<th></th>
<th>Was implementation advocated, facilitated, and supported?</th>
<th>Questionnaires</th>
<th>recognition</th>
<th>To inform future change efforts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Was the support public and overt?</td>
<td>Interview with participants</td>
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<tr>
<td></td>
<td>Were problems addressed quickly and efficiently?</td>
<td>Participant portfolios</td>
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<td></td>
<td>Were sufficient resources made available?</td>
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<td>Were successes recognized and shared?</td>
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</table>

4. **Participants’ use of new knowledge and skills**

<table>
<thead>
<tr>
<th></th>
<th>Did participants effectively apply the new knowledge and skills</th>
<th>Questionnaires</th>
<th>Degree and quality of implementation</th>
<th>To document and improve the implementation of program content</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Structured interviews</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Participant reflections</td>
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<tr>
<td></td>
<td></td>
<td>Participant portfolios</td>
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<td></td>
<td></td>
<td>Direct observations</td>
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<td>Video or audio tapes</td>
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</tbody>
</table>

5. **Student learning outcomes**

<table>
<thead>
<tr>
<th></th>
<th>What was the impact on students?</th>
<th>Student records</th>
<th>Student learning outcomes: cognitive, affective, psychomotor</th>
<th>To focus and improve all aspects of program design, implementation, and follow-up.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Did it affect student performance or achievement?</td>
<td>School records</td>
<td></td>
<td>To demonstrate the overall impact of professional development</td>
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<tr>
<td></td>
<td>Did it influence students' physical or emotional well-being?</td>
<td>Questionnaires</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Are students more confident as learners?</td>
<td>Structured interviews</td>
<td></td>
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<tr>
<td></td>
<td>Is student attendance improving?</td>
<td>Participant portfolios</td>
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<td></td>
<td>Are dropouts decreasing?</td>
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</tbody>
</table>

(Guskey, 2000, p. 78).
## Appendix L: Eight-step Evaluation Model

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Assess evaluability</strong></td>
<td>Evaluators examine the design of the professional development program to determine its likelihood of producing the intended results; scrutinize the program’s goals, objectives, standards of success, indicators of success, theory of change, and logic model; and ask about the program’s clarity, feasibility, strength, and worth. If, after that analysis, the program is deemed <em>evaluable</em>, the evaluator moves ahead to Step 2. If the program is deemed <em>not evaluable</em>, the evaluator encourages the program’s designer(s) to revise the program.</td>
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<tr>
<td><strong>2. Formulate evaluation questions</strong></td>
<td>Evaluators design the formative and summative questions, which focus on the initial and intermediate outcomes and the program’s goals and objectives. By asking questions about results (e.g., did teachers use the strategies? did student work demonstrate evidence of teachers' application of the strategies?) rather than about services, evaluators can measure impact rather than program delivery.</td>
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<tr>
<td><strong>3. Construct the evaluation framework</strong></td>
<td>Evaluators determine what evidence to collect, from whom or what sources to collect the evidence, how to collect the evidence, and how to analyse the evidence.</td>
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<tr>
<td><strong>4. Collect data</strong></td>
<td>Evaluators use the data collection methods determined in Step 3 to collect evidence to answer the evaluation questions.</td>
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<td><strong>5. Organize and analyse data</strong></td>
<td>Evaluators organize and analyse collected data and display analysed data in multiple formats to use in Step 6.</td>
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<tr>
<td><strong>6. Interpret data</strong></td>
<td>Working together, stakeholders and evaluators interpret the data to make sense of it, draw conclusions, assign meaning, and formulate recommendations. Including stakeholders in this process is essential because their participation expands and enhances the meaning of the data.</td>
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<tr>
<td><strong>7. Report findings</strong></td>
<td>Evaluators report findings and make recommendations in formats sensitive to the needs of the multiple audiences. Rather than a single technical report, evaluators prepare multiple reports of varied lengths and in varied levels of sophistication and formats.</td>
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<tr>
<td><strong>8. Evaluate the evaluation</strong></td>
<td>The evaluator analyses his or her own evaluation methodology, processes, resources, skills, and so forth. As a reflective practitioner, the evaluator looks back at the work done and identifies its strengths and areas for continued refinement and growth.</td>
</tr>
</tbody>
</table>

*(Killion, 2002, para. 6-12)*
## Appendix M: Evaluation Planning Matrix

<table>
<thead>
<tr>
<th>Evaluation Question</th>
<th>Information Source</th>
<th>Data Collection Method and Due Date</th>
<th>Personnel Responsible</th>
<th>Data Analysis Method and Due Date</th>
<th>Audience for Findings</th>
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(Ponticelli & Olivarez, 2000)