Using ICT to foster collaborative writing for EFL university students in Vietnam

Thi Thu Lan Nguyen

Edith Cowan University

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Using ICT to foster collaborative writing for EFL university students in Vietnam

This thesis is presented for the degree of

Doctor of Philosophy

Thi Thu Lan Nguyen

Edith Cowan University
School of Education
2019
ABSTRACT

The development of Information and Communications Technology (ICT) has changed most aspects of life, and its diffusion into education was inevitable. Vietnam is a developing country where English and ICT are highly valued as two of the most important instruments of industrialisation and modernisation. These instruments help facilitate the country’s integration into the globalised world. Thus, the use of ICT in English language teaching and learning has received much attention from both policy makers and researchers.

In this study, the possibilities of using ICT in fostering English as a Foreign Language (EFL) university students’ collaborative writing in a Vietnamese context were examined. Teachers’ and students’ readiness for ICT-supported collaborative writing as well as their attitudes and perceptions toward this learning mode were investigated. Pedagogical implications for ICT-supported collaborative writing are also discussed.

A case study methodology using both quantitative and qualitative data was employed. The study consisted of two phases. Phase 1 was a preliminary investigation in which online surveys were distributed to 16 English language teachers and 315 first year students at FPT University. The results of the surveys suggested that it was feasible to implement ICT-supported collaborative writing in this university and that the most suitable ICT applications to use were Facebook and Google Docs. In Phase 2, an intervention, in which Facebook and Google Docs were used as ICT platforms for collaborative writing was conducted with three EFL classes of three English levels: elementary, pre-intermediate and intermediate. During Phase 2, methods of data collection such as observations, focus group interviews and experience-of-change interviews were employed.

This study found that successful ICT integration in English language teaching and learning required not only the readiness of teachers and students to engage with technology, but also the pedagogy to use that technology informed by an understanding of the cultural characteristics of the learners. Based on the main findings, a number of recommendations have been suggested in relation to policies, teacher training, curriculum design, and future research.
DECLARATION

I certify that this thesis does not, to the best of my knowledge and belief:

i. incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education;

ii. contain any material previously published or written by another person except where due reference is made in the text of this thesis; or

iii. contain any defamatory material.

Signature: [Redacted]

Date: 15th June, 2019
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<th>ACRONYM</th>
<th>FULL FORM</th>
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<tbody>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
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<tr>
<td>CDST</td>
<td>Collaboration and document sharing tool</td>
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<td>CLT</td>
<td>Communicative language teaching</td>
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<td>CMS</td>
<td>Course management system</td>
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<td>CEFR</td>
<td>Common European Framework of Reference for Languages</td>
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<td>EAL</td>
<td>English as an additional language</td>
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<td>ECCE</td>
<td>Early childhood care and education</td>
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<td>ECU</td>
<td>Edith Cowan University</td>
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<td>EFL</td>
<td>English as a foreign language</td>
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<td>ELT</td>
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<td>EoC</td>
<td>Experience of change</td>
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<td>English as a second language</td>
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<td>ICT</td>
<td>Information and communications technology</td>
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<td>IELTS</td>
<td>International English Language Testing System</td>
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<td>IT</td>
<td>Information technology</td>
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<td>KET</td>
<td>Key English Test</td>
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<td>First language</td>
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<td>Second language</td>
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<td>Language acquisition device</td>
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<td>LM</td>
<td>Learning motivation</td>
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<td>MoET</td>
<td>Ministry of Education and Training</td>
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<td>MKO</td>
<td>More knowledgeable other</td>
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<td>PEU</td>
<td>Perceived ease of use</td>
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<td>PPP</td>
<td>Present-practice-produce</td>
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<td>PU</td>
<td>Perceived usefulness</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<td>Social networking site</td>
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<td>SLA</td>
<td>Second language acquisition</td>
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<td>TAM</td>
<td>Technology acceptance model</td>
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<td>TOEIC</td>
<td>Test of English for International Communication</td>
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<td>UG</td>
<td>Universal grammar</td>
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<td>WA</td>
<td>Writing apprehension</td>
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<td>WTO</td>
<td>World Trade Organisation</td>
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<td>ZPD</td>
<td>Zone of proximal development</td>
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CHAPTER 1: INTRODUCTION

Overview

This chapter provides an overview of the study, commencing with the background to the research topic. This is followed by a discussion of the significance of the study and the research questions. This introductory chapter also provides information about the context of English language teaching (ELT) and an overview of information and communications technology (ICT) in Vietnam, before ending with a presentation of the organisation of the thesis.

Background to the study

English is the global language (Crystal, 2012) with one in every four people all over the world speaking it to a useful level (British Council, 2013). English is also considered the dominant language of business. As a developing country, Vietnam is actively integrating into the world economy. In this context, a human resource with English proficiency is what the country needs to be successful in the globalised world. Nguyen (2004) stated: “the government fully recognizes that English has become an international language and that it is the language for business, commerce, computer science and efficient use of the Internet, which is indispensable in the modern world” (p. 447). Hence, the Ministry of Education and Training (MoET) in Vietnam has identified the English language as the most important foreign language to be taught at all levels of education, especially at the tertiary level. Since the reform known as Doi Moi in 1986, the status of English has become more and more important, and ELT has become a key concern of the MoET (Hoang, 2008a; Lam, 2011; Ngoc & Iwashita, 2012). There have been educational policies and projects to promote the teaching and learning of English across the whole national education system to improve Vietnamese learners’ English proficiency. However, the level of proficiency among Vietnamese students has been evaluated as poor and has not met the demands of labour recruiters.

Meanwhile, ICT is attracting increasing attention as a medium for teaching (Mullamaa, 2010). ICT offers opportunities for enhancing the learning of students studying English as a foreign language in Vietnam. The MoET also has many policies and initiatives to encourage the use of ICT in teaching and learning in schools and
universities on a nationwide scale. The use of ICT in teaching and learning has become a trend in Vietnam (Nguyen, 2016).

As an English language lecturer since 2002, the researcher had eight years working in a state university before working for FPT University – a young private university founded by a technology company. The idea of how to review and update teaching methods and how to design learning activities that motivate students’ learning has been in the researcher’s mind ever since. Working in a university with high-tech infrastructure compared with the infrastructure available in the average university in Vietnam, the researcher was contemplating the question of how to make use of this strength to improve the quality of students’ learning. The researcher was most interested in teaching writing skills to students because writing is considered the most difficult language skill to acquire, yet important to obtain for both academic and professional success (Kitchakarn, 2014). At FPT University, English is the medium of instruction; therefore, students have to do their work in English from assignments to graduation theses. However, from the researcher’s own teaching experiences, it was apparent that when learning English, students often showed greater interest in practising skills like speaking, vocabulary or grammar rather than writing. To reduce the boredom when students did writing exercises individually, the researcher often organised group writing in her class in which students collaborated with each other to complete a writing task on a big sheet of paper. This writing activity was one solution for the researcher to encourage students to assist each other when writing. However, it posed some challenges to both the researcher and the students. First, it was difficult for the researcher to observe all the groups at the same time to ensure equal participation of all the members. Second, it usually took time to organise group writing during class. If it was assigned as homework, it would take students time to gather together to finish. Finally, it was inconvenient for students to share the one final writing paper after the researcher marked it. As a result, the researcher found it necessary to seek a solution to this problem that utilised the ICT advantages available in the university. In this research these opportunities were examined in the context of collaborative writing to explore how ICT can support collaborative writing to improve students’ writing skills, and their English proficiency.
Significance of the study

Empirical studies have shown that there are now favourable conditions for applying ICT in English language teaching and learning in Vietnam. These conditions include the legal framework featured in government policies, especially those of the MoET, and the improved ICT infrastructure both across the country in general and in support of education in particular. Moreover, studies also show that attitudes of teachers (Dang, 2013; Dinh, 2009) and students (Dang & Nguyen, 2014) towards using ICT in English language teaching and learning are positive: “It is clear that important conditions for successful ICT integration are met in Vietnam” (Peeraer & Van Petegem, 2011, p. 980). However, the widespread application of ICT in ELT has not been achieved. It seems that “ICT doesn’t live up to its expectation” (Davies, 2002). Peeraer, Tran, and Tran (2009) comment:

The use of ICT for teaching practice is limited at best. A baseline study by Peeraer (2009) in five teacher education institutions in Vietnam describes a high appreciation of ICT for education, but in practice, ICT is mainly used to replace existing teaching practice, in a very limited way. (p. 1)

The need to ascertain how to improve this situation is now urgent. Many researchers focus on teacher training, especially the need to identify appropriate forms of training to improve the effectiveness of teachers’ pedagogical use of ICT (Dang, Nicholas, & Lewis, 2013). In addition, the need to study good practices for ICT use in teaching different language skills is emphasised (Dang, 2013). Le and Vo (2014) comment that “an area that seems neglected is collaborative learning and self-learning” (p. 208). Therefore, a study on the use of ICT to foster students’ collaborative learning is warranted.

Moreover, “one form of collaborative learning is collaborative writing” (Ansarimoghaddam & Tan, 2013, p. 36). The theory underpinning collaborative writing is socio-cultural theory inspired by Russian psychologist Vygotsky (1978a) who theorised that learning takes place as a result of social interaction. Researchers have agreed on a considerable number of benefits of collaborative writing for language learners. Some of the more prominent ones include promoting motivation (Dooly, 2008), enabling students to learn more of what is being taught and retain information longer (Davis, 2009), fostering critical thinking (Bruffee, 1999; Cheung & Warren, 1996; Daiute, 1989; Dale, 1997; Gokhale, 1995), enabling students to produce texts
with greater grammatical accuracy (Meihami, Varmaghani, & Meihami, 2013; Storch, 2005), allowing them to interact on different aspects of writing and give, receive immediate feedback on the language (Storch, 2005), and preparing students to be effective employees, given that collaborative writing in the world of work is very common (Speck, 2002).

The benefits of collaborative writing and the affordances of ICT are the focus of this research. With the increased availability of ICT in Vietnam, can ICT support collaborative writing in an English as a Foreign Language (EFL) context?

While a great deal of research has been directed at helping EFL students improve their English language competency, including a number of studies which have made use of computers for computer aided instruction, few of these studies have taken place under classroom conditions or integrated current Web 2.0 technologies. Also, only a few studies have made use of collaborative writing and fewer have combined this with the advantages of ICT. Therefore, the researcher believes that a study of ICT in fostering collaborative writing for EFL learners is significant and timely.

It is hoped that this study will show the potential of using ICT to support and improve learning through collaborative writing in a Vietnamese university classroom. Previous studies have shown the potential of collaborative writing to improve outcomes in English language learning (Fong, 2012; Meihami et al., 2013; Storch, 2005, 2013). Other studies have shown the potential of ICT use in supporting collaborative writing (Brodahl, Hadjerrouit, & Hansen, 2011; Chao & Lo, 2011; Kessler, Bikowski, & Boggs, 2012; Kwan & Yunus, 2014; Shin, 2014; Warschauer, 2007). It is the aim of this study to see how feasible it is to implement ICT-supported collaborative writing and how people perceive the effectiveness of this learning mode in a Vietnamese university context.

**Research questions**

**Overarching research question:**

How can the application of ICT support collaborative writing in a Vietnamese EFL context?
Subsidiary questions:

1. To what extent are teachers’/students’ ICT skills and access supportive of the use of ICT in collaborative writing?
2. What are teachers’/students’ attitudes and perceptions towards using ICT in collaborative writing?
3. What are the pedagogical implications of ICT-supported collaborative writing in a Vietnamese EFL learning context?

Context of ELT and overview of ICT in Vietnam

This section begins by presenting the context of ELT in Vietnam, including a brief history and an overview of the current situation. Then this section presents an overview of ICT in Vietnam with brief information about the ICT infrastructure and ICT in education with the focus on policies to promote the use of ICT in teaching and learning across the whole education system.

Context of ELT

A brief history of ELT in Vietnam

The history of ELT in Vietnam is closely tied to the development of the country through different historical periods, each with its unique foreign language teaching policies. Chronologically, the teaching of English in Vietnam can be divided into four distinctive periods: (1) from the late 19th century until mid-20th century, (2) from 1954 to 1975, (3) from 1975 to 1986 and (4) from 1986 to the present.

From the late 19th century until mid-20th century

Vietnam became a French colonial country in 1884 after the French invasion; therefore, French was the dominant foreign language during this time (Denham, 1992). English had a presence during this period, but it is not clear how it was taught because no records remain of the teaching of English during these years (Hoang, 2008a). However, Lam (2011) noted that during this period, English was taught at senior high school as a compulsory language, but on a limited scale within the French-Vietnamese educational programs.
From 1954 to 1975

Vietnam gained independence from France in 1954 and was again divided into two parts – the North and the South – with the former following communism and the latter following capitalism. The North was allied with the former Soviet Union, China, and the Eastern European Bloc while the South was allied with the United States. Hence, Russian ranked highest among four recognised foreign languages in the North: Russian, Chinese, French, and English. Compared to Russian, English was considered inferior and of limited use (Denham, 1992; Hoang, 2008a). In contrast, English was the dominant foreign language in the South in all areas of life. According to Lam (2011), “under its language education policy, the government required English to be taught as a living language, not a foreign language, at all levels of the educational system” (p. 44).

From 1975 to 1986

The end of the Vietnam War in 1975 and the reunification of the country marked this period. These events precipitated a change in foreign language teaching. Denham (1992) notes that during this period “the Hanoi-based National Institute for Educational Research set targets for foreign language study in Vietnamese high schools, aiming to have 60% study Russian, 25% study English, and 15% study French” (p. 62). Thus, during this period Russian was the dominant foreign language taught in schools.

From 1986 to the present

This period saw the rise of English to become the dominant foreign language in Vietnam. This can be accounted for by a number of socio-political factors. First, the collapse of the Soviet Union and its domino effect in the Eastern European Bloc compelled Vietnam to reshape its alliance scheme with other countries to overcome hardships. The economic reform known as Doi Moi in 1986 and the lifting of the U.S. embargo policy in 1994 opened Vietnam to the outside world. As a result, this period witnessed increasing participation by Vietnam in regional and international organisations such as the Association of Southeast Asian Nations (ASEAN) and the World Trade Organisation (WTO). The movement of the economy towards a market-oriented one, along with the advent of globalization, were also driving forces for the rapid growth in demand for English language teaching and learning (Lam, 2011). All of the above-mentioned reasons help explain the boom of ELT during this period. As
Hoang (2008a) stated, “English is taught in schools, in universities, and in evening foreign language centres across the country” (p. 10).

**The current situation of ELT in Vietnam**

As an overview of the current situation of ELT in Vietnam, this section first describes English as a school subject, then evaluates higher education students’ English outcomes, and finally presents challenges to teaching and learning English.

**English as a school subject**

For an in-depth understanding of the current situation of ELT in Vietnam, it is important to understand the structure of Vietnam’s education system. In terms of formal education, the Vietnamese system includes the following (Nguyen & Nguyen, 2008, p. 122):

- Early childhood care and education (ECCE), comprising kindergartens and preschools;
- General education, comprising three levels: primary, lower secondary, and upper secondary;
- Vocational education of three stages: basic, intermediate, and college level; and
- Higher education: college, undergraduate, master’s degree, and doctoral level.

As outlined in Table 1.1, ECCE includes pre-school for children less than 3 years of age, and kindergarten for children aged 3 to 5 years. General education is for students aged 6 to 17 years, which covers primary school (Years 1-5), lower secondary (Years 6-9), and upper secondary (Years 10-12). Vocational education includes three levels: elementary (under 1 year), intermediate and college (1-3 years). Higher education has four levels: college (2-3 years), undergraduate (4-6 years), master’s (1-2 years), and doctorate (and additional 2-3 years for master’s degree holders or 4 years for university graduates).
Table 1.1
Levels of the Vietnamese Education System

<table>
<thead>
<tr>
<th>Level</th>
<th>Age</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctorate</td>
<td></td>
<td>4 years for university graduates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-3 years for master degree holders</td>
</tr>
<tr>
<td>Master</td>
<td></td>
<td>1-2 years</td>
</tr>
<tr>
<td>Undergraduate College</td>
<td></td>
<td>4-6 years</td>
</tr>
<tr>
<td>College</td>
<td></td>
<td>2-3 years</td>
</tr>
<tr>
<td>Vocational education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College</td>
<td></td>
<td>1-3 years</td>
</tr>
<tr>
<td>Intermediate Elementary</td>
<td></td>
<td>Under 1 year</td>
</tr>
<tr>
<td>General education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper secondary</td>
<td>6-17 years</td>
<td>Years 10-12</td>
</tr>
<tr>
<td>Lower secondary</td>
<td></td>
<td>Years 6-9</td>
</tr>
<tr>
<td>Primary</td>
<td></td>
<td>Years 1-5</td>
</tr>
<tr>
<td>ECCE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kindergartens</td>
<td>3-5 years</td>
<td></td>
</tr>
<tr>
<td>Pre-school</td>
<td></td>
<td>Under 3 years</td>
</tr>
</tbody>
</table>

English has been included in the general education curriculum from primary level to upper secondary level with the teaching duration increasing by time. During the period 1982-2002, English was not taught at primary level, was included as an elective subject at lower secondary level and was a compulsory subject at upper secondary level. In this period, two sets of textbooks were used concurrently. One set was for students starting to learn English from Years 10-12, and the other was for students starting to learn English in Years 6-12. Both groups of textbooks were mainly grammar based with grammar dominant in every section (Hoang, 2008a). Later, with a shift in the philosophy of foreign language teaching that put the learner at the centre and adjusted the role of the teacher from that of knowledge transmitter to knowledge facilitator, the textbooks required updating. In response, Decree No. 14/2001 TC-TTg on the Renovation of the Vietnamese General Education Curriculum was issued. This decree led to the design of a new curriculum and new textbooks for all school subjects by the MoET in 2002. By the time this initiative was completed in 2008, three new sets of English textbooks were in use across the entire national education system: one set was used for lower secondary level and two sets were used for upper secondary level. Hoang highlighted the key difference between this later period and the period 1982-2002: within the new curriculum, English became a compulsory subject at both lower and upper secondary levels and was introduced in the primary level as an elective subject starting from Year 3. Within each 35-week academic year, English is taught for two periods (equivalent to 1.5 hours) per week from Years 3 to 9 and for three periods
(equivalent to 2.25 hours) per week from Years 10 to 12. Therefore, a student is supposed to receive a maximum of 805 periods (equivalent to approximately 604 hours) of English teaching before reaching tertiary level.

Table 1.2
The Number of English Periods Taught in General Education (Hoang, 2008a)

<table>
<thead>
<tr>
<th>Level of education (Forms)</th>
<th>Number of periods taught each week</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary (Forms 3-5)</td>
<td>2/week/35 weeks</td>
<td>210</td>
</tr>
<tr>
<td>Lower secondary (Forms 6-8)</td>
<td>2/week/35 weeks</td>
<td>210</td>
</tr>
<tr>
<td>Lower secondary (9)</td>
<td>2/week/35 weeks</td>
<td>70</td>
</tr>
<tr>
<td>Upper secondary (10-12)</td>
<td>3/week/35 weeks</td>
<td>315</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>805</td>
</tr>
</tbody>
</table>

Note. One period is equivalent to 45 minutes

At the tertiary level, English is taught as both a discipline and a subject across the country. Many people have been trained in the former category to work as teachers, interpreters, translators, or researchers. In the latter category, English is taught as a mandatory subject in higher education in Vietnam. Hoang (2008a) states that:

In this category, students study 14/140 credit hours, accounting for 10% of the total credit hours of an undergraduate programme; 7/50 credit hours accounting for around 12% of the total credit hours of a graduate programme; and 3 (self-studied) credit hours at a doctoral programme. (p. 12)

Vietnam’s government also recognises the importance of English in developing the country in this era of globalisation. The 10-year National Plan for “Teaching and Learning Foreign Language in the National Formal Education System in the Period of 2008-2020”, also referred to as the 2020 Project, was approved in Decision No. 1400/QD-TTg issued by the Vietnamese Prime Minister on September 30th, 2008 (Hoang, 2008a). The goal of the 2020 Project is that:

...by 2020 most Vietnamese young people graduating from secondary vocational schools, colleges and universities will be able to use a foreign language confidently in their daily communication, their study and work in an integrated, multi-cultural and multi-lingual environment, making foreign languages a competitive advantage of the Vietnamese people to serve the cause of industrialization and modernization of the country. (Hoang, 2016, pp. 11-12)

The 2020 Project consists of three phases (Hoang, 2016). In the first phase (2008-2010), designing and perfecting the English curriculum and textbooks for the 10-year foreign language programme were the main objectives. The second phase (2011-2015) focused on introducing the 10-year language programme into the whole education system. The third phase (2016-2020) continues to perfect the 10-year foreign language
programme and develops intensive foreign language programmes for education at the tertiary level including secondary vocational schools, colleges and universities. Designing and perfecting the English curriculum and textbooks for general education under the 2020 Project have been realised in three pilot English curricula: (1) Chương trình tiếng Anh thí điểm tiểu học (Pilot English Curriculum for Vietnamese Primary Schools) (Ministry of Education and Training, 2010a); (2) Chương trình giáo dục phổ thông môn tiếng Anh thí điểm cấp trung học cơ sở (Pilot English Curriculum for Vietnamese Lower Secondary Schools) (Ministry of Education and Training, 2012b); (3) Chương trình giáo dục phổ thông môn tiếng Anh thí điểm cấp trung học phổ thông (Pilot English Curriculum for Vietnamese Upper Secondary Schools) (Ministry of Education and Training, 2012c). English teaching and textbooks within the new curriculum have been designed for the duration of general education, as illustrated in Table 1.3.

Table 1.3
The Number of English Periods Taught in General Education Under the 2020 Project (Ministry of Education and Training, 2010a, 2012b, 2012c)

<table>
<thead>
<tr>
<th>Level of education (Forms)</th>
<th>Number of periods taught each week</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary (Forms 3-5)</td>
<td>4/week/35 weeks</td>
<td>420</td>
</tr>
<tr>
<td>Lower secondary (Forms 6-9)</td>
<td>3/week/35 weeks</td>
<td>420</td>
</tr>
<tr>
<td>Upper secondary (10-12)</td>
<td>3/week/35 weeks</td>
<td>315</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>1,155</td>
</tr>
</tbody>
</table>

*Note. One period is equivalent to 45 minutes*

Based on the Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR), a framework with six levels of English proficiency has been developed in Vietnam as a standard for assessing students’ English proficiency (Ministry of Education and Training, 2014). The English proficiency requirement for each level is presented in Figure 1.1. Primary students are required to achieve Level 1; lower secondary and vocational training students, Level 2. Students graduating from upper secondary schools, non-English major college students, and non-English major university students should attain Level 3. Levels 4 and 5 are required for English major tertiary students.
Despite numerous initiatives, English competency is still poor among Vietnamese higher education students (Hoang, 2008a; Kieu, 2010; Le, 2013; Tran, 2013). Hoang (2008b) revealed a study in which 60 students were chosen to undertake an English test from the Key English Test (KET) consisting of 60 questions covering three language skills: reading, listening, and writing. However, 12 students were disqualified because of their low scores. Twenty five of the remaining 48 students were randomly selected to take part in the speaking test. It was disappointing that just one student achieved the score of 7.5/10 for all four skills. Surprisingly, only 30% of them achieved 5.0/10 for listening and speaking skills, and about 35% achieved 5.0/10 for writing. In another study (Do, 2012), 990 non-English major students from five universities in the south of Vietnam did the Test of English for International Communication (TOEIC). The majority of them (90%) had poor results. TOEIC takers can receive a maximum score of 990 points, and candidates are required to achieve a minimum TOEIC score of 550 points to satisfy employers in Vietnam. However, Do found that nearly 90% of the participants only a score of 360-370 points. This finding indicated that Vietnamese students fell well below the requirements of employers. Although Vietnamese students’ English proficiency has progressed in recent years (Tung, 2016), Le (2016) reported that, according to the MoET, only 49% of graduate students achieved the required level of English, 18.9% failed to achieve this level and 31.8% needed to be retrained. Most Vietnamese learners find English writing skills the
The most challenging aspect of the language. The statistics from www.ielts.org shows that in comparison with other ASEAN countries like Indonesia, Malaysia, the Philippines and Thailand, Vietnamese International English Language Testing System (IELTS) test takers achieved the lowest mean band score in 2017 (see Table 1.4). The table shows that the overall score obtained by Vietnamese test takers was the lowest (5.92) compared with candidates from Thailand (5.98), the Philippines (6.84), Malaysia (6.89) and Indonesia (6.38). Notably, the writing score was the lowest among all four skills for Vietnamese IETLS test takers. While they achieved 5.97 for listening, 6.17 for reading, and 5.71 for speaking, they only obtained 5.59 for writing. This result supports the evidence that learners of English often find it more difficult and time-consuming to master writing skills than they do communicative skills such as listening and speaking (Kavaliauskienė, 2010).

Table 1.4
IELTS Mean Band Score in 2017 (source: https://www.ielts.org/teaching-and-research/test-taker-performance)

<table>
<thead>
<tr>
<th>Country</th>
<th>Listening</th>
<th>Reading</th>
<th>Writing</th>
<th>Speaking</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>6.55</td>
<td>6.67</td>
<td>5.78</td>
<td>6.27</td>
<td>6.38</td>
</tr>
<tr>
<td>Malaysia</td>
<td>7.27</td>
<td>7.07</td>
<td>6.25</td>
<td>6.71</td>
<td>6.89</td>
</tr>
<tr>
<td>Philippines</td>
<td>7.27</td>
<td>6.80</td>
<td>6.20</td>
<td>6.85</td>
<td>6.84</td>
</tr>
<tr>
<td>Thailand</td>
<td>6.25</td>
<td>6.03</td>
<td>5.46</td>
<td>5.91</td>
<td>5.98</td>
</tr>
<tr>
<td>Vietnam</td>
<td>5.97</td>
<td>6.17</td>
<td>5.59</td>
<td>5.71</td>
<td>5.92</td>
</tr>
</tbody>
</table>

Challenges with teaching and learning English in Vietnam

The quality of teaching and learning English in both general and tertiary education in Vietnam is low and fails to meet the demands of the country’s socio-economic development (Hoang, Nguyen, & Hoang, 2006). There are many challenges that influence the quality of teaching and learning English in the country: the impact of a teacher-centred approach, a lack of well-qualified teachers and a lack of teaching facilities, for example.

The influence of traditional pedagogy on ELT in Vietnam: the teacher-centred approach

Vietnam has sustained many foreign invasions from the Chinese, the French, the Japanese and the Americans. However, the Chinese dominated Vietnam for the longest period, exceeding more than one thousand years, from 111 BC to AD 939. Although
Vietnam resisted assimilation by Chinese culture, Chinese influence on Vietnamese society was inevitable, especially the influence of Confucianism. Confucianism became deeply rooted in many aspects of life, and perhaps the most evident impact was in education. Confucian ideology affected perceptions among Vietnamese people of the roles of education and teachers. As a consequence, Vietnamese people have great respect for both; the teacher is believed to be the source of knowledge, the role model who transmits information to the learner. This belief can shape people’s attitudes toward education and bolster their motivation to learn. Moreover, once learners respect their teachers, they may behave better at school and be more attentive in class. However, the negative effects of Confucian ideology seem to overwhelm the positive ones. As predetermined by this ideology, learners are supposed to listen to teachers and accept that what they say is true and unquestionable. The relationship between teachers and students is formal and hierarchical. The learner’s way of learning is to listen, take notes and learn by heart the information delivered by the teacher. As a result, traditional pedagogy in Vietnam takes a teacher-centred approach, as Kustati (2013) commented, “the learning culture in turns shape classroom practices, in which by teacher-centered is still a common place in the classroom” (p. 271).

In Vietnam, this approach is still dominant. Le (2001) asserted that:

Central to pedagogical practices in Vietnam is the traditional view of the teacher-student relationship. This view supports teacher-centred methods and a structured curriculum. The teacher is supposed to be the only provider of knowledge and therefore she/he is highly respected by the students, students’ parents, and the society as a whole. What the teacher or the textbook says is unquestionably standard norms. (p. 35)

This pedagogy drives the rote learning that also undermines students’ creativity. Nguyen (2017) described the role of the classroom teacher within this approach:

In an ELT classroom, the teacher, rather than being a facilitator or scaffolder of learning, has complete control. The teacher has to prepare a lecture for every class and supply the correct answers to every exercise undertaken by the students. Most of the communication flows through the teacher who makes most of the decisions pertinent to the learning process including what will be done, where it will be done, how it will be done, and by whom it will be done. The teacher resembles an actor who performs a “live” show on stage, while the students watch and listen like a theatre audience. (p. 6)
The passive rote learning that continues to dominate in Vietnamese education is a clear weakness of the system. While tertiary students are expected to be more active in learning and have a different learning method from those at lower levels, they are still passive and very dependent on their teachers. The dominant way of learning for university students is to listen, take notes, and try to remember the knowledge they receive from their lecturers and textbooks. Students rarely have opportunities to explore information by themselves or apply in practice what they learn theoretically. Le (2001) stated that:

Influenced by Confucianism, students feel rude if they interrupt, question, or argue with their teacher. Language activities like role plays, problem-solving tasks, or information gap activities are strange to their culture of learning. When they fail to understand something, they are not daring enough to ask for clarification in public for fear of losing face. They are not pro-active enough to initiate interaction, either. In the classroom, they are expected to sit in silence unless the teacher calls them individually to speak. (p. 36)

Along with the teacher-centred approach, the dominant English teaching method for many decades has been grammar-translation (Kam, 2002; Le, 2007). This teaching method focuses on grammatical and lexical accuracy and pays attention to form rather than meaning (Le & Banard, 2009). The grammar-translation method has been criticised for the fact that many Vietnamese learners become “deaf and dumb” in English and unable to use the language to communicate (Le, 2011; N. T. Nguyen, 2011). This situation demands a change in Vietnamese education in general and in the pedagogy of teaching in particular. In response, a shift to a learner-centred approach in ELT, evident with the implementation of communicative language teaching (CLT) has been supported since the beginning of the 1990s. As Kustati (2013) stated, “English syllabus development in Vietnam attempted to move towards CLT” (p. 271). CLT, which emphasises the mastering of communicative ability rather than grammatical structures, has been welcomed and is expected to change the traditional teaching pedagogy and improve the quality of teaching English. Despite teachers’ positive attitudes towards this learning method, the implementation of this Western teaching approach has been either limited or ineffective (Le, 2011; Ngoc & Iwashita, 2012; Tomlinson & Dat, 2004). The factors that prevent successful implementation of the CLT approach are contextual. Pham (2007) provides clarification:

These factors range from systematic constraints such as traditional examinations, large class sizes, to cultural constraints characterized by beliefs
about teacher and student role, and classroom relationships, to personal constraints such as students’ low motivation and unequal ability to take part in independent active learning practices, and even to teachers’ limited expertise in creating communicative activities like group work. (p. 200)

In a study by Nguyen, Warren, and Fehring (2014), teachers who focused too much on teaching grammar were found 50% of the observed classes. This was confirmed by Nguyen (2017), who reported: “classroom teaching remains grammar and vocabulary-focused, teacher-centred, and textbook dependent” (p. 7).

The lack of well-qualified teachers

Another major reason for the low quality of ELT in Vietnam is the lack of teachers proficient in English (Hoang, 2008a, 2018). To obtain the required standard of ELT, the teacher is of great importance. A large body of literature has focused on teacher quality because it is found to exert a considerable influence on students’ learning outcomes (Foster, Toma, & Troske, 2013; Nghia, 2015). However, most of the English language teachers in Vietnam are Vietnamese and many of them do not have correct English pronunciation. In addition, teaching methods are out-dated; teachers fail to ensure they are conversant with new teaching methods and lack the resources to invest in improving their expertise (Nhat, 2017). Parks (2011) reported that amongst 700 primary English language teachers in Mekong Delta’s Ben Tre province who had been tested to determine whether they reached a B2 level of English language proficiency (equivalent to Level 4 or upper-intermediate level of English), only 61 achieved the required score. In Hue, a city in central Vietnam, only 20% scored B2 or higher when 500 primary and secondary teachers took tests provided by the British Council. In Hanoi, the capital city of Vietnam, teachers have been progressively taking the IELTS test and 18% have so far achieved the B2 grade. The MoET has reported that in one province the pass rate was especially low (one in 700). "Thanhnien News" (2012) reported the result of a national survey showing that most English language teachers in Vietnam were lagging behind international standards.

The lack of teaching facilities

The lack of teaching facilities is a further challenge in teaching and learning English. Most classes are still not equipped with computers or projectors but simply with textbooks, blackboards, chalk and cassette players (Hoang, 2018). As a result,
there is a lack of technology-based activities in classes (Trinh & Mai, 2018) and a remain in “teachers’ limited use of teaching aids and technology” (Nguyen et al., 2014, p. 94).

ICT is recognised as a resource with educational affordances and possibilities for teachers and learners. In fact, Peeraer et al. (2009) stated, “ICT is high on the education reform agenda in Asian countries” (p. 1). Interest in using ICT in education is on the rise in Vietnam.

**Overview of ICT in Vietnam**

**General ICT infrastructure and use**

Vietnam was officially connected to the Internet on 19th November 1997. This event marked an important milestone in the country’s ICT industry. Since then there has been a dramatic development ICT, which has significantly changed most aspects of life in Vietnam. The number of computers owned, Internet users, 3G mobile phone subscribers and broadband Internet subscribers have all increased rapidly (see Figures 1.2) (Ministry of Information and Communications, 2010, 2014). As shown in Figure 1.2, the percentage of households with computers in Vietnam increased gradually from 10.35% in 2008 to 18.80% in 2012. Over the period 2009-2013, the number of 3G mobile phone subscribers increased by nearly three times from 7,029,368 subscribers to 19,685,176 subscribers; the number of Internet users increased from 22,779,881 users to 33,191,166 users and the number of broadband Internet subscribers went up by nearly seven times from 3,214,179 subscribers to 22,367,357 subscribers.
The importance of ICT in the industrialisation and modernisation of the country has been appreciated by the Vietnamese government (Directive 58-CT/TW). At the Vietnam ICT Summit in 2013, Vietnamese Prime Minister – Nguyen Tan Dung stressed that ICT was the foundation of the country’s new mode of development. He also stated that ICT development and application was an important task for the whole socio-political system. Consequently, the National Commission on Application of Information Technology was established at the beginning of 2014. Soon after that, Resolution No.36-NQ/TW was promulgated to facilitate the use and development of ICT to meet the demand for sustainable development and international integration (Ministry of Information and Communications, 2014).

**ICT in education**

Directive 58-CT/TW issued in 2000 emphasised the application of ICT across all educational levels and learning majors, especially the development of computer networks to support education and training, and Internet connection for all educational
institutions. In 2008, the MoET and Viettel Telecom signed a memorandum of understanding which led to a significant improvement in Internet connectivity in educational institutions across the country. This memorandum required Viettel to provide high quality Internet connections to all educational organisations and institutions in the country, even in rural areas (see Figure 1.3). As a result of the memorandum, Viettel connected and updated the Internet to 30,593 educational institutions nationwide, with 81% of these educational units using Leased Line Internet (FTTH, ADSL, 3G) (An, 2014)

Figure 1.3 The educational network system EDUNET (Ministry of Education and Training, 2010b).

Directive 58-TC/TW was the foundation for the MoET to put into action a number of policies to boost ICT integration in education. The list below illustrates examples of such policies.

- The Master Plan for ICT in education for the period 2001-2005 launched in 2000 by the MoET to realise the directions for the development and application of information technology (IT) in education (Peeraer & Van Petegem, 2012a);
- Directive 29 on promoting teaching, training and integrating ICT in education for the period 2001-2005 (Ministry of Education and Training, 2001);
- Directive 55/2008/CT-BGDDT on promoting teaching, training and applying ICT in education 2008-2012 (Ministry of Education and Training, 2008);
- Launching 2008-2009 as the “Year of ICT” (Peeraer & Van Petegem, 2012a);
• Dispatch on guiding the implementation of IT tasks from the MoET to DoETs (District Office of Education and Training) (Ministry of Education and Training, 2012a, 2016, 2018)

**Organisation of the thesis**

This thesis consists of six chapters (see Figure 1.4): Introduction, Literature Review, Methodology, Phase 1 – Feasibility Investigation, Phase 2 – The Intervention and Conclusions and Implications.

![Thesis outline diagram]

*Figure 1.4 Thesis outline.*

Chapter 1 has provided background to the study, discussed the significance of the study and established the research questions. This was followed by an overview of ELT and ICT in Vietnam. The chapter concludes by outlining the organisation of the thesis.
Chapter 2 reviews the available literature on the theoretical foundations for collaborative learning, collaborative writing, ICT and its affordances in education and collaborative writing. This chapter also focuses on the factors influencing ICT integration from the perspectives of teachers and students. Finally, a conceptual framework of the study is introduced.

Chapter 3 presents the research design of the study. The research setting (FPT University) is described to provide an overview of the selected research site. The issues of reliability, validity, transferability and authenticity are addressed followed by a discussion of the process of data collection and analysis. Finally, the approach taken to ethics during the research is examined.

Chapter 4 reports the key results from the surveys delivered to the teachers and students at FPT University in Phase 1 of the study. These results then informed the selection of suitable technologies to be used in Phase 2 of the study.

Chapter 5 reports the results of the intervention in which a virtual collaborative writing environment using Facebook and Google Docs was established. The data collected from various sources during the intervention such as observations, focus group interviews and experience-of-change interviews (EoC) were analysed.

Chapter 6 synthesises the findings from Phase 1 and 2 of the study by first summarising the key research findings and then discussing the findings for each of the three research subsidiary questions, or subquestions, in relation to the relevant literature. Chapter 6 also discusses the theoretical, pedagogical, methodological and practical contributions made by the study, and focuses on the implications of the study for ICT use in English language teaching and learning in Vietnam. The chapter concludes the dissertation, acknowledges the limitations of the current study and provides recommendations for future research.
CHAPTER 2: LITERATURE REVIEW

Overview

This chapter provides a structured summary of the literature reviewed to develop a conceptual framework and research design for the study. Four distinct and diverse fields from the research literature – first and second language theories, CLT, collaborative writing and ICT – were identified and reviewed to help conceptualise, inform, develop and position this research. The major aim of this study is to identify how the application of ICT can support collaborative writing in a Vietnamese EFL context, and to identify the pedagogical implications for Vietnamese educators who wish to introduce collaborative learning into their English teaching. The fields that provide the foundation for collaborative learning – first and second language learning, CLT and ICT – are illustrated in Figure 2.1. This chapter first considers the links between first and second language theories and how they have shaped CLT and current practices such as collaborative learning. Second, this chapter provides an overview of CLT as collaborative writing is a strategy that sits within this approach. This chapter then outlines the significance of collaborative writing as a teaching method after providing an overview of approaches to teaching writing skills. Finally, an analysis of the literature sheds light on areas of ICT-supported collaborative writing, social media as a potential ICT tool for education and factors influencing ICT acceptance with specific reference to theoretical models for technology acceptance. These analyses are the basis for the development of the conceptual framework.
To provide an insight into the foundation of collaborative learning, it is first necessary to consider the links between first and second language theories and how they have shaped CLT and current practices such as collaborative learning.

Although theorists differ in their views about how learners acquire their first and second languages, there are observable links between first and second language theories. Five recognised schools of psychology have been used by theorists to explain first language acquisition. These are behaviourism (Skinner, 1965), nativism (Chomsky, 1967), cognitivism (Piaget, 1967), interactionism (Vygotsky, 1978a), and pragmatism (Bruner, 1974; Halliday, 1973). These theories are classified according to the emphasis each type gives to the variables considered to be important in language learning (Larsen-Freeman & Long, 1991; Lightbown & Spada, 2006). Strategies from each of these theories, although slightly modified, have continued to proliferate in current teaching practice and link to theories of second language learning.

As there is a direct relationship between how behaviourism links first and second language teaching, these will be discussed together when addressing this theory. This will be followed by an explanation of first language theories: nativism, cognitivism, interactionism and pragmatism. Finally, the second language theories proposed by Krashen (1982) will be discussed.
**Behaviourist theory and first language learning**

Historically, the debate around what determines learning – nature or nurture – has proved controversial and has involved psychologist as well as linguists. As early as 1897, the behaviourist theory contended that psychology, as a science, should study learning behaviour in an observable, objective manner (Mcleod, 2017). The approach advocated using stimulus-response methods because of a belief that all behaviour, even complex behaviour such as thinking and emotions, is the result of a response to stimuli which can be influenced and controlled in various ways. It assumes that learners are essentially passive but will respond to environmental stimuli.

**Classical conditioning**

These key ideas about behaviourism (Pavlov, 1902; Thorndike, 1905), however, were the result of experiments conducted with animals rather than humans. Known as classical conditioning, this kind of behaviour modification, is based on the premise that introducing a new stimulus several times can alter an automatic, involuntary response to a familiar stimulus, until the behaviour becomes associated with the new stimulus. Learning is based on repetition. In Pavlov’s dog experiment, for example, the food he offered the dog represented an unconditioned stimulus. The resulting salivation by the dog was automatic and therefore an unconditioned response. He then rang a bell (the neutral stimulus) several times until the dog learned to associate the sound of the bell with food. Then the bell became a conditioned stimulus which produced the conditioned response of salivation after repeated associations (bell + food). Hence, learning involves repetitions of new information until it associates with something known.

**Operant conditioning, Confucianism and links to second language learning**

Pavlov’s work was later extended and applied to humans through the process of operant conditioning. This process was introduced by two researchers: Watson (1924), whose main premise was that humans respond to punishments and rewards, and Skinner (1957) who posited that learning is the process of habit formation which is achieved through the stages of stimuli –response – reinforcement until the desired behaviour is formed as a habit. Consequently, rewards and punishments are assumed to be the factors that drive learning motivation. The operant conditioning theory was heavily influenced by the work of Thorndike (1932), who proposed two premises of learning: *the law of effect* and *the law of exercise*. According to the principle underlying the law of effect, actions that are followed by desirable outcomes are more likely to be repeated;
conversely, those followed by undesirable outcomes are less likely to recur. The law of exercise states that learning occurs in response to the duration and number of times that the target situation is presented to the learner. According to advocates of operant conditioning, the mind is considered a tabula rasa (a blank state) and children are born with no innate mental content. Therefore, the teacher is viewed as a highly knowledgeable transmitter of information, which presupposes that teachers will convey important facts to learners and drill those facts during the teaching process. The learner’s role is to absorb the knowledge transmitted by the teacher and to store it for later use. The learning proficiency of the students is then tested, and success is assessed by how much the student can remember. Proponents of this theoretical approach include those in favour of the nurture theory, which asserts that the environment determines how a learner acquire a language.

It is commonly held that learning through operant conditioning is a customary feature of societies that embrace Confucian ideology. Ellias and Merriam (2005) contend that the legacy of Confucianism is so influential that in many Asian countries, teachers continue to be revered as experts and authorities who decide and dispense the knowledge that they judge is important. Learners are the proverbial “empty vessels” and are expected to acquire, absorb and store knowledge, facts and processes using techniques such as rote learning and reproduce these under exam conditions. As Wang (2014) also notes:

Westerners who teach students from societies such as Singapore, Malaysia, Hong Kong, China, Taiwan, and other Confucian – Heritage Cultures frequently comment that they prefer didactic teaching and rote learning to critical thinking and treat their teacher as an unchallengeable authority. …Teachers lecture a lot and focus closely on getting the best results in externally set examinations. Examinations tend to focus on lower level cognitive goals, are highly competitive, and put intense pressures on students and teachers alike. (pp. 9-10)

**Behavioural theory: direct links to second language learning**

The formation of the two English as an additional language (EAL) teaching methods, the audio-lingual method (Larsen-Freeman & Long, 1991) and the grammar translation method (Richards & Rodgers, 2012), were both based on behavioural theory. Prominent in both methods was a strong emphasis on imitation, rote learning and memorisation, which persists today as the present – practice – produce (PPP) model commonly used in Vietnamese classrooms. To quote Wang (2014):
There is an important distinction between rote learning – mechanistic and without thought - and learning which uses repetition as a strategy to ensure accurate recall. If this learning aims at understanding, and repetition is a means to this, it can be a strategy for deep rather than surface learning. It is a mistake to assume that all use of repetition in learning is a ‘surface’ approach: the key is in the context of the technique, rather than the specific technique itself. (p. 10)

This concurs with Richards (2006) who notes that the PPP strategy has been modified for use in contemporary EFL/English as a second language (ESL) classrooms by ensuring that the target structures are natural language that is meaningful and communicative. The focus has also changed to ensure that target language items are illustrated, recognised and comprehensible to the learner and that the learning transfers to further situations.

**Nativist theory and first language learning**

Nativist theory was initially proposed by Chomsky (1965) who noted that the process of stimulus – response could neither explain the rapidity of human language acquisition nor account for the incorrect – although logical and creative – language constructs young children invent. Alternatively, he argued that humans possess a set of innate properties of language within a hypothetical tool he called the language acquisition device (LAD). He maintained that the LAD is the main determinant of language acquisition accompanied by an underlying knowledge of grammar that he termed the theory of universal grammar (UG). Thus, according to Chomsky, learners are born with innate language-specific knowledge that enables them to acquire most language constructs within the first five years of life. These theories combine to explain just how quickly young children can acquire language abilities (by virtue of LAD), as well as to account for the apparently innate understanding of grammar and syntax all children possess (by virtue of UG).

**Cognitivist theory and first language learning**

Bromley (1988) credits Piaget’s research in the late 1960s as the driving force behind the cognitivist movement which, in addition to other important aspects of child development, identified the significance of the environment and sensory input in children’s language learning and acquisition. According to the cognitivists, children are naturally curious and as a result, they explore, experiment and absorb new information by organising their ideas and assimilating and accommodating new knowledge gained
from external events. Like Chomsky, Piaget noted that in doing so, children often overgeneralise. Cognitivist theory maintains that learning is not simply a mechanical process brought about by the repetition of input, it is essentially a cognitive process in which interaction, perception, reasoning and intellectual development leads to the formation of cognitive schemes and further language development.

**Interactionist theory and first language learning**

Interactionists such as Vygotsky (1962) broadened Piaget’s hypothesis of the role social context performs in first language acquisition by affording more importance to the role that parents and significant others provide through the modelling, extension and correction methods they use. For example, it is common for an adult to echo back the correct structure if a child over-generalises a concept, uses telegraphic speech or if the utterance is grammatically incorrect. As correction techniques, teachers of both first and second language learners use these forms of scaffolding and modelling.

Collaborative learning is inherent in Vygotsky’s interactionist theory, which views learning as a social process. An important attribute of this theory is that the higher mental functions of humans - such as rational thought and learning - are initiated by social activity (Johnson, 2003). To quote Vygotsky (1981):

> Any function in the child’s cultural development appears twice, or on two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an inter-psychological category, and then within the child as an intra-psychological category. (p. 163)

Hence, higher mental functions originate from social interactions. Through interpersonal activities, concepts and language patterns stimulated by the activities are internalised by individuals. The process from interpersonal to intrapersonal is described as a gradual movement from the initial stage (the object-regulated stage), to the other-regulated stage and finally to the self-regulated stage (Johnson, 2003). To explain the relationship between the interpersonal and the intrapersonal planes, Vygotsky introduced the concept of a zone of proximal development (ZPD). The ZPD, according to Vygotsky (1978a), is the distance between the current developmental level of a child and his or her potential level and the scaffolding provided will help the child to achieve this level. That is, the ZPD is “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more
capable peer” (Vygotsky, 1978a, p. 38). The ZPD is graphically illustrated in Figure 2.2.

According to this definition, there are two levels of development: the actual level and the potential level. The actual level refers to the stage where individuals can work independently. The potential level is the stage where they cannot work independently and need the assistance of others. Lin (2015) emphasises that by working collaboratively with more capable peers, students have the potential to achieve a greater level of development. According to Lin, “peer scaffolding also serves as a mediating tool to promote learners’ ZPD and it has a valuable role to play in language learning situations” (p. 13).

In the Vygotskian tradition, collaborative learning emphasises that social interaction either among students, or between a teacher and students, assists in the learning process. Wood, Bruner, and Ross (1976) use the term scaffolding to refer to the assistance given to individuals so that they can move from their actual level of development to their potential level. To summarise, interactionist theory supports the view that collaborative learning creates more opportunities for students to develop their cognitive ability through social interactions with more competent peers.

**Pragmatist theory and first language learning**

Early pragmatists such as Halliday (1973) and Bruner (1974) provided further insight into first language learning by focusing on the purposes (functions) that they believe motivate children to communicate. According to pragmatists, a wide range of
human needs is served by seven functions referred to as: *instrumental*, *regulatory*, *personal*, *heuristic*, *representational*, *imaginative* and *interactional*. These seven functions serve to motivate children to learn language in order to socialise, learn, create, share, express their opinions and direct the behaviour of others. The interactional function stimulates children to develop relationships with others, while the imaginative function provides the motivation to create, imagine and narrate events. To command or influence other people, children need instrumental and regulatory language; whereas, the heuristic function is used when a child is seeking information, learning and discovering new concepts.

**Second language learning and links to first language learning: Krashen**

Krashen (1977, 1982, 1985) whose theories vied with behaviourism, introduced a range of hypotheses to explain second language acquisition (SLA). These hypotheses which targeted the learning of English as an additional language were inclusive of theories supporting nativism, cognitivism, interactionism and pragmatism. The five hypotheses he proposed included the following: the acquisition-learning hypothesis; the monitor hypothesis; the comprehensible input hypothesis; the natural order hypothesis, and the affective filter hypothesis.

Krashen argued that children use two different systems to learn a second language: acquisition and learning. According to his acquisition-learning hypothesis, learners acquire a language subconsciously through meaningful interactions; that is, they acquire the patterns of their language by natural means. The subconscious processing of language input involves a communicative act that is sometimes referred to as “ear grammar”. This accords with Piaget’s earlier cognitivist theories (1967) which also stressed the importance of interaction and subconscious learning. In contrast, learning is a conscious process involving formal classroom instruction and experience in which target language forms and linguistic rules are the focus of instruction.

However, according to Krashen’s natural order hypothesis, the rules of grammar are not random, but acquired in a predictable and natural order; that is, some are learned earlier than others. For example, conceptually, the passive voice is one of the most difficult grammatical structures for a child to acquire. A common observation of many first and second language teachers is that not every child will follow the same pathway. However, EFL students often follow the five-stage pattern of acquisition common to
young first language (L1) learners. The stages pass from holophrastic speech (one-word utterances) to two-word sentences (noun + verb), then telegraphic speech (content words + the omission of function words), to more complex grammatical structures (often over-generalised) before attaining correct structures and self-correction.

Although Krashen (1989) considered learning to be less important than acquisition, he further stated in his monitor hypothesis that understanding language rules attained through formal learning can help students to plan, edit and correct their spoken and written language performance in the target language and that under three conditions the learned system acts as a monitor for output. That is, speakers and writers can self-correct if they know the rule, focus on the form—rather than the meaning—and have sufficient time to correct the error. Larsen-Freeman and Long (1991) classify UG and the monitor model as important components of nativist theory. However, it is the message (language) not the medium (grammar) that should indicate progress in language proficiency.

Possibly, Krashen’s most significant theory is that of his comprehensible input hypothesis, which is mainly concerned with acquisition, rather than learning. This hypothesis proposes that second language is acquired through making sense of what is heard and read. Krashen introduced the formula $i$+1 to express how learners can acquire a language. In his model, $i$ represents a learner’s current level of understanding and ‘+1’ represents information that is a little beyond the existing level of understanding. To make the new language item comprehensible to learners, Krashen proposes that modified input be devised by carefully considering the difficulty level of the language item to ensure that suitable support (scaffolding) can be supplied. In this way, the learner is supplied with extra-linguistic cues to link the known to the new information (Krashen, 1989). This concurs with the ZDP concept proposed by Vygotsky (1978a).

According to Krashen’s affective filter hypothesis three factors can influence the effectiveness of SLA. Affective variables such as anxiety, motivation, and self-esteem can prevent a learner from acquiring a language. The affective filter can be positive and facilitate second language development, or it can be negative and harmful to students. If a learner is stressed, then the affective filter is raised, and a mental block can form (Krashen, 1985). A supportive environment is one that lowers the affective filter to promote SLA. Krashen asserts that successful language learners are those who are motivated, self-confident and who have positive self-esteem and low anxiety levels.
The link between learning motivation and collaborative learning

Motivation plays an important role in fostering second/foreign language (L2) learning (Dörnyei, 1994; Keblawi, 2006; Lai, 2013). Two Canadian psychologists, Robert Gardner and Wallace Lambert, who grounded motivation in a social psychological framework, have inspired a considerable amount of research on the nature and role of motivation in L2 learning (Dörnyei, 1994). Based on the research on motivation in L2 learning, Dörnyei constructed a general framework of L2 motivation that consists of three levels: the language level, the learner level, and the learning situation level (see Table 2.1).

Table 2.1
Components of Foreign Language Learning Motivation (Dörnyei, 1994, p. 280)

<table>
<thead>
<tr>
<th>LANGUAGE LEVEL</th>
<th>Integrative Motivational Subsystem</th>
<th>Instrumental Motivational Subsystem</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEARNER LEVEL</td>
<td>Need for Achievement</td>
<td>Self-confidence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Language Use Anxiety</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Perceived L2 Competence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Causal Attributions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Self-Efficacy</td>
</tr>
<tr>
<td>LEARNING SITUATION LEVEL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Course-Specific Motivational Components

- Interest
- Relevance
- Expectancy
- Satisfaction

Teacher-Specific Motivational Components

- Affiliative Drive
- Authority Type
- Direct Socialization of Motivation
  - Modelling
  - Task presentation
  - Feedback

Group-Specific Motivational Components

- Goal-orientedness
- Norm and Reward System
- Group Cohesion
- Classroom Goal Structure

The motivation construct at the language level, in accordance with Gardner (1985), is the interplay between integrativeness and instrumentality. While the former involves “a positive disposition toward the L2 group and the desire to interact with and
even become similar to valued members of that community” (Dörnyei, 1994, p. 274),
the latter is related to the practical benefits to the language acquirer of having the
language proficiency such as job opportunities. The motivation components at the
learner level take into account motives that can affect a person’s behaviour such as need
for achievement and self-confidence. The learning situation level encompasses the
intrinsic and extrinsic motivations in three areas:

1. Course-specific motivational components are related to the syllabus, the
   teaching materials, the teaching method, and the learning tasks. According to
   Crookes and Schmidt (1991), four major motivational factors in L2 classrooms
   are interest, relevance, expectancy, and satisfaction.
2. Teacher-specific motivational components are made up of affiliative
   drive, authority type and direct socialisation of motivation (modelling, task
   presentation, and feedback).
3. Group-specific motivational components include goal-orientedness,
   norm and reward system, group cohesion, and classroom goal structure.

It can be seen that the learning situation level establishes the link between
collaborative learning and motivation in the third components. At this point, many
motivational theorists see the influence of attitudes on learners’ behaviours. When
collaborating as a group, the group’s efforts are boosted by extrinsic motivations to
achieve success as the group reward (Dörnyei, 2001). Further, when learners are
working with their peers on an equally rewarded scheme rather than within a
competitive structure, positive interdependence is encouraged and responsibility for
obtaining the learning outcome is shared. In other words, if students have common
goal directedness, they may be motivated to perform norms that result in their
academic achievement (Slavin, 1996), and the group reward will be obtained if they
collaborate with each other, not compete as in the traditional classroom (Johnson &
Johnson, 1994). Therefore, collaborative learning incorporates aspects of individual
and social processes of learning, enhances group members’ participation, generates
a powerful motivation system to promote students’ learning and ultimately leads to
a better repertoire of performance (Jones & Issroff, 2005).

**Communicative language teaching (CLT) and pedagogy issues**

CLT is often described as a language teaching approach with the primary aim of
communication of meaning as opposed to the practice of grammatical forms in
isolation. CLT focuses on the development among learners of the skills and knowledge
essential for the interpretation and use of language in various communicative settings (Ngoc & Iwashita, 2012). This correlates well with Hymes (1972) who suggested that language knowledge involves more than knowing a set of lexical, grammatical, and phonological rules. To use language effectively, it is essential that learners develop communicative competence, that is, the ability to utilise the language appropriately in various social situations. Canale and Swain (1980), who claimed that communicative competence is comprised of sociolinguistic competence, grammatical competence, discourse competence and strategic competence, are among a number of practice-oriented language educators who bolster Hyme’s notion of communicative competence. Richards (2006) provided a clearer picture of CLT when explaining it according to four tenets: objectives of language teaching, the way learners learn a language, classroom activities and the roles of teachers and learners.

First, CLT emphasises that the objective of language teaching is to ensure learners achieve communicative competence because grammatical competence alone is inadequate for successful communication (Brown & Lee, 2015; Richards, 2006). Richards (2006, p. 3) clarifies the following aspects of communicative competence:

- knowing how to use language for a range of different purposes and functions;
- knowing how to vary our use of language according to the setting and the participants (e.g., knowing when to use formal and informal speech or when to use language appropriately for written as opposed to spoken communication);
- knowing how to produce and understand different types of texts (e.g., narratives, reports, interviews, conversations); and
- knowing how to maintain communication despite having limitations in one’s language (e.g., through using different kinds of communication strategies)

Second, in the view of CLT the way learners learn a language is different from the earlier view of language learning, which considered learning as a process of forming habits mechanically under teachers’ control. CLT emphasises a student-centred learning approach. Language cannot be learnt through memorisation and in isolation, but through social interaction (Desai, 2015). Third, the CLT movement changed the format of traditional lessons, which focused on grammar learning through controlled practice to enhance memorisation, to class activities like pair work, group work or role plays. Finally, the roles of the teacher and learner change significantly. The teacher, instead of
being the knowledge transmitter, is considered the facilitator who enables the learning process. The student, instead of passively receiving the knowledge from the teacher, is expected to actively participate in the learning process (Desai, 2015).

Language teaching has shifted from traditional approaches (up to 1960s) to classic CLT (1970s to the 1990s) and to current CLT (late 1990s to the present) (Richards, 2006). In traditional approaches, grammatical competence, which was gained through repetition and drilling, was seen as the essence of language proficiency. Teaching methodologies such as aural-oral method and situational language teaching were prominent during this period. In the 1970s, these methodologies were considered out-dated and there was a reaction against traditional teaching approaches worldwide. As a result, CLT emerged as a fashionable teaching approach which focused on the mastery of communicative competence for successful communication in the language. This trend influenced language teachers and forced them to adjust their teaching, syllabi and teaching materials to be more communicative. The CLT approach has been favoured worldwide since the 1990s and has continued to evolve. Current CLT draws upon various educational paradigms and traditions. Thus, the set of practices that comprise current CLT is still debated. However, the core aspects of CLT are “authentic materials, functional tasks, and group and pair work” (Bock, 2000, p. 24) which engage learners in interaction and meaningful communication, and the classroom is viewed as “a community where learners learn through collaboration and sharing” (Richards, 2006, p. 23).

CLT has spread through Vietnam and attracted the attention of educators’ there since the early 1990s (Ngoc & Iwashita, 2012). The approval of CLT originated from support emanating from Vietnamese government policies and the favourable attitudes of Vietnamese teachers (Nguyen, 2002; Pham, 2007). Support for CLT is the result of the need to reform English teaching methodologies in Vietnam as teaching EFL in Vietnam, as well as in most East Asian countries, has been following a teacher-centred approach and grammar-translation methods (Liu & Littlewood, 1997). As a result, Vietnamese learners fail to communicate effectively in English although they have been learning English for a long time and many of them are good at grammar (Mai, 2017). In 2008, project 2020 was launched by the government which aims at promoting English proficiency of the workforce. A goal of this project is that by 2020 most Vietnamese learners graduating from tertiary levels will be able to use English effectively in their daily communication as well as in their work places. To meet this target, EFL teachers
have been pushed to apply CLT in their teaching practice to develop learners’ communicative competence.

**Theoretical foundations for collaborative learning**

The foundations for collaborative learning can be viewed as Vygotsky’s sociocultural theory, second language acquisition, and learning motivation (Lin, 2015). According to Vygotsky (1962), language acquisition takes place in interaction with significant others. Collaborative learning among learners can be viewed as scaffolding that assists learners to advance through the ZPD and arrive at the next level of language proficiency. From an SLA perspective, Krashen’s comprehensible input hypothesis and affective filter hypothesis are relevant to collaborative learning. The notion of $i+1$ is similar to ZPD. During collaboration, students can help each other to move from their current level ($i$) to the next achievable level ($i+1$). When working together, students can feel comfortable and enjoy their learning. In this way the affective filter is lowered to promote SLA. Learning motivation is one important factor that affects the affective filter. According to Dörnyei (1994), how goal-oriented a group is in the learning situation level is one of the motivations for foreign language learning. This factor consists of components such as a norm and reward system, group cohesion and classroom goal structure. In addition, collaborative learning is also driven by CLT as one of the focus of CLT is to engage learners in collaboration and sharing (Richards, 2006) or to create “the learning group ideal” (Holliday, 1994, p. 54) which is facilitated by the conduct of pair work and group work, the provision of authentic language input, and the encouragement of students’ language use in meaningful communication (Brown, 2000). In this study, collaborative writing was investigated as an instance of collaborative learning.

**Collaborative writing**

Having described the theoretical justification for collaborative writing above, this section describes how it is taught. The major approaches to teaching writing skills and the features of the writing process are briefly outlined followed by a discussion of the significance of collaborative writing as a way to improve students’ writing competence.
Overview of teaching writing skills

For any language learner, it is essential to master the writing skills of that language (Harmer, 1998). Writing is considered the most challenging ability to acquire and is important both academically and professionally (Hampton & Resnick, 2009; Hussin, Abdullah, Ismail, & Yoke, 2015; Kitchakarn, 2014). While at school, students need to write well to complete academic tasks such as writing assignments, writing research papers or doing examinations. After graduation, writing skills are necessary to write effective resumes or job application letters to impress potential employers. Throughout a career, it is still necessary to write well, have the ability to handle any written documents, communicate effectively and complete professional tasks. To emphasise this, Hampton and Resnick (2009) stated:

The art and craft of writing to express personal and public ideas, writing to learn and communicate knowledge, and writing to accomplish important purposes are marks of educated people. Moreover, writing is increasingly important for success in middle school and high school, higher education, and the workplace, where communicating effectively with colleagues in writing is essential at every rung of the career ladder. (p. 7)

With the widespread use of English globally, it is commonly held that students who have mastered English, especially writing skills, will have a substantial competitive edge. However, it is very hard to write well in a foreign language and learners are often unmotivated to practice writing regularly. Therefore, “motivating students to write frequently can be a tricky task” (Barkaoui, 2007, p. 42).

In the field of second and foreign language acquisition, the issue of how to improve learners’ writing skills is of great concern to both language teachers and researchers. Among the approaches to teaching writing skills, product and process approaches seem to be the most popular and draw the attention of many researchers (Faraj, 2015; Hasan & Akhand, 2010; Klimova, 2014). The differences between these approaches are shown in Table 2.2 (Steele, 2004).
Table 2.2
*A summary of the Differences Between Process and Product Writing Approaches*

<table>
<thead>
<tr>
<th>Process writing</th>
<th>Product writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text as a resource for comparison</td>
<td>Imitate model text</td>
</tr>
<tr>
<td>Ideas as starting point</td>
<td>Organization of ideas are more important than ideas themselves</td>
</tr>
<tr>
<td>More than one draft</td>
<td>One draft</td>
</tr>
<tr>
<td>More global, focused on purpose, theme, text type, i.e. reader is emphasised</td>
<td>Features highlighted including controlled practice of those features</td>
</tr>
<tr>
<td>Collaborative</td>
<td>Individual</td>
</tr>
<tr>
<td>Emphasis on creative process</td>
<td>Emphasis on end product</td>
</tr>
</tbody>
</table>

Writing theory and research witnessed a paradigm shift from a product-oriented to a process-oriented approach (Connor, 1987). The former approach was teacher-centred and output-focused; the activities based on this approach enhanced students’ ability to imitate, copy, and transform correct language models (Khoii, 2011). However, this writing approach seemed to be more suitable to the level of sentence structure, not the level of discourse and sustained writing. The latter approach is consistent with the idea that writing is an iterative process. This process reflects what students think and do as they write. The features of the stages in the writing process described by Tompkins, Campbell, Green, and Smith (2014, p. 46) are illustrated in Table 2.3 as follows.
### Table 2.3

**Key Features of the Writing Process**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1: Prewriting</td>
<td>Choose a topic.</td>
<td>Consider the purpose for writing.</td>
</tr>
<tr>
<td></td>
<td>Identify the text type the writing will take.</td>
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</tr>
<tr>
<td></td>
<td>Engage in rehearsal activities to gather ideas.</td>
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</tr>
<tr>
<td></td>
<td>Use a graphic organiser to organise ideas.</td>
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</tr>
<tr>
<td>Stage 2: Drafting</td>
<td>Write a rough draft.</td>
<td>Emphasise ideas rather than mechanical or clarity.</td>
</tr>
<tr>
<td>Stage 3: Revising</td>
<td>Reread the rough draft, focusing on content and clarity.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Share writing in writing groups.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Make substantive changes that reflect classmates’ comments.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conference with the teacher.</td>
<td></td>
</tr>
<tr>
<td>Stage 4: Editing</td>
<td>Reread the draft to see if you can improve the structure, sentence patterns and vocabulary.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proofread the revised rough draft: identify and correct spelling errors, and check sentence and clause boundary markers, other punctuation and grammar errors such as correct use of pronoun reference, subject-verb agreement, and so on.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conference with the teacher.</td>
<td></td>
</tr>
<tr>
<td>Stage 5: Publishing</td>
<td>Make the final copy.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Share the finished writing with an appropriate audience.</td>
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</tr>
</tbody>
</table>

This five-stage writing process has been implemented in this study. However, Speck (2000) commented that the normal writing process is not clean and linear, but recursive. Thus, the process of writing will occur as illustrated in Figure 2.3. As the figure shows, the writing process is not a straight line progressing from the pre-writing stage to the publishing stage. Instead of attending to publishing (Stage 5) right after editing (Stage 4), writers can jump back to revise it again (Stage 3). The writer can jump back and forth among the stages many times to modify their writing until they feel satisfied.
Figure 2.3 The writing process.

Significance of collaborative writing

According to Christenson (2002), many struggling writers do not know what to do; as a result, they ignore and dislike writing. The negative attitude towards writing developed in EFL/ESL learners is coined as writing apprehension (WA) or writing anxiety, which results in poor writing performance (Challob, Bakar, & Latif, 2016). One of the solutions to this problem is to encourage learners to work in groups and to write collaboratively (Tompkins et al., 2014). When working in groups, teachers and classmates can provide assistance (scaffolding) by talking about the plans and strategies to write and revise (Campbell & Green, 2003; Winch, 2006).

Collaborative writing, defined as “the joint production or the coauthoring of a text by two or more writers” (Storch, 2011, p. 275), has been valued as a means to develop students’ writing ability both in L1 and L2 (Dooly, 2008; Fong, 2012; Meihami et al., 2013; Passig & Schwartz, 2007; Speck, 2002; Storch, 2005, 2011). The theory underpinning collaborative writing is social constructivism. The pioneer of social constructivism is Vygotsky (cited in Storch, 2005), who believed that “human development is inherently a socially situated activity” (p. 153), and that children’s cognitive development arises from social interaction. The interaction is understood as a process in which the adult (expert) provides appropriate assistance (scaffolding) for the child (novice). In SLA, peers in pair/group work provide this scaffolding (Storch, 2005). From a constructivist perspective, learning involves constructing, creating, inventing and developing one’s own knowledge and meaning (Liu & Chen, 2010; Powell & Kalina, 2009). Storch (2005) states “from a social constructivist perspective, learners should be encouraged to participate in activities which foster interaction and co-construction of knowledge” (p. 154). In Vygotsky’s (1978b) social constructivism theory, two concepts - more knowledgeable other (MKO) and zone of proximal development (ZPD) - are central. The MKO refers to someone with a higher level of knowledge than the learner. Shin (2014) explains that “in collaborative writing, the
MKO refers to the ‘expert writer’ of the group, a person who is more proficient in the English language and even a person who has more ideas and experiences about the subject matter” (p. 34). The learner will learn more when interacting with the MKO during collaborative writing episodes. According to Vygotsky (1978b), ZPD is the area where the child’s learning takes place, scaffolded through expert-novice peer collaboration. The role of the teacher, according to this theory, is viewed as the facilitator who “provides information and organizes activities for learners to discover their own meaning” (Liu & Chen, 2010; Powell & Kalina, 2009), rather than the knowledge transmitter.

Information and Communications Technology (ICT)

This section begins with the definition of ICT, then presents the potential of ICT in education and in ELT and, finally, the emergence of social media and their potential in education are discussed.

Definition of ICT

The acronym ICT originates from the two terms information technology and communication technology. In fact, this acronym can be interpreted as information and communication technology or information and communications technology. The difference between the singular and plural forms of communication is that while the singular refers to human interaction, the plural means “to the whole field of data communications infrastructure” (Lloyd, 2005, p. 3). In general, this term is used to describe “a range of technologies to gather, store, retrieve, process, analyse and transmit information” (McDougald, 2009, p. 18). This concurs with other definitions of ICT such as “any product which will store, retrieve, manipulate, transmit or receive information electronically in a digital form. These include personal computers, digital television, email, robots, etc.” (Ntongieh, 2016, p. 27), or “a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information” (Ghasemi & Hashemi, 2011, p. 3098). However, Toomey’s ICT definition seems to be the most comprehensive. Toomey (cited in Lloyd, 2005) defines ICT more specifically:

…generally relates to those technologies that are used for accessing, gathering, manipulating and presenting or communicating information. The technologies could include hardware (e.g. computers and other devices); software applications; and connectivity (e.g. access to the Internet, local networking
infrastructure, video conferencing). What is most significant about ICT is the increasing convergence of computer-based, multimedia and communications technologies and the rapid rate of change that characterises both the technologies and their use. (p. 3)

More narrowly, in this thesis the term ICT is mainly used to refer to computers, other devices like smartphones and tablets, and the Internet along with the resources and online applications accessed through the Internet such as social media. In addition, the terms technology and IT are used interchangeably with ICT.

**ICT in education**

The dramatic development of ICT has influenced most aspects of life. ICT has been used extensively in the field of education, and its merits are widely recognised in the literature (Balanskat, Blamire, & Kefala, 2006; Fu, 2013). Specifically, Fu (2013) notes the benefits of ICT use in education as:

- helping students to access digital information efficiently and effectively,
- support student-centred and self-directed learning,
- building a creative environment for learning,
- fostering collaborative learning in an environment of distance learning,
- providing more opportunities to develop critical (higher-order) thinking skills,
- improving the quality of teaching and learning, and
- supporting teaching by facilitating access to course content.

ICT offers both teachers and learners more educational opportunities and possibilities. Using ICT supports the possibility of changing the role of the teacher from knowledge distributor to facilitator, thereby accommodating new modes of learning. The integration of ICT in education can occur at different stages with levels of innovation ranging from low to high as illustrated in the construct map integration of ICT in teaching and learning (see Figure 2.4). Peeraer and Van Petegem (2012b) identified different levels of using ICT in teaching and learning. At the lowest level, ICT is used to replace traditional teaching practice when teachers only use word processing to prepare lesson plans, handouts or use power point slides for teaching. At the next level, ICT enhances teaching practice through resources like presentation software, multimedia, and offline and online database. At the higher level, ICT is used to innovate teaching when students are put at the centre of ICT integration with activities such as students’ shared writing exercises or presentations. At the highest level of innovativeness, ICT transforms teaching and learning practice when its
potential is seen not only to “innovate teaching practice, but also to change the curriculum” (Peeraer & Van Petegem, 2012b, p. 1248).

**Increasing innovativeness of use of ICT for teaching and learning**

<table>
<thead>
<tr>
<th>Educators</th>
<th>Use of ICT applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educators who use ICT to <strong>transform</strong> teaching and learning practice</td>
<td>Classroom management systems for coaching and evaluation, web search assignments for problem based learning; Electronic communication with students and students communicating with others</td>
</tr>
<tr>
<td>Educators who use ICT to <strong>innovate</strong> teaching towards more student centred learning, integrated into the existing curriculum</td>
<td>Integration into subject teaching (Word processing for shared writing exercises, simulations and data processing by students); Student presentations and students creating multimedia products, students constructing and synthesising knowledge</td>
</tr>
<tr>
<td>Educators who use ICT to <strong>enhance</strong> teaching practice</td>
<td>Presentation software for enhancing, multimedia presentations; accessing offline and online databases and information to prepare resources; electronic practice and drill exercises for revision</td>
</tr>
<tr>
<td>Educators who use ICT to <strong>replace</strong> traditional teaching practice</td>
<td>Word processing for production of documents (preparation of lesson plans, handouts, slides, etc.); presentation software for lecturing</td>
</tr>
</tbody>
</table>

**Decreasing innovativeness of use of ICT for teaching and learning**

*Figure 2.4 Construct map integration of ICT in teaching and learning (Peeraer & Van Petegem, 2012b, p. 1249).*

Although the potential of ICT in education has been acknowledged, the transformative impact it has had on society more broadly has not yet been realised in education (Mangan, 2016). Despite the improvements in resources and infrastructure favourable for ICT integration in teaching and learning, a large body of literature shows a low level of ICT use in schools as well as limited pedagogical changes (Ertmer, 2005; Harris & Hofer, 2011; Ho & Albion, 2010; Mishra & Koehler, 2009). In particular, ICT is being underused in classrooms and there has been little evidence of improvement in student learning, or major changes in classroom teaching (Cuban, 2001; Fisher, 2006). Meanwhile, teacher training has focused on how to use hardware and software instead of developing effective pedagogy and understanding the value of using ICT (Lai, 2001).
Obviously, teachers will be hesitant to make an effort to use ICT in their teaching practice if they do not perceive its value for learning.

It is likely that many teachers in Vietnam just use ICT to replace traditional teaching practice (Peeraer et al., 2009). Dang (2013) conducted a survey of 222 language teachers in 13 language departments and language centres at Hanoi University to explore their ICT use. The results showed that teachers often used ICT for lesson plan preparation and for classroom use. For example, they used the Internet to search for learning materials, used word processing and presentation software such as PowerPoint to design lesson plans, and used emails to interact with students.

**ICT in language teaching and learning**

Researchers worldwide have identified the benefits of using ICT in foreign language teaching and learning. The first significant benefit is that ICT helps motivate learners to learn. The integration of ICT in language teaching and learning makes the learning process more interesting, more enjoyable and less teacher-centred, which leads to student’s satisfaction and engagement (Hashmi, 2016; Maryam, Ahmad, Elham, & Nasrin, 2013; Mullaamaa, 2010; Padurean & Margan, 2009). In the study by Hashmi (2016), the implementation of multimedia and use of the Internet and technology in EFL classrooms were motivating factors for students who seemed to get more involved in learning; for example, they went to class earlier and stayed longer after class to do assignments. Overall, they gained more confidence in using English to interact and accomplish their tasks when using technology. Thus, the use of ICT results in students’ positive attitudes toward language learning (Azmi, 2017; Jayanthi & Kumar, 2016; Kassim & Ali, 2007).

Another significant advantage of ICT is that learning via ICT exposes learners to plentiful resources that offer opportunities for meaningful practice in authentic contexts (Fitzpatrick, 2004; Ntongieh, 2016; Padurean & Margan, 2009). This advantage was noted by Fitzpatrick (2004) who said that “thanks to the WWW, access to authentic materials has never been easier; vast linguistic resources and an exhaustive range of materials are available in almost all languages in the world, ready for immediate exploitation” (p. 13). Ghasemi and Hashemi (2011) contended that “for language learning purposes, [the Internet] provides text in authentic language, unlike the contrived language usually found in books” (p. 3100). Easy access to authentic materials in the target language also helps bring the culture of that language group to
life in the classroom. This is hugely beneficial given that a language, and to a large extent learning that language, cannot be isolated from the culture of its speakers.

In addition, ICT enhances learners’ independence and autonomy (Kassim & Ali, 2007; Padurean & Margan, 2009). Learners’ individualisation is what can be achieved in learning with ICT as Padurean and Margan (2009) state:

> The Internet also offers a wide variety of reference materials like online dictionaries, encyclopaedias and search mechanisms very helpful for developing students’ individual work. They can find, alone, the missing information, the meaning of new words, synonyms, antonyms or can communicate with the rest of the group online, via e-mail or in any other ICT environment. (p. 98)

ICT offers learners responsive diagnostic and feedback systems, which enables them to work and monitor their progress independently (Davies, 2002; Klimova, 2012; Mullamaa, 2010; Padurean & Margan, 2009). Although ICT offers a wealth of independent and autonomous learning opportunities for students, the integration of ICT in language learning also allows students to work collaboratively with each other. ICT facilitates communication between peer learners (Padurean & Margan, 2009), and enables learning not only within formal educational contexts, but also informal learning contexts (Fitzpatrick, 2004; Padurean & Margan, 2009).

The use of ICT in the classroom has also changed the role of teachers from knowledge transmitters to learning facilitators. ICT integration in language teaching and learning brings teachers ample benefits. They can share information and materials with other teachers easily, and are able to develop more creative multimedia presentations using combinations of audio-visual materials, videos, graphics and pictures (Rodinadze & Zarbazoia, 2012). With the aid of ICT, teachers can adapt their presentations to the needs and motivations of different learners (Maryam et al., 2013; Padurean & Margan, 2009).

**ICT in collaborative writing**

As mentioned earlier, writing is considered the most challenging foreign language skill to acquire, and collaborative writing is a promising approach to improving learners’ writing. However, collaborative writing is not always successful (Kessler et al., 2012). Two principles affecting group interaction are positive interdependence and individual accountability (Strijbos, Martens, & Jochems, 2004). Nevertheless, the students often perceive the time collaborating in groups as free time
This phenomenon is coined the “free-ride” effect which can occur when someone avoids contributing to the group and assumes that the responsibility belongs to another member of the group (Strijbos et al., 2004). Moreover, most students in Asian collectivist cultures “may be reluctant to criticize or make suggestions about their work, being fearful that doing so would disrupt the group or create tension” (Carson & Nelson, 1994, p. 27). As a result, they would rather let the dominant group member take over the task. The presence of these phenomena will likely mean collaboration among students in the group is not effective, and instead of truly collaborating, they may chat or do something unrelated to the writing task (Shin, 2014). Shin points out that these problems can lead to two scenarios. The first scenario is that students will contribute their efforts unequally, which makes it difficult for teachers to mark their writing as a group effort. The second scenario is the reverse, when a group tends to cooperate but not collaborate, which affects the cohesion of their writing. According to Shin, these problems can be handled by using ICT in collaborative writing as ICT fosters both positive interdependence and individual accountability. In addition, Shin contends that “ICT can be the MKO, the resource tool, the documentation tool, the platform for revision, monitoring and assessment” (p. 41). Moreover, the application of ICT, like the use of an online learning environment, can be beneficial for EFL/ESL learners in two ways: providing assistance through peers’ and teachers’ comments during revising and editing stages and providing knowledge and experience though online discussions (Hussin et al., 2015). Thus, ICT can help to tackle EFL/ESL writing apprehension.

The ideas of Shin (2014) and Hussin et al. (2015) coincide with those of many other researchers who noted that the use of ICT: (a) encourages students’ independence and autonomy (García-Valcárcel-Muñoz-Repiso, Basilotta-Gómez-Pablos, & López-García, 2014; Kessler, 2009; Yunus, Nordin, Salehi, Sun, & Embi, 2013), (b) enables students to give feedback and revise faster (Chao & Lo, 2011; Lam & Pennington, 1995; Yunus et al., 2013), and (c) promotes students’ motivation and better interaction (García-Valcárcel-Muñoz-Repiso et al., 2014; Lam & Pennington, 1995; Yunus et al., 2013).

Researchers have conducted studies on the use of ICT in supporting collaborative writing among L2 students. Most studies examine wikis; few address other tools such as blogs, Facebook or Google docs. Storch (2013) reviewed 16 studies on the use of wikis, and investigated the following five main topics: (1) L2 learners’ perceptions of wiki-based projects, (2) the nature of learners’ contributions and
engagement, (3) focus on language, (4) patterns of interaction and (5) the quality of the collaboratively produced text. A number of studies have been done on the use of wikis to foster collaborative writing, specifically considering its effects on peer correction (Franco, 2008; Kessler, 2009), process writing (Chao & Lo, 2011), and interaction among students (Elola & Oskoz, 2010; Kwan & Yunus, 2014). A few studies have investigated the use of other tools to improve students’ writing skills such as blogs (Abidin, Pour-Mohammadi, & Hamid, 2011; Álvarez & Bassa, 2013; Silviyanti & Yusuf, 2014), Google Docs (Brodahl et al., 2011; Kessler et al., 2012; Suwantarathip & Wichadec, 2014), and Facebook (Karlsson, 2015; Vikneswaran & Krish, 2015).

Nonetheless, as Storch (2013) stated, “the implementation of collaborative writing in L2 contexts is still in its infancy, as is the available research…We need further investigations to fully explore the learning opportunities afforded by these tools” (p. 168).

The emergence of social media and their potential in education

This section covers the definition and categorisation of social media, their significance to education as tools to support teaching and learning and the factors underlying low rates of adoption.

Definition and categorisation

The terms social media and Web 2.0 tools have been used interchangeably by higher education students and faculty members. Mao (2014) defined social media as “new technologies and applications that utilise the Internet and Web 2.0 technologies and allow users to create and participate in various communities through functions such as communicating, sharing, collaborating, publishing, managing, and interacting” (p. 213). Mao (2014, p. 213) categorised social media into the following groups:

- social networking tools such as instant messenger, (Skype, ooVoo), Facebook, Tumblr, and so on;
- social publishing or sharing tools including blogs, wikis, Glogster, or Twitter; social bookmarking or tagging tools like Delicious, Symbaloo, or Diggo; photo or video sharing tools like Flickr, Youtube, ZuTube, or Picasa; collaborative office or brainstorming tools like Google Docs & Spreadsheet, Zoho Writer, Webspiration, Gliffy, and so forth;
- social and content management tools including Moodle or Edmodo; Internet-based tool used for calendars, surveys, and polls; and
virtual worlds and gaming environments such as WeeWorld, Webkinz World, Club Penguin, and Playstation Network.

Social media has become popular in the lives of young people in countries all over the world. In the United States, 73% of teenagers used social media in 2008 (Lenhart, Purcell, Smith, & Zickuhr, 2010) and 83% of Internet users aged 18-19 years were likely to use a social networking site in 2012 (Duggan & Brenner, 2013). In Australia, 65% of young people aged 9-16, who used the Internet, had a profile on a social media site in 2011 (Green, Brady, Ólafsson, Hartley, & Lumby, 2011). In 2012, 97% of Australian young people aged 14-15 years and 99% aged 16-17 years used social media (Australian Communications and Media Authority, 2013). According to the web site zephoria.com, there were over 2.2 billion active Facebook users each month during the first quarter of 2018. According to statista.com, the number of Facebook users in Vietnam is expected to increase gradually from 26.8 million in 2015 to reach 40.55 million in 2022 (see Figure 2.5). Vietnam is ranked seventh in the world among the countries with the most prolific number of Facebook users.

Figure 2.5 The forecast of Facebook users in Vietnam from 2015 to 2022 (source: www.statista.com).

Potential of social media in education

In the digital era, traditional learners have been morphing into new types of learners which have termed variously as digital natives (Prensky, 2001), the net generation (Hsu, 2013), or generation Y (Davis III, Deil-Amen, Rios-Aguilar, & Gonzalez Canche, 2012). Recent studies have suggested that the digital generation of
students learn in a different way compared with the previous generation and depend on the web for obtaining information and communicating with others (Benson & Avery, 2009). According to Selwyn (2012), social media has created new types of learners, new types of learning and new forms of higher education provision. Selwyn argues that social media reflects the multitasking of young learners who are more socially autonomous and used to networking and learning collaboratively via the web. Further, social media also changes the nature of learners’ relationship with information and knowledge. Social media has created a new culture of learning as knowledge consumption and knowledge construction are based on collective exploration, play and innovation rather than individualised construction. Thus, many educators believe that social media can be used successfully to support the provision of serious student-centred learning (Goodyear & Ellis, 2008). Students of the digital age enjoy the opportunities created by social media to engage, interact and collaborate in learning activities that promote the process of learning and the overall learning experience (Mondahl & Razmerita, 2014).

Many researchers have valued applications of social media along with mobile computing devices. Gikas and Grant (2013) summarised three themes emerging from research on the benefits of using social media in education: engage learners with constant connectivity, foster collaborative learning and enable authentic learning on the move. Faizi, El Afia, and Chiheb (2013) stated that social media offers many educational advantages to both students and teachers. First, social media provides communication channels that can instantly bring students and teachers into contact. This is important because can help teachers to understand students’ learning difficulties and foster more successful learning experiences. Social media not only helps students to contact their teachers more easily, but also other students. Students can share their learning problems and experiences via social media so that they can support each other. Second, social media can function as engagement tools, attracting students to learning opportunities. Those students who get bored with traditional learning at school or those who are shy can be encouraged to participate in learning with social media tools such as Google Docs, wikis, or blogs. In addition, social media can be viewed as collaborative platforms, as Faizi et al. (2013) noted, “another vital benefit of social media is that they foster collaboration” (p. 52). Publication in social media enables students to revisit and revise their ideas and discuss them with friends. Mondahl and Razmerita (2014) maintain that “collaborative learning processes that are embedded in a social media
enhanced learning platform are supportive and conducive to successful problem-solving which leads to successful adult foreign language learning” (p. 339).

Higher education has identified the potential benefits provided by Web 2.0 technologies to improve student engagement, academic performance, the college experience and pedagogical practices, and has supported innovations and changes to maintain currency with the changing education market. Social media offer ways to transform teaching and learning practices profoundly, to become more social, open and collaborative. In particular, social networking tools support the process of knowledge building by enabling connections, promoting networks and social interaction (Dron & Anderson, 2014). The demand to innovate teaching and learning using social media in higher education to improve student engagement and pedagogical practices has been a major concern for many educators. “Many higher education institutions (and educators),” Selwyn (2012) asserts, “now find themselves expected to catch up with this world of social media applications and social media users” (p. 1). According to Moskaliuk, Kimmerle, and Cress (2009), universities are well positioned to use social media practices to help students and the wider community collectively create knowledge. In fact, many universities are now trying to develop ways to support these new forms of learning using social media (Davis III, Deil-Amen, Rios-Aguilar, & González Canché, 2015; Moran, Seaman, & Tinti-Kane, 2011; Selwyn, 2012).

Potential of social media in fostering writing skills

Social media has potential affordances in promoting writing for L2 learners because, when writing via social media, students can access communicative opportunities to practise in an authentic and motivating way (Zheng, Yim, & Warschauer, 2018). A variety of social media tools such as wiki, blog, Facebook, Twitter and Weebly have been employed in second/foreign language teaching and learning (Zou, Wang, & Xing, 2016). Many researchers have agreed on the potential of wikis in fostering collaborative writing in L2. Zou et al. (2016) reported that students had positive attitudes when using wikis for collaborative learning and they believed that the collaboration was beneficial for them in developing their writing. Students enjoyed correcting language errors for each other on a wiki, and the results suggest that their writing skills improved. Similarly, Hudson (2018) reported that most of the students in her study found wiki helpful for developing writing and English language skills. Collaborative writing on wikis is beneficial because it helps to increase students’
confidence in using writing strategies and reduce their anxiety about writing (Cho & Lim, 2017). Wikis are considered powerful tools for collaborative writing under the student-centred approach (Alghasab, 2016).

Previous studies on the use of Facebook in teaching writing have reported that it helped to improve students’ writing performance (Ahmed, 2016; Binti Shukor & Noordin, 2014; Suthiwartnarueput & Wasanasomsithi, 2012; Yunus & Salehi, 2012). First, students’ grammatical competence was enhanced and then their writing competence. A Facebook group was effective for students who used it to brainstorm their ideas before the actual writing (Yunus & Salehi, 2012; Yunus, Salehi, Sun, Yen, & Li, 2011). The affordances of Facebook provided a platform for students’ writing (Yu, 2014). Via Facebook, students could engage one another in discussion and give feedback and comments both synchronously and asynchronously. Endoo (2015) reported that, after experiencing Facebook implementation the majority of participants in his study believed that Facebook would help them improve their writing skills. Similarly, Ahmed (2016), after conducting an experimental study, established that the group of students who were taught using Facebook performed better in EFL grammar and writing skills than the students who were taught using traditional methods. Previous studies have also examined students’ attitudes toward using Facebook in learning and the results have showed that they responded positively to the use of this social networking application when undertaking reading and writing tasks (Endoo, 2015; Mccall, 2017).

A number of journal articles have been published reporting the results of using Google Docs to teach writing skills to EFL students. In general, Google Docs has been reported to be a useful tool for collaborative writing (Hedin, 2012; Jeong, 2016; Zhou, Simpson, & Domizi, 2012). Research has shown that its use by students has resulted in better writing performances and higher writing scores (Alsubaie & Ashuraiddah, 2017; Setyawan & Rochsantiningsih, 2014; Zhou et al., 2012). Furthermore, the literature highlights the fact that the use of Google Docs in writing not only improved students’ writing skills in terms of content, organisation, vocabulary and language use, but also helped to improve the climate of the classroom with regard to activeness, enthusiasm, and attitudes toward the lesson (Setyawan & Rochsantiningsih, 2014). Zhou et al. (2012), Alsubaie and Ashuraiddah (2017), and Setyawan and Rochsantiningsih (2014) all found that the majority of students in their research demonstrated positive attitudes after experiencing writing with Google Docs. Students’ views on the advantages of using
Google Docs in writing compared with traditional methods have recently been recognised (Rahayu, 2016; Suwantarathip & Wichadee, 2014). Google Docs enabled students to learn more efficiently by lowering their anxiety and supporting collaboration among group members. Thus, Google Docs helped increase students’ contributions to their group work.

**Current social media adoption in education**

The results of some studies show that rates of adoption of social media in higher education are low. When requested to use social media in teaching, many teachers and faculty staff remain uncertain (Crook, 2012). In a more recent study on the potentials and barriers to social media use for teaching in higher education, Manca and Ranieri (2016) concluded, “social media is far from being currently used in academic contexts for teaching” (p. 226). The results of their study show a low level of faculty adoption with just over 40% of academics using at least one tool for teaching on a monthly basis and less than 40% declaring the usefulness of social media for teaching purposes. In a study about teacher’s awareness of pedagogical affordances of social media, Ajjan and Hartshorne (2008) revealed that most of the teachers had positive attitudes towards using social media in teaching, but very few reported either using these tools or planning to do so. Similarly, Rogers-Estable (2014) found that the reported benefits did not match the declared use of social media by teachers in higher education.

While research shows teachers’ low adoption of social media for teaching, empirical studies of social media use by university students highlight a lack of sophisticated or advanced use of social media applications (Waycott, Bennett, Kennedy, Dalgarno, & Gray, 2010). In a study of U.K. students’ use of Facebook, Selwyn (2009) suggested that a huge percentage of students’ interactions (around 95%) were completely unrelated to their university studies. Similarly, Mao (2014) revealed that there is inconsistency between students’ positive attitudes and beliefs about social media in education and their actual adoption. While they are positive about the use of social media, they are not well aware of social media as a means for formal learning in a school environment.

There is a distinction between living technologies (technologies chosen by students for their daily social and leisure lives) and learning technologies (technologies used primarily by students for study purposes) (Hosein, Ramanau, & Jones, 2010). This distinction implies that not all of the everyday aspects of social media use are
educationally significant and it is a mistake to assume the use of social media necessarily enthuses and motivates students.

The above studies indicate that although both teachers and students have access to social media, there has been little incorporation of social media into teaching and learning. There are several factors that might influence social media adoption for teaching. Buchanan, Sainter, and Saunders (2013) showed that low perceived usefulness and negative conditions were associated with low reported use. Cao, Ajjan, and Hong (2013) found that perceived usefulness, external pressures and task-technology compatibility affected social media use positively, and that perceptions of risk associated with use demotivated the use of technology. Meanwhile, according to Ravenscroft (2009), teachers still prefer teacher-centred technology with pedagogical practices that they are familiar with.

Manca and Ranieri (2016) discuss three main obstacles to social media use in teaching practice. First, cultural and social factors such as the erosion of teachers’ traditional roles, the management of relationships with students or the issue of privacy threats limit the use of social media in teaching. Another factor pertains to pedagogical issues. The results of the study show that face-to-face teaching is perceived as pedagogically more effective than online teaching. Faculty and their students prefer face-to-face instruction. The last factor concerns administrative and institutional issues. Adequate investments in technical infrastructure and support for innovate teaching practices and educational services play an important role. It can be concluded, therefore, that perceived usefulness is a significant factor that encourages social media use in higher education teaching while perceived risk negatively affects the attempts to use them.

Inayati (2015) revealed that teachers in Indonesia recognised the beneficial pedagogical use of social media technology in ELT, but their willingness to integrate it was low. This could be explained by problems when using social media in teaching such as technical problems, distraction, and dishonest practices in students.

The negative impacts of social media have also been realised by many studies such as the relationship between social media and low marks (Jacobsen & Forste, 2011; Kalpidou, Costin, & Morris, 2011; Paul, Baker, & Cochran, 2012). Moreover, social media increases the chance of procrastination and distraction. However, despite these disadvantages it is apparent that social media plays an important role in this digital era
wherein learners are “born into a world of woven from cabled, wired or wireless connectivity” (Bauman, 2010, p. 7). In addition to functioning as means of communication and social interaction, social media enables the creation of personal learning environments as well as having the broader potential to transform education (Henderson, Snyder, & Beale, 2013). However, their adoption by teachers and students for educational purposes remains low. This study has also tried to address this gap between ubiquitous access to social media by teachers and students and lack of application in teaching and learning by investigating how the use of ICT, especially social media applications can foster collaborative writing for higher education students in a Vietnamese context.

Factors influencing ICT adoption and integration

A variety of factors that can impact ICT adoption and integration from policy level to institutional and teacher level have been identified in the literature. This study has focused on the factors identified by teachers and students as both these groups were involved in the intervention. Further explanation of the variables influencing ICT acceptance is provided by a discussion of the theoretical frameworks based on and developed from the technology acceptance model (Davis, Bagozzi, & Warshaw, 1989).

The teachers perspective

The emergence of ICT in education may support a change in the role of the teachers from knowledge transmitter to facilitator and scaffolding provider for the learner. A body of literature has identified many factors that influence teachers’ ICT integration into their teaching. These can be either external or internal.

The external factors are increased workload, lack of time, technology availability, technical and administrative support, school curriculum, school culture and pressure to prepare students for exams (Buabeng-Andoh, 2012; Dang, Nicholas, & Lewis, 2012b; Fu, 2013; Le & Vo, 2014; Mumtaz, 2000; Raman & Yamat, 2014). Many studies show that the implementation of ICT, and the further training that demands, creates an added burden for teachers who are already overloaded with busy schedules (Abuhmaid, 2011; Neyland, 2011; Samarawickrema & Stacey, 2007). Another barrier noted above is lack of time. In a study by Raman and Yamat (2014), 12 English teachers from a Chinese secondary school were interviewed and four of them stated that lack of time prevented them from integrating ICT into their teaching. They
were already overloaded by the need to accomplish the goals of the syllabi and had no
time to plan and integrate ICT into their classrooms. Dang (2011) shows that it is time-
consuming to prepare lessons when ICT is incorporated into their teaching because it
takes three to four hours to prepare a one hour ICT-enhanced lesson. Hence, teachers
encountered problems with the time required to prepare and implement lessons. The
availability and accessibility of ICT resources such as hardware and software play a key
role in the success of ICT adoption and integration in schools (Plomp, Anderson, Law,
& Quale, 2009; Usluel, Askar, & Bas, 2008; Yildirim, 2007). Therefore, access to ICT
resources for teachers and learners is necessary for effective ICT integration. Besides
providing essential ICT infrastructure and accessibility, it is critical to guarantee
technical support in case of technical breakdowns (Yilmaz, 2011). If there is no timely
technical support, there will be interruptions in using ICT and this may result in
teachers’ frustration and unwillingness to use technology in their teaching (Tong &
Trinidad, 2005). Another external factor that determines teachers’ ICT use is school
culture: the set of vision, plans, norms and values shared by members of a school
(Maslowski, 2001). This has an impact on the beliefs, attitudes and actions of teachers
(Chai, Hong, & Teo, 2009). Ertmer and Ottenbreit-Leftwich (2010) stated that in order
to have effective ICT integration in teaching, changes in teachers’ knowledge and
beliefs and school culture are required. A lack of support regarding ways to integrate
technology into the curriculum may also lead to failure among teachers to use ICT
(Smerdon et al., 2000). Of these external factors, technology availability and support
from technicians, teachers and principals are the strongest factors affecting ICT
integration (Al-Ruz & Khasawneh, 2011).

Internal influences on the integration of ICT in teaching include aspects such as
technology skills, readiness to use ICT and technology self-efficacy, self-confidence,
knowledge, attitudes and beliefs (Dang, 2013; Fu, 2013; Mumtaz, 2000). First, poor
ICT skills can be an obstacle for teachers (Knezek & Christensen, 2002; Raman &
Yamat, 2014). Their competence as well as their intentions towards ICT determines
effective use (Vanderlinde, Van Braak, & Hermans, 2009; Venezky, 2004). Thus,
teacher training should focus on both ICT skills and strategies to integrate ICT into the
curriculum (Divaharan & Ping, 2010). Teachers’ ICT competence relates directly to
their confidence in using ICT while computer self-efficacy is described as computer
confidence in competence (Christensen & Knezek, 2006). In other words, Compeau and
Higgins (1995) described teachers’ computer self-efficacy as a judgement of how well
they are able to use a computer. Teachers’ self-efficacy in this regard is important as lack of confidence would likely make teachers reluctant to use ICT. Previous research has identified teachers’ beliefs as a major influence on their use of technology in education (Hew & Brush, 2007; Mumtaz, 2000). Dang (2013) agrees with many other researchers who argued that that teacher’s positive beliefs and attitudes are critical to successful ICT integration. Specifically, according to Buabeng-Andoh (2012) “if teachers perceived technology programs as neither fulfilling their needs nor their students’ needs, it is likely that they will not integrate the technology into their teaching and learning” (p. 138). Teachers’ beliefs are one of a multiplicity of elements underlying their attitudes, which, according to (Pickens, 2005), “are a complex combination of things we tend to call personality, beliefs, values, behaviors, and motivations” (p. 44). Attitudes towards and willingness to engage with technology in the classroom are the major factors determining the success of ICT integration in education (Teo, Lee, & Chai, 2008). In fact, the implementation of ICT in schools despite strong support encounters “significant problems related to the attitudes of the people who are responsible for its use in the classroom” (Demetriadis et al., 2003, p. 20). The findings of Palak and Walls (2009) and Sang, Valcke, Van Braak, and Tondeur (2010) confirm that teachers’ attitudes towards ICT are the strongest predictors of future ICT use.

To recap, there are a variety of external and internal factors that can influence teachers’ ICT integration. According to Bingimlas (2009), there are many barriers to teacher integration of ICT in teaching, but the major ones are teacher confidence, teacher competence and teacher access to ICT resources. These external and internal factors do not exist in isolation; there is a causal relationship between them. Jones (2004) showed a relationship between a lack of access to ICT resources (external factor) and a lack of teacher competence (internal factor) in determining teacher confidence (see Figure 2.6).
Figure 2.6 Factors affecting teachers’ confidence in ICT integration.

Figure 2.6 suggests that making teachers confident in using ICT in their teaching requires adequate access to ICT resources at school and at home, access to technical support and ICT competence enhanced by skill and pedagogical training. Even though these factors were identified back in 2004, they remain relevant today.

The student perspective

Teachers and students are equally involved in the teaching and learning process. Therefore, the success of any teaching practice relies on both of these. The use of ICT in collaborative writing, with the emphasis on a student-centred learning approach, finds its success in meaningful engagement of learners. While there is a large body of literature about the factors that influence teachers’ adoption and use of ICT in their teaching, little literature about learners’ experiences exists. Some researchers (Arishi, 2012; Judi, Amin, Zin, & Latih, 2011; Oyaid, 2010; Pouratashi & Rezvanfar, 2010) emphasise the importance of having an awareness of students’ attitudes towards and perceptions of ICT integration, since these drive their intention and then their actual use of ICT in learning. Arishi (2012) notes that “the more positive the students’ attitudes are towards the use of a computer, the more progress they will make” (p. 47). In a nutshell, “user attitudes are important factors that affect the success of a system” (Teo et al., 2008, p. 129).
In addition, skills, support, and facilities are factors that influence students (Pouratashi & Rezvanfar, 2010). However, Pouratashi and Rezvanfar conclude that support and facilities impose indirect effects while skills have both direct and indirect effects; “given the direct effect on application of ICT, we infer that when students’ skills improve, they are more likely to use ICT” (Pouratashi & Rezvanfar, 2010, p. 81). Moreover, learning environments - not only the school environment but also the home environment - play an important role (Corbett & Willms, 2002). Having computer facilities at home and parental encouragement would help students develop their computer knowledge. An adequate learning environment at school does not only mean sufficient computer facilities, but also the accessibility of facilities for students and a well-managed environment.

**Common factors influencing ICT uptake by teachers and students**

The literature discussed above shows that different factors influence ICT use among teachers and students in teaching and learning. Their readiness to accept a specific type of ICT is determined by the extent to which they can get access to that technology as well as to timely technical support in case of any problems. This supports their confidence in using the technology and allays any concerns that something may go wrong while they are using it. Besides access to ICT resources and support, teachers and students need to have sufficient skills to ensure ICT competence. With adequate ICT access and support and sufficient ICT competence, it is likely that teachers and students will become confident in using ICT. However, ICT readiness does not always lead to uptake. In other words, the level of teachers’ and students’ ICT integration in their teaching and learning is not determined merely by how ready they are to use that ICT. Previous experience with that ICT can also inform attitudes towards further use. Teachers’ willingness to integrate ICT in their teaching is related to their positive attitudes toward using ICT in education (Sang, Valcke, van Braak, Tondeur, & Zhu, 2011). Once they are unwilling, the effectiveness of using ICT would be limited no matter how confident they are.

The following section addressing theoretical frameworks for technology acceptance provides an in-depth look into the determinants of users’ attitudes towards using a technology.
Theoretical frameworks for technology acceptance

The technology acceptance model (TAM) introduced by Davis et al. (1989) is a popular model for approaching questions around how technology is accepted and used by users (see Figure 2.7). TAM, adapted from the theory of reasoned action (Fishbein & Ajzen, 1975), consists of perceived usefulness (PU), perceived ease of use (PEU), and attitudes toward using as core variables; and behavioral intention and actual system use as outcomes variables (Scherer, Siddiq, & Tondeur, 2019). Among these variables, PU defined as the extent to which a person believes that using the system will enhance his or her job performance and PEU defined as the extent to which a person believes that using the system will be free of effort are two determining variables for users’ technology acceptance (Davis, 1989).

Figure 2.7 Technology acceptance model (Davis et al., 1989).

Developed from TAM, Venkatesh and Davis (2000) proposed TAM 2 by incorporating theoretical constructs to PU called subjective norm, image, job relevance, output quality, and result demonstrability with experience and voluntariness mediating subjective norm. Venkatesh and Bala (2008) combined TAM 2 and the model of the determinants of PEU (Venkatesh, 2000) to develop an integrated model of technology acceptance – TAM 3. Lee, Kozar, and Larsen (2003) reviewed 74 studies and reported that they showed a significant relationship between PU and behavioural intention. The authors concluded that PU is a stronger determinant of behavioural intention (or behaviour), noting that the usefulness of a system will enhance users’ willingness to use it. Meanwhile, PEU was found as a significant precursor of PU rather than a parallel, direct determinant of acceptance. Thus, PEU can affect acceptance indirectly through PU. Among the external variables explaining PU and PEU, subjective norms, self-efficacy, and facilitating factors were significantly related to the TAM core variables to
various extents (Abdulla h & Ward, 2016; Scherer et al., 2019). Subjective norms refer to a person’s perceptions that other important people think he/she should use the technology (Venkatesh & Bala, 2008). With regard to teachers, these people may be their colleagues or those in more senior positions. As regards students, other such people may be their friends, teachers or parents. Self-efficacy refers to a person’s belief that he/she is able to use technology to implement a specific task/job (Venkatesh & Bala, 2008). In other words, self-efficacy implies the technological skills of users of a technological system. The conditions that facilitate technology acceptance are various since they relate to personal competence beliefs (self-efficacy), social influence (subjective norm), and school resources (Holden & Karsh, 2010; Scherer et al., 2019).

**Conceptual framework**

The review of the literature was used to develop a conceptual framework for this study. As the study investigated the use of ICT, especially social media to foster collaborative writing for EFL university students in Vietnam, it was positioned inside the intersection in Figure 2.1. The conceptual framework of the study is represented diagrammatically in Figure 2.8. The shaded areas are the major focus of this investigation.

![Figure 2.8 Conceptual framework.](image)

The conceptual framework breaks down the various components of the effective use of ICT, particularly the social media applications, in fostering collaborative writing, examining these from both the students’ and teachers’ perspectives. Teachers’ and students’ ICT readiness, and the variables that influence this - their ICT access (device ownership) and their ICT competence (ICT skills and use) - are explored. Also
investigated is the willingness, or behavioural intention, of teachers and students to use ICT in teaching and learning. In order to understand this, their attitudes towards and perceptions (that is, ease of use and usefulness, based on the TAM model) of using ICT are investigated. From Figure 2.8, it can be seen that the earlier Figure 2.1 has been refined; the centre and focus of the research is now collaborative writing that is supported by social media. This incorporates the three core underpinnings: ICT, communicative language teaching and first and second language theories. These, along with student and teacher ICT readiness, investigated in Phase 1 of this study, and ICT willingness investigated in Phase 2 of the study, form the conceptual framework for both the literature review and the research. From this framework and the research questions, the research method was developed and is described in the next chapter.

**Chapter summary**

The literature review in this chapter first elaborated the theoretical foundations underpinning collaborative writing from the perspectives of SLA and CLT. This review clarified links between first and second language acquisition and Vygotsky’s theory on collaborative learning which focuses on the role of social interaction among learners to create scaffolding that helps them progress. Under CLT, communicative competence is the goal of language teaching and collaborative learning is one of the core assumptions of CLT. In addition, this chapter also clarified the stages in the writing process and the significance of collaborative writing as an effective mode of SLA. In the section related to ICT, the issues of ICT in education and in language teaching and learning and the benefits of using ICT in collaborative writing were introduced. The emergence of social media and their potential in education were also mentioned in this section. Finally, this chapter presented the factors that influence ICT adoption and integration before concluding with the conceptual framework.
CHAPTER 3: METHODOLOGY

Overview

This chapter describes the research paradigm, research design, research setting, population and sample, researcher roles, instrumentation, validity and reliability, transferability and authenticity, procedure, and ethical considerations involved in this study conducted within the context of ELT in a Vietnamese university.

The purpose of this study was to better understand how ICT can be used to support collaborative writing in a Vietnamese EFL learning context. The research questions guided the study design. Multiple sources of evidence, including subjective and objective data, and a mixture of qualitative and quantitative data were used.

Research paradigm

As “no research is paradigm free” (Hall, 2013, p. 3), the conduct of any research involves the choice of an appropriate paradigm, defined as a basic belief system or worldview that guides action in inquiry or research (Guba & Lincoln, 1994; Mackenzie & Knipe, 2006; Mertens, 1998). The research paradigm acts as the lens through which researchers view and interpret the world. Paradigms determine which methods researchers use for research projects and how they analyse the data during the research process (Kivunja & Kuyini, 2017). A research paradigm can be understood in terms of assumptions concerning the nature of reality (ontology), the knowledge of reality (epistemology), and the way of knowing that reality (methodology). Researchers have proposed a large number of paradigms. However, Candy (1989) categorised them into three main groups: positivist, interpretivist, and critical. Drawing upon the elements of these three, Tashakkori and Teddlie (2010) proposed a fourth paradigm known as pragmatic. A positivist paradigm is often associated with quantitative research. This paradigm holds the view that the scientific method of investigation is the only way to establish truth and objective reality. Meanwhile, an interpretivist paradigm is often associated with qualitative research which employs qualitative methods such as observations, focus group discussions, interviews and document analysis. A critical paradigm is associated with transformative research that seeks to address political, social and economic issues. A pragmatic paradigm can be associated with mixed
methods research, which supports the view that to uncover the real world a singular approach does not work, rather a combination of methods and pluralistic approaches is better able to take account of reality. Based on the nature of the overarching research question that investigated how ICT can support collaborative writing in a Vietnamese EFL learning context, the most appropriate philosophical orientation or research paradigm for this study needed to be pragmatic.

**Research design**

To answer the overarching research question, a mixed methods approach was adopted since it provides for the mixing of both quantitative and qualitative data and methods in a single study to better understand a research problem (Creswell, 2005). Mixed methods approaches can assist researchers to ensure the breadth and depth of data. Specifically, Williams (2007) stated that “while the quantitative method provides an objective measure of reality, the qualitative method allows the researcher to explore and better understand the complexity of a phenomenon” (p. 70).

According to a number of mixed method researchers (Creswell, 2014; Greene, Caracelli, & Graham, 1989; Morgan, 1998), two of the most prominent reasons for conducting mixed methods are *triangulation* and *complimentarity*. The main aim of triangulation is to obtain a convergence of the results from two different sets of data (quantitative and qualitative data) to ensure the reliability of the results. Meanwhile, mixed methods allow complimentarity when the collecting of an additional data set helps researchers to address the research questions that the existing data set is unable to adequately address. In such a case, mixed methods help the researcher to have a complete picture of the phenomenon under study. In mixed methods research, researchers can decide at which stage and how two sets of data are mixed to achieve their research goal and answer their research questions.

Both quantitative and qualitative data were employed in this study. First, a quantitative research phase was conducted with an online survey administered to selected teachers and students at FPT University. The quantitative data from this survey were then analysed to provide an overall picture of the teacher and students’ attitudes and perceptions of using ICT in ELT in general and in collaborative writing in particular. These data also helped the researcher to explore the level of teachers’ and students’ ICT skills, access and pedagogies, which then allowed the researcher to choose the appropriate ICT tools to use for the writing project in the second phase.
An intervention was conducted in the second phase of the study – the qualitative phase. Two teachers were selected for a trial in which they applied the collaborative writing-supported ICT tools recommended by the researcher in their writing classes. The researcher also taught one class in the trial. During the trial, the researcher observed the students’ electronic documents as well as their interaction while collaborating with each other. The researcher also conducted unstructured interviews with the teachers and focus group interviews with the students in the middle of the trial. After the trial, experience-of-change (EoC) interviews (Ainscow, Hargreaves, Hopkins, Balshaw, & Black-Hawkins, 1994) were conducted with both the teachers and the students to explore their attitudes and perception of using ICT in collaborative writing as well as the supporting and inhibiting factors they encountered when using ICT in collaborative writing. Figure 3.1 shows how the data sources were utilised to answer the research question and how the analyses informed the findings and implications.

![Research design](image)

**Figure 3.1** Research design.

**Research setting**

The site of this study was FPT University in Vietnam, a private university founded in 2006. The reason for the choice of this institution is that FPT University is recognised as one of the leading ICT training universities and has ICT infrastructure ideal for research of this kind.
Besides the university’s headquarters in Hoa Lac, FPT University has campuses in many locations across the country such as Hanoi, Ho Chi Minh City, and Danang. The research was conducted in the main campus located in Hoa Lac Hi-Tech Park 30 km to the west of Hanoi (see Figure 3.2). This campus has a green and peaceful environment with new and modern facilities. In 2018, about 12,036 students were enrolled at the various campuses of the university (personal communication). A variety of undergraduate programs are delivered at the university: software engineering, electronics-communications, information security, business administration, finance-banking, graphic design and others. As FPT University is a leading university in information technology training, it attracts more students to study software engineering than the other majors.

English was the main medium of instruction for all majors. All undergraduate students had to undertake the General English course in the first year. The textbooks used in this course were Topnotch 1 (Saslow & Ascher, 2011a), Topnotch 2 (Saslow & Ascher, 2011b), Topnotch 3 (Saslow & Ascher, 2011c), Summit 1 (Saslow & Ascher, 2012a), and Summit 2 (Saslow & Ascher, 2012b). Each textbook was taught in 105 hours over a 7-week period. The content of each textbook aimed at developing students’ vocabulary and grammar as well as the four language skills of speaking, listening, reading and writing. Students had to successfully pass all levels of the General English course as one of their degree requirements. After finishing this course, all students of business administration and finance-banking had to take the IELTS-oriented Academic English course with two components: (1) the listening and speaking components and (2) the writing component.

As a part of being enrolled at the university, students are required to have a laptop for study purposes. The ICT infrastructure of the university was well-established with computers, projectors, speakers and Wi-Fi connection available in all the classrooms.
Population and sample

A convenience sampling technique was employed in this research. According to Dörnyei (2007):

The most common sample type in L2 research is the *convenience* or *opportunity sample*, where important criterion of sample selection is the convenience of the researcher: members of the target population are selected for the purpose of the study if they meet certain practical criteria, such as geographical proximity, availability at a certain time, easy accessibility, or the willingness to volunteer. Captive audiences such as students in the researcher’s own institution are prime examples of convenience samples. (p. 98)

Being an English language lecturer at FPT University, the researcher had easy access to the teachers and the students there. Therefore, the English language teachers and the students who were taking the English courses were selected as the subjects of this study.

Sixteen English language teachers and 315 students participated in a survey that examined their attitudes and perceptions towards using ICT in collaborative writing as
well as their ICT ownership, use and skills. After that, two teachers and the researcher undertook the trial in which they employed ICT-supported collaborative writing in their writing classes. All the teachers were Vietnamese citizens and had different durations of teaching experience. All the students in the intervention classes were first year students who were approximately 18-19 years old and had just enrolled in the university. There were three classes with 25-30 students in each class, so the total number of students in Phase 2 was 73.

**Researcher roles**

The researcher played an insider role to an extent since she worked at FPT University as an English language teacher before she took a break from her work and became a research student. As an insider to the research context, the researcher had several advantages. First, she easily obtained permission from the Head of the University as well as the Head of the English Department to collect data at the university. In addition, as a trusted colleague, the teacher participants felt more comfortable providing the researcher with information. During the intervention, the researcher played a dual role as both researcher and teacher when she herself taught one class herself. This dual role was beneficial in that it enabled the researcher to obtain a better understanding of the perceptions and views held by the participants.

The researcher was aware that her role might cause some risks of biases to the study. For example, having known the researcher, the teachers participating in the study might give their answers in a way that would support the researcher’s opinion. However, the researcher believed that the risks were low because the researcher had not had any positions in the university other than as a teacher. Therefore, sharing their opinions honestly with the researcher would not pose any risks to the other teachers.

**Instrumentation**

The instruments used in this study were surveys, interviews and observations.

**Surveys**

Among different data collection methods, the survey method is preferred by many researchers because it enables vast amounts of data to be gathered in a short time at low cost. In this study, two sets of electronic surveys adapted from an electronic instrument developed and used in research done in the Center for Schooling and
Learning Technologies at Edith Cowan University (ECU) (Cooper & Pagram, 2009; Gulatee, Vonganusith, Pagram, & Cooper, 2016; Pagram & Cooper, 2011) were translated into Vietnamese and administered to the English language teachers and students at FPT University. The surveys collected information about participants’ demographics, ICT access, and ICT competence. In addition, suitable ICT tools that could be used in Phase 2 were also explored through the surveys. Information about participants’ social media use, their experiences of different modes of collaborative writing as well as their attitudes and opinions towards these learning modes were also collected (see Table 3.1). The survey questions are listed in Appendices A and B.

### Table 3.1
*Information Collected from the Surveys*

<table>
<thead>
<tr>
<th>Student survey</th>
<th>To find out:</th>
<th>Teacher survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, gender, major</td>
<td>Demographics</td>
<td>Age, gender, duration of teaching experience</td>
</tr>
<tr>
<td>ICT ownership and use</td>
<td>ICT access (to resources)</td>
<td>ICT ownership and use</td>
</tr>
<tr>
<td>Internet access</td>
<td></td>
<td>Internet access</td>
</tr>
<tr>
<td>ICT skills</td>
<td>ICT competence</td>
<td>ICT skills</td>
</tr>
<tr>
<td>ICT use in English language learning</td>
<td>ICT training</td>
<td>ICT use in ELT</td>
</tr>
<tr>
<td>Social media use</td>
<td>Which ICT tools are suitable for collaborative writing done in Phase 2</td>
<td>Social media use</td>
</tr>
<tr>
<td>Experience of collaborative writing</td>
<td></td>
<td>Experience of collaborative writing</td>
</tr>
</tbody>
</table>

**Piloting the surveys**

The surveys were piloted in two steps. First, the survey links were emailed to three Vietnamese PhD students at the School of Education, ECU for piloting. The feedback focused on the relevance of the survey items to the research questions, the readability, the clarity of instructions, and the use of plain language. The surveys were revised based on the feedback. Then the researcher emailed one teacher at the English Department, FPT University to ask her to send out the student survey links to 28 students in her class for further piloting and feedback regarding the clarity of instructions for completing the survey as well as the clarity of survey items, time taken.
for completing the survey or any technical problems. After that, the surveys were revised again before their actual administration.

**Observations**

The researcher conducted the following observations: contextual visits, classroom observations and online observations. First, the researcher visited the learning environment settings such as the classrooms, the library and the dormitories. The purpose of the visits was to explore if the ICT infrastructure in these settings was supportive of the writing project implemented in the intervention. During the contextual visits, the researcher took notes of the available facilities such as projectors, speakers, electricity sockets, the lighting system and the speed of the Internet. Second, the researcher observed all three classes in the pre-writing stage of Writing Task 1 and Writing Task 2. At this stage, students worked in groups and had face-to-face interaction with each other to discuss the writing topic, the outline of the writing and the topic sentence. The purpose of these classroom observations was to explore how students interacted in the first stage of the writing process, their overall attitudes toward this activity and how teachers supported them during this stage. During the class observations, the researcher took notes on student interactions, their attitudes and teacher support. The researcher did not record or video the teachers and students. By this way, the researcher thought it did not influence their activities and did not make them feel uncomfortable. Third, in the online environment, the researcher logged into Facebook groups and Google Docs accounts to examine how students interacted to build their joint writing in the next stages of the writing process. The researcher recorded students’ posts in their Facebook groups. The researcher also examined their writing in Google Docs and recorded the contribution made by each group member by counting the number of sentences they wrote and the number of additions, deletions and replacements each made to the shared writing.

**Interviews**

The researcher conducted focus group interviews with three groups of students and unstructured interviews with two teachers during the intervention. After the intervention, EoC interviews were conducted with both the students and teachers. These three types of interview are explained below.
Focus group interviews

The researcher conducted three focus group interviews with students from the intervention classes. The questions for the focus group interviews are in Appendix C. The purpose of the focus group interviews was to explore how students felt about ICT-supported collaborative writing after the first two writing tasks. Before the interviews, the researcher explained clearly the purpose of the interviews to the students and encouraged them to express both positive and negative opinions. The researcher highlighted that their feedback would not pose any harms to their grades and study, but provide the researcher with valuable information to improve this learning method. Based upon this feedback, suitable modifications were made to Writing Tasks 3 and 4.

In social science research, the focus group interview is a valuable technique for qualitative data collection. In comparison with other data collection techniques such as questionnaires and observations, interviews may yield rich data to uncover people’s more private feelings and attitudes. As noted by Stewart and Shamdasani (2015), focus group interviews provide “a rich and detailed set of data about perceptions, thoughts, feelings and impressions of people in their own words” (p. 177). According to Denscombe (2014), a “focus group consists of a small group of people, usually between six and nine in number, who are brought together by a trained moderator (the researcher) to explore attitudes and perceptions, feelings and ideas about a topic” (p. 177). In the study, the researcher invited students from three classes for participation in the interviews. Based on students’ volunteering, the researcher selected six students from each class. As a result, there were three focus groups of six students representing three classes. In each focus group, the six students were from the same class, that is, six students from Class 1 (the elementary class), six from Class 2 (the pre-intermediate class) and six from Class 3 (the intermediate class).

Each interview was about 30 minutes long. The interviews were arranged to take place in an easy to be located room with air-conditioners and good lighting systems and away from other classrooms. The movable chairs in the room were set up in a circle so that the students could sit facing each other and the interviewer. All these conditions helped to make the interviewees feel comfortable and relaxed in sharing their opinions. A timetable was prepared with a clear time slot for each interview. Prior to each interview, the consent forms were provided for the participants to read and sign. Each group interview started with self-introduction, small talk and some refreshments to
establish rapport with the participants. The researcher prepared three recorders to avoid technical problems and ensure successful recording of the interviews. During the interviews, the prompt questions were framed in short and direct questions and in plain language. Active listening strategies were applied together with taking notes of non-verbal clues, and probing for further clarification or elaboration, for example: “That’s interesting; can you explain that in more detail?” or “Can you elaborate a little more?” or “Could you clarify that?” (Dawson, 2019, p. 75). After the interviews, the researcher used the notes she had made to interpret the meanings of any non-verbal information and recorded interviews were transcribed verbatim for further analysis.

**Unstructured interviews**

The feedback from the teachers in the middle of the intervention was important to ensure the researcher was informed of the reality of applying ICT in collaborative writing in the context of FPT University. Based on this feedback, the researcher could make adjustments to the second half of the intervention. Such feedback should be obtained through unstructured interviews with the teachers; “unstructured interviews can be very useful in studies of people’s information seeking and use. They are especially useful for studies attempting to find patterns, generate models, and inform information system design and implementation” (Zhang & Wildemuth, 2017, p. 241). Prior to the interview, the researcher met the teachers and arranged a meeting based on their free time. The meeting among the researcher and the teachers was then organised as a casual talk in the staff room with tea, coffee and chocolate. The researcher let the teachers share their ideas about what they liked and disliked about the intervention and propose any solutions to improve the later iteration. Techniques such as taking notes of non-verbal language and digital recording were applied. However, the researcher did not have to ask for the teachers’ consent because the teachers had signed the consent forms before the intervention, allowing the researcher to observe their classes as well as interview them.

**Experience-of-change interviews**

Experience-of-change (EoC) interviews were conducted with two teachers and 18 students who participated in the intervention in Phase 2 of the study. The interviews were unstructured and seeded with a common key question through a modified EoC instrument based on one developed by Ainscow et al. (1994). The instrument was modified by being translated into Vietnamese. A key question elicited how the
participants felt regarding the use of ICT in collaborative writing. This technique tapped into the feelings interviewees had about a specific change in the case of this research. Thus, it helped to explore how ICT supports collaborative writing, the enablers as well as the inhibitors, and which ICT tools were suitable for each stage of the writing process. Participants reviewed a series of 24 cards containing a range of feelings (see Appendix D) and then selected those that best reflected their feelings about the change, which led to a fuller discussion or interview. Feelings about change are very difficult to uncover during conventional interviews. Since this technique took on average only 15-20 minutes to complete, it was a very efficient way of capturing hard-to-reach data.

All the procedures to conduct the EoC interviews such as making the interview timetable, choosing the interview venue, obtaining the participants’ consent and managing and transcribing the interviews were done in the same way as they were for focus group interviews.

Validity and reliability

To ensure the reliability of the instruments, existing standardised instruments were used, but translated into Vietnamese. These were then checked for reliability and validity by piloting the translated instruments with selected Vietnamese EFL experts. They examined the questionnaire items and the interview questions for spelling, meaning, grammar, logic, and cohesion. Feedback was then used to make changes to the wording and order of the items. Some overlapping items were deleted. After that the researcher put the questionnaires on Qualtrics to implement the online surveys with the students and teachers at FPT University. Before conducting the online surveys, the researcher tested the surveys many times to ensure that they would run smoothly without any errors. Then the researcher piloted the student survey with one class at FPT University and the teacher survey with some Vietnamese PhD students at ECU to check if there were any problems that might occur for the participants while doing the surveys online. Triangulation of data was obtained by using both quantitative and qualitative data sources in order to strengthen the validity and reliability of the study.

Transferability and authenticity

Transferability refers to the degree to which the results of qualitative research can be generalised or transferred to other contexts or settings. While this research is a small case study and thus limited in overall transferability, the pedagogical techniques
used may be transferable within the classroom context as are the implications and recommendations.

Nunan (1991) characterised authentic activities as “either real-world or pedagogic. Real-world tasks are tasks that a regular person would do in a real-world context. Pedagogic tasks are recreated in the classroom to serve as exercises for practising and for using the language” (p. 25). Hence, Ramírez Ortiz and Artunduaga Cuéllar (2018) considered an authentic task to have “a clear and direct relationship with the things that happen in daily life” (p. 54). Authenticity was the aim of the researcher in undertaking this research. Thus the activity chosen was one that the students would normally undertake and through collaboration using technology its authenticity was enhanced since collaboration and collaboration using technology are common and necessary parts of the modern workplace.

**Procedure**

The study was conducted in two phases. The aim of Phase 1 was to explore the general ICT picture of the teachers and students at the research site, and the purpose of Phase 2 was to implement the intervention with selected teachers and classes. Figure 3.3 below illustrates these phases of the study.

![Phase 1](Survey → Selection of technologies → Phase 2 (Intervention → Observations Interviews))

*Figure 3.3 Phases of the study.*

**Phase 1**

Following ethics approval, the researcher commenced data collection.

To obtain access to the research site, a request for permission to conduct the study at FPT University was sent to the Vice Dean of FPT University. After receiving permission, through email, the researcher contacted the English language teachers to invite them to do the Qualtrics online survey. The researcher also asked them to help her forward the email to their students to seek their participation in the survey. At that time, there were 16 English language teachers and 1,064 students taking their English
classes. In total, 16 teachers and 315 students agreed to do the survey, and all of them completed it fully.

The questionnaires, which were presented in both English and Vietnamese, aimed to elicit respondents’ demographic information (age, gender, majors of study), ICT ownership and use (desk top computers, laptops, tablets, smartphones), ICT skills, ICT use in English language learning and teaching and their experience and opinions toward collaborative writing.

The data collected from the surveys was then analysed. The data analysis provided the foundation for the researcher to choose the ICT tools suitable to be used in the trial. Then the intervention in Phase 2 of the study was designed incorporating the ICT tools with the collaborative writing in three intervention classes of first year students at FPT University.

**Phase 2**

In Phase 2, the researcher invited two teachers to take part in the intervention. In Phase 1 survey, the teachers were asked to participate in the intervention in Phase 2. From those who volunteered, two teachers who were assigned to teach the elementary and pre-intermediate levels were selected. These teachers and the researcher conducted the intervention that deployed the use of ICT in a 7-week writing project. During the intervention, the researcher observed the students’ interaction in the classes, conducted three focus group interviews with the students, one unstructured interview with the teachers and analysed their electronic documents. After the intervention, the researcher conducted EoC interviews with both the teachers and selected students.

**Data analysis**

**Coding the participants**

To ensure the confidentiality of the participants as stipulated in the ethics approval, including that all data in the study was non-identifiable, the participants were coded as illustrated in Table 3.2 below.
Table 3.2
Examples of Codes for Participants

<table>
<thead>
<tr>
<th>Codes</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher 1</td>
<td>The teacher who taught the elementary level class (Class 1)</td>
</tr>
<tr>
<td>Teacher 2</td>
<td>The teacher who taught the intermediate level class (Class 3)</td>
</tr>
<tr>
<td>S1</td>
<td>Student 1 who took part in the EoC interview</td>
</tr>
<tr>
<td>S2</td>
<td>Student 2 who took part in the EoC interview</td>
</tr>
<tr>
<td>S3</td>
<td>Student 3 who took part in the EoC interview</td>
</tr>
<tr>
<td>FG 1</td>
<td>Focus group number 1 selected from Class 1</td>
</tr>
<tr>
<td>FG 2</td>
<td>Focus group number 2 selected from Class 2</td>
</tr>
<tr>
<td>FG 3</td>
<td>Focus group number 3 selected from Class 3</td>
</tr>
</tbody>
</table>

Note: See Appendix E for the full codes of all participants

Analysing the data

The study collected both quantitative and qualitative data. Quantitative data were analysed using the Statistical Package for the Social Sciences (SPSS). Analysis of qualitative data followed the procedure recommended by Lacey and Luff (2001). First, the data were transcribed and entered into a computer for analysis. Then the data were organised into sections that were easily retrievable. Familiarisation with the data before the formal analysis was essential. This was done by listening to tapes, re-reading and summarising data. The transcription was open-coded to identify the themes and emergent concepts. Re-coding was necessary to capture better defined categories. To assist the analysis of qualitative data and to code the interview data, the transcription texts of the interviews and notes of observations were imported into a qualitative data analysis software program produced by QRS International, Nvivo 12. Nvivo has many benefits and may yield better research quality by reducing researchers’ manual tasks and making it easier for them to analyse data (AlYahmady & Alabri, 2013). After the coding process, codes were identified and categorised in a hierarchy of concepts and themes that is known in Nvivo as a tree with parent and child nodes. The process from coding to categorising to concepts used in this study followed the “three Cs” of data analysis designed by Lichtman (2013).
Figure 3.4 Qualitative data analysis: Codes, Categories, and Concepts.

Source: Three Cs of Data Analysis: Codes, Categories, and Concepts (Lichtman, 2013)

The results were written up based on the themes that emerged as the main findings of the investigation. The use of quantitative and qualitative sources of data helped provide a degree of triangulation, improving the validity of the interpretation.

**Ethical considerations**

Ethics approval had been obtained from the Human Research Ethics Committee at ECU before the researcher commenced data collection in 2016. Although ethics approval was not required from FPT University, a formal letter was written to the Vice Dean asking for permission to conduct the research at the university. The participants were well-informed before the data collection that their participation was totally confidential and did not bear any physical, psychological, social or legal risks to them. Participation was on voluntary basis, and the participants reserved the right to withdraw from the study at any time without comment or penalty. Anonymity and protection of participants’ identity were maintained throughout the conduct of study. Anonymity could be achieved in a number of ways. First, the electronic surveys were administered to the participants via their emails, and they completed the surveys anonymously. For the interviews, the identity of the participants was protected by using pseudonyms in all reporting of data and findings. All data collected is stored securely to avoid unauthorised access or disclosure of any personal information and will be destroyed five years after the completion of the study.
Chapter summary

This chapter outlined the research design of the study, including methodology, participants, instruments, data analysis, procedure and ethical considerations involved in the study. To answer the research questions, a case study was deployed with the triangulation of both quantitative and qualitative data gathered over two phases of the study.

The data analysis of Phase 1 will be reported in the next chapter (Chapter 4) which provides information about the participants’ demographics, their ICT ownership, use and skills as well as their opinions about collaborative writing. Based on the analysis in Chapter 4, the technologies used in the Phase 2 intervention were selected. The design of the intervention will be described in Chapter 5. Chapter 5 will also present the data analysis of Phase 2: the teachers’ and students’ perceptions of the use of ICT in collaborative writing and the enablers and the inhibitors they encountered while undertaking the trial. The results of Chapters 4 and 5 will lead to a fuller discussion in Chapter 6.
CHAPTER 4: PHASE 1 - FEASIBILITY INVESTIGATION

Overview

The data in Phase 1 of the study were collected in order to investigate the participants’ readiness to use ICT in collaborative writing. The participants in Phase 1 were 315 students and 16 EFL teachers from FPT University. Since little was known about their current ICT practices, this investigation was necessary to provide a basis from which to select the technologies to be used in the second phase of the study. This chapter is organised into three sections. The first section presents the results of the student survey. The second section presents the results of the teacher survey. These two sections provide an overall picture of the participants’ demographics, ICT ownership and use, ICT skills, Internet use, ICT use in teaching and learning English and experiences of and opinions about collaborative writing using ICT. These data were analysed in order to answer the first research subquestion:

1) To what extent are teachers’/students’ ICT skills and access supportive of the use of ICT in collaborative writing?

The data were also used to partly answer the second research subquestion:

2) What are teachers’/students’ attitudes and perceptions towards using ICT in collaborative writing?

Finally, the third section of this chapter concludes with findings about teachers’ and student’s ICT readiness to use ICT in collaborative writing and a discussion of the findings, which indicated the most suitable technologies to use in the intervention in Phase 2 (Figure 4.1).
Section 1: Student survey results

Demographics

Of the 315 participants, 87% were male and 13% were female. The students ranged from 18 to 27 years of age. Those aged 19 constituted the largest group (64%). The students were majoring in software engineering, electronics communication, information security, business administration, finance and banking, graphic design, English language, and Japanese language (see Figure 4.2). However, three quarters of the students (76%) were enrolled in software engineering. These results reflect the fact that FPT is a university famous for its IT training, so the number of students in such programs is always high, and the number of male students often outweighs that of female students. The majority of the students were in their first year (94%), while others were in their second year (5%) or fourth year (1%). The preponderance of first years...
was because students mostly take their English classes in their first year of university. During the first year of study they have to pass all five levels from elementary (Topnotch 1) to advanced level (Summit 2). The small number of students in their second year could reflect the students who retook the English course. The fourth-year students might be those who did not pass their English level before and needed to retake it as a condition of graduation.

![Figure 4.2 Students’ major (graduate programs) (n=315).](image)

**Student ICT ownership and use**

Student ICT ownership and use are shown in Figures 4.3 and 4.4. These figures show that laptops and smartphones were the most popular devices. At FPT University, laptop ownership is compulsory and this explains why the largest percentage of the students had laptops (98%). Of the students who owned laptops, the highest ownership (33%) was in the category of having owned a laptop for less than one year. A surprising result is that few students possessed tablets. About 86% of the students indicated that they used laptops daily, and approximately 76% indicated daily use of smartphones. When asked about what devices their instructors use in their classes, most indicated laptops (99%) and projectors (88%) while fewer were reported to use smartphones (34%). Regarding students’ use of these devices in their study, desktop computers and tablets were the least popular. All these devices were reported to be used at different frequencies in students’ study. Many of the students used laptops (91%) and
smartphones (63%) while a few (6%) used desktop computers and tablets in their daily study. To recap, the vast majority of the students owned laptops and smartphones, and they used these devices for study purposes daily.

**Figure 4.3 Student ICT ownership (n=315).**

**Figure 4.4 Student ICT use in study (n=315).**

**Student ICT skills**

The students were asked to rate their skills with computers, especially regarding a number of applications/activities such as word processing, file management, Internet browsing, social networking, email, blogs and wikis, and cloud applications. Their self-perceived skills are shown in Figure 4.5.
Figure 4.5 Student ICT skills (n=315).

The students had high ICT literacy in using word processing, file management, social networking, Internet browsing and email; in particular, they were very competent in social networking: 90% were advanced users. The students were less familiar with blogs and wikis. Fifty-three percent said that they could not do much with them. Cloud computing is a recent technology; however, 58% of the students were familiar with and had intermediate and advanced skills in using cloud applications such as Google Docs.

Students’ use of the above applications/activities varied greatly, but social networking, Internet browsing and email were the most frequently used. It can be seen from Figure 4.6 that 94% used social networking, 90% used Internet browsing and 81% used email on a daily basis. Blogs, wikis and cloud applications were used less frequently with only 6% using blogs and wikis and 19% using cloud applications on a daily basis.
Figure 4.6 Frequency of student software use (n=315).

Student Internet use

Participants were surveyed about using four different types of Internet access: home Internet, mobile Internet, university wireless and Internet cafés. Home Internet refers to Internet connectivity at students’ home. Mobile Internet refers to teachers’ and students’ Internet access via their personal mobile devices. University wireless refers to Internet using the university Wi-Fi. Internet cafés refers to the Wi-Fi connectivity provided by a privately owned café. Internet access and frequency of use by students are shown in Figure 4.7. The results indicate that they used different types of Internet access to different extents on a daily basis: university wireless (96%), home Internet (57%), mobile Internet (44%) and Internet cafés (8%). The vast majority of students used the university wireless because most of them lived on campus. They did not use home Internet as much as the teachers because most students returned home on the weekends only.
Student access of the Internet (n=315).

Student ICT use in English language learning

The majority of students (97%) indicated they used ICT in English language learning. A small number (eight students), however, explained that they did not use ICT in learning English for several reasons. One said that it was boring to use ICT in learning; two said that they did not use ICT in learning simply because they did not like it; one claimed that it was not necessary and without ICT he/she still learned well; and another said that he/she would be distracted by social websites and lose focus on his/her study. The remaining three students who chose not to use ICT in learning English did not give any specific reasons. Overall, the percentage of students who used ICT in learning English far outweighed those who did not.

The frequency with which students used ICT to study English is shown in Figure 4.8. This graph shows that most of the students used laptops (89%) and smartphones (52%) daily to study English. Tablets and desktop computers were rarely, if ever, used. Only about 5% of the students used tablets and 4% used desktop computers to study English on a daily basis.
How ICT is used by students to learn English and the frequencies of these different uses are shown in Figure 4.9. Students used ICT to study vocabulary the most frequently (60% of students on a daily basis). Less frequently, students used ICT to study reading (44%), grammar (43%) and listening (40%). Only 21% of the students used ICT to support learning to speak English and only 33% indicated that they used ICT to help them write.

Figure 4.9 ICT frequency usage to support learning English skills (n=315).
**Student use of social media**

The survey also examined whether the students used some of the popular social media applications and how frequently they used them. Figure 4.10 shows that various social media applications were used at different levels of frequency. Facebook was the most common social media with 97% of the students using it. Google Docs, iMessage/FaceTime, and Skype belonged to the moderate use group which made up between 50% - 60% of the students. The low use social media included wikis (29%), and Viber (16%). Fewer students used other social media such as Google hangouts (13%), or blogs and Line (11%). Wechat, Snapchat and Tango were used infrequently with only 3% - 5% of the students.

![Figure 4.10 Student social media use (n=315).](image)

Figure 4.11 presents the frequency at which students used these social media. Facebook was used the most frequently by 91% of the students using it daily. With this level of frequency, Facebook far outweighed use of other social media. iMessage/FaceTime ranked second with 23% of the students reporting that they used it every day. The social media with low frequency of use included Skype (6%), wikis (3%) and Snapchat (2%). Use of the remaining social media was of extremely low frequency of use. Only 1% used Viber, Google hangouts or blogs daily. No students used Wechat and Tango on a daily basis.
Students’ reasons for using social media are presented in Figure 4.12. The majority of uses were for non-study purposes. For example, 86% of the students used Facebook for non-study purposes compared to 57% used it for study purposes. Only Google Docs and wikis were used for study purposes more often than for non-study purposes. Forty-eight percent of the students used Google Docs and 23% used wikis for study and only 24% using Google Docs and 13% using wikis for purposes other than study.
Students’ use of social media to learn English language skills is illustrated in Figure 4.13. Facebook and Google Docs were used the most to study English language skills. Fifty-one percent of students used Facebook for learning vocabulary, 44% for reading and 39% for grammar. The proportion of students who used Facebook to learn listening and writing skills were 31% and 28%, respectively, while only 13% used Facebook to learn speaking skills. Google Docs ranked second with 28% of the students using it for learning writing skills. Between 18% and 22% used Google Docs for learning grammar, vocabulary and reading. Although Google Docs is assumed to support users to work on a document, it was used by 10% of the students to learn listening skills and by 7% to learn speaking skills.

![Figure 4.13 Social media use in learning English language skills.](image)

**Student experiences and opinions about collaborative writing**

Collaborative writing was undertaken by about two thirds of the students, 16% of whom had experienced only face-to-face collaborative writing and 7% who had experienced only ICT-supported collaborative writing. Most students (78%), however, had experienced both modes of collaborative writing (see Figure 4.14).
The different ICT tools used by students who had experienced ICT-supported collaborative writing are shown in Table 4.1. It can be seen in this table that the number of students using Facebook was the highest of all (142 students). This was far higher than the number of students using Google Docs (26 students), wikis (12 students), Skype (nine students), email (five students), Google hangouts (one student), Google class (one student) and Facetime (one student).

Table 4.1
ICT Tools Used in Collaborative Writing (n=181)

<table>
<thead>
<tr>
<th>ICT tools</th>
<th>Number of students using the tool in writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>142</td>
</tr>
<tr>
<td>Google Docs</td>
<td>26</td>
</tr>
<tr>
<td>Wikis</td>
<td>12</td>
</tr>
<tr>
<td>Skype</td>
<td>9</td>
</tr>
<tr>
<td>Email</td>
<td>5</td>
</tr>
<tr>
<td>Google hangouts</td>
<td>1</td>
</tr>
<tr>
<td>Google class</td>
<td>1</td>
</tr>
<tr>
<td>Facetime</td>
<td>1</td>
</tr>
</tbody>
</table>

Student opinions on the different modes of collaborative writing are shown in Table 4.2. Students with experience of collaborative writing tended toward positive views of this learning mode, whether it was face-to-face collaborative writing or collaborative writing using ICT. The majority of the students seemed to agree that
collaborative writing meant they were able to brainstorm ideas and plan the writing better, and that they also received a significant amount of scaffolding from other group members. In addition, many students agreed that collaborative writing motivated them to write and found it a fun and interesting experience. Although a high percentage of them agreed that all members participated and contributed to the writing, many students – 68% of those doing face-to-face collaborative writing and 73% of those doing ICT-supported collaborative writing – admitted the dominance of stronger students over more passive students in the group. It was remarkable that the percentage of students with positive attitudes toward collaborative writing was higher in relation to all aspects of the learning experience in the first group of students who did face-to-face collaborative writing, in comparison with the percentage of the students who did ICT-supported collaborative writing. In general, students from both groups, however, expressed their willingness to continue the learning mode.

Table 4.2
Students’ Opinions Toward Collaborative Writing

<table>
<thead>
<tr>
<th></th>
<th>Face-to-face collaborative writing (n=201)</th>
<th>ICT-supported collaborative writing (n=181)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was able to brainstorm ideas and plan the writing better.</td>
<td>90%</td>
<td>77%</td>
</tr>
<tr>
<td>I felt motivated to write.</td>
<td>85%</td>
<td>64%</td>
</tr>
<tr>
<td>I found it easy to interact with other group members.</td>
<td>88%</td>
<td>72%</td>
</tr>
<tr>
<td>Writing was a fun and interesting experience.</td>
<td>76%</td>
<td>73%</td>
</tr>
<tr>
<td>I got a lot of scaffolding from other group members.</td>
<td>91%</td>
<td>76%</td>
</tr>
<tr>
<td>All students in my group participated and contributed to the writing.</td>
<td>81%</td>
<td>71%</td>
</tr>
<tr>
<td>Some students dominated the group, and others seemed to be passive.</td>
<td>68%</td>
<td>73%</td>
</tr>
<tr>
<td>I would like to continue this learning mode.</td>
<td>84%</td>
<td>78%</td>
</tr>
</tbody>
</table>

Section 2: Teacher survey results

Demographics

Of the 16 teachers surveyed, 14 were female and two were male. This difference is due to the fact that English language is a humanities area and at most universities in Vietnam humanities attract more females than males. Teachers’ ages ranged from 31 to
50 years. They all had a Master of Arts qualification with teaching experience ranging from 5 to over 20 years. In terms of teaching experience, three teachers had more than 15 years of experience, seven teachers had 10 to 15 years of experience and six teachers had 5-10 years.

**Teacher ICT ownership and use**

Teachers’ ICT ownership is presented in Figure 4.15 and included devices such as desktop computers, laptops, tablets and smartphones. Laptops and smartphones were the most popular with all 16 participants owning a laptop and 14 owning a smartphone. As expected, the number of teachers using laptops and smartphones to aid them in teaching English was also high. They all used laptops when teaching and six used smartphones, compared with two teachers who used desktop computers and one teacher who used a tablet (see Figure 4.16).

![Teacher ICT ownership](image)

![Teacher ICT use in teaching](image)

**Teacher ICT skills**

Teachers’ perceptions of their skills in using word processing, file management, Internet browsing, social networking, blogs and wikis and cloud applications at different levels (limited, intermediate and advanced) are shown in Figure 4.17. This graph indicates that the teachers perceived themselves to be very competent in word processing, social networking and email skills. However, they were not very confident using blogs, wikis or cloud applications; nine of them said that they could not do much with blogs and wikis and seven said that they had limited skills with cloud applications. These skill levels were reflected in the usage of ICT in teaching English because most of the teachers used word processing, file management, social networking and email to
aid them in teaching. Only a few teachers used blogs, wikis or cloud applications in teaching.

![Figure 4.17 Teachers’ self-perceived ICT skills (n=16).](image)

**Teacher Internet use**

The types of Internet access that the teachers used frequently are shown in Figure 4.18. All of the teachers using their home Internet and university wireless daily. The next most frequently used was mobile Internet. Internet cafés were the least frequently used type of access.

![Figure 4.18 Frequency of teachers’ Internet access (n=16).](image)
Teacher ICT use in teaching English

All of the teachers indicated that they used ICT when teaching English. This is not surprising as FPT University is a modern university with comprehensive and reliable ICT infrastructure, and the teachers are encouraged to use ICT in teaching as much as possible. The different usages of ICT in teaching language skills are shown in Figure 4.19. The teachers tended to use ICT most when they were teaching vocabulary, listening skills and grammar. Thirteen teachers used ICT in teaching vocabulary on a daily basis and twelve used it daily for teaching listening and grammar. Ten teachers reported using ICT for teaching speaking daily. The use of ICT in teaching reading or writing was the least popular. Only nine teachers used ICT to teach these skills every day.

![Figure 4.19 Teachers’ ICT use in teaching English skills/sub-skills (n=16).](image)

Teacher ICT training

Twelve teachers (75%) said that they had received ICT training. Of these teachers, eight stated they were trained in using Google Docs. The same number was trained to use games in teaching English. A few other teachers had been trained to use programs such as Course Management System (CMS) or Moodle. Only one of these 12 teachers claimed that he/she did not apply the training in teaching because there was another, more suitable option for the students. When asked about what further training they would like, 11 out of the 12 teachers indicated a desire to be trained in using laptops, smartphones and the Internet in teaching English skills, class management, marking and testing online.
As for those teachers who did not have any ICT training (four teachers), three of them said that they would like to have training and only one teacher said “No” because self-study was his/her preference.

**Teacher use of social media**

The teachers used a variety of social media at different frequency levels and for different purposes. Figure 4.20 shows various social media used by the teachers. Facebook was still the most common because it was used by all the teachers. Google Docs was the second most popular with 12 teachers using it. The next popular social media were iMessage/Facetime (10 teachers) and Viber (eight teachers). Other social media were less frequently used. These included wikis (six teachers) and Skype (five teachers). Google hangouts and blog were the least popular social media with only one student using them.

![Figure 4.20 Teachers’ social media use (n=16).](image)

Figure 4.21 presents the frequency of social media use by the teachers. Facebook was the most frequently used when 13 out of 16 teachers used it daily. Although iMessage/Facetime ranked second in terms of frequency of use, the number of teachers who used it was only three. Google Docs ranked the second most popular application in terms of user number; however, it was used with lower frequency than Facebook. Among 12 teachers who used Google Docs, seven used it once a week, but only two used it 2 or 3 times a week. None of the teachers used the other social media daily.
Figure 4.21 Frequency of social media use (n=16).

Figure 4.22 illustrates the teachers’ purposes for using these social media. Nine teachers reported that they used Facebook for non-teaching purposes while seven teachers used it for both non-teaching purposes and for teaching English. Only two teachers used Google Docs for non-teaching purposes. This number was lower than the number of teachers who used it for teaching English (seven teachers). Only three teachers used Google Docs for both purposes. Among the ten teachers using iMessage/Facetime, the large majority of nine used it exclusively for non-teaching purposes while only one used it for both non-teaching and teaching English. All the teachers used Viber, Google hangouts and blogs for non-teaching purposes only. Two teachers used wikis for teaching English only and a further two used it for both purposes. It is interesting that Skype and Viber, which have similar features, are used differently. Two teachers used Skype for both non-teaching purposes and teaching English while no teachers used Viber for teaching English.
Figure 4.22 Purposes of social media use.

The use of social media for teaching specific English skills/subskills, among teachers who reported using these for teaching English is presented in Figure 4.23. It shows that teachers used these social media for teaching writing skills the most. Six teachers used Facebook, 10 teachers used Google Docs, one teacher used wikis and another used Skype. The number of teachers who used these social media for teaching reading, vocabulary and grammar were similar. It appears that teachers rarely used these social media for teaching speaking and listening.

Figure 4.23 Teachers’ social media use in teaching English skills/sub-skills.
Teacher experiences and opinions of collaborative writing

The majority of the teachers (15 out of 16) had conducted collaborative writing in their classes. Of these teachers, six had conducted face-to-face collaborative writing, four had conducted ICT-supported collaborative writing, and five had conducted both modes of collaborative writing (see Figure 4.24). As for the nine teachers who conducted ICT-supported collaborative writing with their students, only two reported that they used Google Docs and one reported that he/she used Facebook. One of the teachers also indicated that his/her students used Google Translate. However, Google Translate can only serve as a tool for translating not for collaborating between students. Therefore, for the purposes of this thesis, it cannot be categorised as a supporting tool for collaborative writing.

![Figure 4.24 Modes of conducting collaborative writing (n=15).](image)

The opinions of teachers on different modes of collaborative writing were collected and the results are shown in Table 4.3. As this table shows, 11 teachers had experienced face-to-face collaborative writing and nine teachers had experienced ICT-supported collaborative writing.

**Face-to-face collaborative writing**

With regard to face-to-face collaborative writing, most of the teachers agreed that their students were better able to brainstorm ideas and plan the writing (nine teachers) when they had collaborated. Nearly two thirds of the teachers (seven teachers) also thought that their students assisted each other by giving feedback and comments on
their friends’ writing and that as a result their writing skills improved. Just over one third of the teachers (four teachers) said that all the students in the group participated and contributed to the group although all the teachers also admitted that some students dominated the group and others were passive. Only three teachers felt that writing was a fun and interesting experience for their students, and just over one third of the teachers thought that their students were motivated to write. As a result, less than half of the teachers thought that they would continue this learning mode.

**Collaborative writing using ICT**

Only six of the teachers conducting collaborative writing using ICT as a support tool thought that their students were able to brainstorm ideas and plan the writing better. This was in comparison to nine teachers who thought that face-to-face collaborative writing offered both brainstorming and better planning. Only four teachers agreed that with ICT-supported collaborative writing it was easier for their students to interact with each other. Two thirds of the teachers reported that their students assisted each other by giving feedback and commenting on their friends’ writing. These teachers felt that as a result their students’ writing skills improved. Only four teachers said that their students were motivated to write or thought that writing was a fun and interesting experience for their students. Unequal participation was still a problem among group members; eight teachers said that some students dominated a group while others seemed to be passive participants. Despite this, two thirds of the teachers were still willing to continue the learning mode of ICT-supported collaborative writing with their students.
### Table 4.3

**Teachers’ Opinions Toward Collaborative Writing**

<table>
<thead>
<tr>
<th></th>
<th>Face-to-face collaborative writing (n=11)</th>
<th>ICT-supported collaborative writing (n=9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>My students were able to brainstorm ideas and plan the writing better.</td>
<td>9 (82%)</td>
<td>6 (67%)</td>
</tr>
<tr>
<td>My students were motivated to write.</td>
<td>4 (36%)</td>
<td>4 (44%)</td>
</tr>
<tr>
<td>It was easy for my students to interact with each other.</td>
<td>8 (73%)</td>
<td>4 (44%)</td>
</tr>
<tr>
<td>Writing was a fun and interesting experience for my students.</td>
<td>3 (27%)</td>
<td>3 (27%)</td>
</tr>
<tr>
<td>My students assisted each other by giving feedback and comments on their friends’ writing.</td>
<td>7 (64%)</td>
<td>6 (67%)</td>
</tr>
<tr>
<td>My students’ writing skills were improved.</td>
<td>7 (64%)</td>
<td>6 (67%)</td>
</tr>
<tr>
<td>All the students in a group participated and contributed to the writing.</td>
<td>4 (36%)</td>
<td>5 (56%)</td>
</tr>
<tr>
<td>Some students dominated, and others seemed to be passive.</td>
<td>11 (100%)</td>
<td>8 (89%)</td>
</tr>
<tr>
<td>I would like to continue this learning mode with my students.</td>
<td>5 (45%)</td>
<td>6 (67%)</td>
</tr>
</tbody>
</table>

### Section 3: Findings

This section presents the findings on the readiness of teachers and students at FPT University to use ICT in collaborative writing. First, this section provides a summary of teachers’ and students’ ICT access, skills and use in English language teaching and learning in general and in collaborative writing in particular. These factors informed their ICT readiness as shown in Figure 4.25.
The results of surveys showed that ICT access, skills and use were very similar for teachers and students.

**ICT access**

First, almost all teachers and students owned laptops and smartphones with a high percentage of them using these devices in teaching and learning (see Figures 4.26 and 4.27). All the teachers had laptops and 88% of them owned smartphones. Laptop ownership among students was 98%, and 92% owned smartphones. All the teachers used laptops for teaching purposes and 99% of the students used laptops for study purposes. Besides laptops, smartphones were also used for learning by 90% of the students. The percentage of the teachers using smartphones for teaching purposes was lower at 38%.
Both teachers and students had adequate access to the Internet since 100% of the teachers had access to both home Internet and university wireless and nearly 100% of the students had access to university wireless (see Figure 4.28). As most of the students lived on campus and came back home only at the weekend, the percentage of the students using home Internet (57%) was much lower than that of the teachers (100%). The percentages of the teachers and students using mobile Internet was not high: 50% for teachers and 44% for students. It was probable that they had to pay for using that
type of Internet access. It was interesting that no teachers and only a few students (8\%) used Internet cafés.

![Figure 4.28 Internet access on a daily basis.](image)

**ICT skills**

ICT skills among teachers and students such as their ability to use social networks, email, blogs and wikis, and cloud applications, were again very similar. As shown in Figure 4.29, both the teachers and the students were competent in social networking, word processing and Internet browsing, which are important skills for ICT-supported collaborative writing. By contrast, both the teachers and students were less competent in using blogs, wikis and cloud applications.

![Figure 4.29 Teachers’ and students’ self-perceived ICT skills of intermediate level or above.](image)
The use of social media was also similar for teachers and students (see Figure 4.30). Facebook was the most popular application with all the teachers and 97% of the students using it. The second most used application was Google Docs with 75% of the teachers and 60% of the students using this application. iMessage/Facetime ranked third with 62% of the teachers and half of the students using it.

*Figure 4.30 Teachers’ and students’ technological application use.*

**ICT use**

**In English language teaching and learning**

All the teachers and the students indicated that they had experienced using ICT in teaching and learning English. All the teachers reported that they used ICT in their teaching. The percentage of students who used ICT in learning English was similarly very high (97%). The teachers tended to use ICT in teaching English skills and sub-skills with high frequency. However, they used ICT mostly to teach vocabulary and grammar. Data from the student survey showed that they also used ICT most when learning vocabulary and grammar (see Figure 4.31).
The vast majority of the teachers (94%) said that they had conducted collaborative writing while only 68% of the students claimed that they had done collaborative writing. This difference can be interpreted in terms of variation in teaching methods used across classrooms because a number of teachers are not currently using collaborative writing in their classes. In general, the results indicated that both teachers and students had positive opinions about collaborative writing.

Regarding ICT tools used in collaborative writing, Facebook was used extensively by the students (see Figure 4.32). However, Facebook was not reported by the teachers as the main ICT tool used in collaborative writing. Only one out of nine teachers used Facebook for collaborative writing in his/her class. This difference suggests that students used Facebook informally or that their collaboration using Facebook was unplanned. The second tool the students used for collaborative writing was Google Docs.

Among the 16 teachers, 12 had received ICT training. Of these teachers, eight were trained in using Google Docs and these teachers used Google Docs in teaching English writing. However, only two of them said that they conducted collaborative
writing using Google Docs in their classes. Therefore, it seemed that teachers normally used Google Docs for teaching writing, but not for collaborative writing.

![Tools used in ICT-supported collaborative writing by the students.](image)

**Figure 4.32** Tools used in ICT-supported collaborative writing by the students.

In comparison to the students who showed a positive attitude, the teachers’ opinions about collaborative writing were not as positive, either with the face-to-face mode or the ICT-supported collaborative writing mode. It is possible that the teachers encounter more challenges when conducting collaborative writing than they do when teaching individual writing. However, two thirds of the teachers wanted to continue collaborative writing using ICT. This may mean that they still valued the use of ICT in collaborative writing more than face-to-face collaborative writing.

**Discussion**

The findings of the Phase 1 data collection from both the teacher and student surveys indicated that there was potential to use ICT to foster collaborative writing for students at FPT University. First, the teachers and students were ready to use ICT in collaborative writing. They owned the necessary devices (mostly laptops and smartphones) and had access to the Internet because the university provides wireless Internet on the campus. Second, both the teachers and students had adequate ICT skills (word processing, Internet browsing, and social networking) for collaboration. These results are similar to studies done in other countries like Australia and Thailand. For example, it was found that the number of students in universities in Australia and Thailand owning technological devices such as laptops and smartphones increased rapidly from 2010 to 2014 (Pagram & Cooper, 2012; Pagram, Cooper, Vonganusith, & Gulatee, 2015). The percentage of students with laptops in Australia in 2014 was 93%, and 90% owned smartphones. In the same year in Thailand, 81% of the students had
laptops and 66% had smartphones. Students in Australia and Thailand were also competent in using social networking and word processing. Therefore, students in a Vietnamese university like FPT University did not demonstrate less potential in terms of ICT ownership and skills compared with students in other countries. Last but not least, they also showed positive attitudes toward collaborative writing using both a conventional mode (face-to-face) and non-conventional mode (ICT-supported).

The data from the surveys revealed that both teachers and students used social media and that the most popular applications were Facebook and Google Docs. As mentioned in Chapter 2, Facebook and Google Docs are considered to be beneficial for improving students’ writing performance (Ahmed, 2016; Alsubaie & Ashuraidah, 2017; Yu, 2014). Thus, the selection of Facebook and Google Docs as technological tools used for the intervention in Phase 2 of this study was suitable. Use of this combination of technologies contributes to the existing research on collaborative writing using ICT since, until now, there have been very few studies examining the potential of combining several technologies to foster students’ collaborative writing. Although Facebook and Google Docs have been identified as useful tools for students to improve their writing skills, there have been few empirical investigations into their uses in fostering EFL students’ collaborative writing in the Vietnamese higher education context. The aim of this research study was to address this gap.

The findings also identified gaps between ICT access and skills among teachers and students and their limited use of ICT in teaching and learning writing skills. The results of the surveys showed that although both the teachers and students owned a high range of technological devices, especially laptops and smartphones, they mainly used ICT in learning and teaching input skills such as vocabulary, grammar, and reading, but not output skills such as speaking, and writing. Moreover, among nine teachers who conducted ICT-supported collaborative writing in their classes, only two used Facebook and one used Google Docs, although the results of the surveys showed that Facebook and Google Docs were the two most familiar applications. Therefore, there should be better exploitation of these applications in the learning context in institutions with a strong ICT foundation like FPT University.

**Chapter summary**

This chapter has presented the survey results of Phase 1 of the study. The results have provided data on demographics, ICT ownership and use, ICT skills, Internet use
and ICT use in teaching and learning English among teachers and students. They have also provided insights into the experiences of collaborative writing and views on this learning method among the teachers and students participating in this study. These results were used to inform the researcher of the feasibility of implementing collaborative writing using ICT at FPT University, and the most suitable tools to be used in an intervention. Specifically, after analysing the data from the surveys, the researcher was able to conclude that the proposed intervention was feasible and that the technological tools suitable for both the teachers and students were Facebook and Google Docs. The following chapter provides an analysis of the data collected during Phase 2 of the study.
CHAPTER 5: PHASE 2 – THE INTERVENTION

Overview

This chapter describes Phase 2 of the study, the intervention, which was based on the findings from Phase 1. The chapter is divided into four sections. Section 1 explains how the intervention was developed and implemented with information about the selected technology, the teaching context and the training that occurred before the intervention. Section 2 presents the data collected throughout the intervention and section 3 describes the EoC interviews with the students and teachers at the intervention’s completion. Lastly, section 4 presents the findings derived from analysis of the data presented in this chapter.

Phase 2 data was collected to answer the following subquestions:

1. To what extent are teachers’/students’ ICT skills and access supportive of the use of ICT in collaborative writing?
2. What are teachers’/students’ attitudes and perceptions towards using ICT in collaborative writing?
3. What are the pedagogical implications of ICT-supported collaborative writing in a Vietnamese EFL learning context?

The process of data collection used during Phase 2 to answer the sub-questions is illustrated in Figure 5.1.
There were three stages in the intervention: pre-intervention, intervention and post intervention. In the pre-intervention stage, the researcher conducted surveys with the students in the three participating classes. In addition, the researcher made contextual visits to places such as the classrooms, the library and the dormitories to examine the infrastructure of the university. During the intervention, the students completed four writing tasks over two iterations. In the first iteration, the students did Writing Tasks 1 and 2. During the writing tasks, the researcher observed students’ face-to-face meetings in the class for the pre-writing stage, examined their Facebook and Google Docs data and had an unstructured interview with the teachers as well as three focus group interviews with the students. The results of the data analysis from the first iteration helped to modify the second iteration. During the second iteration, the students did Writing Tasks 3 and 4. The teachers marked all of students’ writing tasks. However, these marks were not recorded in their study records and then did not affect their study results. The researcher examined these marks to investigate the progress of each class throughout the intervention. During the post-intervention stage, the researcher conducted EoC interviews with two teachers and 18 students from these classes.
Section 1: Pre-intervention

This section provides information on the technology selected for the intervention, the teaching context of the study including the infrastructure, participants, textbooks and writing tasks and training provided to the participants before they undertook the intervention.

Before proceeding, a brief explanation of the similarities and differences between students in Phase 1 and Phase 2 of the study is necessary as the students in the two phases were drawn from different groups. The students in both phases were from FPT University. However, those in Phase 2 were newly-enrolled. The researcher selected this second group in order to teach them at an early stage of their tertiary study how to use ICT in their learning, and specifically how to use Facebook and Google Docs in writing.

Despite differences in their stages of study, the two groups of students were similar not only in the gender balance of the group and the study majors of the students, but also in most aspects of ICT ownership, use and skills. Like the students in Phase 1, most of the students in Phase 2 possessed laptops and smartphones and their patterns of ICT use in their English study were also very similar. For example, they used ICT to study vocabulary, grammar, reading and listening more than speaking and writing. Their ICT skills were also very similar, in particular they exhibited high level skills in social networking. In addition, the students from both groups were also competent in word processing, file management and Internet browsing, but were less familiar with blogs, wikis and cloud applications. Like the students surveyed in Phase 1, the students in Phase 2 were again most familiar with Facebook, with all of them being Facebook users. Ranked second was Google Docs, with 60% of the students in Phase 1 and nearly 64% of the students in Phase 2 being users. Thus, the profile of students in Phase 2 was very similar to that of students in Phase 1. The similarities between them were important because the technologies used in the intervention with the students in Phase 2 were drawn from the data collected from the students in Phase 1. Therefore, the intervention would be relevant to the actual participants. Further, the similarities also suggest that the patterns of students’ ICT ownership, use and skills were likely to be typical of the general students at FPT University.
Technology used

As mentioned in Chapter 4, Google Docs and Facebook, as the most used applications, were selected for use in the intervention. Google Docs and Facebook were also identified as appropriate tools for implementing the intervention and to answer the research questions because collaborative writing was the focus of the intervention. It was assumed that the students would use Facebook, especially Facebook groups, to discuss and exchange ideas relevant to the writing among the group members, and then collaborate on Google Docs to complete their final writing. The collaborative features of Facebook and Google Docs are presented as follow.

Facebook collaborative features

Facebook is the leading social networking site and a Web 2.0 application that accommodates high-user content and participation. A Facebook page is a personalised profile under its users’ control in terms of content. Facebook users can share photos, post messages on the walls of other Facebook friends, and create, join, chat and make video calls within Facebook groups.

Google Docs collaborative features

Google Docs is a cloud-based application easily adopted by anyone accustomed to a word processor like Microsoft Word, as illustrated in Figure 5.2, and has many features that support collaborative writing. First, Google Docs automatically saves every change of a document and the latest version of a document is always available to retrieve. Second, multiple users are able to access the same file in Google Docs from any digital device (computers, smartphones, tablets) connected to the Internet. Third, Google Docs is built for collaboration which allows multiple users to view and revise a document at the same time. Google Docs users are able to create and share documents with others and they have complete control over their documents. When creating a document, they become the owner of that document and gain certain privileges such as the ability to invite other people to view and edit their documents.
Figure 5.2 Google Docs.

The teaching context
Infrastructure

From the pre-intervention surveys, the researcher determined the students’ ICT ownership, skills and habits. This information confirmed that the technological tools selected for the intervention were appropriate. In addition, the researcher needed to examine if the infrastructure of the university was suitable for the intervention to take place. Therefore, the researcher visited the main areas (classrooms, library and dormitories) on the campus of the university that were the locations where the students would do their collaborative writing.

All the classrooms in FPT University were found to be well equipped with desks, projectors, speakers, fans, air-conditioners and electrical sockets under each desk. The library was not very big but was modern with space for students to work individually and in groups. Students lived in four dormitories named Dom A, Dom B, Dom C and Dom D. There were three students in each room with beds, desks and wardrobes. All these venues were connected by Wi-Fi to the Internet. The researcher used the online software program (www.speedtest.net) to measure the speed of the Wi-Fi Internet in these places. The results are shown in Table 5.1. It can be seen from Table 5.1 that the Wi-Fi speed in Doms B and C was the best with download and upload speeds over 21 Mbps. The Wi-Fi speed in Dom D was slower with download and upload speeds over 15 Mbps, but it was faster than that in Dom A which had marginal download and upload speeds. Thus, the Wi-Fi speeds in the four dormitories were
different. This difference may imply that the quality of the Wi-Fi Internet was not the same across dormitories, or perhaps that the number of people using the Internet at the testing time were different. It was interesting to note that the Wi-Fi speed in the library was much slower than that in the dormitories with a download speed of 0.32 Mbps and an upload speed of 0.28 Mbps. At the testing time, there were not many people at the library. Thus, the low speed could have been the result of technical problems at that time. The Wi-Fi speed in the classrooms was unexpected because the upload speed (51.4 Mbps) was much higher than the download speed (13.6 Mbps). Overall, the Internet on the campus was usable with some variations in different areas of the university.

Table 5.1

<table>
<thead>
<tr>
<th>Location</th>
<th>Ping</th>
<th>Download speed</th>
<th>Upload speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dom A</td>
<td>4 ms</td>
<td>7.11 Mbps</td>
<td>6.75 Mbps</td>
</tr>
<tr>
<td>Dom B</td>
<td>5 ms</td>
<td>21.23 Mbps</td>
<td>21.48 Mbps</td>
</tr>
<tr>
<td>Dom C</td>
<td>9 ms</td>
<td>21.69 Mbps</td>
<td>21.13 Mbps</td>
</tr>
<tr>
<td>Dom D</td>
<td>2 ms</td>
<td>15.79 Mbps</td>
<td>15.53 Mbps</td>
</tr>
<tr>
<td>Library</td>
<td>22 ms</td>
<td>0.32 Mbps</td>
<td>0.28 Mbps</td>
</tr>
<tr>
<td>Classroom</td>
<td>6 ms</td>
<td>13.6 Mbps</td>
<td>51.4 Mbps</td>
</tr>
</tbody>
</table>

In addition, there was an IT support desk at the administration office where between one and three technical staff were always available to help staff and students to fix problems with their laptops. In conclusion, the infrastructure at FPT University was found to be favourable for the researcher to undertake the intervention.

Participants

The participants chosen for the intervention were first year students at FPT University. As the teaching medium at FPT University is English, no matter which learning major students are enrolled in, all need to spend most of their first year doing the English preparation courses, which run from elementary level to advanced level. The elementary, pre-intermediate and intermediate levels are the first three basic levels and the majority of the students undertake these courses when they are first enrolled in the university. Therefore, the researcher conducted the intervention with three classes ranging from the elementary to intermediate levels. Two teachers were invited to participate voluntarily in the intervention. Table 5.2 shows the textbook, the level, and the number of students in the three classes that the teachers and the researcher taught.
Table 5.2
*The Teachers and the Three Intervention Classes*

<table>
<thead>
<tr>
<th>Class</th>
<th>Teacher</th>
<th>Textbook</th>
<th>Level</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Teacher 1</td>
<td>Top notch 1</td>
<td>Elementary</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>The researcher</td>
<td>Top notch 2</td>
<td>Pre-intermediate</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>Teacher 2</td>
<td>Top notch 3</td>
<td>Intermediate</td>
<td>23</td>
</tr>
</tbody>
</table>

The profiles of the students and teachers participating in the intervention are summarised in the following table.

Table 5.3
*Profile of the Students and Teachers in the Intervention*

<table>
<thead>
<tr>
<th>Class</th>
<th>The students</th>
<th>The teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The elementary class of 25 students was divided into 8 groups: students’ age range was 17-21 years. The majority (72.2%) were 18 years of age. Their majors were software engineering (73.9%), information security (8.7%), business administration (4.3%), finance-banking (8.7%), or graphic design (4.3%).</td>
<td>The teacher was 32 years old with 10 years of teaching experience. She had a Master qualification in EFL Teaching Methodology and used ICT in teaching English skills daily. She had been trained in the use of ICT in teaching English. In fact, she was trained to use games and Google Docs. She used Facebook for non-study purposes only and rarely used Google Docs. She had conducted collaborative writing in her classes. However, she had no previous experience of collaborative writing using ICT.</td>
</tr>
<tr>
<td>2</td>
<td>The pre-intermediate class of 25 students was divided into 8 groups. The students’ age range was 18-19 years. Their majors were software engineering (47.8%), business administration (26.1%), Japanese (8.7%), finance-banking (4.3%),</td>
<td>The teacher (the researcher) was 38 years old with 15 years of teaching experience and had a Master qualification in EFL Teaching Methodology. Before the intervention, the teacher had experienced collaborative writing, but only face-</td>
</tr>
<tr>
<td>Class</td>
<td>The students</td>
<td>The teacher</td>
</tr>
<tr>
<td>-------</td>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>3</td>
<td>graphic design (4.3%) and other (8.7%).</td>
<td>to-face writing without using ICT.</td>
</tr>
<tr>
<td></td>
<td>Although the teacher used ICT in teaching, she used it mostly for teaching vocabulary and grammar.</td>
<td></td>
</tr>
</tbody>
</table>

The intermediate class of students consisted of 23 students divided into 7 groups. The students’ age range was 18-24 years. Students’ majors were software engineering (52.2%), information security (17.4%), Japanese (17.4%), business administration (8.7%) and other (4.3%). The teacher was 31 years old with 10 years of teaching experience. She had a Master qualification in EFL Teaching Methodology. She used ICT in teaching English skills quite often, but rarely used ICT to teach writing. She had not been trained to use ICT in teaching. She used Facebook 2-3 times a week for both non-teaching and teaching purposes. When using Facebook to teach English, she used it to teach writing skills. She had experienced collaborative writing before. However, she did face-to-face collaborative writing without using ICT. Therefore, it can be concluded that she did not use Facebook for collaborative writing. She rarely used Google Docs for teaching writing skills.

Based on the profile of the students and teachers, the noticeable features of the participants are described as follows.

**The students**

Although the students in the three classes had different levels of English knowledge, they shared many similarities in terms of demographics as well as their habits of ICT use. In all classes, the number of male students far outweighed the number
of females, and accounted for about two thirds of the students. Most of the students in these classes were 18 years old because they were first year students. They studied several majors and software engineering was the most popular. The elementary class had the most software engineering students (73.9%). The intermediate class had 52.2% software engineering students, but the percentage in information security was also high (17.4%). Thus, the total number of IT students in this class was still high. The pre-intermediate class had the lowest percentage of IT students with only 47.8% studying software engineering. The percentage of those studying the majors related to economics like business administration, and finance-banking was much higher than in the other two classes (30.4% compared to 13% in the elementary class and 8.7% in the intermediate class). Interestingly, the students in these three classes had many similarities in terms of their ICT habits. For example, almost all of them used ICT in studying English. Facebook and Google Docs were very popular with all students using Facebook, and around two thirds of them using Google Docs in all classes. The percentages of the students who had experienced collaborative writing were approximately equal: 69.6% in the elementary class, 65.2% in the pre-intermediate class and 60.9% in the intermediate class.

The teachers

The three teachers were all over 30 and had 10-15 years of teaching experience. They all had Master qualifications in EFL Teaching Methodology and the researcher-teacher was doing her PhD. All the teachers were familiar with using ICT in teaching English. The teacher of the elementary class used ICT to teach all the language skills. The researcher-teacher of the pre-intermediate class used ICT for the students to practise skills such as listening, reading, grammar and vocabulary. She rarely used it for writing, and when she did, she only used it for sentence building. She did not use ICT for her students to practise speaking. The teacher of the intermediate class was similar because she rarely used ICT to teach writing skills. The elementary teacher had been trained in using ICT, particularly games and Google Docs. The researcher-teacher had been trained to use CMS and skills such as designing quizzes on CMS for students, or finding the course materials. She was also trained in how to use some testing software programs to supervise students during examinations. The teacher of the intermediate class had not had any formal ICT training. All the teachers used Facebook, but mostly for non-study purposes; only the teacher of the intermediate level class used Facebook
to teach writing skills. The researcher-teacher had never used Google Docs before. The other two teachers did use it, but very rarely. All of the teachers had experienced collaborative writing. However, they used the traditional method: the students met face-to-face and wrote with each other on paper without using ICT.

The textbooks and writing tasks

The textbooks used for these levels were Top Notch 1 (Saslow & Ascher, 2011a), Top Notch 2 (Saslow & Ascher, 2011b) and Top Notch 3 (Saslow & Ascher, 2011c). These books are integrated-skill books covering skills such as speaking, listening, reading, writing vocabulary and grammar. However, because of the aim of the study, the researcher investigated the use of ICT for the writing section of the textbooks only.

Each textbook was used for seven weeks. There are 10 units in each textbook, which were taught in 70 90-minute slots. All the content in a unit is built around one specific topic. Thus, there are about 10 topics in each textbook. As a result, students were required to produce a piece of writing about that topic at the end of each unit. The researcher spent the first week training the teachers and the students in how to use the ICT tools, and the last week interviewing the teachers and students to gain their feedback on the project. Hence, the researcher and the other teachers conducted collaborative writing after every two units, and the students could choose to write about one of the topics (see Appendix F). Students then completed four writing tasks within the intervention period. The writing process had five stages: pre-writing, drafting, revising, editing and publishing (Chapter 2).

Figure 5.3 shows how the writing process progressed. In the pre-writing stage, students were expected to discuss the following tasks with each other:

- choosing a topic,
- gathering ideas,
- organising ideas,
- defining a topic sentence, and
- outlining.

Students undertook this step in face-to-face group meetings. If they did not finish this step in class they could continue chatting with each other on Facebook. The
stages of drafting, revising, editing and publishing were done online via Google Docs and Facebook. Finally, the teachers checked and assessed their writing on Google Docs.

Figure 5.3 The writing process in the intervention.

**Training before the intervention**

After surveying the students to confirm that they matched the profile of the students who had been surveyed in Phase 1 of the study, the researcher trained the teachers and the students to use Facebook and Google Docs for collaborative writing. In the first week, the researcher went to each class to give instructions on how to use and collaborate on Google Docs. The researcher had prepared a video giving detailed instructions on using Google Docs, and this video was sent to each student after the training session so that they could study and explore the software in their own time and at their own pace. To ensure consistency, the researcher was responsible for setting up Facebook and Google Docs accounts, and creating Facebook groups and electronic worksheets in Google Docs for all three classes. One Facebook account was established for each class and the Facebook accounts of the teacher and the students of that class were added. Then, students in each class were divided into groups of three or four. The researcher created groups in the Facebook of each class in correspondence with the number of student groups in that class and added the participant teacher and three or four students to each group. Classes 1 and 2 had the same number of students (25), so there were seven groups of three students and one group of four students in these classes. Class 3 had 23 students, so there were five groups of three students and two...
groups of four students in this class. Table 5.4 shows the number of groups created for each class. There are three privacy options for Facebook groups: open, closed and secret. The researcher selected the secret option for each group. In this way, only the researcher, the participant teacher and the members of each group could see all the activities in that group site and only these people could interact with each other in that site.

Table 5.4
The Number of Facebook and Google Docs Groups in Each Class

<table>
<thead>
<tr>
<th>Class</th>
<th>Number of students</th>
<th>Number of groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>7</td>
</tr>
</tbody>
</table>

To set up the Google Docs account for each class, first the researcher created a Gmail account for each class. As the teachers and students at FPT University had their Gmail accounts provided by the university, they could use them as their Google Docs accounts. As the students had to do four writing tasks during the intervention, the researcher created four electronic worksheets (see examples in Appendix G) per class in the Google Docs account. The role of the electronic worksheets is similar to that of the paper format that is used to record students’ collaborative writing. The difference between the paper and the electronic worksheet is that while the paper is only the place for the students to write, the electronic worksheet of Google Docs can record students’ writing as well as their contribution to the writing through their comments. The number of electronic worksheets for each class are displayed in Table 5.5. The number of the worksheets for each writing task in each class corresponded with the number of groups in that class. The researcher added the teacher and the students in one group to one worksheet. When added to the worksheet, the teacher and students received a link in their email that notified them about joining the group. By clicking on the link, they were approved as a member of that group. After that, the teacher and the students joining that worksheet could interact with each other to build up their shared writing. As the administrator, the researcher was able to access all the Facebook groups and Google Docs writing documents. In this way, it saved the teachers and students time and made it straightforward for the researcher to manage and observe the data.
Table 5.5
The Number of Electronic Worksheets for Each Class

<table>
<thead>
<tr>
<th>Class</th>
<th>Writing Task 1</th>
<th>Writing Task 2</th>
<th>Writing Task 3</th>
<th>Writing Task 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

Section 2: Intervention

This section presents the data collected from the class observations, the focus group interviews with the students in each class and the unstructured interviews with the teachers.

Observation of the pre-writing activity

The researcher observed three classes that were undertaking Writing Tasks 1 and 2 at the pre-writing stage when the students were working in groups to discuss which topic to choose, brainstorm ideas, write a topic sentence and make an outline. During the intervention, the researcher stood near the corner of the class as shown in Figure 5.4. Sometimes, during the observation the researcher moved from group to group to observe inconspicuously what they were doing. Figure 5.3 illustrates the layout of the classes and the position of the researcher during the observation.

Figure 5.4 Layout of the class.

During the observations, the researcher took notes of what was happening in the pre-writing activity, focusing mainly on the general atmosphere of the class during the
activity, how the groups of students did the task, and their attitudes toward the writing activity. The researcher’s notes are summarised in Appendix H.

There were two observation sessions in each class leading to a total of six observations during the pre-writing activity of Writing Tasks 1 and 2. These observations led the researcher to record some comments. First, it was seen that Teacher 1 appeared to be more supportive of her students than Teacher 2 in this stage of writing. She moved constantly from group to group to assist them when necessary. In contrast, Teacher 2 tended to stand by her desk although she sometimes moved to groups near her desk to support the students. However, she seemed to ignore the ones further from her. In all the classes, the groups at the front of the class were usually more active and worked more enthusiastically than those at the rear of the class, who were often indifferent and lost concentration. Some of the students at the back of the classroom were doing other things like playing games, watching films or video clips on Facebook, or chatting with their friends. In addition, the groups with three or four students were often more active than the groups with only two students. The students in the pre-intermediate class seemed to be the most active during group work. They were very focused and discussed matters with each other excitedly. The students in the intermediate class were the least active in group work. Most of the students in all three classes used Vietnamese in their discussion. During Writing Task 2 the situation improved a little. The students were more involved and focused on their work, perhaps because they were more familiar with this learning method. During the second writing task, the researcher observed that the students used more technology such as Word, Facebook, Google Docs, Google Translate and online dictionaries like Vdict.com, especially in the pre-intermediate class.

**Focus group interviews**

The researcher conducted three focus group interviews with six volunteer students from each class at the end of Writing Task 2. The aim of the focus groups was to find out what students thought about collaborative writing using Facebook and Google Docs after the first two writing tasks. In general, the students agreed on the advantages and disadvantages of this learning method. According to them, collaborating in groups to write via Facebook and Google Docs had certain advantages. First, it was very convenient as it helped save time and energy; instead of meeting each other in person, like a traditional writing group, they could work at any convenient time and
anywhere – home, the library or in their dormitory – as long as they had a computer connected to the Internet. Some students said that Google Docs was like real life because they could write and interact with each other easily. Five students reported:

We can stay in our rooms and exchange ideas with each other without having to go anywhere. (Participant 1 – FG 1)

When we get used to Google Docs, we find it interesting and convenient to use because we can write and chat with each other in the presence of other members like in real life. (Participant 2 – FG 1).

With this writing method, we do not need to meet each other in person. We can write in any place and then concentrate more on the writing. (Participant 2 – FG 2).

All members can interact with each other without meeting in person. Hence, we can save time. (Participant 3 – FG 2).

I think it is very convenient because we just write our part and post on Facebook or Google Docs. It really saves our time travelling to meet each other. (Participant 1 – FG 3).

Another reason for this convenience was that students could not think of any ideas when they were in the class, but when they left the class, ideas suddenly came into their minds and they could start chatting and writing online. As a result of this writing method, they did not feel rushed; instead they felt more relaxed and enjoyed writing more. One student commented, “We can do our task without time constraints. We can save time, and we can do it whenever we feel interested” (Participant 3 – FG 1).

Moreover, they stated that this learning method was very supportive. The first kind of support was from their group members; when working together, their friends could help to correct their spelling and grammatical mistakes as well as contribute more ideas. Two students said:

When working in groups, we have more ideas to discuss and choose from. It is easier for us to identify the mistakes, and we can help each other to correct the mistakes more easily. (Participant 4 – FG 1)

We can help each other identify and correct vocabulary and grammatical mistakes more easily than when writing individually. (Participant 4 – FG 2)
Further, students also received support from the application itself. For instance, if a word was misspelt on Google Docs, it would be underlined in red and they could recognise the mistake and correct it. As one student stated:

When writing on paper, if I make spelling mistakes, I cannot know immediately. It is different when I write on Google Docs. The spelling mistakes will be underlined in red colour. Therefore, I feel more confident that it helps me improve my writing quality. (Participant 2– FG 1)

The students agreed that their writing was more refined after being edited and revised by many people. In addition to these advantages, writing this way enabled the teacher to know how much a student contributed to the group writing. In talking about this issue, one student said, “The teacher will know how much a student in a group contributes to the writing. Then it is also a motivation for us to write to show our contributions” (Participant 6– FG 1).

In addition, this learning method helped to enhance students’ experiences of group work, which could be of great benefit to their careers later on. For example, one student reported, “Writing this way not only helps us do the task together easily, but also helps us practise collaborating in groups, which is a necessary skill in our future jobs” (Participant 1– FG 1).

Another benefit of this learning method was that the group could draw on a more diverse range of information and perspectives on a topic, and thereby improve the quality of their writing. One student said, “The first advantage of collaborative writing is that we have more information from different sources of knowledge. Then we have more ideas” (Participant 1– FG 2).

Additionally, this learning method was fair because it was clear who contributed and who did not. One student commented:

If we write on paper, it will be difficult to know the process of our writing and to what extent each member contributes to the final writing. It is different when we write on Google Docs because Google Docs allows us to identify the text of each member as well as what each member adds, deletes, changes or replaces. (Participant 5– FG 2)

One more advantage of writing this way was that it helped improve students’ IT skills, which are as important these days as strong language skills. One student said, “When we write on Facebook and Google Docs, it helps us get used to doing
assignments on laptops, and then we can type faster. That skill is very important for IT students like us” (Participant 2– FG 3).

They also agreed that writing collaboratively could improve their English competency. One participant in the group reported, “I think that collaborative writing enhances our writing skills, especially sentence building and paragraph writing” (Participant 3– FG 3).

They could also edit their writing more easily than on paper and insert pictures, which they said made their writing more interesting. In addition, the document on Google Docs was automatically saved, so they felt secure and not fearful of losing their work. One student commented:

Writing digitally is easy for us in many respects. First, we can edit easily and quickly. Second, we can insert pictures into the text, which we cannot do on paper. We do not have to worry about how to keep our writing because it is always saved and available, and we can access it at anytime and anywhere as long as we have a computer connected to the Internet. (Participant 4– FG 3)

The students also agreed that when they worked this way their work progressed much faster. They argued that two heads were better than one and people could support each other and make use of their free time to write. One student suggested that it was scientific because students could combine the strengths of one other to make the most perfect writing. Finally, they could share the writing with other groups or post it online for many other people to see.

Besides the obvious advantages of Google Docs, the students also listed a number of disadvantages. The first and foremost weakness was that this method of collaboration was new to them and being part of the Internet it presented distractions to the learners. Two students confessed:

Sometimes, I am distracted. For example, while on Facebook or Google Docs doing the writing, I can see something fun or interesting like my friends’ messages or a film, which breaks my concentration. (Participant 2– FG 1)

I was writing, but there was a message coming and I could not checking the message. Then when I got back to the writing, I forgot what to write. (Participant 2, 4 – FG 3)

Furthermore, writing this way required the participants to be self-aware in that they had to be mindful of their responsibilities to the group because it would be unfair if one wrote and another did not. This idea was mentioned when one student claimed, “I
find it unfair when some students just rely on the others too much. They are too lazy” (Participant 3 – FG 1). In addition, when they did the writing, those who contributed later on might find the writing too complete with no gaps for them to fill in.

Another disadvantage was that when students started writing on Google Docs, they had to turn the suggesting mode on. This mode allowed students to know who wrote what, and to keep both the old and new text. Another difficulty for the students was that not all the rooms in the dormitories were connected to the Internet. For those who stayed in the rooms without the Internet, this method might be inconvenient. One student said:

Some of my friends live in the rooms without Internet connection. Therefore, it is not convenient for them. Moreover, I feel we have to depend too much on the Internet. Sometimes, when there are problems such as low speed Internet, Internet disconnection, or a power outage, we cannot complete our task on time. (Participant 1 – FG 2)

Moreover, there were some conflicts that students preferred to settle by meeting in person rather than through editing again and again on the computer. Lastly, working online could sometimes cause distress when students misunderstood each other. Some students stated that they needed to voice chat with each other to understand more. For example, one student said, “We still need to chat with each other to explain our ideas. We often used the website Appear.in, or Skype, or Facebook messenger to video call each other” (Participant 3 – FG 3).

One benefit of writing in groups was that there were more ideas to write about. However, this benefit could become a disadvantage if the students did not know how to select and refine the writing. As a result, their writing became too bulky and not succinct. One student claimed, “We often had too many ideas in one piece of writing. As a result, our writing was sometimes too lengthy and messy” (Participant 6 – FG 3). Another said:

Sometimes, we had too many ideas and we did not know which to keep and which to leave out. If we did not use the ideas contributed by our friends, we were afraid of hurting them. However, when we kept all the ideas, our writing became too long and lacked focus. (Participant 4 – FG 1)

To sum up, from the focus group interviews with three groups of six students from each class, the researcher identified both advantages and disadvantages perceived by the students when writing in groups via Facebook and Google Docs. Most of the
students agreed that this writing mode was convenient to them since they could write together from any place without meeting directly. Moreover, it was supportive because scaffolding came from teachers and friends to help them improve their writing. In addition, learning this way helped them to develop their IT skills, which they valued because they were aware that they would use both IT and English in future workplaces. However, this writing mode caused some problems for the students as well: distractions, unequal contributions among group members and the unavailability of Internet connection in some dormitory rooms.

**Teachers’ reflections**

The researcher also conducted an unstructured interview with the teachers. The conversation with the teachers confirmed the observation and student interview data. First, the teachers confirmed the benefits the students experienced when conducting this writing mode. Teacher 1 said, “It saves time; students didn’t need to meet each other. They could sit anywhere writing, editing and revising.” Teacher 2 added, “Working in groups, students would have more ideas, and then their writing would be of better quality. When one student wrote, other students edited and checked vocabulary, ideas and format. They rarely checked grammar.” Both teachers remarked “when the teacher comments, all students can see it at the same time. However, with paper, students have to pass it around.” They said that “when writing on paper, it was difficult to know how a member contributed to the writing. When in Google Docs with the suggesting mode on, the teacher and the students would know exactly the contribution of each member. It’s a kind of motivation for all students to try to write. This was not true with writing on paper.” The advantage of this writing mode for the teacher was that “it’s easy to comment on students’ writing. When students write on paper, sometimes their handwriting is too small and they don’t leave proper spacing. It causes tiredness for the teachers when they have to read and do the marking” (Teacher 2). Teacher 1 said “it’s more convenient when the teacher doesn’t have to keep students’ writing papers.”

Regarding the disadvantages of using ICT during collaborative writing tasks, both teachers emphasised that the students’ attitudes and conscientiousness played a vital role in their success in this writing mode. Teacher 2 concluded, “it is only good for students who are conscientious about their study; those who are aware of the benefits of group work and what they can learn from the others; those who really care about improving their English.” Teacher 1 gave this example: “Due to their poor learning attitudes, some lazy students copied the whole writing from somewhere online and
pasted it on their Google Docs without any modifications. Some others just use Google Translate to translate from Vietnamese to English. Therefore, it is not effective.” Another challenge noted by both teachers was that when they examined students’ Google Docs writing, it was difficult to identify the students because they could only see students’ surnames from the notifications. In order to identify them, the teachers had to ask the students which names were theirs, which was inconvenient for the teachers.

**Modifications of the writing tasks**

After the first two collaborative writing activities, the researcher was able to ascertain, for the first time, the perceptions and attitudes of the intervention insiders and the advantages and disadvantages they perceived regarding collaborative writing using ICT, specifically Facebook and Google Docs. Based on the findings from the first iteration, a number of modifications were implemented in the second iteration of the intervention when the students undertook collaborative Writing Tasks 3 and 4.

- Pictures were inserted into students’ avatars so that it would be easy for the teachers to recognise the work performed by each student.
- Students set up group chats in Facebook messenger so that it would be more convenient for them to chat or call each other.
- Each group had a single leader to remind them of tasks and promote group work.

After these writing tasks were completed, the researcher selected six students from each class, based on who had volunteered, to take part in the EoC interviews. Two teachers were invited to participate in the interviews as well. The results of these interviews are presented in the next section.

**Section 3: Post-intervention interviews**

After two collaborative writing intervention cycles were completed, 20 EoC interviews were conducted with two teachers and 18 students (six from each class) to investigate their personal experiences of the activities in general and their opinions about what they experienced. The results of the interviews are summarised in the section below.

**The students’ experiences of change**

The interviews highlighted the following four issues related to ICT use in collaborative writing:
• attitudes of students,
• how ICT supported students,
• learning preferences, and
• problems influencing effectiveness of collaboration.

**Issue one: Students’ attitudes toward using ICT in collaborative writing**

From the EoC data, a score was obtained for each interviewee that could be used as an indication of the person’s overall feelings towards using ICT in collaborative writing. The score was calculated from the cards chosen and placed upon the “Often” square of the EoC response sheet. Each card had a positive or negative value. Table 5.6 presents the EoC score of each class. Figure 5.5 presents the students’ EoC scores, with a possible range of -20 to +20, where 0 indicates neutrality. The individual scores ranged from a low of -3 to a high of +17. Half of the students rated the collaborative writing experience as below +10. There were a large group of students who rated the experience between +10 and +15, and there was one student who rated it above +15. When averaged, the pre-intermediate class rated the experience the highest (a score of +10.8) and the intermediate class rated collaborative writing the lowest (a score of +6.2).

**Table 5.6**

<table>
<thead>
<tr>
<th>Class</th>
<th>Score (Total possible 20)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>elementary class</td>
<td>11, -3, 10, 15, 12, 7</td>
<td>8.7</td>
</tr>
<tr>
<td>pre-intermediate class</td>
<td>8, 14, 7, 10, 17, 9</td>
<td>10.8</td>
</tr>
<tr>
<td>intermediate class</td>
<td>0, 10, 15, 3, 6, 3</td>
<td>6.2</td>
</tr>
</tbody>
</table>
The majority of the students (16 out of 18) were positive about using ICT in collaborative writing. The first reason why students had positive attitudes is that ICT made it convenient for them to develop their piece of writing. They could write at any time and in any place with Internet connectivity without having to meet in person. They also indicated during the interviews that they found the learning environment comfortable and it saved them time. Moreover, the use of the applications of Facebook and Google Docs in this study was perceived as easy; no student reported any technical difficulties, and they confirmed that Facebook and Google Docs were unproblematic to use. Students went as far as indicating that they felt exhilarated because when working on Facebook and Google Docs, they could send each other funny icons or chat messages as well as exchange academic knowledge (see Figures 5.6 and 5.7). The students expressed this by saying, “while writing on Facebook, we can video call each other, send icons and sometimes have off-track chatting. In that way, we feel relaxed, not stressed” (S10). Another student confirmed this experience, “we start our writing by chatting and joking. We also send stickers. We think it’s fun to write and chat like that” (S18). Students found this method of collaborative writing more enjoyable and relaxing than the traditional method they had used in the past.

Figure 5.5 The range of students’ EoC scores.
Students were quite optimistic about using this learning method. They believed that when working in groups and using these cloud technologies, the collaboration was shared among members more equally, and could, therefore, be done better. S13 expressed this idea by saying, “I have the feeling that I’m not alone. I have friends to help me”. Another student added, “I have support from friends, so I don’t have to do the job on my own” (S4). Some students, reflecting on their positive experience with these cloud technologies, were optimistic about the future development of Google Docs to aid their writing even further. For example, one student commented that “Google keeps developing its applications. I’m sure Google Docs will replace Microsoft Word in the future. Hopefully, Facebook’s future development will support collaboration better”
The students also felt confident using this learning method. The reasons given for why they were confident in using the cloud technologies were various. Some believed that their ICT literacy allowed them to control the technology, so they did not feel nervous. Others thought that they would be supported more easily by other members of the group using this technology. Students also felt confident because they worked in a closed group which meant they could freely discuss matters with their friends. No-one from other groups could see their writing, so they were not afraid to make mistakes. Some students commented that they were interested in this type of collaborative learning environment because it was the first time they had experienced collaborative writing using Facebook and Google Docs. As 21st century citizens, technology is something akin to the air these students breathe. Thus, they were more familiar with writing using digital text than writing with pens and paper. Student S6 said, “This is the first time I have done writing this way. It’s more interesting than writing on paper”. S17 and S18 made similar comments. A number of students felt that their self-esteem improved through the experience, as one stated, “my friends in other schools still use traditional writing methods. They will admire me when I use ICT in writing” (S14). The students’ comments overall indicated strongly that the idea of working within the ICT environment sparked their interest and triggered their positivity. For example, one student said, “using ICT in learning makes me optimistic” (S1). As a result, many students felt committed and wished to continue to learn using mobile and digital technologies.

While the majority of the students interviewed had a positive attitude toward using Facebook and Google Docs in collaborative writing, two students expressed negative opinions. Those students showed that they were not interested during the interview. It seemed that they did not trust this learning method and they doubted the effectiveness of using ICT in writing. They lost their enthusiasm, felt frustrated, disappointed and even isolated when they had to do the writing by themselves because other students in their groups were too lazy or irresponsible. An example of uneven levels of contribution within a group is illustrated in Table 5.9. As can be seen from the table, there were three students (A, B and C) in this group. However, only student A was active, making twelve contributions: five for revising and seven for editing. Meanwhile, student B made only one contribution and student C made just two contributions.
Table 5.7
Example of Students’ Uneven Contributions on Google Docs

<table>
<thead>
<tr>
<th>Group</th>
<th>Level</th>
<th>Student</th>
<th>Number of comments</th>
<th>Revising</th>
<th>Editing</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>elementary</td>
<td>A</td>
<td>13</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

This uneven participation of the students is shown clearly in Figure 5.8. The student with the blue colour was the most active in the group, making seven additions, three deletions and three replacements.

First, student A (blue text) wrote:

“One of the most beautiful place I was visit is Paris, I never forget this time because it was so interesting.”

Then student B (red text) wrote this sentence:

“I was traveled to Paris by plane last week.”

Student A continued:

“I stayed in the Latin Quarter which definitely was more fitting with my personality, but when I was in Montmartre, I liked the funky artsy neighborhood so much that I thought I would stay there next time – Lord willing – that I am in Paris. Paris have so many wonderful areas.”

Student B wrote:

“I went to visit Eiffel Tower, Norte Dame de Paris, The Louver, Latin Quarter and Jardin du Luxembourg. They were very beautiful and interesting. At night in the Eiffel Towel was sparkling. Jardin du Luxembourg (Luxembourg Park) was blue and cool. For weather, the weather was wonderful. It was sunny.”

Student C (black text) wrote:

“I love to be there for a long time because Paris is not just a luxury city but also the cultural capital of Europe. This city a lot of interesting things. I hope to have the opportunity to return to this beautiful city.”

After that, student A worked the most throughout the writing to revise and edit the sentences of students B and student C. While students B and C had no comments,
student A had one addition, one replacement and two deletions in student B’s sentences (see Figure 5.9) and one replacement and two additions in student C’s sentences (see Figure 5.10). Although not all of student A’s corrections to the other students’ sentences were correct, it shows that student A was the most hardworking and responsible for the shared writing task.

One of the most beautiful place I was visit is Paris, I never forget this time because it was so interesting. I was traveled to Paris by plane last week. I stayed in the Latin Quarter which definitely was more fitting with my personality, but when I was in Montmartre, I liked the funky artsy neighborhood so much that I thought I would stay there next time—Lord willing—that I am in Paris. Paris have so many wonderful areas. I went to visit Eiffel Tower, Notre Dame de Paris, the Louver, Latin Quarter and Jardin du Luxembourg. They were very beautiful and interesting. At night in the Eiffel Tower was sparkling. Jardin du Luxembourg (Luxembourg Park) was blue and cool. And the weather here, it was sunny. I always love to visit be there for a long time, because Paris is not just a luxury city but also the cultural capital of Europe. This city have a lot of interesting things. I hope to have the opportunity to return to this beautiful city.

**Figure 5.8** Students’ writing sample on Google Docs.

**Figure 5.9** Student A’s revision of student B’s sentences.
Some students reported that at times they felt negative about using Facebook and Google Docs. This was because they found that they were easily distracted and found it difficult to stay focused on their task. For example, when they were on Facebook, they found that they could be attracted to their friends’ posts or disturbed by their friends’ messages. One of the students commented: “there are some clear disadvantages. For example, sometimes I feel annoyed when using social networks for learning because I receive messages from friends which make me lose my concentration” (S14). In addition, when they were searching for information online for their writing, they might come across some tempting distraction, like an interesting video clip or film. Therefore, instead of writing, they might waste time doing something else.

**Issue two: How students are supported when using Facebook and Google Docs in collaborative writing**

When writing collaboratively using Facebook and Google Docs, students indicated that they were supported in many ways: technologically and by their teachers and friends via their scaffolding.

Students were supported technologically because Google Docs and Facebook were easy for them to use. They reported no difficulties in using them. This was understandable for Facebook because the data from the survey showed that 97% of the students use it on a daily basis, indicating a high degree of familiarity with the website. Although the percentage of the students who used Google Docs was much lower (60%), students did not report any difficulties in using this app in their writing. On the contrary,
they found it simple to use, saying that “Google Docs is not difficult to use” (S6). Some students compared Google Docs and Microsoft Word and valued the advantages of Google Docs. One student said:

I find it interesting and I would like to use it for the long term because Google Docs embeds some applications supporting word processing and essay writing. Google Docs is more developed than Microsoft Word because it allows animated picture insertion. I used to work on Microsoft Word, but it was too complicated. Google Docs is much simpler. Although it has fewer features, it is more user-friendly. I have felt more comfortable since I changed to using Google Docs. (S5)

Apart from their ease of use, both Facebook and Google Docs aided students during multiple writing stages. In the pre-writing stage, in addition to face-to-face group discussions in the class, students also chatted on Facebook and Google Docs to brainstorm ideas, or they simultaneously searched for online writing samples. In this way, many students said this precipitated more ideas. One student said: “when we brainstormed the writing, we chatted with each other via Facebook or Google Docs and we could share many ideas with each other even when we had already left the classroom” (S10). Another student said, “Sometimes I got stuck and could not think of any ideas. I searched for writing on similar topics on the Internet, and this gave me many good ideas to share with my friends on Facebook and Google Docs” (S7). At the end of this stage, students had to reach a consensus in order to construct an outline of their writing to post in their Google Docs. Many students said that by posting the outline in Google Docs, they found it easy to follow their work and develop their writing. One of the students said, “I find concentrated on the writing because whenever I was going off track the outline was always there to remind me” (S3). Also, in the drafting stage, Google Docs was beneficial to the students. As one student explained:

I could easily navigate to Google Translate, or other online dictionaries to check the meaning of unknown words or structures, which allowed me to write more accurately. It supports me to search for information while writing and it’s easy to look up new words. (S6)

One helpful editing feature of Google Docs was that all the misspelt words were underlined in red. Most students agreed that by using ICT, they could improve the quality of their writing, especially respect of in vocabulary and grammar. It can be said, therefore, that ICT supported students’ writing. However, students’ ICT competence also played an important role. In general, the ICT competence levels of FPT University
students are relatively high. As a result, their ICT knowledge supported them when using ICT in writing.

As noted earlier, Google Docs also brings the advantages of its suggesting mode “which enables us to edit and correct each other without losing text. We can see how our friends change, delete or add to the text” (S9).

One interesting comment from the students was that when writing with other people via ICT, everything they wrote was revealed to the others. Highly competent students liked this because their strengths would be visible and known to others. “When I write a good sentence and other people like it,” said one student, “I will be admired by others. That means ICT helps me to show off my skills to more people” (S18).

Apart from the support of the ICT tool itself and the high level of ICT competence among the students, the students also received assistance from their teachers and friends. Examples of their comments about this are:

While writing, sometimes it’s hard to think of any ideas. Then teachers and friends support and encourage me a lot. (S10)

I will be corrected by teachers and friends right away when making mistakes. (S12)

If I write something wrong or off track, I get comments from teachers and friends to revise, and then I can write better. (S7)

Figure 5.11 shows how the students corrected each other. Four students in this group assisted each other by correcting the errors they found. Most of the corrections were related to spelling and grammar. First, student A (pink text) began the writing with the introduction where two corrections were made. When student A wrote “Kim Oanh, one of my best friend, is the most interesting girl that i’ve ever known so far”, student B (blue text) immediately changed “my” to “our”, and student B and C (purple text) changed “i’ve” to “we have”. Students B and C might have thought that this writing was the product of the whole group rather than an individual; hence, they considered the use of a first person singular pronoun inappropriate. Next, within the rest of the text, students continued collaborating and making corrections, most of which were precise. For example, student B corrected student A’s use of the incorrect word “campaign” to “campus”. Student D (red text) changed the past tense of the verb “raised”, and the present tense of the verb “donates” to the gerund forms “raising” and “donating” to make the sentence structure correct. Student B identified the subject-verb agreement
error “she smile” by changing it to “she smiles”. Students were scaffolding each other by interacting and amending one another’s errors to make their writing grammatically correct. They created the ZPD for the whole group to progress toward a higher writing level. The scaffolding the students offered and received was not only from each other, but also from their teacher. In this piece of writing, the teacher (green text) helped the students to correct some basic errors that they had made. First, the teacher added “with” to make the sentence transition “To begin with” correct. Then the teacher changed the singular form of “friend” to the plural form “friends” in the phase “to make friends”. As for the incorrect clause “Whenever her friends in trouble”, the teacher made it correct by adding “are” after the subject so that it read “Whenever her friends are in trouble.”

Figure 5.11 Students’ scaffolding interactions.

Issue three: Students’ learning preferences

Data from the interviews and observations revealed students’ learning preferences. First of all, it was noted that students liked to work in privacy. Although the researcher created a Facebook group for each group of students to post and discuss the topic, they rarely used it as a platform for their discussion. They preferred to use Inbox Chat to talk with each other because they did not like the teacher to know everything they discussed. Some students did not feel comfortable and others wanted to hold back until the final draft to surprise the teacher. Interestingly, students preferred to work in their closed group without being seen by the teacher and other groups in their class, except for the final step when they published their work. They wanted their final
work to be seen by the other groups but only when they believed they had produced good writing. To some extent, they wanted to show off to others. At the same time, the weaker groups wished to see the work of other groups to learn from them. However, it was rather surprising that they did not want to publish their work on the class Facebook page although this had been requested by the teacher. One of the students commented, “I think it is unnecessary to post the final writing on Facebook because I’m sure that nobody would read it, even me” (S1). When interviewed, some students said that they wanted to have a session in the class in which the teachers would comment on and show the pieces of writing from all the groups so that they could learn the strong points of the other groups as well as show their good points. Students said that they would rather do this exercise in the class than via ICT because it seemed that with the presence of the teacher, they would pay better attention to the writing of other groups. In summary, students liked to work in their own groups privately and preferred more teacher’s involvement after they had completed their writing.

**Issue four: Problems influencing effectiveness of collaboration**

The data reveals that what most influenced the effectiveness of using ICT in collaborative writing was not the technological issues, but the attitudes of the people involved and issues around teamwork. Although most of the students who participated in the interviews appeared to be positive about this learning method, and the interviews confirmed this repeatedly, many of them complained that their group members were too lazy and depended too much on them. As a result, they had to do most of the tasks, which depressed them and then the interactions within their groups failed. One of the students explained the situation this way: “Only I did the writing. The others were not involved and often didn’t participate” (S8).

The English competency of the members in a group really affected the success of collaboration in that group. If the levels of competency in a group were quite even, the members of that group felt more self-confident and motivated. In addition, if their competency levels were equal and they interacted well with each other, the conditions were perfect for the group to flourish. The following quotes are examples of students’ comments about their groups’ comfort:

I worked with people who get on well with each other. Therefore, during the writing process, we felt exhilarated and there were no conflicts among us. (S16)
In my group, the levels of the members were quite even. So, we felt happy and sure that the others could fulfill their jobs well. (S18)

I don’t want to work in a group in which the English competency among the group is too different because then the weak ones will depend too much on the strong ones. (S7)

As the researcher observed, the groups who got on well and trusted each other often produced better writing, and they seemed more satisfied with their work. Figure 5.12 illustrates the writing of one of those groups. The group members’ contributions to the writing were quite even and effective. There seemed to be a well-functioning division of labour between the group members. Student A (pink text) wrote 10 sentences, student B (blue text) 13 sentences and student C (purple text) 10 sentences. Student D (red text) appeared to be the person in charge of proofreading the whole piece because this student contributed 10 out of the total 25 revisions and edits from the group.
Figure 5.12 Writing sample from the harmonious group.

The teachers’ experience of change

This section presents findings from EoC interviews conducted with two teachers. The data from these interviews revealed the teachers’ opinions on the benefits
of the intervention, the challenges of implementing as well as solutions to improve this learning method.

**Issue one: teachers’ perceptions of the benefits of using ICT in students’ collaborative writing**

Both teachers mentioned certain benefits of this writing mode. First of all, they commented on the ease of use. Neither teacher encountered any difficulties in using Facebook or Google Docs for collaborative writing. Teacher 1 said, “I can control the technology. It is quite simple. I can see how students work together, and it is easy for me to comment on their writing”. Similarly, Teacher 2 commented:

There are no difficulties in using Facebook and Google Docs. I have used Facebook for many years now on a daily basis. Although this is the first time I have used Google Docs, I have no problems in using it.

Both teachers also agreed that the technology was supportive to them in many ways. First, it was convenient. “I did not have to keep bulky writing papers,” said Teacher 1, “instead, I could access students’ writing and comment on it easily via a device such as a computer, a laptop, an iPad, or a smartphone.” Teacher 2 commented that “In comparison with traditional collaborative writing, collaborative writing using ICT like Facebook and Google Docs is more convenient. I don’t have to worry about keeping students’ writing papers or losing them.”

In addition, it was more relaxing and pleasant for the teachers when their students did their writing tasks on Facebook and Google Docs instead of on paper. As noted by Teacher 1, “Looking at a paper copy was not as interesting as an electronic document which has entertaining icons.” The same view was expressed by Teacher 2: “My students often inserted pictures into the text, which made their writing more interesting. When they chatted with each other, they used a lot of funny icons. I think it is quite nice.” She added:

When students wrote on paper and their handwriting was not neat and tidy and they did not leave proper spacing, the teachers had to spend more time on marking. However, when writing in Google Docs, their writing was always easy to read. (Teacher 2)

The use of Facebook and Google Docs was helpful to the teachers as they were able to ascertain exactly how much each student contributed to the writing. For example, Teacher 1 said:
I had conducted collaborative writing on paper in my class before. Actually, when my students handed their writing worksheet to me, I didn’t know how much each student contributed to the shared writing. This didn’t happen when my students did their writing in Facebook and Google Docs. I knew what each student did - adding, replacing or deleting - during his or her collaboration to complete a piece of writing.

Finally, teachers were able to give instant feedback to their students when using ICT tools like Facebook and Google Docs. Teacher 2 said:

I think the most important benefit of using social media such as Facebook and Google Docs in students’ writing is being able to give quick feedback. When I wanted to comment or give feedback on my students’ writing, I just used my phone or laptop to send it to the students instantly, despite the distance between the students and myself.

As a result, the teachers felt comfortable and confident when implementing this writing mode in their classes.

**Issue two: Teachers’ perceptions of the challenges of using ICT in students’ collaborative writing**

The difficulty in controlling students’ plagiarism was seen as a challenge for the teachers when conducting this learning method. Teacher 1 claimed that:

Sometimes, I’m sure the students are cheating. Maybe, they copied some writing somewhere on the Internet and pasted it to their Google Docs. In some cases, they asked their friends who majored in English language to write for them. Therefore, I could have controlled student’s dishonest actions better if they had done the writing task on paper in the class.

However, at this point Teacher 2 said that technology could also help them to find which part students had copied because they could search on Google to identify a piece of text. One more problem that Teacher 1 faced was that the students overused Google Translate: “some students even translated the whole writing on Google Translate and used it as a final writing without any modifications. That’s very bad”.

The harmony within a group was also a factor affecting their success in collaborative writing. When the students got on well with each other, they were more motivated and confident and, therefore, took more responsibility for their writing.

Teacher 1 stated:
If the members of the groups get on well with each other, they’ll be more tolerant and motivated to work. Therefore, they have fun when working to build the writing together. I think the writing from these groups is often better than those in the groups whose members don’t feel happy with each other.

In addition, factors that constrained the effectiveness of this writing mode were mostly related to attitude and learning methodology. Teacher 1 said that in certain situations this writing mode was unsuccessful:

I think the first factor is some students’ attitude, and the second factor is their learning methodology. They don’t have a suitable learning methodology. Writing this way would be very useful for these students if they were more active in learning. However, they were very passive and depended too much on the others.

Finally, both teachers agreed that to encourage students to use ICT in collaborative writing, some changes in how they are examined were necessary. Teacher 2 said:

My students are examination-driven. That means they are only motivated by what will be tested in an examination. The format of the writing test is individually and paper-based so that they don’t think it is necessary to write in groups using ICT.

Teacher 1 commented:

If students had to do computer-based writing tests, they would be more enthusiastic about this learning mode. Therefore, the format of examination should be changed to motivate students to use ICT in collaborative writing.

**Issue three: Teachers’ suggestions for a better use of ICT in collaborative writing**

Both teachers suggested that in order to improve the effectiveness of this writing mode, grouping particular students and assigning more specific tasks should be considered because the students only worked well when the group members worked in harmony with each other. If the teacher let the students choose their own groups they would feel more responsible for their choice, more motivated to work with the other group members and be more active in fulfilling the task. Teacher 1 said:

When I assigned students to groups, students tended to ask to be grouped with the students they liked. If they had to work with those not of their choice, they seemed to feel uncomfortable and did not work enthusiastically.
Moreover, the teachers claimed that poorly grouped students seemed to procrastinate until the deadline. Therefore, the quality of the writing was not as high as it could have been. Teacher 2 said:

Although students had one week to complete each writing task, many groups did not do it right away. They often waited until two or three days before the deadline to start. I reminded them, but they seemed to ignore me.

Breaking down the tasks into smaller ones would be advantageous because, instead of one deadline, the teacher could set deadlines for each stage; for example, a deadline for the outline of the writing and a deadline for the first draft. Teacher 2 said that if the students had such deadlines, what they had to achieve would be clearer to them and may help to counter any tendencies to procrastinate.

**Common issues and factors**

Both the teachers and students, in general, had similar ideas when assessing the advantages of using Facebook and Google Docs in collaborative writing. The first advantage was the ease of use. Facebook was a familiar social network website to them, which they used on a daily basis. Although Google Docs is not as popular, it is not difficult to learn how to use it. After being trained, all the participants were able to use Google Docs easily. Therefore, the participants felt comfortable when using both for collaborative writing. The second advantage, which both the teachers and students agreed on, was the convenience of collaborative writing using ICT. The teachers found that it freed them from bulky paper work and having to worry about keeping students’ writing papers safe. Moreover, their feedback and comments on students’ writing could be sent electronically to many students in a second. The students enjoyed the convenience brought about by using ICT in their collaborative writing, they could write at any time of the day and in any place with a computer connected to the Internet. Both teachers, and almost all students, expressed their willingness to practise this writing method in the long-term.

However, there were also issues that bothered the teachers and students when using this writing method. For instance, teachers found it more challenging to manage students’ cheating. Sometimes, they were sure that some of the students had submitted writing that was not their own work but copied from sources on the Internet. In this regard, it would be much easier for the teachers if students did the writing in front of them on paper without the help of electronic devices. In addition, the teachers found
that if they only focused on the final product, the effectiveness of this method was limited. It would be more effective and supportive for the students if they were able to observe and scaffold the students throughout the writing process from the pre-writing activity to the publishing stage. This could only be done, however, if the teachers had more time. With busy schedules, the teachers found it challenging to allocate enough time for the students. From the students’ point of view, many found that ensuring the equal contribution of all group members was a key difficulty. Some students were lazy while some were dominant, which meant collaborative writing became the individual writing of just one or some students. This raises the question of whether or not this writing method works for all students, and could explain why some participants looked cynical, even though they did not choose the card ‘CYNICAL’ during their EoC interview.

Section 4: Findings and discussion

The readiness to use ICT in collaborative writing

The data collected from the survey, the contextual visits and the interviews with both the students and teachers confirmed the readiness of both groups to use ICT for collaborative writing in the sense that they had both ICT access and competence.

ICT access

The students and teachers at FPT University had a high level of ICT ownership: almost all of them had laptops and smartphones. FPT is one of the leading schools in IT training in Vietnam; the school’s slogan is “Dream of Innovation”. Therefore, the school has invested in modern IT infrastructure. As observed by the researcher, the classrooms were well-equipped with lights, fans, air-conditioners, projectors, speakers and electrical sockets. All teachers had laptops, and they brought their laptops to class every day and also used their laptops in teaching. Almost all students brought laptops to class too. In comparison with the average university in Vietnam, the level of ICT ownership at FPT University was high. This is confirmed by the finding from a study by Dang, Nicholas & Lewis (2012a), which showed that 80% of the teachers in a Vietnamese university in their study had limited access to computers and had to share a few desktop computers of low quality. As a result, these computers were often used for non-teaching purposes like checking emails or reading newspapers. Thus, the frequency of computer use in teaching was low.
The teachers and students at FPT University also had access to the university wireless in classrooms, library and dormitories. This access was another advantage, helping them to use ICT in their learning and teaching, especially for collaborative writing with Facebook and Google Docs.

**ICT competence**

The ICT skills of both the teachers and students were sufficient for them to use Facebook and Google Docs for collaborative writing as all of the teachers and students were Facebook users. Their skills in Microsoft Word, Internet browsing and social networking were also adequate for collaborative writing, and enabled them to operate with ease using the two social media tools. After the researcher introduced and trained the teachers and students to use Facebook and Google Docs for collaborative writing, all of them could follow the instructions easily. Neither teachers nor students reported any major technical difficulties during the writing process.

**The willingness to use ICT in collaborative writing**

ICT availability does not guarantee ICT uptake (Dang et al., 2013). Readiness for ICT use does not necessarily come with the willingness to use ICT in language teaching and learning. Hew and Brush (2007) stated that many teachers understood the benefit of ICT integration in helping student learning; however, the majority of them were still not willing to integrate ICT into their teaching. The data collected in Phases 1 and 2 of this study, on the views of both students and teachers, appear to support this finding.

**Students’ perspectives**

The data from the survey (conducted at the beginning of the intervention) showed that the students seemed to be interested in using ICT to study English skills such as vocabulary, grammar, reading and listening rather than writing. In spite of that, about 57.8% of the students experienced collaborative writing using ICT, and 79.5% of that group would like to continue with this learning mode. These figures confirmed that many students were willing to use ICT in collaborative writing. The data collected during Phase 2 indicate that the willingness to use ICT in collaborative writing seemed to vary between the three classes. The observations and focus group interviews with the three classes showed that the students in Class 2 (pre-intermediate level) were more enthusiastic about trying this learning mode than the other two classes, and the students in Class 3 (intermediate level) seemed to be the least willing. The scores obtained from
the EoC interviews with these three classes reflect this. As illustrated in Figure 5.13, EoC scores range from -20 to +20. The scores from all three classes range from -3 to +17. This shows the vast majority of the students had positive attitudes. However, Class 2 appeared to be the most positive with a mean score of +10.8. Next was Class 1 (+8.7) and Class 3 seemed to be the least positive (+6.2). As analysed in Chapter 4, the number of IT students in Class 2 was lower than that in the other two classes. Therefore, it may be that neither the English levels nor the ICT levels of the students determined their willingness. There is a relationship between students’ attitudes toward learning English and their willingness to use ICT in that learning. Nguyen, Fehring, and Warren (2015) reported that students from business-related majors had more favourable attitudes toward English than students from engineering or science-related majors. In this study, Class 2 had the highest percentage of students from business-related majors (30.4%) as compared with Class 1 (13%) and Class 3 (8.7%). This may help explain why students in Class 2 were the most enthusiastic and had the highest EoC scores.

![Figure 5.13 Range of EoC scores per class.](image)

Students’ progress through the four writing tasks was compared using the marks they achieved for the writing pieces. Of interest, the students of Class 3 (the class with students of the highest English proficiency) achieved the lowest marks. This suggests that the progress of the students depended on their attitudes rather than their English language levels and ICT skills. In this study, the students from Class 3 (intermediate class) were expected to progress more than the students in Class 1 (elementary class), or Class 2 (pre-intermediate class). However, they had the lowest marks and showed the
poorest progress through the writing pieces. Observations and focus group interviews revealed that these students were the least enthusiastic. Many of them were not interested in using Facebook and Google Docs to do the collaborative writing tasks and some groups showed indifference and laziness towards the activities. For example, when the researcher observed Class 3 during Writing Task 1 (the pre-writing activity), she noticed that about one third of the class worked unenthusiastically. Some students appeared to be bored and sleepy. During Writing Task 2, it was observed that many students were not interested in the writing topics. Some students were chatting on Facebook about topics not related to their study. In addition, some groups did not take it seriously; they copied most of their writing from the Internet. Figures 5.14 and 5.15 show examples of plagiarism by the same group in Class 3 during Writing Tasks 3 and 4. As these show, there was no collaboration among the members of this group to fulfil the tasks. Only one student was engaged, and that student copied the writing from the Internet and pasted it onto their document. This dishonest action demonstrates that the students displayed a negative attitude toward the writing tasks.

Figure 5.14 Example 1 of plagiarism.
Figure 5.15 Example 2 of plagiarism.

As mentioned above, in comparison with Classes 1 and 2, the students in Class 3 had the lowest EoC scores (+6.2). This showed that the students in Class 3 had the least positive attitudes towards their writing tasks. In comparison, Class 2 had the highest EoC scores (+10.2), suggesting that they had the most positive attitudes. These positive attitudes contributed to their engagement in the writing tasks. It was observed by the researcher that most of the students in Class 2 participated enthusiastically. Their scores were high and stable over all four writing tasks and no act of copying was detected. Possible reasons for the difference between the classes are various. However, one reasonable explanation could be that the teacher of Class 2 was also the researcher. The researcher had the passion to find ways to improve students’ writing skills by applying ICT, and understood profoundly what she had to do during the implementation. Moreover, the researcher had more time than the other two teachers because she only taught one class while the other two teachers had to teach other classes. Therefore, the researcher could follow the class more closely.

Teachers’ perspectives

The survey showed that the teachers used ICT to teach writing skills the least often. It is possible that this is the reason why the students used ICT in learning writing skills the least frequently as well. Nine out of 16 teachers had experience with collaborative writing using ICT; however, only six of them would like to continue this learning mode with their students. In comparison with the students, the teachers seemed
to be less willing to use collaborative writing using ICT for collaborative writing. The scores from EoC interviews with the teachers were lower than the mean scores from the students: only +4 for the elementary teacher and +5 for the intermediate teacher. As mentioned in Chapter 4, it is possible that the teachers encountered more challenges than the students did when using this learning mode. Therefore, some were not willing to use it even though they understood the value of applying ICT in their teaching. The difficulties teachers encountered can be found in other studies. Dang et al. (2012a) investigated the factors affecting language teachers’ ICT uptake. In their study, over 60% of the surveyed teachers thought that using ICT increased their workload because when attempting to use ICT, teachers had to devote time for learning how to use the new technology and then preparing technology-enhanced lessons and conducting classroom teaching. Similar problems were highlighted by Raman and Yamat (2014) who stated that workload was a barrier for teachers to integrate ICT in their classroom practice. The teachers in their study were already overloaded with administrative and marking tasks, so they were afraid that using ICT would burden them further with work and affect their syllabus implementation.

**The obstacles to using ICT in collaborative writing**

The data collected from the intervention showed that students valued collaborative writing using Google Docs and Facebook differently. Students with positive learning attitudes saw the advantages of using this learning method, and so welcomed it. By contrast, those who were more dependent or unenthusiastic about learning often discouraged their team mates. In the researcher’s class, it was observed that those students who were not enthusiastically involved in the pre-writing activity in the class were often those who participated or interacted minimally in their Facebook and Google Docs groups. Many interviewed students claimed that what troubled them when doing this learning mode was that other members of their group avoided doing the task and delayed until the last minute. That style of passive learning is very typical of students who belong to a Confucian heritage society, such as Vietnam. As mentioned in Chapter 1, Confucianism affected the learners and underpinned typically problematic learning styles such as rote, silent and passive learning (Sit, 2013). These characteristics of the way the students approached learning, to some extent, explain why the students in this study liked to work in their private groups more than in the group with the presence of the teachers. Confucianism results in a hierarchical culture in which the relationship between teachers and students is not equal, as Sit asserted, “people with Confucian
Chapter summary

In summary, this chapter has reported on the implementation of the intervention in which the students in three classes of three different English language levels undertook the collaborative writing tasks in groups via Facebook and Google Docs. The chapter began with a description of the design of the intervention, then focused on the data collected during the intervention from the three classes that participated as well as the data collected from the post-intervention interviews with two teachers and 18 students. These data, in general, reflected the perceptions of the teachers and students of using Facebook and Google Docs, in collaborative writing and how ICT supported students and teachers in this learning mode. The findings drawn from these data shed light on the participants’ readiness and willingness to use ICT in collaborative writing and the challenges they encountered when implementing this learning mode. The teachers and students were ready to use ICT, especially social media tools such as Facebook and Google Docs in collaborative writing since they had adequate ICT ownership and sufficient ICT skills. Most of them were willing to use ICT in collaborative writing. However, several still showed a negative attitude toward this learning mode. During the implementation, teachers faced several challenges. The most prominent challenge was the passive learning style of some students which led to ineffective collaboration among group members.

The findings from Phase 2 of the study presented in this chapter along with the findings from Phase 1 lead to a fuller discussion in Chapter 6.
CHAPTER 6: CONCLUSION AND IMPLICATIONS

Overview

This mixed methods research was aimed at answering the overarching research question: *How can the application of ICT support collaborative writing in a Vietnamese EFL context?* Within this overarching question, three subsidiary research questions were posed:

1. To what extent are teachers'/students’ ICT skills and access supportive of the use of ICT in collaborative writing?
2. What are teachers'/students’ attitudes and perceptions towards using ICT in collaborative writing?
3. What are the pedagogical implications of ICT-supported collaborative writing in a Vietnamese EFL learning context?

The research project was undertaken in two phases. Phase 1 of the study was a preliminary investigation of the ICT at FPT University in terms of its accessibility, the ICT skills held by students and teachers and their use of ICT. Online surveys were administered to 315 students and 16 English language teachers in this phase. Based on the results of this investigation, two suitable ICT applications, Facebook and Google Docs, were selected for use in collaborative writing tasks in Phase 2 of the study. In Phase 2, two English language teachers and 73 students in three English language classes – Class 1 (elementary level), Class 2 (pre-intermediate level) and Class 3 (intermediate level) – participated in the study. Because these students were newly enrolled and they had not been participants in Phase 1 of the study, the researcher conducted the surveys again to ensure that ICT ownership, use and skills among these students were not different from those of the first group of students. During the intervention, these students did four collaborative writing tasks in groups using Facebook and Google Docs. The researcher conducted observations and interviews to collect data during Phase 2 of the study.

Chapters 4 and 5 presented an analysis of the findings from the two phases of the study. This chapter summarises the key research findings, followed by a discussion of these findings in relation to the theoretical framework, relevant literature, and the Vietnamese cultural learning context. Finally, this chapter describes the contributions,
implications and limitations of the study and offers suggestions for future research directions.

**Summary of the key research findings**

This section briefly revisits major findings from the research.

Overall, the most significant finding was that in a suitable learning environment where teachers and students have high levels of ICT ownership, access, and skills, it is definitely feasible to implement ICT to support collaborative writing in a Vietnamese EFL learning context.

Major findings from Phase 1 of the study showed the readiness of the teachers and students to use ICT for collaborative writing at FPT University. As one of the leading universities in IT training, FPT University has state-of-the-art infrastructure with classrooms well-equipped with projectors, speakers and Internet connection in a modern campus. Nearly all teachers and students in the study owned laptops and smartphones. The results of the surveys showed that both groups had competent ICT skills, especially the skills of word processing, Internet browsing, and social networking which are essential for collaborative writing using ICT. Living in an era experiencing a marked growth in social media, the teachers and students were also competent in using applications such as Facebook and Google Docs. This finding led to the selection of Facebook and Google Docs as the technological tools used in Phase 2 of the study.

One major finding from Phase 2 was that the majority of the students found that it was easy to use Facebook and Google Docs when they did the group writing and that these tools were useful because they supported writing collaboration among the group members. A second major finding was that the students felt motivated to learn because they found that it was fun learning with the aid of their favourite social media. However, the findings from Phase 2 also revealed some problems that might affect the efficiency of this learning method. One of the problems was the potential lack of harmony that could occur within a group. If the members of a group did not get on well with each other, they did not collaborate effectively and as a result their shared writing tended to be of poor quality. This disharmony was especially evident if one or more members of the group were too dominant. In addition, a second problem was that it was easier for students to plagiarise, that is, they copied writing from the Internet instead of producing their own writing.
Discussion of the key findings

Research subquestion 1
ICT skills and access supportive of the use of ICT in collaborative writing

In the current research, both teachers and students showed a clear readiness to use ICT for collaborative writing at FPT University. This study confirms that, at FPT University, there was a strong relationship between ICT accessibility, ICT competence and ICT confidence. The teachers and students had a high level of ICT ownership and effective ICT skills. The result from the surveys in Phase 1 of the study showed that all of the teachers and 98% of the students owned laptops. Ownership of smartphones among teachers and students were 88% and 92%, respectively. All the teachers and students had access to either home Internet or university wireless. This key finding supports previous literature, which has showed that a lack of accessibility is one of the top barriers to the integration of ICT in schools (Al Mulhim, 2014). The lack of accessibility includes the non-availability or low quality of hardware (Al-Alwani, 2005), software (Pelgrum, 2001), and Internet (Korte & Hüsing, 2006; Pelgrum, 2001). Scrimshaw (2004) reported the results of a survey about the barriers to and enablers of teachers’ ICT integration and found that among the most important determinants were “access to own personal laptop, availability of high quality resources and full access to software and hardware at all times” (p. 9). Teachers’ access to ICT facilities and resources is important as Mirzajani, Mahmud, Fauzi Mohd Ayub, and Wong (2016) found teachers were not happy when they did not have access to ICT at their disposal. Dang et al. (2012a) also reported that limited access to ICT facilities resulted in a low frequency of computer use among teachers. In their study, over 80% of the teachers claimed that they had limited access to computers. At the university in their study, only a few desktop computers were available and shared by both the academic staff and students. Moreover, over 70% of the teachers agreed that the quality of these computers was poor. As a result, these computers were used for checking emails or reading e-newspapers instead of for teaching purposes. Hence, ICT access is one of the chief factors that influences teachers’ ICT use behaviour.

The second part of this key finding is that high levels of ICT skills were also supportive of collaborative writing at FPT University. For example, both students and teachers had high levels of literacy in word processing, file management, social networking, Internet browsing and email. Therefore, they were competent and confident
in using ICT in their teaching and learning. This finding concurs with previous research that has shown that there were a positive relationship between teachers’ self-confidence and their ICT use in teaching (Mirzajani et al., 2016). Similarly, a lack of teacher ICT competence is one of the main obstacles preventing teachers from using ICT for teaching (Albirini, 2006; Balanskat et al., 2006; Bingimlas, 2009; Newhouse, 2002b). A lack of accessibility and competence results in a lack of confidence (Bingimlas, 2009). When teachers do not have sufficient skills in using ICT, they can lose their confidence and enthusiasm to integrate it into their daily teaching practice. Mirzajani et al. (2016), for instance, report a positive relationship between teachers’ self-confidence and their ICT use in teaching. Many teachers were afraid of using technology and their lack of confidence resulted in their low levels of ICT uptake in their classroom practice.

A high level of ICT uptake by the teachers and students was reflected in the intervention, which showed that teachers and students had no technological difficulties in using Facebook or Google Docs in their collaborative writing. What they found difficult related to the issue of pedagogy. It was not so much a matter of what to use, but how to use. They required training no so much in the basic skills needed to operate ICT tools, but in how to integrate these skills into their teaching and learning. Of the 16 EFL teachers at FPT University who participated in the survey in Phase 1, eight teachers were trained to use Google Docs. However, only two of them had used it in collaborative writing prior to this study. Of two teachers who participated in the intervention, Teacher 1 was trained in how to use Google Docs, but Teacher 2 was not. Yet, both of them did not know how to use Google Docs in collaborative writing until the researcher guided them. It may mean that the training they received was not sufficient. Thus, there should be more ICT training activities, especially training to develop teachers’ “skills in using particular software applications” (McDougall & Squires, 1997, p. 116). Training activities could be offered either by software companies, teacher associations or professional development centres. They could be formal workshops or conferences held in the school or somewhere else, or they might entail informal knowledge sharing between teachers experienced in using ICT and those less experienced.

Another finding from Phase 1 of this study was that there was a mismatch between the teachers’ ICT access, skills and their use. While they had sufficient hardware and software for ICT-supported collaborative writing, they did not use them for writing (57%) as much as they did for teaching other skills such as vocabulary.

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(82%), listening (75%) and grammar (75%) on a daily basis. As a result, only one third of the students used ICT in learning writing skills daily although 98% owned laptops and 92% owned smartphones. This finding is similar to that in the study of Yunus, Lubis, and Lin (2009) in which students were aware of the benefits of using ICT in language learning, but spent little time each week actually using ICT for learning. When using ICT for study purposes, students in Yunus et al.’s study mostly used it for searching for information or searching for the meaning and pronunciation of words, while 21.3% of the surveyed students reported a limited use of ICT in writing blogs in English.

While cloud-based applications such as Google Docs are supportive of collaborative writing because they allow multiple users to interact at the same time and have features supporting collaboration, the teachers’ literacy in cloud applications was limited. As it was shown in the survey, although the teachers had high levels of using social networking, word processing and Internet browsing, they were not very competent in using cloud applications. When rating themselves in terms of what they could do with computers, seven out of 16 teachers admitted that they could not do much with cloud applications. Thus, there should be more training in cloud-based applications. When the teachers master the use of the applications, they will be better positioned to exploit them to their fullest potential.

In short, having ICT accessibility and ICT competence is a necessary but not sufficient condition for successful ICT integration into teaching and learning English. As Hennessy et al. (2010) stated:

The successful integration of ICT into the classroom depends on the ability of teachers to structure their learning environments in some non-traditional ways, merging technology with new pedagogies, to develop active classrooms that encourage cooperative interaction, collaborative learning, and group work. (p. 72)

**Research subquestion 2**

**Attitudes and perceptions towards using ICT in collaborative writing**

Most of the teachers and students had positive attitudes towards and perceptions of using ICT in collaborative writing (see details in Chapter 5, especially students’ and teachers’ EoC scores). In particular, the data from the intervention showed that the teachers and students acknowledged the usefulness and the ease of using Facebook and Google Docs. As mentioned in Chapter 2, the TAM model suggested that the perceived
usefulness and the perceived ease of use had a direct influence on the users’ attitudes, and in turn their acceptance of technology. Regarding the perceived usefulness, teachers and students in the current study agreed on a number of benefits of using Facebook and Google Docs in collaborative writing. First, almost all the students used Facebook on a daily basis, which enabled them to collaborate with each other synchronously. Secondly, students seemed to be motivated to learn when they had the chance to use their favourite social network. Thirdly, students felt that their writing might be assisted by both the technology and their peers. Hence, the combination of ICT and collaborative writing helped students to advance in the ZPD by enabling them to provide scaffolding to each other. This finding supports earlier studies which found that technology assisted students to write better (Zaini & Mazdayasna, 2015), and that students performed best when they collaborated (Shadiev, Hwang, Huang, & Liu, 2018). In regard to perceived ease of use, there were no reports in the current study of difficulties in using Facebook and Google Docs during the intervention. Many students highly valued the combination of Facebook and Google Docs because they thought that these two tools supplemented each other; using them together offered more advantages than using one tool alone.

Although the majority of the students favoured this learning method, a few students held different opinions. Of the 18 students participating in the EoC interviews, one student received score of 0 (neutral attitude), and another student received score of -3 (negative attitude). These students cited a variety of reasons for their dissatisfaction when using this learning mode. However, the most notable reason concerned the attitudes of the other students when doing group work. As with traditional collaborative writing, the free-ride effect (Shin, 2014) persisted with ICT-supported collaborative writing. In a number of groups, some students were too dominant while others were too dependent. The latter students relied on the more competent students in their group and did little to no work on the task. Although ICT is thought to encourage the contribution of learners to group work (Suwantarathip & Wichadee, 2014), the use of ICT, as the results of this study show, does not automatically bring about the equal participation of learners. The characteristics of Asian learners, as described in Chapter 1, can help explain this phenomenon. Vietnamese learners share similarities with the learners in other Asian countries that are also influenced by Confucianism. Students in these cultures tend towards rote, silent and passive learning, and show diminished creativity (Chan, 1999; Exley, 2005; Loh & Teo, 2017; Sit, 2013). The presence of students with
these learning styles impacted negatively on the active learners in the current study and upset them when they had to work conscientiously while their fellow group members did nothing. Group members then failed to collaborate with each other and were unable to satisfactorily complete the collaborative writing task. The failure of the group demotivated students and gradually made them lose interest.

The teachers expected the new learning method to be effective for the students, as was revealed by the findings of this study, yet they seemed to be adversely affected by some of the students’ attitudes. Teachers became skeptical and their confidence declined when their students lost interest. The two teachers participating in the interviews admitted that sometimes some students displayed negative attitudes towards this learning mode, which depressed and demotivated the teachers. This finding is interesting because the subjective norm as one of the external variables determining attitudes of users of a technology in the TAM model (Venkatesh & Davis, 2000) indicates that teachers can be influenced by their peers, but evidence from the current study shows that they can be influenced by their students as well. Therefore, the characteristics of the learners in this Confucian heritage culture influenced the effectiveness of integrating ICT in students’ collaborative learning and overcoming this difficulty will require the efforts of both teachers and students.

Research subquestion 3

Pedagogical implications of using ICT in collaborative writing

The findings of this research have pedagogical implications for universities, teachers, students, and student assessment issue. These are discussed below.

Implications for universities

To promote the use of ICT in collaborative writing, a university needs to provide strong ICT infrastructure, sufficient teacher training, timely technical support and policies that encourage ICT integration in teaching and learning.

ICT ownership, access and skills of the teachers and students are all important for the integration of ICT in teaching and learning. Therefore, universities need to be well-prepared in regard to each of these. In order to ensure reliable access, the university has to install high quality Internet Wi-Fi in as many places on campus as possible such as classrooms, the library and dormitories. The Internet connection at a university is important because, as the data from Chapter 4 of this study showed, the
majority of the teachers and students used this Internet access on a daily basis. From the researcher’s observations and the student interviews, it was apparent that the Internet Wi-Fi at FPT University was not of equal quality in all parts of the campus. The low speed of the Internet sometimes frustrated the students and demotivated them to use technology in learning. For the universities where students do not bring their own devices, computer labs with strong computers and a fast, consistent Internet connection must be provided. Strong ICT infrastructure with reliable access to ICT resources would motivate teachers to integrate ICT into their teaching practice. As Scrimshaw (2004) stated that if teachers had their own laptops and easy access to computers, they would be more encouraged to use ICT in their teaching. Moreover, if teachers were provided with adequate facilities such as laptops, projectors and computer software, this would motivate both teachers and students in the teaching and learning process (Abdullah, Abidin, Luan, Majid, & Atan, 2006). Strong ICT infrastructure is important and should be extend to the whole physical environment of the university, not only in the laboratories, but in other places such as classrooms, canteens and corridors (Goktas, Yildirim, & Yildirim, 2009).

In addition, universities should provide more training for teachers to improve their ICT skills, especially the skills needed to use mobile technology, the Internet, social networking and cloud applications in teaching. Cubukcuoglu (2013) contended that even when teachers had access to high quality resources and well-designed ICT infrastructure, they still had many difficulties integrating ICT into their teaching. Furthermore, training should not only aim at improving basic ICT skills, but also pedagogical skills to help build teachers’ confidence in using ICT in their teaching. This supports the suggestion by Azmi (2017) that an appropriate use of ICT in English language teaching requires adequate training including pedagogical training.

In addition to reliable ICT infrastructure, easy access to ICT resources and regular ICT training, universities should provide sufficient technical support. Insufficient technical support was the factor that discouraged teachers from using ICT in the study by Mirzajani et al. (2016). Many studies have pointed out that the lack of technical assistance was a serious barrier to successful integration of ICT in education (Lewis, 2003; Toprakci, 2006). The absence of timely technical support may stop teachers from using ICT in their teaching. This is in line with the views of Akbulut, Odabasi, and Kuzu (2011), who suggest that strong ICT infrastructure with equal access for everyone and sufficient technical staff to support users should be provided to reduce
the external barriers to ICT integration and enable teachers to use ICT in their classroom.

Another important factor that affects the use of ICT in a university is the vision and culture of that university. Positive perceptions of ICT, in terms of cultural relevance, will influence teachers’ decisions to apply ICT in their teaching (Agbo, 2015). Therefore, encouragement and motivation from institutional authorities is important to foster the use of ICT in teaching and learning (Cubukcuoglu, 2013). This encouragement should be realised in policies to use ICT and a curriculum that embeds the use of ICT. More importantly, the ICT policy of the university should be well-communicated to all the teachers because Tondeur, Van Keer, Van Braak, and Valcke (2008) contended that the factors related to policy are important for the success of ICT integration and that an ICT policy plan seems to be salient to promote teachers’ use of ICT in classroom, but only with the teachers’ awareness of its content.

Implications for teachers

The decisions of teachers to use a new technology in their classrooms are influenced by their beliefs regarding that technology (Karolcik, Cipková, & Kinchin, 2016; Kim, 2015; Leem & Sung, 2018). Zhao and Cziko (2001, p. 6) identified three necessary conditions to be met for a teacher to integrate technology into his or her their teaching.

1. Teachers must believe that technology can more effectively achieve or maintain a higher-level goal than what has been used (“effectiveness”).

2. Teachers must believe that using technology will not cause any disturbances to other higher-goals that they evaluate as more important than the one being maintained (“disturbances”).

3. Teacher must believe that they have the ability and resources to use technology (“control”).

The teachers in this study appeared to believe more in the effectiveness of using technology in collaborative writing in comparison with traditional collaborative writing. They also believed that they were able to control the technology. However, one of the teachers still worried that this learning method could cause disturbance because it was easier for the students to plagiarise when using technology in writing. Hence, the teachers needed appropriate strategies to cope with this disturbance, which is more an
issue of pedagogy than technology. This concurs with the results of the study conducted by Beamish (2012) which revealed that teachers had mixed feelings towards using technology. Some believed that technology was an advantage in the classroom. Some believed that technology was beneficial but the problems it brought to the classroom outweighed its benefits, and some protested the use of technology. The negative attitudes of the teachers was more apparent when there was a lack of pedagogical direction for technology use.

The findings from the observations and interviews with the students and teachers also led to the following implications. The first implication is that although ICT applications like Facebook and Google Docs were recognised as promoting collaboration among students and assisting them to a large extent when doing their collaborative writing, face-to-face interactions should not be ignored. The observations of the students’ face-to-face discussions in the pre-writing stage showed that the group who performed well in this stage continued working well in the following stages. It is obvious that working face-to-face can motivate and create harmony among group members. Therefore, teachers should combine face-to-face activity with online collaboration to optimise the benefits of each mode. This concurs with the proposal from Challob et al. (2016): “By blending the face-to-face and online learning collaboratively in the EFL/ESL writing classroom, students could be facilitated in overcoming their negative feelings towards writing and consequently their WA [writing apprehension] could be reduced or eliminated once and for all” (p. 230). Moreover, teachers should supervise face-to-face activity in the class and ensure that every student is effectively involved in this activity.

The second implication concerns teachers’ involvement with students’ learning. It seemed that students did not welcome their teachers’ presence in their online group chat. They expected this to be private and a place where they could talk freely with each other, sometimes using informal language. In contrast, teachers’ involvement in their shared writing document was necessary and welcomed. The involvement of the teachers in face-to-face group discussions in Stage 1 (pre-writing), for instance, was seen as very important and could affect student’s attitudes. As mentioned in Chapter 5, during the pre-writing stage, the groups with greater teacher involvement seemed to be more active and enthusiastic when discussing the writing task with each other. Teachers, therefore, need to understand their students’ preferences in regard to how teachers are involved across different stages of the writing task and environments. This finding accords with
that of Alghasab (2016) who argued that the role of the teacher in wiki collaborative writing is essential and appropriate teacher intervention is critical for success.

The interviews with students confirmed that they wanted more timely assistance from their teachers, not only in the final product, but also during the writing process. As the teachers were already busy with tight schedules, it was difficult for them to follow the students in every group and give them all timely support. This problem can be addressed by reducing the teachers’ workloads. Teacher workload is a hindrance to teachers’ use of ICT, which is perceived as an added burden to responsibilities such as preparing lesson plans and marking students’ exercise workbooks and test papers (Buabeng-Andoh, 2012; Dang, 2011; Dang et al., 2012a; Raman & Yamat, 2014). Samuel and Zaitun (2007) interviewed 10 English language department heads and found that as well as the lack of ICT resources and poor ICT skills, teachers were unwilling to use ICT in English language teaching and learning due to a number of other obstacles. Three of these were “exam pressure and fear of not being able to complete the syllabus and over-burdened with administrative tasks” (p. 11). Samuel and Zaitun revealed that although a large number of teachers had the necessary ICT skills, their use of available ICT in English teaching and learning was limited.

**Implications for students**

The implications of this research for student relate to the influence of culture, the challenges they faced when using ICT in collaborative writing and group work skills.

A major finding of the study was that the students did not like the presence of their teachers in their Facebook groups. Facebook groups were found to be effective tools for students to brainstorm ideas before actual writing and thus improved their writing skills (Yunus & Salehi, 2012). However, until now no study has reported the influence of teachers’ presence in the groups on students’ interaction with each other. A possible explanation for this finding may be due to the cultural factors. As presented in Chapter 1, the Confucian-heritage society plays a role in forming the characteristics of students. In a society that is affected by Confucian ideology and in an education system that is mostly teacher-centred, the relationship between teachers and students are often formal and hierarchical. Thus, the students in this study wanted to work in their own groups without the presence of the teacher. The idea of being observed by their teacher made them uncomfortable. Therefore, it could be argued that teachers should give
students more autonomy when they do their group work. For example, in this intervention, it was unnecessary for teachers to join the Facebook groups and important to their students to feel free when they discussed their writing with each other. The presence of the teacher on this platform, which they considered private, was seen as supervision and affected their collaboration. The students considered Google Docs to be the main writing platform that included the presence of both their group members and the teacher.

The use of ICT in learning, especially social media like Facebook, also posed challenges to the students. The interviews with students and teachers revealed that students found it easy to get distracted while they used Facebook in their learning. Many other researchers have found similar situations, such as when using social media like Facebook, students more often copied writing from available Internet sources (Kabilan, Ahmad, & Abidin, 2010; Kamnoetsin, 2014; Yunus, Salehi, & Chenzi, 2012). As a social networking site, Facebook was more interesting for students to use for non-study purposes like chatting with their friends or posting their photos to get likes. This finding is similar to that of Aydin (2014) which showed that students found it boring when using Facebook for academic purposes. Beamish (2012), who conducted a study in Australian schools that implemented a 1:1 laptop program, also found that when using laptops in learning, particularly learning that included the use of social media, students experienced problems with self-regulating their use of technology, which could lead to procrastination or distraction.

The data from the intervention showed that the groups with harmonious relationships among the members were more efficient than the groups without these. The students in the former groups seemed to be more satisfied with the learning mode than the students in the latter groups. This situation might imply that before putting the students in groups to collaborate with each other, teachers should consider the characteristic of the students to form appropriate groups. For example, teachers should listen to their students and consider the approach to grouping that they prefer: random, based on their choice, students of the same competency level, or students of different levels of competency. When in the right group, students may be better motivated to fulfil the given task and achieve the group’s shared objective. This finding corroborates the idea of Bui (2015), who suggested that as influenced by the culture, Vietnamese students prefer to work in friendship groups and that they should be allowed to choose their group members.
Implications for assessments

The assessment process also influences students’ attitudes towards this learning mode, as Newhouse (2012) asserted “what is assessed is critical because students tend to focus on, and be motivated by these sections of the curriculum” (p. 1). At FPT University, each term students had to do the on-going assessment and the end-of-term examination. The on-going assessment included five progress tests covering skills such as listening, reading, and writing. At the end-of-term examination, students were assessed on four skills: listening, reading, writing and speaking. The writing tests in both the on-going assessment and the end-of-term examination were done individually on paper. Therefore, some students, when interviewed, said that they did not like to write in groups on computer because it did not help them to practice for the real test. The examination-oriented learning demotivates them to do collaborative writing. According to V. L. Nguyen (2011), learners’ motivation and willingness to participate play an important role in success. Hence, there should be appropriate changes to the curriculum to support the integration of ICT to fit in. Formative assessment with collaborative writing, for instance, should be encouraged.

Discussion summary

This chapter has discussed the findings of the study based on the overarching research question which was embodied in three subsidiary research questions, or subquestions. The discussion of the first subquestion showed that the teachers and students at FPT University were ready to use ICT in English language teaching and learning in terms of ICT ownership, skills and use. Nearly all of them had bring-your-own devices such as laptops and smartphones. A high percentage of them had high ICT skill levels, especially in those skills needed for word processing, social networking and Internet browsing. Moreover, they were familiar with using ICT in English language teaching and learning. However, they need more training in how to use cloud-based applications like Google Docs and Facebook to foster their use of ICT in the teaching and learning of writing skills. The discussion of the second subquestion revealed that when applying such ICT tools as Google Docs and Facebook in collaborative writing, most of the teachers and students showed a willingness to use these technological applications. The attitudes of most participants in the intervention were recorded as positive based on their interviews. They reported feeling positive mostly because they recognised the benefits of using Facebook and Google Docs in collaborative writing.
The perceived usefulness and the perceived ease of use, as described in the TAM model, together led to ICT acceptance by the students. A minority of the participants, however, held negative opinions after using Facebook and Google Docs in collaborative writing. One key explanation for their reaction is rooted in the characteristics of Asian learners in Confucian heritage cultures. Finally, the discussion of the third subquestion led to some pedagogical implications related to universities, teachers, students and methods of assessment.

**Contributions of the study**

**Theoretical contribution**

ICT-supported collaborative writing with the use of the two social media tools, Facebook and Google Docs, used in this study has fostered a collaborative learning environment to assist students to progress through the collective zone of proximal development or ZPD. The findings of the study revealed that the majority of the students received support from other members in their groups as well as their teachers, which helped them produce a better piece of writing than they would be able to produce on their own. In other words, ICT functioned as a bridge facilitating the movement from the initial stage to the other-regulated stage and finally to the self-regulated stage through a process of internalisation by individuals. It can be said, therefore, that aspects of social learning emerge as essential components in this learning process if viewed through the lens of ZPD concept.

To recap, by placing the study in a particular sociocultural context, it is argued that the utilisation of ICT in a language classroom is in agreement with sociocognitive perspectives informed by a Vygotskian framework. The study emphasised the significance and importance of the Vygotsky’s sociocultural theory as a mainstream theoretical foundation informing language teaching and learning.

**Pedagogical contribution**

This research has supported the view that the application of ICT to collaborative writing, as a means of teaching foreign language writing skills in particular and collaborative learning as an effective approach to language learning in general, is feasible and appropriate. Significant pedagogical potential has been identified through this research and includes extending the classroom boundary, changing the teacher role and supporting a process-product combination in learning and evaluation. First, the use
of ICT, especially social media tools quickly connects the students to their peers and teachers and breaks down the barrier of the classroom walls. Young students - the digital natives - are now equipped with mobile devices such as laptops, smartphones and iPads which enable them to access their online collaboration work almost any time and anywhere simply with an Internet connection. Thus, the classroom is no longer limited to a fixed physical location but extends into a virtual environment where teachers and students can constantly communicate with each other. Second, the role of the teacher has changed from knowledge transmitter to knowledge facilitator. The affordances of technology have helped to transform a teaching environment to a learner-centred one in which learners are more actively involved in the learning process. Learning through ICT, students exercise more responsibility and have direct access to different sources of information and data; teachers are no longer their sole source of knowledge. Finally, with the capacity of technological tools to keep track of changes, teachers find it easy to evaluate students’ writing tasks based on both the final product as well as the whole process the students go through collectively during the writing stages. This would be impossible without the assistance of ICT.

The application of ICT in collaborative writing changed the stages of the writing process in this study, as illustrated in Figure 2.2 (Chapter 2) into the pattern shown in Figure 6.1. In Stage 1 (pre-writing), the students consulted each other to choose a topic and consider the purpose of the writing before they brainstormed their ideas further. The activities in this stage occurred on three platforms: face-to-face; the social networking tool, Facebook; and the collaboration and social networking tool, Google Docs. The draft was then written on Google Docs. It seemed that with ICT-supported collaborative writing there was no separation between the stages of drafting, revising and editing, as there is with normal collaborative writing. Revising and editing activities on the draft actually occurred at the same time with the support of Facebook and Google Docs. Hence, in ICT-supported collaborative writing, the three stages of drafting, revising and editing merged into one stage. Finally, the last writing product produced in Stage 2 was available on Google Docs as a published document for the teachers to evaluate.
Methodological contribution

The application of mixed methods research is encouraged in the world of foreign language education enquiries (Dörnyei, 2007). Thus, the utilisation of both quantitative and qualitative approaches to data collection in this study rendered it methodologically significant. To triangulate and increase the reliability of the data analysis, multiple instruments – surveys, interviews and observations – were used. The use of both quantitative and qualitative data sources is one of the overall strengths of this study.

In addition, the aid of computer-based analysis software programs improved the efficiency of the data analysis. These programs helped save a considerable amount of time and enhanced the accuracy of the analysis beyond that which would be possible through human operation alone. To analyse the quantitative data, SPSS 17 was employed to analyse the data from two sets of questionnaires. Nvivo 12 was employed for the interview transcripts to code the themes that emerged from the qualitative data. These programs enabled the researcher to organise data systematically, which supported the manipulation and examination of data during collection and analysis.

The collaboration between the teaching colleagues and the teacher-researcher is another strength of this study. Through their direct involvement in the intervention, the teachers provided in-depth reflections on the effectiveness of the intervention and issues relating to the writing tasks. The study was viewed and critiqued from both emic and etic perspectives; as one of the teachers, the teacher-researcher was directly involved in the teaching and learning process during the intervention in addition to observing, interviewing participants.
Practical contribution

This study shows that it is feasible to use ICT applications such as Facebook and Google Docs to foster students’ collaborative writing. In the context of higher education in Vietnam where the integration of ICT in teaching and learning English is still limited, this study provides a unique example of how to integrate ICT into the teaching of writing skills. It is hoped that it will attract the attention of education innovators and inspire them to lead more initiatives that use ICT to improve ELT in Vietnamese higher education. It is also hoped that the impact of this study will be disseminated to other learning contexts and lead to wider and more successful ICT integration in teaching and learning English. One more practical contribution of this study is that it has proposed a means for mobilising existing ICT ownership, access, skills and use among teachers and students for use in teaching and learning. This contribution is significant because previous research showed that there is a distinction between the technologies students use for their social lives and for study purposes (Hosein et al., 2010). While this may be true, this research has demonstrated that this supposed separation can be bridged. It also throws doubt on the assertions of earlier research that claims the confidence of students in using technology in their social lives does not mean they can use it effectively for learning (Gill, Dalgarno, & Carlson, 2015).

Implications for ELT

Policies

As outlined in Chapter 1, the MoET have issued many policies to facilitate the use of ICT in teaching and learning English in order to improve students’ English proficiency (Government of Vietnam, 2008). However, in Vietnam there has been a lack of research on the application of ICT in the teaching of a specific skill. Hence, this study provides an in-depth insight into using ICT to teach writing skills. The outcome of the study clarifies the important factors for effective ICT integration in ELT. First, teachers and learners must be able to access reliable ICT devices and infrastructure. This requires policies to be developed and implemented at institutional management level to ensure adequate ICT infrastructure in universities. Second, teachers play a leading role and determine the success or failure of ICT integration in ELT. Therefore, policies pertaining to teacher training should be prioritised. There should be more training courses that supply teachers with adequate and updated knowledge about ICT
applications as well as the pedagogical knowledge to implement them effectively in their teaching.

**ICT-related guidelines and change in curriculum at FPT University**

The English language teachers at FPT University have always been encouraged by the Dean of the English Language Department to use ICT in their daily teaching. However, they were only encouraged informally in the absence of any official documents containing guidelines for ICT integration in their teaching. Thus, ICT has been used at different levels and sporadically. Obtaining consistency of ICT integration among teachers and classes requires the management level at the university to devise a set of guidelines for teachers to follow.

A change in the curriculum is also necessary. For example, to motivate students to use ICT in collaborative writing, methods of assessment should be changed from being only individual paper-based and product-focused to also being collaborative, computer-based and focused both on process and product.

**Teachers’ professional development**

The teacher plays an important role in effective ICT integration in education. In order to implement ICT in education successfully, teachers need to have technological knowledge and skills (Balanskat et al., 2006; Newhouse, 2002a; Pelgrum, 2001). According to Agbo (2015), if teachers are not well-prepared to use technology, they do not use it systematically in their class. The findings of this study show that teachers at FPT University had reliable ICT ownership and high level ICT skills, but they lacked the pedagogy to use ICT effectively. This suggests that they still lacked technological pedagogical content knowledge, or TPACK (Koehler & Mishra, 2009). Therefore, both formal and informal teacher training is needed to address this deficiency. Formal teacher training courses need to provide teachers with pedagogic skills to use ICT in teaching. Particularly, teachers should be trained to use ICT in teaching specific English skills in as much detail as possible. Besides the knowledge about ICT applications, and how to use them, training courses should be tailored to train teachers in the methods for their implementation, the skills to manage the class, and the prevention of any negative side effects of using ICT in teaching and learning. Informal training should also be encouraged. For instance, there should be workshops for teachers to share their experiences in using ICT in their class, so that the more experienced teachers can share knowledge with the less experienced teachers.
The sociocultural context

Research has shown that if a Western learning style is applied in an Asian learning context, it was likely that it would not be appropriate due to sociocultural differences (Wong, 2004). This concurs with the conclusions reached by many other researchers; applying a set of teaching methods developed in one area of the world to other areas can lead to problems (Holliday, 1994; Kramsch & Sullivan, 1996; Pham, 2007). As mentioned in Chapter 1, the collectivist Confucian heritage society in Vietnam has resulted in passive learners and a hierarchical gap between teachers and learners. Meanwhile, the use of ICT in teaching and learning has been rooted in Western education. Before using ICT in teaching and learning, therefore, teachers should promote the benefits of the new learning mode. When learners are aware of these, they will be more likely to adopt appropriate attitudes, and a shift in attitude is likely to lead to a shift in behaviour. Moreover, before implementation, it would be necessary to train learners in how to use any new technology so that they will not overly depend on their teachers and other students.

Limitations of the study and possible directions for future research

Limitations are unavoidable in all research, and this research is no exception.

The first limitation is the constraints of time. Since each level of English at FPT University was designed for a 7-week course, the intervention implemented in Phase 2 of the study was only seven weeks long. In fact, it took the researcher the first week to train the teachers and students how to use Facebook and Google Docs as supporting tools for the collaborative writing tasks and the last week to conduct the EoC interviews. Therefore, students had only five weeks to complete four writing tasks, a timeframe that was too short for them to see any progress in their writing. One consequence of this constraint was that the researcher could not investigate the progress of the students in any detail over each writing task, only their general feelings and opinions towards the new learning method. Future research should be conducted over a longer time, that is, over two courses instead of one so that students and teachers can be more familiar with this learning method. Participants could then receive more evaluation, feedback and comments which would help to improve the outcomes of this study. Moreover, a study with a longer timeframe would enable the researcher to better
investigate whether this learning mode helps improve students’ writing ability and progress.

The second limitation is distance. Since the geographical distance between the Australian university where the researcher is studying and the Vietnamese university where she collected data is great, the research could only pilot the online survey and not the intervention. Future research should include a pilot for the intervention, which would help the researcher to identify and prepare for possible problems and shortcomings of the intervention.

A third limitation is that only two teachers participated in the intervention. If there had been more teachers involved, the researcher could have collected a greater diversity of opinions from a wider range of perspectives. Future research with more teacher participants may help improve the quality of the data.

Finally, the study was conducted with small groups of students (a maximum of 30 students in a class). Small classes like this are rare in most other universities in Vietnam. The research setting was also in a university with high level ICT infrastructure that is superior to that in most other universities in Vietnam. Therefore, the result may not be generalisable to other learning settings. Future research needs to be conducted around the use of ICT as a tool to support collaborative writing in other universities with larger classes and less modern infrastructure to obtain more information about the obstacles in these learning contexts.

Overall conclusion

In this research project, the researcher sought to address some major concerns in ELT in the context of Vietnam. Particularly, the researcher sought to find a solution to the tension between the priority given to in promoting English by the Vietnamese MoET, the rapid development of ICT infrastructure and the low English language levels of students. The researcher focused on the potential of ICT in ELT, especially in the teaching of writing skills. The researcher’s purpose in this study was to investigate how the application of ICT can support collaborative writing in a Vietnamese EFL context. In undertaking the research, the researcher focused on one research site, FPT University in northern Vietnam, also her workplace. Here the researcher conducted an intervention to investigate the application of Facebook and Google Docs in fostering students’
collaborative writing. This investigation enabled the researcher to address the research questions of the study.

The findings drawn upon the analysis of data collected in the study show that the conditions needed to enable ICT to support collaborative writing in a Vietnamese EFL university context involve a wide range of factors. First, it is the requirement of ICT readiness, which includes the ownership of devices, access to sufficient ICT resources and the skills to use those devices with the required software and Web 2.0 applications such as social media platforms. Then, it is the willingness, especially the attitudes and behaviours of the teachers and students when using a particular ICT application that is necessary. This is determined by their perceptions of the technology in terms of ease of use and usefulness. Analysis of these factors requires attention to the pedagogical implications for universities, teachers, students and methods of assessment to facilitate the success of ICT-supported collaborative writing.

On the basis of these findings and discussions, the researcher concludes that the use of ICT, especially social media, offers a wealth of affordances for teaching English writing skills and, more broadly, improving English language teaching and learning in Vietnamese higher education.
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APPENDICES

Appendix A: Survey for students

Thank you for your willingness to answer this survey which focuses on your ICT literacy and ownership, your ICT use in English language learning in general and in collaborative writing in particular.

Your answers are confidential and no-one will be able to identify you. Furthermore, participation is voluntary. If you decide to participate, you are free not to answer any question or withdraw at any time.

We appreciate your time and participation.

By clicking the next button, you are giving your consent for the use of your responses in this research.

Part I - Demographics

1. What is your gender?
   - Male
   - Female
2. What is your age?
3. What is your major (graduate program)?
   - Software Engineering
   - Electronics - Communication
   - Information Security
   - Business Administration
   - Finance - Banking
   - Graphic Design
   - English
   - Japanese
   - Architecture
   - Other:
   - What year are you in?
   - First year
   - Second year
   - Third year
   - Fourth year
4. Which group are you in?

**Part II - ICT ownership and use**

5. How long have you owned the following devices?

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Do not own</th>
<th>1 year or less</th>
<th>Between 1 and 2 years</th>
<th>Between 2 and 3 years</th>
<th>Between 3 and 4 years</th>
<th>5 years or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop computer</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laptop</td>
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</tr>
<tr>
<td>Tablet (Windows, iPad, or Android)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Smartphone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. How often do you use the following devices in your studies?

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Never</th>
<th>Rarely</th>
<th>Once a week</th>
<th>2-3 times a week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop computer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laptop</td>
<td></td>
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<tr>
<td>Tablet (Windows, iPad, or Android)</td>
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</tr>
<tr>
<td>Smartphone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. How often have you used the following devices for non-study purposes?

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Never</th>
<th>Rarely</th>
<th>Once a week</th>
<th>2-3 times a week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop computer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laptop</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tablet (Windows, iPad, or Android)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smartphone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Which of the following devices have your instructors used in your classes this year (select as many as apply)?

- Desktop computer
- Laptop
- Projector
- Tablet (Windows, iPad, or Android)
- Smartphone
Part III - ICT skills

9. Rate yourself on what you can do on computers. For each application select the option that describes the highest level of skills that you possess (you can choose as many as apply).

- **Word processing (e.g. Microsoft Word)**
  - I can't do much
  - I can print a document, change fonts, spell check, insert a footer and page numbers
  - I can insert images, create tables, change page setup, change margins
  - I can use columns and sections, set up styles, use templates and add-ins

- **File management**
  - I can't do much
  - I can save files in a folder, create and name folders, navigate between folders, copy, delete and rename files
  - I can recognise different file types, navigate between drives and directories, access a network, save to cloud storage
  - I can compress files, do complex searches for files, share files cloud storage, and access storage on a variety of devices

- **Internet browsing (e.g. Internet Explorer, Firefox, Safari, etc)**
  - I can't do much
  - I can navigate to known web sites, create Favourites, do basic searches
  - I can insert some calculations, format cells, insert and delete rows and columns
  - I can do complex searches, download and install plugins, use different browsers, alter browser preferences

- **Social networking (e.g. Facebook, Twitter, etc)**
  - I can’t do much
  - I can edit my profile and chat with friends
  - I can post photographs, play games, and join groups
  - I can share files, create and manage groups, edit privacy settings

- **Email**
  - I can't do much
  - I can send and access emails, add to and access the Address book
- I can store messages in folders, find Sent messages, manage the Address book
- I can add and edit ‘Signatures’, and add attachments

• **Blogs and wikis**
  - I can’t do much
  - I can find, read and access a variety of blogs and wikis
  - I can add new entries to a blogs or wiki and delete my own posts
  - I can create a blog of wiki, manage posts from others

• **Cloud applications (e.g. Google Docs, office online)**
  - I can’t do much
  - I can access others cloud documents and add to them
  - I can create and edit new documents, download copies
  - I can share cloud documents I create

10. How often have you used the following in your studies?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Once a week</th>
<th>2-3 times a week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word processing (e.g. Microsoft Word)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet browsing (e.g. Internet Explorer, Firefox, Safari, etc)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social networking (e.g. Facebook, Twitter, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blogs and wikis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cloud applications (e.g. Google Docs, office online)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Part IV - Internet use

11. Indicate the frequency with which you use the following types of Internet access.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Once a week</th>
<th>2-3 times a week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Internet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile Internet (3G, 4G)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University wireless</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet cafe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Part V - ICT use and English language learning

12. Do you use ICT in learning English?
   • Yes → go to question 15, 16
   • No → please explain why? → go to question 17

13. Please indicate how frequently you have used the following devices to study English.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Once a week</th>
<th>2-3 times a week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop computer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laptop</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tablet (Windows, iPad, or Android)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smartphone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. Please rate how frequently you use ICT to learn English skills and sub-skills.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Once a week</th>
<th>2-3 times a week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocabulary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grammar</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

15. Please explain why you don’t use ICT in learning English?

..................................................................................................................
16. Would you like to use ICT in learning English?
   • Yes
   • No

17. Please rate the frequency that you use the following technological applications?

<table>
<thead>
<tr>
<th>Application</th>
<th>Never</th>
<th>Rarely</th>
<th>Once a week</th>
<th>2-3 times a week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google Docs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blog</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wikis</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Skype</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Viber</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Line</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Wechat</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Google hangouts</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iMessage/Facetime</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Snapchat</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Tango</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other apps:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18. Please indicate the purpose for using the following technological applications?

<table>
<thead>
<tr>
<th>Application</th>
<th>Use for non-study</th>
<th>Use for study</th>
<th>Use for English study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Speaking</td>
</tr>
<tr>
<td>Facebook</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google Docs</td>
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<tr>
<td>Blog</td>
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<td></td>
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<tr>
<td>Wikis</td>
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<td></td>
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<tr>
<td>Skype</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Viber</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Line</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wechat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google hangouts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iMessage/Facetime</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snapchat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tango</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other apps:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. Have you ever done collaborative writing?
   • Yes → go to question 21
   • No → end of survey
20. Which mode of collaborative writing have you done?
   • Only face-to-face collaborative writing → go to question 22
   • Only collaborative writing using ICT → go to question 23
   • Both → go to question 23

21. Please indicate if the following statements are true or false

<table>
<thead>
<tr>
<th>Statement</th>
<th>With face-to-face collaborative writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was able to brainstorm ideas and plan the writing better.</td>
<td>True</td>
</tr>
<tr>
<td>I felt motivated to write.</td>
<td>False</td>
</tr>
<tr>
<td>I found it easy to interact with other group members.</td>
<td>False</td>
</tr>
<tr>
<td>Writing was a fun and interesting experience.</td>
<td>True</td>
</tr>
<tr>
<td>I got a lot of scaffolding from other group members.</td>
<td>True</td>
</tr>
<tr>
<td>I would like to continue this learning mode.</td>
<td>True</td>
</tr>
<tr>
<td>All students in a group participated and contributed to the writing</td>
<td>True</td>
</tr>
<tr>
<td>Some students dominated the group, and others seemed to be passive.</td>
<td>False</td>
</tr>
</tbody>
</table>

22. What ICT tools have you used for collaborative writing?

………………………………………………………………………

23. Please indicate if the following statements are true or false

<table>
<thead>
<tr>
<th>Statement</th>
<th>With collaborative writing using ICT</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was able to brainstorm ideas and plan the writing better.</td>
<td>True</td>
</tr>
<tr>
<td>I felt motivated to write.</td>
<td>False</td>
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<tr>
<td>I found it easy to interact with other group members.</td>
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<tr>
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</tr>
<tr>
<td>I would like to continue this learning mode.</td>
<td>True</td>
</tr>
<tr>
<td>All students in a group participated and contributed to the writing</td>
<td>True</td>
</tr>
<tr>
<td>Some students dominated the group, and others seemed to be passive.</td>
<td>False</td>
</tr>
</tbody>
</table>
24. Please indicate if the following statements are true or false with each mode of collaborative writing.

<table>
<thead>
<tr>
<th>Statement</th>
<th>With face-to-face collaborative writing</th>
<th>With collaborative writing using ICT</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was able to brainstorm ideas and plan the writing better.</td>
<td>True</td>
<td>True</td>
</tr>
<tr>
<td>I felt motivated to write.</td>
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</tr>
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<td>True</td>
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<tr>
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<tr>
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<td>True</td>
</tr>
<tr>
<td>All students in a group participated and contributed to the writing</td>
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</tr>
<tr>
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<td>False</td>
<td>True</td>
</tr>
</tbody>
</table>
Appendix B: Survey for teachers

Thank you for your willingness to answer this survey which focuses on your ICT literacy and ownership, your ICT use in English language teaching in general and in collaborative writing in particular.

Your answers are confidential and no-one will be able to identify you. Furthermore, participation is voluntary. If you decide to participate, you are free not to answer any question or withdraw at any time.

We appreciate your time and participation.

By clicking the next button, you are giving your consent for the use of your responses in this research.

Part I - Demographics

1. What is your gender?
   - Male
   - Female

2. What is your age?

3. How long have you been teaching English?
   - Less than 1 year
   - 1-3 years
   - 3-5 years
   - 5-10 years
   - 10-15 years
   - 15-20 years
   - Over 20 years

4. What is your highest qualification?
   - Bachelor
   - Master
   - Doctor
Part II - ICT ownership and use

5. Which of the following device do you own (you can select multiple items)?
   - Desktop computer
   - Laptop
   - Tablet (Windows, iPad, or Android)
   - Smartphone

6. Which of the following devices have you used in your classes this year (select as many as apply)?
   - Desktop computer
   - Laptop
   - Projector
   - Tablet (Windows, iPad, or Android)
   - Smartphone

Part III – ICT skills

7. Rate yourself on what you can do on computers. For each application select the option that describes the highest level of skills that you possess from the pop down menu.

   - **Word processing (e.g. Microsoft Word)**
     - I can't do much
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- I can't do much
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- I can add new entries to a blogs or wiki and delete my own posts
- I can create a blog of wikis, manage posts from others

**Cloud applications (e.g. Google Docs, office online)**
- I can’t do much
- I can access others cloud documents and add to them
- I can create and edit new documents, download copies
- I can share cloud documents I create
Part IV – Internet use

8. Indicate the frequency with which you use the following types of Internet access.

<table>
<thead>
<tr>
<th>Access Type</th>
<th>Never</th>
<th>Rarely</th>
<th>Once a week</th>
<th>2-3 times a week</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Home Internet</td>
<td></td>
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<tr>
<td>Mobile Internet (3G, 4G)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University wireless Internet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet cafe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Part V – ICT use and English language teaching

9. Do you use ICT in teaching English?
   - Yes → go to question 10, 11
   - No → please explain why and go to question 12

10. During semester how frequently do you use the following for teaching purposes?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>Rarely</th>
<th>Once a week</th>
<th>2-3 times a week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word processing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g. Microsoft Word)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File management</td>
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</tr>
<tr>
<td>Internet browsing</td>
<td></td>
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</tr>
<tr>
<td>(e.g. Internet Explorer, Firefox, Safari, etc.)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Social networking</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(e.g. Facebook, Twitter, etc.)</td>
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<td></td>
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<tr>
<td>Email</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Blogs and wikis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cloud applications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g. Google Docs, office online)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

11. Please rate how frequently you use ICT to teach English skills and sub-skills.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Never</th>
<th>Rarely</th>
<th>Once a week</th>
<th>2-3 times a week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Reading</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocabulary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grammar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
12. Have you ever been trained to use ICT in teaching English?
   • Yes
   • No → go to question 17

13. What have you been trained in?

14. Have you applied this training in your teaching?
   • Yes → go to question 16
   • No

15. Why haven’t you applied this training in your teaching?

16. What further training would you like to receive?

17. Would you like to be trained in using ICT in teaching English?
   • Yes
   • No

18. Please indicate the reasons why you don’t want ICT training in teaching English?

19. Please indicate the frequency that you use the following technological applications?

<table>
<thead>
<tr>
<th>Application</th>
<th>Never</th>
<th>Rarely</th>
<th>Once a week</th>
<th>2-3 times a week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google Docs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blog</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wikis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skype</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viber</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wechat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google hangouts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iMessage/Facetime</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snapchat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tango</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other apps:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
20. Please indicate the purpose for using the following technological applications?

<table>
<thead>
<tr>
<th></th>
<th>Use for non-study</th>
<th>Use for study</th>
<th>Use for English study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Speaking</td>
</tr>
<tr>
<td>Facebook</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google Docs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blog</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wikis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skype</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viber</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wechat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google hangouts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iMessage/Facetime</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snapchat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tango</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other apps:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21. Have you ever conducted collaborative writing in your classes?
   - Yes → go to question 22
   - No → end of survey

22. Which mode of collaborative writing have you done in your classes?
   - Only face-to-face collaborative writing → go to question 23
   - Only collaborative writing using ICT → go to question 24, 25
   - Both → go to question 24, 26

23. Please indicate if the following statements are true or false

<table>
<thead>
<tr>
<th>Statement</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>My students were able to brainstorm ideas and plan the writing better.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My students were motivated to write.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It was easy for my students to interact with each other.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing was a fun and interesting experience for my students.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My students assisted each other by giving feedbacks and comments on their friends’ writing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My students’ writing skills were improved.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the students in a group participated and contributed to the writing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some students dominated, and others seemed to be passive.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
24. What ICT tools have your students use while doing collaborative writing?

25. Please indicate if the following statements are true or false

<table>
<thead>
<tr>
<th>Statement</th>
<th>With collaborative writing using ICT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>True</td>
</tr>
<tr>
<td>My students were able to brainstorm ideas and plan the writing better.</td>
<td></td>
</tr>
<tr>
<td>My students were motivated to write.</td>
<td></td>
</tr>
<tr>
<td>It was easy for my students to interact with each other.</td>
<td></td>
</tr>
<tr>
<td>Writing was a fun and interesting experience for my students.</td>
<td></td>
</tr>
<tr>
<td>My students assisted each other by giving feedbacks and comments on their friends’ writing.</td>
<td></td>
</tr>
<tr>
<td>My students’ writing skills were improved.</td>
<td></td>
</tr>
<tr>
<td>I would like to continue this learning mode with my students.</td>
<td></td>
</tr>
<tr>
<td>All the students in a group participated and contributed to the writing.</td>
<td></td>
</tr>
<tr>
<td>Some students dominated, and others seemed to be passive.</td>
<td></td>
</tr>
</tbody>
</table>

26. Please indicate if the following statements are true or false with each mode of collaborative writing.

<table>
<thead>
<tr>
<th>Statement</th>
<th>With face-to-face collaborative writing</th>
<th>With collaborative writing using ICT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>My students were able to brainstorm ideas and plan the writing better.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My students were motivated to write.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It was easy for my students to interact with each other.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing was a fun and interesting experience for my students.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My students assisted each other by giving feedbacks and comments on their friends’ writing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My students’ writing skills were improved.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would like to continue this learning mode with my students.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All the students in a group participated and contributed to the writing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some students dominated, and others seemed to be passive.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix C: Focus group interview questions

*Purpose:* to get students’ feedback after the first and second writing tasks of the intervention.

*Opening question:*

What do you think about the intervention (using Google Docs and Facebook in collaborative writing) you are doing in your class?

*Follow-up questions*

<table>
<thead>
<tr>
<th>Guided</th>
<th>Probe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What do you like the best about it?</td>
</tr>
<tr>
<td>2</td>
<td>What do you dislike about it?</td>
</tr>
<tr>
<td>3</td>
<td>What need to be done for Google Docs and Facebook to be used more effectively in collaborative writing?</td>
</tr>
</tbody>
</table>

*Ending question:*

Is there anything you would like to add?
Appendix D: Experience of Change (EoC) interview

**EoC interview procedure**

**Stage 1: Lay out the board and explain purpose**

- Place board in front of the interviewee and stack of cards.
- Explain that the result will be reported anonymously.
- Make the interviewee be sure that the purpose of the interview is to understand his/her feelings about using collaborative writing using ICT.

**Stage 2: Interviewee places cards, one at a time, into piles on the board**

- Explain to the interviewee that there are 24 word cards and two black cards at the bottom upon which he/she can add words.
- Ask the interviewee to take a card and place it in the pile where he/she feel it belongs. Did he/she feel this OFTEN, SOMETIMES, HARDLY EVER, or perhaps the feeling DOESN’T SEEM RELEVANT.

**Stage 3: Interviewee tells story using OFTEN cards**

- Ask interviewee to take the cards from the OFTEN pile and use them to tell his/her story.

**Stage 4: Explain scoring**

- Explain that scoring will be done later but that each card is worth one of four scores (++, +, -, --) and in one scoring scheme, points are allocated for cards in the OFTEN bucket.

**MINIMUM SCORING MODEL:** Record the OFTEN cards with a tick

<table>
<thead>
<tr>
<th>++</th>
<th>+</th>
<th>-</th>
<th>--</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committed</td>
<td>Comfortable</td>
<td>Worried</td>
<td>Anxious</td>
</tr>
<tr>
<td>Enthusiastic</td>
<td>Pleased</td>
<td>Confused</td>
<td>Bored</td>
</tr>
<tr>
<td>Exhilarated</td>
<td>Interested</td>
<td>Disappointed</td>
<td>Cynical</td>
</tr>
<tr>
<td>Optimistic</td>
<td>Satisfied</td>
<td>Irritated</td>
<td>Sad</td>
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<tr>
<td>Confident</td>
<td></td>
<td></td>
<td>Angry</td>
</tr>
<tr>
<td>Stimulated</td>
<td></td>
<td></td>
<td>Frustrated</td>
</tr>
<tr>
<td>Supported</td>
<td></td>
<td></td>
<td>Isolated</td>
</tr>
<tr>
<td>valued</td>
<td></td>
<td></td>
<td>Pressurised</td>
</tr>
<tr>
<td>TOTAL</td>
<td>TOTAL</td>
<td>TOTAL</td>
<td>TOTAL</td>
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<table>
<thead>
<tr>
<th>Score</th>
<th>X’2</th>
<th>X’1</th>
<th>x 1</th>
<th>x 2</th>
<th>Final score</th>
<th>/20</th>
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<tr>
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<tr>
<td>EoC feeling cards</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>------------------</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>COMMITTED</td>
<td>SUPPORTED</td>
<td>WORRIED</td>
<td>CYNICAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENTHUSIASTIC</td>
<td>VALUED</td>
<td>CONFUSED</td>
<td>SAD</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>EXHILARATED</td>
<td>COMFORTABLE</td>
<td>DISAPPONTED</td>
<td>ANGRY</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>OPTIMISTIC</td>
<td>PLEASED</td>
<td>IRRITATED</td>
<td>FRUSTRATED</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONFIDENT</td>
<td>INTERESTED</td>
<td>ANXIOUS</td>
<td>ISOLATED</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STIMULATED</td>
<td>SATISFIED</td>
<td>BORED</td>
<td>PRESSURISED</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFTEN</td>
<td>SOMETIMES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------</td>
<td>----------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(LUÔN LUÔN)</td>
<td>(THỊNH THOẢNG)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HARDLY EVER</td>
<td></td>
<td>DOESN’T SEEM RELEVANT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(HIỄM KHI)</td>
<td>(KHÔNG PHÙ HỢP)</td>
<td></td>
<td></td>
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<td></td>
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</table>
Appendix E: Codes for the participants in the interviews

<table>
<thead>
<tr>
<th>Codes</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher 1</td>
<td>The teacher who taught the elementary level class (Class 1)</td>
</tr>
<tr>
<td>Teacher 2</td>
<td>The teacher who taught the intermediate level class (Class 3)</td>
</tr>
<tr>
<td>S1</td>
<td>Student 1 who took part in the EoC interview</td>
</tr>
<tr>
<td>S2</td>
<td>Student 2 who took part in the EoC interview</td>
</tr>
<tr>
<td>S3</td>
<td>Student 3 who took part in the EoC interview</td>
</tr>
<tr>
<td>S4</td>
<td>Student 4 who took part in the EoC interview</td>
</tr>
<tr>
<td>S5</td>
<td>Student 5 who took part in the EoC interview</td>
</tr>
<tr>
<td>S6</td>
<td>Student 6 who took part in the EoC interview</td>
</tr>
<tr>
<td>S7</td>
<td>Student 7 who took part in the EoC interview</td>
</tr>
<tr>
<td>S8</td>
<td>Student 8 who took part in the EoC interview</td>
</tr>
<tr>
<td>S9</td>
<td>Student 9 who took part in the EoC interview</td>
</tr>
<tr>
<td>S10</td>
<td>Student 10 who took part in the EoC interview</td>
</tr>
<tr>
<td>S11</td>
<td>Student 11 who took part in the EoC interview</td>
</tr>
<tr>
<td>S12</td>
<td>Student 12 who took part in the EoC interview</td>
</tr>
<tr>
<td>S13</td>
<td>Student 13 who took part in the EoC interview</td>
</tr>
<tr>
<td>S14</td>
<td>Student 14 who took part in the EoC interview</td>
</tr>
<tr>
<td>S15</td>
<td>Student 15 who took part in the EoC interview</td>
</tr>
<tr>
<td>S16</td>
<td>Student 16 who took part in the EoC interview</td>
</tr>
<tr>
<td>S17</td>
<td>Student 17 who took part in the EoC interview</td>
</tr>
<tr>
<td>S18</td>
<td>Student 18 who took part in the EoC interview</td>
</tr>
<tr>
<td>Student A</td>
<td>The first student in a collaborative writing group</td>
</tr>
<tr>
<td>Student B</td>
<td>The second student in a collaborative writing group</td>
</tr>
<tr>
<td>Student C</td>
<td>The third student in a collaborative writing group</td>
</tr>
<tr>
<td>Student D</td>
<td>The fourth student in a collaborative writing group</td>
</tr>
<tr>
<td>FG 1</td>
<td>Focus group number 1 selected from Class 1</td>
</tr>
<tr>
<td>FG 2</td>
<td>Focus group number 2 selected from Class 2</td>
</tr>
<tr>
<td>FG 3</td>
<td>Focus group number 3 selected from Class 3</td>
</tr>
</tbody>
</table>
### Appendix F: Lesson plans for three classes

**Top notch 1 (elementary)**

<table>
<thead>
<tr>
<th>Week</th>
<th>Teacher’s activities</th>
<th>Students’ activities</th>
<th>Writing topics</th>
</tr>
</thead>
</table>
| 1    | -Create Facebook groups for writing.  
-Divide the class into groups of three.  
-Invite each group of students to their Facebook group.  
-Train students how to use Google Docs for collaborative writing:  
+Help them to create Google accounts.  
+Guide them how to create documents, share documents, comment on other people’s documents, use the spelling check function, and use the chat box, etc. | -Students in each group will join their Facebook writing group created by the teacher, create their Google accounts to use Google Docs. After that they will practice on Facebook and Google Docs to get accustomed to these tools before doing their actual writing. | Unit 1: Write a short a description of the classmate you interviewed.  
First and last name  
Age  
Occupation  
Hometown  
Birthplace  
Unit 2: Compare two people in your family. Write about how they are similar and how they are different. |
| 2    | -Present how to write a good paragraph.  
-Give students assistance when necessary.  
-Comment on the students’ final writing. | Choose either topic 1 or topic 2 to write in groups using Facebook and Google Docs. | Unit 3: Write a paragraph about yourself and your tastes in music.  
Unit 4: Write a short article for a travel newsletter. Write at least five sentences about foods in your country. |
| 3    | -Give students assistance when necessary.  
-Comment on the students’ final writing. | Choose either topic 3 or topic 4 to write in groups using Facebook and Google Docs. | Unit 5: Write a paragraph describing a product, appliance, or gadget that you use. It can be a good or a bad one.  
Unit 6: Write an interview in which someone asks you about your exercise and health habits. |
| 4    | -Give students assistance when necessary.  
-Comment on the students’ final writing. | Choose either topic 5 or topic 6 to write in groups using Facebook and Google Docs. | |
<table>
<thead>
<tr>
<th>Week</th>
<th>Teacher’s activities</th>
<th>Students’ activities</th>
<th>Writing topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>-Give students assistance when necessary. -Comment on the students’ final writing.</td>
<td>Choose either topic 7 or topic 8 to write in groups using Facebook and Google Docs.</td>
<td>Unit 7: Write a vacation you took  Where did you go? How was the travel? How was the weather? What did you do? Did you have a good time? Unit 8: Imagine that you have a friend from another country who is coming to visit you. Write a letter or email to your friend, explaining what to pack for the trip. Give your friend advice on appropriate and inappropriate dress.</td>
</tr>
<tr>
<td>6</td>
<td>-Give students assistance when necessary. -Comment on the students’ final writing.</td>
<td>Choose either topic 9 or topic 10 to write in groups using Facebook and Google Docs.</td>
<td>Unit 9: Write two paragraphs – one about your most recent trip and one about your next trip. In the first paragraph describe the transportation you took and write about any problems you had. In the second paragraph, write about the transportation you plan to take. Use be going to. Unit 10: Write a guide to the best places for a visitor to your city or town to stay in, visit and shop.</td>
</tr>
<tr>
<td>7</td>
<td>-Feedback on the project</td>
<td>-Feedback on the project</td>
<td></td>
</tr>
</tbody>
</table>

**Topnotch 2 (Pre-intermediate)**

<table>
<thead>
<tr>
<th>Week</th>
<th>Teacher’s activities</th>
<th>Students’ activities</th>
<th>Writing topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-Create Facebook groups for writing. -Divide the class into groups of three. -Invite each group of students to their Facebook group. -Train students how to use Google Docs for collaborative writing: +Help them to create Google accounts. +Guide them how to create documents, share documents, comment on other people’s documents, use the spelling check function, and use</td>
<td>-Students in each group will join their Facebook writing group created by the teacher, create their Google accounts to use Google Docs. After that they will practice on Facebook and Google Docs to get accustomed to these tools before doing their actual writing.</td>
<td></td>
</tr>
<tr>
<td>Week</td>
<td>Teacher’s activities</td>
<td>Students’ activities</td>
<td>Writing topics</td>
</tr>
<tr>
<td>------</td>
<td>----------------------</td>
<td>----------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>2</td>
<td>-Present how to write a good paragraph. -Give students assistance when necessary. -Comment on the students’ final writing.</td>
<td>Choose either topic 1 or topic 2 to write in groups using Facebook and Google Docs.</td>
<td>Unit 1: Write a paragraph about one of your experiences which can be fascinating/strange/or disgusting/thrilling or frightening. Describe what happened, where you were, who you were with, and how you felt. Unit 2: Write one paragraph about violence in movies and on TV. Explain why some people think it’s harmful and why others think it isn’t.</td>
</tr>
<tr>
<td>3</td>
<td>-Give students assistance when necessary. -Comment on the students’ final writing.</td>
<td>Choose either topic 3 or topic 4 to write in groups using Facebook and Google Docs.</td>
<td>Unit 3: Write a paragraph about the hotel you choose in lesson 4. Explain why you would like to stay there. What are its advantages and disadvantages? Unit 4: Write a about the differences between good drivers and bad drivers.</td>
</tr>
<tr>
<td>4</td>
<td>-Give students assistance when necessary. -Comment on the students’ final writing.</td>
<td>Choose either topic 5 or topic 6 to write in groups using Facebook and Google Docs.</td>
<td>Unit 5: Reread the letters on page 56. Choose one letter and write a response, using your opinion and making your own suggestions. Explain what you think is OK or appropriate for men and women. Unit 6: Write a paragraph on the following topic: Do you think people are eating healthier or less healthy foods than they used to? Give examples to support your opinion.</td>
</tr>
<tr>
<td>5</td>
<td>-Give students assistance when necessary. -Comment on the students’ final writing.</td>
<td>Choose either topic 7 or topic 8 to write in groups using Facebook and Google Docs.</td>
<td>Unit 7: Write at least two paragraphs about the personality of someone you know well. Use vocabulary and ideas from lesson 3 and 4. Unit 8: Choose a favourite object that decorates your home. Describe it in a paragraph.</td>
</tr>
<tr>
<td>6</td>
<td>-Give students assistance when necessary. -Comment on the students’ final writing.</td>
<td>Choose either topic 9 or topic 10 to write in groups using Facebook and Google Docs.</td>
<td>Unit 9: Write two paragraphs about the benefits and problems of the Internet. Unit 10: Write three paragraphs about Matt’s dilemma in photo story on page 111. In the first paragraph, summarise the situation. In the second paragraph, write about what Matt could do or should do. In the third paragraph, write what you would do if you were Matt. Explain your reasons, using the unreal conditional.</td>
</tr>
<tr>
<td>7</td>
<td>-Feedback on the project</td>
<td>-Feedback on the project</td>
<td>Top notch 3 (intermediate)</td>
</tr>
</tbody>
</table>

**Top notch 3 (intermediate)**

<table>
<thead>
<tr>
<th>Week</th>
<th>Teacher’s activities</th>
<th>Students’ activities</th>
<th>Writing topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-Create Facebook groups for writing. -Divide the class into groups of</td>
<td>-Students in each group will join their Facebook writing group</td>
<td></td>
</tr>
<tr>
<td>Week</td>
<td>Teacher’s activities</td>
<td>Students’ activities</td>
<td>Writing topics</td>
</tr>
<tr>
<td>------</td>
<td>----------------------</td>
<td>----------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>3</td>
<td>- Invite each group of students to their Facebook group. - Train students how to use Google Docs for collaborative writing: + Help them to create Google accounts. + Guide them how to create documents, share documents, comment on other people’s documents, use the spelling check function, and use the chat box, etc.</td>
<td>Choose either topic 3 or topic 4 to write in groups using Facebook and Google Docs.</td>
<td>Unit 3: Do you think being a procrastinator is a serious problem? Unit 4: Write a review of something you’ve read – a book or an article from a magazine, a newspaper or the Internet. Summarise what it was about. Make a recommendation to the reader.</td>
</tr>
<tr>
<td>2</td>
<td>- Present how to write a good paragraph. - Give students assistance when necessary. - Comment on the students’ final writing.</td>
<td>Choose either topic 1 or topic 2 to write in groups using Facebook and Google Docs.</td>
<td>Unit 1: Write two email messages – one formal and one informal telling someone about the cultural traditions in your country. For the formal email, imagine you are writing to a business person who is coming to your country on a business trip. For the informal email, imagine you are writing to a friend who is visiting your country as a tourist. Unit 2: Compare two types of medical treatments. How are the two medical treatments similar or different? Which treatment do you think is more effective? Why might people choose each treatment? Which treatment do you – or people you know – use? Why?</td>
</tr>
<tr>
<td>4</td>
<td>- Give students assistance when necessary. - Comment on the students’ final writing.</td>
<td>Choose either topic 5 or topic 6 to write in groups using Facebook and Google Docs.</td>
<td>Unit 5: Write about how to prepare for an emergency. Choose an emergency and include information on what to do, what supplies to have, what preparations to make. Unit 6: Write a short autobiography. Include information about one or all of the topics</td>
</tr>
<tr>
<td>Week</td>
<td>Teacher’s activities</td>
<td>Students’ activities</td>
<td>Writing topics</td>
</tr>
<tr>
<td>------</td>
<td>----------------------</td>
<td>----------------------</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>below, Your birth, Your childhood, Your studies, Other aspects of your life.</td>
</tr>
<tr>
<td>5</td>
<td>-Give students assistance when necessary. -Comment on the students’ final writing.</td>
<td>Choose either topic 7 or topic 8 to write in groups using Facebook and Google Docs.</td>
<td>Unit 7: Describe two different holidays that are celebrated in your country. Include as many details as you can. What kind of holiday it is? When is it celebrated? How is it celebrated? What do people do/eat/say/wear/etc.? Unit 8: Choose one of the following inventions: the car, the television, or the Internet, or another invention. Describe the advantages and disadvantages, and the historical impact of the invention you chose.</td>
</tr>
<tr>
<td>6</td>
<td>-Give students assistance when necessary. -Comment on the students’ final writing.</td>
<td>Choose either topic 9 or topic 10 to write in groups using Facebook and Google Docs.</td>
<td>Unit 9: Write at least two paragraphs about one of the following issues: compulsory military service, capital punishment, or censorship of books and movies. Include both pros and cons of the issue. Unit 10: Write a description of your country, state, or province. Include the location and description of major cities, geographical features, national parks and other points of interest. Use adjectives to provide details that help the reader see and feel what the places are like. Quiet/noisy Crowded Hot/warm Cold/cool</td>
</tr>
<tr>
<td>7</td>
<td>-Feedback on the project</td>
<td>-Feedback on the project</td>
<td></td>
</tr>
</tbody>
</table>

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Appendix G: Examples of electronic worksheets

Blank electronic worksheet

Remember to turn on suggesting by clicking on pencil top right and selecting

Topic 7: Write at least two paragraphs about the personality of someone you know well. Use vocabulary and ideas from lesson 3 and 4.

Topic 8: Choose a favourite object that decorates your home. Describe it in a paragraph.

(Choose one topic for your writing. Please delete the topic you don’t choose)

Completed electronic worksheet
Appendix H: Notes of class observations

<table>
<thead>
<tr>
<th>Class</th>
<th>Writing task 1</th>
<th>Writing task 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>First, Teacher 1 introduced the writing process. She showed a picture to</td>
<td>There were three or four groups who worked effectively. Those sitting at</td>
</tr>
<tr>
<td></td>
<td>illustrate the stages of the writing process on the screen. She explained</td>
<td>the back of the class were not focused, and looked tired. Most of them</td>
</tr>
<tr>
<td></td>
<td>what the students had to do in each stage. Then she asked students to work</td>
<td>collaborated with each other in Vietnamese and took notes on paper.</td>
</tr>
<tr>
<td></td>
<td>in the writing groups that she had allocated to do the pre-writing activities.</td>
<td>Gradually, the students became more excited, especially those who received</td>
</tr>
<tr>
<td></td>
<td>While the students were working, the teacher moved from group to group to</td>
<td>the teacher’s support. Some students used Google Translate when brainstorming</td>
</tr>
<tr>
<td></td>
<td>assist them. Sometimes, she even brainstormed ideas with them. The students</td>
<td>ideas. Some students looked indifferent and were not involved in the activity.</td>
</tr>
<tr>
<td></td>
<td>in the groups near the teachers’ desk seemed to be more excited and focused.</td>
<td>They played games, checked Facebook, etc. To aid the students, the teacher</td>
</tr>
<tr>
<td></td>
<td>They discussed which topic to choose, what ideas to write, and they searched</td>
<td>reviewed how to brainstorm ideas and write the topic sentence, and she checked</td>
</tr>
<tr>
<td></td>
<td>the Internet for ideas. Two groups at the rear of the class were quieter, and</td>
<td>the topic sentences of some groups. The students paid attention when the teacher</td>
</tr>
<tr>
<td></td>
<td>less interested. Some of them were doing private activities like chatting on</td>
<td>was giving feedback. At the end of the session, the students seemed to be more</td>
</tr>
<tr>
<td></td>
<td>Facebook or watching video clips. Some were sitting quietly without</td>
<td>engaged.</td>
</tr>
<tr>
<td></td>
<td>discussing the activity with their friends. One student copied the writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>available on the Internet to post on their Facebook. The students spoke</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vietnamese during the task.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>At first the teacher introduced the</td>
<td>In the second writing, the students</td>
</tr>
<tr>
<td>Class</td>
<td>Writing task 1</td>
<td>Writing task 2</td>
</tr>
<tr>
<td>-------</td>
<td>---------------</td>
<td>---------------</td>
</tr>
<tr>
<td></td>
<td>stages of the writing process with emphasis on the prewriting stage. Then the teacher asked students to work in their writing groups to do the prewriting stage. The students in this class seemed to be the most active of all classes because most of the groups were working together very attentively and enthusiastically. They discussed with each other with fun. They seemed to enjoy the activity a lot. However, one group at the end of the class was quiet. One student in this group listened to the music from his laptop and did not do the task. Students used Vietnamese in their discussion.</td>
<td>were more active and involved in the activity. This time, students used more technology for their task. Some students brainstorm ideas on Microsoft Word. Some searched information on the Internet and read for their friends to write down. They helped each other to check pronunciation and appeared to be excited when finding out the correct pronunciation of a word. Many students used Facebook messenger to chat with each other about the writing. A few were still doing their personal things like reading confessions from Facebook, checking laptop prices, etc. There were such combinations as Facebook and Google Docs, Facebook and Microsoft Word, Google Docs and Google Docs in the groups during this stage. Some students also used Google Translate, and Vdict.com for their writing.</td>
</tr>
<tr>
<td>3</td>
<td>First, the teacher instructed the students to do the prewriting activities: choosing one topic, organizing ideas, writing a topic sentence, making an outline in the class. Then students worked in their writing groups to do these activities. About three to four groups were focused with laptops and paper in</td>
<td>In comparison with writing 1, the working atmosphere of this class in writing 2 was quite similar. There were 3 groups of 3 students, 1 group of 4, and 3 pairs. The group with 4 students seemed to be the most active. Meanwhile, the groups with 2 students were less active. They looked quieter. Most of the students</td>
</tr>
</tbody>
</table>
front of them. They discussed in Vietnamese, and some were searching for the information from the Internet. Two groups at the back of the class were not focused. They were talking, watching something on the Internet. Some were silent, looking at the writing question on their laptop, and at their books. Most of the students chose topic 1 to write about. The teacher moved from group to group to assist the students. In short, about one third of the class worked unenthusiastically. It seemed that the groups that the teacher stood near were more focused and more involved. On the contrary, the groups far from the teacher lost their concentration on the task. In general, this class was quite quiet and inactive in group work.

concentrated on choosing the topic to write. Some used Google Translate to look up new words. Students used Vietnamese as a medium of exchange. Many students were not interested in the writing topics. Some students were chatting on Facebook about the things not related to their study. Teacher 2’s attention to the groups was not equal. She focused too much on a few groups only. As a result, the groups with her attention worked enthusiastically while the other groups did not.
Appendix I: Consent form

Using ICT to foster collaborative writing skills for EFL university students in Vietnam

Consent Form

- I have read the information letter and understand the aims, procedures, and risks of this project, as described within it.

- I have asked any questions I have had, and I am satisfied with the answers I received.

- I am willing to be involved in the research project, as described.

- I understand that participation in the project is entirely voluntarily.

- I understand that I am free to withdraw from participation at any time, without affecting my relationship with the researcher or my university.

- I understand that any audio recordings are for research purposes only and will be erased after 5 years and not used for any other purpose without the explicit written consent obtained from the participant.

- I understand that this research may be published in a journal or doctoral thesis, provided that the participants are not identified in any way.

- I understand that I can obtain a copy of the findings from this research upon its completion.

On this basis, I agree to participate in the Using ICT to foster collaborative writing skills for EFL university students in Vietnam research project.

Name (printed): _____________________
Signature: _____________________ Date: _____________
Appendix J: Information letter to FPT University

Using ICT to foster collaborative writing skills for EFL university students in Vietnam

Dear Dr. Ta Ngoc Cau

My name is Nguyen Thi Thu Lan and I am writing to you as a student of the School of Education at Edith Cowan University, Western Australia. I would like to seek your permission to conduct research at FPT University as part of a Doctor of Philosophy in Education degree. The purpose of my research is to find out how Information Communications Technology (ICT) can support collaborative writing in an English as a Foreign Language (EFL) university context in Vietnam.

What does participation in the research project involve?

Participation in the research project will involve an online survey of about 10 to 15 minutes. Participants will be invited to take part in a trial in which they use ICT in collaborative writing. After the trial, the researcher will conduct a 30-minute face-to-face interview with the teachers and some students at a time and place convenient for them.

To what extent is participation voluntary, and what are the implications of withdrawing that participation?

Participation in this research is entirely voluntary. If participants change their mind, they are able to withdraw their participation at any time. All contributions they have made to the research will be removed and destroyed unless explicit permission is given for their use. This decision will not affect the relationship with the researcher or Edith Cowan University.

What will happen to the information collected, and is privacy and confidentiality assured?

The information collected will be de-identified. It will then be stored securely in either locked cabinets or password protected computers and can only be accessed by the researcher and the researcher’s supervisors. The data will be stored for a minimum period of 5 years, after which it will be destroyed. This will be achieved by shredding any paper-based data and erasing electronic data including audio recordings.

The data is maintained in a way that enables the researcher to re-identify an individual’s data and destroy it if participation is withdrawn. This is done by using identification codes known only to the researcher.

The identity of participants will not be disclosed at any time, except in circumstances that the researcher is legally required to disclose that information. Participant privacy, and the confidentiality of information disclosed by participants, is assured at all other times.

The data, including audio recordings, will be used only for this research, and will not be used in any extended or future research without first obtaining explicit written consent from participants.
It is intended that the findings of this study will be reported in the researcher’s doctoral thesis. A summary of the research findings will also be made available upon completion of the research.

**What are the potential benefits of this research?**

It is expected that the findings from the study will contribute to understanding the potential of using ICT-supported collaborative writing in an EFL context in Vietnam. This information could be useful for EFL teachers so that they could be more motivated to use ICT in their English language teaching to improve students’ English competency. The findings may also point out the advantages and disadvantages of using ICT in collaborative writing from teachers’ and students’ perspectives. In turn, these results would help the university as well as the teachers to have solutions to maximise the use of ICT in collaborative writing and minimise the drawbacks of this learning mode.

**Are there any risks associated with participation?**

The risks to those involved in this study are considered very low because of care taken with the construction of the study.

**Who do I contact if I wish to discuss the project further?**

If you would like to discuss the opportunity provided by this research with the researcher, please contact me at [email] or [email] or [email].

You can also contact my supervisor:

Dr. Jeremy Pagam  
Senior Lecturer for the School of Education  
Associate Director for the Centre for Schooling and Learning Technologies  
Edith Cowan University  
2 Bradford St, Mount Lawley WA 6050  
Telephone: +61 (8) 9370 6331  
Email: j.pagam@ecu.edu.au

If you wish to speak with an independent person about the conduct of the research, please contact Ms Kim Gifkins the Research Ethics Officer on + 61 (8) 6304 2170 or by email k.gifkins@ecu.edu.au.

Yours Faithfully,

Nguyen Thi Thu Lan  
PhD candidate, School of Education  
Edith Cowan University  
2 Bradford St, Mount Lawley WA 6050.  
Tel: [phone] or [phone]  
Email: [email]
Appendix K: Information to FPT English language teachers

Invitation to do the survey

Dear FPT Teacher,

My name is Nguyen Thi Thu Lan, and I am writing to you as a student of the School of Education at Edith Cowan University, Western Australia. I would like to invite you to participate in a research project I am undertaking as part of a Doctor of Philosophy in Education degree. The purpose of my research is to find out how Information Communications Technology (ICT) can support collaborative writing in an English as a Foreign Language (EFL) university context.

We wish to survey FPT teachers like yourself via a web-based questionnaire. We would like to ask you questions about ownership and use of technology as well as Internet use and access, and your ICT use in English language teaching.

We anticipate the survey will take approximately 10-15 minutes. The information you provide will be confidential and anonymous. We will not include any personal information that can be used to identify you.

If you change your mind and don’t want to be involved in the project any more that’s all right too. You have the right to withdraw from the project at any stage.

The information gained will be summarised and written up as a research paper that will be published.

If you would like to be a part of this project and you understand the nature and scope of the research, your involvement, and that you are willing to provide information, please click URL Goes Here to enter the Survey (or you may copy the link into your web browser)

If you have any questions please do not hesitate to contact me:

Nguyen Thi Thu Lan
PhD candidate, School of Education
Edith Cowan University
2 Bradford St, Mount Lawley WA 6050.
Tel: + or + Email:

You can also contact my supervisor:
Dr. Jeremy Pagram
Senior Lecturer for the School of Education
Associate Director for the Centre for Schooling and Learning Technologies
Edith Cowan University
2 Bradford St, Mount Lawley WA 6050
Telephone: +61 (8) 9370 6331
Email: j.pagram@ecu.edu.au

The research has been approved by the Edith Cowan University Human Research Ethics Committee. If you wish to speak with an independent person about the conduct of the research, please contact Ms Kim Gifkins the Research Ethics Officer on + 61 (8) 6304 2170 or by email k.gifkins@ecu.edu.au.
Invitation to do the intervention and participate in the interview

Dear Teacher

My name is Nguyen Thi Thu Lan, and I am writing to you as a student of the School of Education at Edith Cowan University, Western Australia. I would like to invite you to participate in a research project I am undertaking as part of a Doctor of Philosophy in Education degree. The purpose of my research is to find out how Information Communications Technology (ICT) can support collaborative writing in an English as a Foreign Language (EFL) university context.

I am seeking your consent to help in this research project.

What will you be asked to do?

If you give your consent, you will be asked to implement an intervention in which you will use suggested ICT tools to teach collaborative writing in your class, and a researcher will visit your classroom. After the course, you will be asked to participate in an audio-recorded interview (30 minutes).

What will my students be asked to do?

During the intervention, your students will do four collaborative writing tasks using selected ICT tools. The researcher will observe their face-to-face prewriting group work in the class and their online collaborative writing activities. After the first two writing tasks, one group of six students will be invited to take part in a focus group interview. At the end of the intervention, six students will be invited to participate in an experience-of-change interview (30 minutes) about their feelings when using ICT in collaborative writing.

Confidentiality and security

The confidentiality and security of the information collect about you will be guaranteed. All data will be de-identified upon transcription and password protected, which means you will not be able to be identified.

Right to withdraw

Participation is voluntary and if you choose not to take part in the research project, the decision will not affect your relationship with the school. You may withdraw from the evaluation at any time.

How do I provide consent?
Please sign the attached consent form and return it to the email address below.

Kind regards,

Nguyen Thi Thu Lan

PhD candidate, School of Education

Edith Cowan University

2 Bradford St, Mount Lawley WA 6050.

Tel: + or +

Email:

You can also contact my supervisor:

Dr. Jeremy Pagram

Senior Lecturer for the School of Education

Associate Director for the Centre for Schooling and Learning Technologies

Edith Cowan University

2 Bradford St, Mount Lawley WA 6050.

Telephone: +61 (8) 9370 6331

Email: j.pagram@ecu.edu.au

The research has been approved by the Edith Cowan University Human Research Ethics Committee. If you wish to speak with an independent person about the conduct of the research, please contact Ms Kim Gifkins the Research Ethics Officer on +61 (8) 6304 2170 or by email k.gifkins@ecu.edu.au.
Appendix L: Information letter to FPT students

Invitation to do the survey
Dear FPT Student,

My name is Nguyen Thi Thu Lan, and I am writing to you as a student of the School of Education at Edith Cowan University, Western Australia. I would like to invite you to participate in a research project I am undertaking as part of a Doctor of Philosophy in Education degree. The purpose of my research is to find out how Information Communications Technology (ICT) can support collaborative writing in an English as a Foreign Language (EFL) university context in Vietnam.

We wish to survey FPT students like yourself via a web-based questionnaire. We would like to ask you questions about ownership and use of technology as well as Internet use and access, and your ICT use in English language learning.

We anticipate the survey will take approximately 10-15 minutes. The information you provide will be confidential and anonymous. We will not include any personal information that can be used to identify you.

If you change your mind and don’t want to be involved in the project any more that’s all right too. You have the right to withdraw from the project at any stage.

The information gained will be summarised and written up as a research paper that will be published.

If you would like to be a part of this project and you understand the nature and scope of the research, your involvement, and that you are willing to provide information, please click URL Goes Here to enter the Survey (or you may copy the link into your web browser)

If you have any questions please do not hesitate to contact me:

Nguyen Thi Thu Lan
PhD candidate, School of Education
Edith Cowan University
2 Bradford St, Mount Lawley WA 6050
Tel: + [Numbers] or + [Numbers]
Email:[Email]
You can also contact my supervisor:

Dr. Jeremy Pagam

Senior Lecturer for the School of Education
Associate Director for the Centre for Schooling and Learning Technologies

Edith Cowan University
2 Bradford St, Mount Lawley WA 6050
Telephone: +61 (8) 9370 6331
Email: j.pagram@ecu.edu.au

The research has been approved by the Edith Cowan University Human Research Ethics Committee. If you wish to speak with an independent person about the conduct of the research, please contact Ms Kim Gifkins the Research Ethics Officer on +61 (8) 6304 2170 or by email k.gifkins@ecu.edu.au.
Invitation to do the intervention and participate in the interview

Dear Student

My name is Nguyen Thi Thu Lan, and I am writing to you as a student of the School of Education at Edith Cowan University, Western Australia. I would like to invite you to participate in a research project I am undertaking as part of a Doctor of Philosophy in Education degree. The purpose of my research is to find out how Information Communications Technology (ICT) can support collaborative writing in an English as a Foreign Language (EFL) university context in Vietnam.

I am seeking your consent to help in this research project.

What will you be asked to do?

If you give your consent, the researcher will be able to observe in class prewriting activities and your online writing activities. The researcher will observe how you interact with other students in your group when you do your collaborative writing online. For example, the frequency of your participation, your feedback, etc. You are guaranteed that the researcher’s observation will not affect your marks in any ways. Besides, the researcher may visit your learning environments such as the classroom, the library, or the dormitory to observe if the ICT infrastructure there is appropriate to assist collaborative writing via ICT tools. During the middle of the intervention, you will be asked to take part in a focus group interview. At the end of the intervention, you will be asked to participate in an audio-recorded interview (30 minutes).

Confidentiality and security

The confidentiality and security of the information collect about you will be guaranteed. All data will be coded and password protected. All students will be allocated a code for the observation recording and for the transcription of the interviews to ensure the information collected is anonymous, which means you will not be able to be identified.

Right to withdraw

Participation is voluntary and if at any time you choose not to take part in the research project, the decision will not affect your relationship with the school or your assessment.

How do I provide consent?
Please sign the attached consent form and return it to the email address below.

Kind regards,

Nguyen Thi Thu Lan

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The research has been approved by the Edith Cowan University Human Research Ethics Committee. If you wish to speak with an independent person about the conduct of the research, please contact Ms Kim Gifkins the Research Ethics Officer on +61 (8) 6304 2170 or by email k.gifkins@ecu.edu.au.