Interpersonal interaction: A study of an online English language learning environment at a Vietnamese university

A thesis submitted to
The College of Education
Victoria University
in fulfilment of the requirements for the degree of
Doctor of Philosophy

by
Thach Ngoc Pham
March 2015

ABSTRACT

This research is inspired by recent technological development in online language learning in Vietnam. The main aim of this study was to investigate interpersonal interaction in an online English language learning environment at a Vietnamese university. The key aspects of interaction were explored including patterns, influencing factors and the contribution of facilitated interactions to the learners' English competence. A mixed methods design guided the collection of the data. Salmon's (2003) model of teaching and learning online was adopted as the main theoretical framework to interpret the study findings.

The interpersonal interaction was initiated by both the learners and instructors of the online course. While the instructor-initiated interaction resulted in a certain level of knowledge construction, the learner-initiated interaction mainly stalled at socialisation or exchange of information. The study identified three key groups of factors influencing online interaction. The learner-related factors included learners' perceptions of the usefulness and purposefulness of interaction. The factors relating to the instructors were their feedback, online teaching pedagogy and presence. As for the online course, its content, design and delivery were three key influencing factors.

The participants of the study viewed that online interpersonal interaction had a strong impact on learners' writing skills. The learners' participation in forums made their English usage more natural, which might in turn be useful for spoken English. The learners' soft skills such as communication and confidence were enhanced as well. However, interpersonal interaction did not contribute much to learners' listening and reading skills.

The study suggests that in the context of a developing country like Vietnam, it is crucial to train instructors sufficiently in their shift of pedagogy from face-to-face to online teaching, especially in facilitation and learner engagement skills. It is also necessary to create plausible linkages between learners' online interactions (with content, peers and instructors) and their learning goals.

DECLARATION OF AUTHENTICITY

I, Thach Ngoc Pham, declare that the PhD thesis entitled '*Interpersonal interaction: A study of an online English language learning environment at a Vietnamese university'* is no more than 100,000 words in length including quotes and exclusive of tables, figures, charts, appendices and references. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

Signature:  Date: 02 November 2015

Publications integrated in the thesis

Pham, T., Thalathoti, V., & Dakich, E. (2014). Frequency and pattern of learner–instructor interaction in an online English language learning environment in Vietnam. *Australasian Journal of Educational Technology, 30*(6), 686–698.

Pham, T. (2014). Foreign language policy. In L. Tran, S. Marginson, H. Do, Q. Do, T. Le, N. Nguyen, T. Vu, T. Pham, & H. Nguyen. *Higher education in Vietnam: Flexibility, mobility and practicality in the global knowledge economy*, (pp. 169–186). UK: Palgrave Macmillan.

Pham, T., Thalathoti, V., Dakich, E., & Dang, T. (2013). *English Discoveries Online (EDO): Examining learner–instructor interaction: A case study at Hanoi University, Vietnam*. Paper presented at the Teleconference on Information and Communication Technology in English Language Teaching in Vietnam, Hanoi, Vietnam. Retrieved from http://etesol.edu.vn/index.php/teleconference

Pham, T., Thalathoti, V., Dakich E., Tang, H., Vinh, H. (2013). *Learner–content interaction in an online English learning course: A case study*. Paper presented at the 5th "Engaging with Vietnam" conference, Thai Nguyen, Vietnam.

Pham, T., Thalathoti, V., Dakich E., (2011). *Learner–instructor interaction in online English language learning environment: A review of literature and proposed study at Hanoi University, Vietnam*. Paper presented at the 25th Asian Association of Open Universities (AAOU) conference, Penang, Malaysia.

ACKNOWLEDGEMENTS

On the completion of this research, I wish to express my deepest and sincerest gratitude to my principal supervisor, Dr Vijay Thalathoti, for his dedicated supervision, invaluable guidance, detailed comments, practical suggestions, constructive feedback and continuous encouragement. I especially owe many thanks to Dr Eva Dakich, my co-supervisor, for her generous assistance, invaluable encouragement, scholarly advice and continuous feedback. She continually and persuasively conveyed to me a spirit of adventure in regard to research and scholarship in online teaching and learning.

I am deeply grateful to my beloved teacher, Mr Nguyen Quoc Hung, for his support and encouragement in my personal life and academic career. I also wish to express my warm and sincere thanks to the lecturers and students of the English Department and Foundation Studies Department of Hanoi University for participating in the survey, focus group discussions and interviews.

Along the way, I also wish to acknowledge the staff of the College of Education of Victoria University who supported and provided me with full facilities to carry out this thesis. I would also like to express my deep and sincere thanks to the international and Vietnamese fellow students for creating a friendly and collaborative atmosphere during the completion of my study.

My sincere thanks also go to the Australian Leadership Awards (ALA) program of the Australian Agency for International Development (AusAID) for granting me the scholarship and generous financial sponsorship.

I am indebted to my wife and two children for their love, tolerance and encouragement throughout the four years of study in Australia. Deep gratitude also goes to my mother and siblings for their continuous spiritual support during my study away from home.

Finally, I wish to express my greatest indebtedness to my late father who laid the foundation for me to pursue academic achievements.

Melbourne, March 2015

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ASR	automatic speech recognition
BBC	British Broadcasting Corporation
CALL	computer assisted language learning
CMC	computer-mediated communication
COI	Community of Inquiry
EDO	English Discoveries Online
EF	elaborated feedback
EFL	English as a foreign language
GDP	Gross Domestic Product
GPA	Grade Point Average
HANU	Hanoi University
iCALL	intelligent computer assisted language learning
ICT	information and communications technology
IELTS	International English Language Testing System
KCR	knowledge of correct result
KMO	Kaiser-Meyer-Olkin
KR	knowledge of result
LMS	learning management system
MOET	Ministry of Education and Training
MOOC	massive open and online course
MOODLE	modular object-oriented dynamic learning environment
NBLL	network-based language learning
NLP	natural language processing
OER	open educational resources
OECD	Organization of Economic Co-oporation and Development
PCA	principal component analysis
Q&A	questions and answers
SOC	sense of community
SPSS	Statistical Package for the Social Sciences
TMS	teacher management system

VNNIC	Vietnam National Internet Centre
WBI	web-based instruction
WebCT	Web Course Tool
WELL	web-enhanced language learning
ZDP	Zone of Proximal Development

CHAPTER 1: INTRODUCTION

1.1 Introduction

The advancement of technologies has opened vast opportunities for application in education, including language learning (Golonka, Bowles, Frank, Richardson, & Freynik, 2012). At the same time, it inspires new inquiry about how languages are learnt in cyberspace, one of which is learners' interaction with instructors and peers, including both native and non-native speakers of the target language (Meskill & Quah, 2013). The focus of the current research is to investigate interpersonal interaction in an online English language learning environment at a Vietnamese university.

Interaction has increasingly become one of the most critical elements of learning experiences, both in traditional face-to-face and online learning environments (Gass & Mackey, 2006; Moore, 1989; Woo & Reeves, 2007). In an online environment, due to the separation of time and space, instructors and learners have to rely on technologies to interact with each other synchronously or asynchronously for different teaching and learning purposes (Gao, Zhang, & Franklin, 2013; Oztok, Zingaro, Brett, & Hewitt, 2012). The integration of computer-mediated communication (CMC) into the teaching and learning of languages has proven beneficial to both instructors and learners (Marden & Herrington, 2011; Son, 2006). Recent developments in the field of CMC, computer assisted language learning (CALL) and network learning have led to a renewed interest in the investigation about the role of interaction for online language learning (Wach, 2012; Wu, Yen, & Marek, 2011).

The first serious discussions and analyses of online interaction emerged in the 1990s with Moore's (1989) identification of three types of interaction: learner–content, learner–learner and learner–instructor. Hillman (1994) added one more type, which was learner's interaction with the interface of an online course. These first studies led to a considerable amount of literature related to interaction in online learning in general and in online language learning in particular. To date, there has been an agreement among researchers that interaction is critical and forms the basis of effective practices in online learning environments (Battalio, 2007; Beldarraina, 2006; Fulford & Zhang, 1993; Palloff & Pratt,

2007; Wise, Chang, Duffy, & Valle, 2004; Woo & Reeves, 2007). In online language learning, it has been reported by a number of researchers that interaction helps increase confidence, motivation and ability for learners to communicate with peers, especially with native speakers of the target language they are studying (Wu & Liu, 2012; Wu & Marek, 2013; Wu et al., 2011).

In Vietnam, the setting of this study, English is a foreign language. Thus, language learners have limited opportunities to practice what is taught, especially with native speakers of English. In this context, language teaching institutions have increasingly sought to provide learners with online learning courses so that they can interact with content, peer and instructor – the three main types of interaction (Moore, 1989). Studies have found that the use of CMC and networked learning can enhance learners' confidence in using English (Liu & Chen, 2007; Payne & Ross, 2005). This capability may be particularly important in Vietnam where learners are not proactive in initiating interactions (Le, 2011). In addition, more opportunities to interact can lead to increased linguistic production (Lee, 2009), and improved social relationships with peers, including native speakers (Belz, 2002). The text-based interaction environment is also less threatening to learners who are not fluent in speaking, which is the case for many Vietnamese learners of English (Le, 2011).

So far, there has been little discussion about the interaction between learners and instructors as well as amongst learners in an online English language learning environment, especially in a country where English is a foreign language like Vietnam. A few online English courses have been offered in the country to provide learners (school and university levels) with digital materials but far too little attention has been paid to investigate how learners interact with peers and instructors during their online study process. Therefore, the major objective of this research is to investigate learner–learner and learner–instructor interactions in an online English language learning course implemented at a public university.

In the following sections, the issues concerning online interaction and online language learning are presented, followed by the main aim, research questions, the significance of the study and a short description for each of the six chapters of the thesis.

1.2 Online interaction in foreign language learning

Various definitions of interaction in online learning have been developed in the literature. One of the most commonly quoted definitions is that of Moore (1989), which focuses on the dynamics of sending and receiving information between the learners and content, instructors and other learners (peers). The current study, however, mainly focuses on the process of exchange of text-based online messages between learners and instructors as well as among the learners themselves (reciprocal relationships) for teaching and learning purposes.

In both traditional face-to-face and online environments, interaction has been considered as the goal and means of communicative language learning process (Wang, 2004). The online environment can provide authentic contexts for learners to apply and practice their language skills, through which the learning occurs (Ng, Yeung, & Hon, 2006). The CMC tools like email and discussion forums allow the learners to interact one-to-one, one-to-many or many-to-many, through which feedback can be provided to each other's written work (Gibby, 2007; Harrington & Levy, 2001). This environment is especially beneficial to learners because they can have time to modify their messages before sharing them with others (Levy, 2006).

However, online interaction is not without problems. First of all, in a fully operational language course such as the one used in this study (see Chapter 3), interpersonal interaction cannot be fully separated from learners' interaction with the course content. Therefore, care has to be given to make sure that the learners are motivated in all three types of interaction – with content, peers and instructors. Secondly, different learners have different attitudes and preferences in using communication tools (e.g. chat forum, email and social network). For example, some learners view that chatting is not a useful way to enhance their language. Hence, it may take time for the learners to adjust and the instructors to explain how different technologies can be used effectively for language

learning (Levy & Stockwell, 2013). Thirdly, in the context of a developing country like Vietnam, there is a range of technical and pedagogical issues such as slow internet connectivity, limited access to information and communications technology (ICT) facilities, teacher-centered pedagogies, lack of professional development and learner autonomy (Dang, Nicholas, & Lewis, 2012; Le, 2013; Peeraer & Van Petegem, 2011).

1.3 Online language learning

1.3.1 Online learning and online language learning in the world

Globally, online learning has been opted for by learners for different reasons, some of which include flexibility, convenience and continuing professional development (Poley, 2010). Numerous international and regional organisations (e.g. World Association for Online Education, European Distance and E-learning Network) have been established to conduct research on different issues relating to online learning such as educational technologies, pedagogical reform, open educational resource (OER), open course software and learning management system (LMS). Online learning research has been focusing on design, learning, teaching and outcomes (Gayol, 2010). The advancement of technologies offer more choices for educators to design and deliver innovative learning experiences to meet the changing needs of 21st century learners (Garrison, 2011).

In this study, the researcher uses the term 'online learning' to broadly describe the use of new technologies for learning experiences, which has been the focus of much research in the past decade (Meskill & Quah, 2013). With an increasingly fast development of advanced technologies and open educational resources, learners have more opportunities to access digitalised materials, to communicate with other people one-to-one, one-to-many and many-to-many as well as to enjoy mobile learning. Currently, there are three main types of computer-networked technology or internet-based learning whereby the share of the online component accounts for different proportions of the total course of study, from around 30% of the online content to a fully online course (Rudestam & Schoenholtz-Read, 2010).

Advanced technologies have also provided huge potential for application in the field of computer assisted language learning (CALL). This term was established in the education of languages in the early 1980s when desktop computers were utilised to provide language learners with programmed instruction based on the theories of behaviourism, audiolingualism and structuralism in language learning (Jarvis & Achilleos, 2013). With the fast development of the World Wide Web including online blogs, virtual learning environments and CMC as well as the emerging of the social constructivism theory of learning, CALL has become associated with such terms as web-enhanced language learning (WELL) and network-based language learning (NBLL) (Allodi, Dokter, & Kuipers, 2014; Warschauer & Kern, 2000). The web-enhanced and/or network-based functionalities allow learning to be socially constructed whereby learners interact with each other using computers and the internet (Jarvis & Achilleos, 2013).

1.3.2 Online English language learning in Vietnam

Vietnam is one of the fastest growing countries in the world with the average gross domestic product (GDP) growth rate of around 5.5% since the global economic crisis in 2008 (Mishra & Dinh, 2013). Vietnam is also one of the countries that has the fastest growth rate of ICT in general and internet use in particular. The report on statistics of internet users in Vietnam (2013) revealed that as of November 2012, the percentage of internet users in Vietnam was over 35%, which was translated into a number of over 31 million users, nearly half of them between the ages of 15 to 24. The use of the internet for school and office activities was also rather high, accounting for over 70%. The information about the users' access to the websites revealed that most of them were interested in browsing the internet for news, entertainment and social communication purposes.

As the country integrates itself into the world economy, foreign languages are being taught in the national educational system at all levels. Among the most common foreign languages such as English, French, Russian, German and Chinese, English is the main language in the country's international transactions. Therefore, English is the key foreign language taught in the Vietnamese education system (Nguyen & Le, 2011; Pham, 2014; Van Van, 2011). In 2008, the Prime Minister of Vietnam issued Decision No.1400/QD-

TTg on the approval of the National Project on Teaching and Learning Foreign Languages in Vietnam for the period 2008–2020 (MOET, 2008). One of the components of this Project was the promotion on the use of ICT in teaching and learning foreign languages, mostly English.

In this context, Vietnamese higher educational institutions and other organisations have been offering English online courses for the general public as well as for university students. There are two main types of online courses. The first ones are those developed and administered by private Vietnamese organisations to offer English lessons for all types of learners, from children to adults. The materials are either developed by the Vietnamese teachers, or adapted from free online sources with or without explanations and translation in Vietnamese language. Some of the most seemingly popular courses include www.tienganh123.com, www.hocngoaingu.com, www.tienganhonline.net, http://www.globaledu.com.vn/ and http://www.topica.edu.vn. These online courses operate on the basis of selling accounts to learners for access to the online materials in different media: text, video and audio.

On one hand, these courses provide learners with a vast amount of materials to enhance their macro language skills (e.g. reading and listening) and language areas such as grammar and pronunciation; on the other, they demand a great level of autonomy on the part of learners due to the lack of a learning community – that is, interaction between instructors and learners and especially among learners. In addition, some of the courses are simply the transfer of radio-based or video-based ones that are uploaded on the internet. The learning designs between these media (e.g. radio and online) are different, and thus one may question the effectiveness of the online lessons compared to radio-based learning. For example, in a listening lesson on the radio, the aural speech is not often accompanied by a transcript, forcing learners to listen and do the exercises. In the online environment, the transcript is often on the screen all the time, which may diminish the learners' real listening comprehension capability. In other words, they read for comprehension instead of listen for comprehension.

The second main type of online English course is in the form of fully operational ones that are either purchased or self-developed by educational institutions for their learners. For example, a university in the central part of Vietnam is offering an online course for a bachelor degree majoring in English. The learners, besides having to complete compulsory subjects required in the core curriculum, are requested to practice language skills using modular object-oriented dynamic learning environment (MOODLE) open courseware and self-developed content (http://cce.udn.vn/). The online course is implemented in a blended mode in which the learners have to complete at least 50% of interaction with the online course content. Their scores achieved during the online study account for 20–30% of the grade point average (GPA) for each study level. On its LMS, this university provides the learners with a study schedule, guide, registration form and access to the online course content. There is an online interaction component in the form of questions and answers (Q&A) in which the course administrator answers queries from the learners in the study process.

Another university in the north of the country is providing its students with an online English course that has been pre-created for the study of general English (http://edo.hanu.vn/). The online course is part of the bachelor degree for students majoring in English language and other disciplines such as accounting, business management and tourism. Students use the course as part of their first two years of study at the university in order to enhance their macro language skills or achieve a score of 6.5 for the International English Language Testing System (IELTS) test. The online course has different components for the learners to interact with the course content, peers and instructors (see detailed description in Chapter 3).

The increasing number of online English courses raises a need to conduct research in the different aspects of online language learning such as course effectiveness, learner motivation, influencing factors and how online interaction supports language learning (Gibby, 2007). Unfortunately, relatively few studies have been conducted in Vietnam focusing on the learners' online interaction and perspectives. Worldwide, there is also a strong need to have better understanding about different aspects of online interaction such as the quality of online interaction, and learners' linguistic and non-linguistic behaviour

during the interaction process (Dooly & O'Dowd, 2012; Garrison & Cleveland-Innes, 2005). The above situation reinforces the need to have in-depth research of interaction in an online English language learning environment in Vietnam.

The above description has set a scene for a brief understanding of online English language learning in Vietnam. In a broader context, English language teaching and learning, either in face-to-face or online mode, has two key features that have been investigated by a few Vietnamese researchers: the lack of an environment for practice outside the classroom (Le, 2011; Nguyen, 2004; Phan, 2009; Van Van, 2011), and learner autonomy and motivation (Ngo, 2015; Phan, 2011).

Because English is a foreign language in Vietnam, the environment in which to practice outside the classroom is very limited; as such, students take advantage of every class hour to practice using English (Le, 2011). The use of a communicative language teaching approach has provided students with opportunities to communicate with peers and teachers in the target language (Dang, Nguyen, & Le, 2013). However, due to having large classes, and the lack of modern facilities, teachers cannot always create authentic communication scenarios for learners (Le, 2011; Nguyen, 2004). Online environments, especially virtual classes, offer additional opportunities for learners, but there are still concerns regarding the quality of online learning in Vietnam (Hong, 2009). In this context, it is necessary to investigate how to create an online community of English language learners and teachers.

One of the most important aspects concerning the study of English, or any other language, is motivation. In foreign language learning, the two main types of motivation are integrative and instrumental (Gardner & Lambert, 1972); or intrinsic and extrinsic (Deci & Ryan, 1985). Research in Vietnam on these aspects has produced some interesting results. On one hand, the findings of a few studies have revealed that the majority of non-English major students were motivated to study English for personal and professional development (Ngo, 2015; Tran & Baldauf Jr, 2007). On the other hand, students find it difficult to keep their motivation high all the time, especially when getting low scores or being ignored by peers and teachers (Ngo, 2015). As online learning is still new in

Vietnam, it is critical to conduct empirical studies on factors that motivate or demotivate online learners.

This study is one of the first investigations to explore online English language learning and interaction in Vietnam, providing important leads for policy and practice. While the findings may not be ground-breaking in the context of digital learning in the developed world, they provide important insights to current practices of online learning in developing nations and open up opportunities for bridging the digital divide, when it comes to effective and productive learning experiences designed for higher education students. The study also sheds light on how online learners interact in an English language learning environment and what factors encourage them to engage in online English language learning. The next section of the chapter presents the study aim and questions.

1.4 Study aim and research questions

The main aim of this study was to investigate interpersonal interaction in an online English language learning environment in a university context. Three specific questions were:

- What are the patterns of text-based interpersonal interaction (learner–learner and learner–instructor) in the online English language learning environment?
- Which factors influence the interaction?
- What are the effective practices that enhance the interaction?

In order to find the answers for the above three questions, the study examined perceptions of 207 learners and 12 instructors who participated in an online English course as part of their undergraduate study at a public university in Vietnam. The study adopted a mixed methods approach in collecting and analysing four different sources of data: questionnaire survey, online messages, focus group discussions and semi-structured interviews. The sequential explanatory strategy (Creswell, 2009) was used for the collection and analysis of the data in which quantitative data (survey and online messages) collected in the first stage allowed the researcher to expand and clarify some of the findings in the second stage of data collection; that is, focus group discussions and semi-structured interviews

(Clark & Creswell, 2007; Onwuegbuzie & Combs, 2011). Salmon's (2003) model of teaching and learning online was adopted to interpret the learners' and instructors' participation in the online teaching and learning process.

1.5 Significance of the study

The study contributes both theoretically and practically to the knowledge and understanding about online English language learning. In terms of theory, the study contributes to the literature of interpersonal interaction in an online English language course. The study adds to a growing body of literature on how online interpersonal interaction may help learners to develop their writing and speaking skills. The findings of this study also provide a new understanding of the factors that influence learners' interaction with peers, instructors and content in an online English language course in the context of a developing country.

This study contributes to the richness of research in online English language teaching and learning by a Vietnamese scholar and enhances understanding of the Vietnamese stakeholders (e.g. course developers, managers and policymakers) about the important role of all three types of interaction – learner–content, learner–learner and learner–instructor – in the development and delivery of an online course in general and online language learning course in particular.

At the policy level, the findings and discussion of this study will be a useful source of reference in the development of policies relating to the design and delivery of online courses, professional development of online instructors and effective learning pedagogies for online learners. In its National Project on Teaching and Learning Foreign Languages for the period 2008–2020 (MOET, 2008), the Government of Vietnam has been investing a great deal of effort in both research and practice of online language learning and teaching. One of the components of this project has been the identification of ICT competences for language instructors. A key policy priority should therefore be to plan for the long-term attention to providing language learners with quality online courses and professional online instructors.

1.6 Structure of the thesis

The thesis consists of six chapters and seven appendices. Chapter 1 has provided background information about online language learning in the world and Vietnam. It also states the aim and research questions, the study significance and organisation of the thesis.

In Chapter 2, the researcher critically reviews available literature surrounding different types of interaction in online learning in general and in online language learning in particular, the main factors that influence interactions in an online course as well as how facilitated interactions may contribute to the enhancement of the learners' language competence. Then the thesis highlights key models that have been used in past studies about online interaction and a justification of why Salmon's (2003) model is chosen for this study.

Chapter 3 describes and justifies the mixed-method design. This is followed by an in-depth description of the online environment and participants of the study. The data collection procedures and data analysis are then explained. Finally the ethical considerations during the research process are presented.

Chapter 4 reports key findings of the study for three research questions through a triangulation of the data. Firstly, it presents the findings about the frequency levels and patterns of learner–learner and learner–instructor interaction in the online course. Secondly, the findings about the influencing factors that are related to the learners, instructors and online course itself are presented. Thirdly, there is a presentation of the findings about how interpersonal interaction contributes to the enhancement of the learners' English competence.

In Chapter 5, the researcher discusses and interprets the above findings in the light of the literature about online interaction and the theoretical framework used in this study. More specifically the findings related to the frequency levels and patterns of interaction are compared and contrasted with the results of past studies. Then the factors that influence online interaction are discussed in the context of an online English language course, together with some practical suggestions on how to facilitate the interaction. Finally, there

is an in-depth discussion of how different types of interaction contribute to the learners' study of English language skills and areas.

Chapter 6 provides a summary of key findings, followed by the significant implication of the study to the training of instructors, engagement of learners and the development of course content. In the presentation about study contribution, the researcher identifies key theoretical and practical contribution of the study including policy direction for future development of online language learning in Vietnam. Finally, the researcher acknowledges the key limitations of the study and suggests areas that need further investigation in the future.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Interaction plays a crucial role in both traditional face-to-face and online learning environments. As technologies develop, online interaction has been made possible in different forms and formats, which enable learners to interact with each other whenever and wherever they wish. Yet it must be asked, what are the types and features of online interaction in general and in an online language learning environment in particular? Which models have been used to analyse an online interaction process? These questions will be reviewed in this chapter, which is divided into three main parts.

The first part of the chapter presents key elements of online interaction in general. It starts with a review of main types of interaction: learner–content, learner–instructor, learner–learner and learner–interface. This is followed by an analysis of two popular modes of online interaction – synchronous and asynchronous – and their advantages and disadvantages. The main patterns of interaction will be briefly articulated to provide readers with the ways that interaction takes place in an online environment; for instance, who starts the discussion and how the discussion is sustained. Finally, there is a review of the factors that influence online interaction.

The second part of this chapter builds on the results of the first part with special attention to interaction for English language learning. This part starts with a review of interaction in computer assisted language learning (CALL) and related studies that have been undertaken so far. It focuses mainly on how learners' interaction with content, instructors and peers would help them enhance macro language skills: listening, speaking, reading and writing.

Finally, there is a summary of common models that have been adopted by researchers in analysing learners' and instructors' interactional processes. Two models will be presented in this review of literature. The first one is the community of inquiry (COI) model developed by Garrison, Anderson and Archer (2001). This model examines the social, cognitive and teaching presence of learners and instructors as well as the relationship

between these three constructs. The second model, proposed by Salmon (2003), describes different stages of learning that take place in the online interactional process: from accessing to socialising, exchanging information to constructing and developing knowledge.

This review of literature is instructive because, on one hand, it provides comprehensive information about online interaction and, on the other, it identifies a gap in research that justifies this study.

2.2 Interaction in an online learning environment

2.2.1 Introduction

Globally, online learning has become a popular trend thanks to the rapid evolution of information and communications technology (ICT) and the internet. Nowadays, most higher education institutions around the world offer online courses for their students (Rudestam & Schoenholtz-Read, 2010). Most recently, the development of massive open online courses (MOOCs) opens more opportunities for a larger number of learners worldwide to gain knowledge and skills flexibly without having to attend traditional classes (Bruff, Fisher, McEwen, & Smith, 2013; McAuley, Stewart, Siemens, & Cormier, 2010). For example, as many as 30,000 students can be taught at the same time by professors from lead universities all over the world via Coursera, a social entrepreneurship company that partners with many top universities across the globe to offer free courses online for anyone to take (Audsley, Fernando, Maxson, Robinson, & Varney, 2013). The continuous growth of online courses in both academic and financial aspects has raised many issues such as quality, design, and challenges including that of online interaction (Muilenburg & Berge, 2005; Nguyen, 2009; Song, Singleton, Hill, & Koh, 2004; Vrasidas & McIsaac, 1999).

While there still exist different views in relation to the key factors contributing to the success or failure of an online learning course, researchers and practitioners are in general agreement that interaction is essential, and forms the basis for effective practices in online learning environments (Battalio, 2007; Beldarraina, 2006; Fulford & Zhang, 1993; Palloff

& Pratt, 2007; Wise et al., 2004; Woo & Reeves, 2007). Interaction is a complex phenomenon that entails many psychological, social, technical, linguistic and cultural dimensions, and it attracts huge attention from educators, course developers and researchers (Juwah, 2013). The following part of the chapter presents key elements of online interaction; namely types, modes and patterns of interaction and key factors that influence the online learning process.

2.2.2 Type of interaction

Interaction is commonly understood as communication among individuals, but in this review of literature, it also includes learners' interaction with the content and interface of an online course. Moore (1989) identified three types of interaction in online environments: learner–content, learner–instructor and learner–learner. Studies conducted by Hillman (1994) and Sinha, Khreisat and Sharma (2009) have identified a new dimension of interaction: learner's interaction with interface. Furthermore, Wagner (1994) identified the difference between interaction and interactivity, which focused on features of the technology systems. In agreement with Wagner's view, other researchers proposed that it was worth taking into account the role of technologies in the interaction process (Finegold & Cooke, 2006; Roblyer & Wiencke, 2003).

2.2.2.1 Learner–content interaction

Interaction with content is the process in which learners exploit the materials that are embedded in the online course for their study purposes. Content delivered in an online course can be in different forms and formats, and be complete, relevant and accurate (Marzban, 2011). The online resources include not only learning materials but also learning activities, and assignments to help learners achieve learning outcomes (Abraham, 2008). With advanced evolution of different LMSs, the content of an online course (e.g. study materials and activities) can be structured according to pedagogical needs of the course developers.

A very important but difficult aspect concerning learners' interaction with content is how to measure the quality of that interaction (Chen, Zhang, & Liu, 2013). There have been

many approaches that established standard ways with which learners' outcomes could be measured not just on the grades or surveys, but also on true attainment of knowledge (Klimova, 2011). Indeed, the evaluation of an online course is very complex, and involves not only the value and effectiveness of online materials, but also the efficacy of interactional tools embedded in learning management systems. (Levy & Stockwell, 2013).

In developing countries, where online learning at higher education levels is still in its infancy (Satar & Özdener, 2008), the assessment of quality of course content has not been considered seriously. The decision whether to implement an online course is sometimes based on the decision of the management board with little consultation with instructors or learners and there are concerns about the content of online courses (Chiu, Liou, & Yeh, 2007). In this regard, Andersson and Grönlund (2009) have proposed a comprehensive conceptual framework on challenges for e-learning in developing countries, including those for individual (student and teacher), course (design, content and support), context (organisational, social and cultural) and technological barriers (p. 9). This framework could be used as a useful checklist when designing an online learning project.

Another important issue concerning the course content, or rather the interaction with it, is the relationship between quantity and quality of learners' interaction with the content. Quite a few studies have been conducted on this issue. Some researchers posited that there was a positive correlation between access rates and grades (Chen et al., 2013). On the other hand, other researchers viewed that it was the quality that mattered, not quantity of interaction (Garrison & Cleveland-Innes, 2005; Lee, 2012; Mowrer, 1996). In some instances, higher education institutions made interaction with content compulsory to ensure highest possible frequency of interaction. Conversely, some researchers have suggested that standard for online teaching need not contain arbitrary thresholds for required interaction (Grandzol & Grandzol, 2010).

In conclusion, interaction with content is an integral component of an online learning process. The content of an online course has to be carefully designed to ensure that learners can achieve quality outcomes, which is possible through involvement of learners

in deep and meaningful learner-to-content interaction throughout the online course (Lee, 2007). In foreign language learning, this could be realised through the application of advanced technologies that provide learners with personalised, detailed feedback for their performance of linguistic tasks; for example, doing reading or grammar exercises. Nevertheless, learners' interaction with content cannot be separated from interaction with instructors, peers and interface.

2.2.2.2 Learner–instructor interaction

In online learning environments, learner–instructor interaction has been found to be the most important one in guiding learners to interact with content and peers (Kelsey & D'souza, 2004). Learners' behaviours in the online learning process depend a great deal on the quantity as well as quality of instructors' guidance and feedback. In terms of quantity of interaction, learners naturally react positively to attentive instructors. On one hand, an instructor's online presence could be an important factor to make learners satisfied with the online learning environment (Kang & Im, 2013). On the other hand, studies have shown that too many posts from instructors may have an adverse impact (Dennen, Darabi, & Smith, 2007). Indeed, study by Mazzolini and Maddison (2007) shows that instructors' numerous posts did not have a positive effect in increasing the number of learners' posts. Furthermore, quantity measurement could not characterise cognitive outcomes of the learning process (Garrison & Cleveland-Innes, 2005).

Valentine (2002) and Son (2006) also observed that learners had mixed perceptions about the role of instructor in the interaction. Indeed, Huang and Nakazawa (2010) reported that in a wiki environment, learners had more interaction with their peers than with the instructors. It was also claimed by some researchers that learners' involvement did not seem to depend on tutors' inputs (Ng & Murphy, 2005) and while learner–instructor interaction might bring academic benefits to learners, it needs to be sustained carefully and aligned to course goals and objectives (Zhu, 2006).

The abovementioned issues were also discussed by other researchers, who suggested that learners were more motivated and satisfied by the instructor's high social presence (Finegold & Cooke, 2006; Thurmond & Wambach, 2004; Wise et al., 2004). Similarly,

Swan (2001) has asserted that, 'interaction with instructors seemed to have a much larger effect on satisfaction and perceived learning than interaction with peers'. Earlier, Brown and Vician (1997) also concluded in their study that the responsiveness of the instructors had influence on learners' frequency and rate of interaction, and that the instructors might need to model on the use of computer-based communication tools in the interaction process.

What learners valued more from the instructors' messages seems to be the quality of the posts. Study by Swan (2002) about factors affecting the success of asynchronous online learning suggested that the quality of learners' interaction with the instructors was more important than the quantity. Messages from the instructors should be able to lead to cognitive presence on the part of learners. By spreading messages throughout the course and careful structuring of online discussion threads, instructors might be able to engage learners in the construction of knowledge (Zhu, 2006).

Hence, in order to be successful in online teaching, an instructor has to play a more complex role compared to teaching in traditional face-to-face settings (Baran, Correia, & Thompson, 2011; Senior, 2010). In addition to mastering competences in pedagogy and evaluation, an instructor needs to train with technological skills as well (Ernest, Heiser, & Murphy, 2013; Hampel & Stickler, 2005; Sun, 2011). One of the most laborious tasks for online instructors is to provide feedback to learners' work, which should serve many functions like praising their efforts, suggesting corrections to be made and facilitating interaction among learners. According to Alvarez, Espasa and Guasch (2012), instructors should combine suggestions with questions or corrections when giving responses to learners' [writing] work. This requires instructors to attend to the content and structure as well as style of a piece of writing, together with technological skills to use certain applications to perform these tasks; for example, track changes.

In their investigation about key competences needed in an online learning environment, Hampel and Stickler (2005) proposed a seven-level pyramid that has strong focus in, among other things, an instructor's interactional competences under different names such as socialisation, communicative competence and information exchange. In order to be

able to acquire all skills suggested, a tutor and/or instructor needs to be trained extensively for many extra skills besides his/her professional competences. This might not be feasible in a number of contexts where instructors are already busy with their traditional face-to-face teaching load (Ke, 2010).

> It will therefore be a joint effort of institution and individual that can bring online tutor training one step further from ‘‘coping with difficulties’’ to the development of a truly original online pedagogy for language teaching. (Hampel & Stickler, 2005, p. 324)

In their review of literature on the roles and competences of online teachers, Baran, Correia and Thompson (2011) identified three aspects that need further investigation. They are the empowering of online teachers, promoting critical reflection, and integrating technology into pedagogical inquiry (p. 430). In this sense, it is important to create transformative learning experiences in which each teacher is given the power to reflect on their own online teaching practices and self-discover the necessary competences to meet the needs of online learners in different contexts and disciplines. Although it is necessary for online teachers to be trained on technological matters, it is their power to freely transform existing pedagogies to the online environment that plays a key part in creating learner-centered approaches and communities of practice among themselves (Baran et al., 2011).

In the same line of study about learner–instructor interaction, other researchers (Shackelford et al., 2012) presented seven types of interaction that were instrumental for the development of a sense of community (SOC). Most of these types were related to the role of instructors such as providing information on learning goals and useful, timely feedback to learners. Their studies have found that instructor modelling was the most important factor in developing a community of learning. Online learners, especially novice ones, appreciated both academic and technical support from their instructors. This view was supported by Sher (2009) who suggested that:

> The instructor must encourage students to actively participate in the course discussions; they must provide feedback on students’ work and inform them of their progress periodically; and treat them as individuals. In addition, a learning environment that

> encourages sharing learning experiences, builds a sense of community among students, and supports teamwork is desirable. Open-ended responses showed the importance of interaction in the online learning environment. (p. 116)

In developing countries, where learner autonomy is still low because they have been used to being told what to do (Dang, 2010; Le, 2013), the role of instructors is even more important. Technical and cultural barriers also make learners' interaction with their instructors more limited. The opportunity to have access to the internet is not the same for all learners. For example, in Vietnam, although internet coverage for the whole population has increased year on year (VNNIC, 2013), learners who come from the countryside and stay in the university dormitory may have fewer advantages than those who live at home with their families and have broadband connection. From the cultural perspective East Asian learners view their teachers as a respectable authority, a role model and an ultimate source of knowledge in their field (Chen, 2014a; Sit, 2013; Thanh, 2011). Accordingly, they are reluctant to openly argue with instructors about academic matters, especially in language learning (Le, 2011). In these situations, instructors should be equipped with not only linguistic knowledge but also social, cultural and even psychological expertise to engage learners in online learning.

2.2.2.3 Learner–learner interaction

The third type of online interaction is among learners themselves, which can be in one-to-one or one-to-many format. Interaction with peers gives learners strong motivation to excel through mutual collaboration for learning (Sharma, 2010). This type of interaction is one of the cornerstones for the formation of community of learning, which is instrumental in improving study outcomes, and enhancing high-order thinking and involvement (Blake, 2009; Rourke, Anderson, Garrison, & Archer, 2007). Studies have shown that learner–learner interaction has a positive impact on learners' satisfaction and autonomy in web-based online learning environments (Eneau & Develotte, 2012; Swan, 2002); yet, technology and collaboration among learners have important roles in creating and maintaining online interaction.

Regarding technology for peer-to-peer interaction, web technology is used more and more extensively for learning interaction. Learners can interact with their peers in several forms: asynchronously using, for example, email or discussion boards, or synchronously using conferencing and chat facilities such as Skype or Yahoo Messenger. With the advanced development of connectivity (e.g. broadband, 3G, 4G), video communication has been made possible even while learners are on the move (Smyth, 2011). The use of modern learning network and video for interaction is very helpful in increasing affective, cohesive, interactive immediacy and reducing feelings of isolation (Smyth, 2011). Recently, the use of alternative social networking sites have been increasingly applied in higher education (Wu & Marek, 2013). One of these social networking sites is Facebook.

Worldwide, higher education institutions have made use of Facebook for teaching and learning purposes. For example, many universities have used Facebook to contact their learners, post announcements and respond to learners' queries (Bosch, 2009; Manca & Ranieri, 2013). Although, the network is considered by many educators as an entertainment tool, and some studies have proved a negative correlation between the amount of time learners spend on Facebook and their academic performance (Claro, 2009; Gorjian, Moosavinia, Kavari, Asgari, & Hydarei, 2011), it is undeniable that learners spend a lot of time interacting with others on this social networking site (Goertler, 2009). In their study, Rod and Guerrero (2013) have also stated that learners considered Facebook as an imagined community to complement learner–learner and learner–instructor interaction. Similarly, learners in Bosch's (2009) study reported that it was useful to use Facebook to check class-related materials and have interpersonal communication. This social network site is also reported in a study by Brady et al. (2010) as advantageous in enhancing levels of communication and collaboration to deeper levels of reflection (p. 165). In short, on the one hand, Facebook cannot replace an LMS; on the other, it can be instrumental in connecting learners for educational purposes.

Online learning does not only require learners to make of the most of available technologies, including CMC tools such as chat, forum and email, but also how to be flexible in the application of different learning theories (Gillani, 2003; Levy & Stockwell, 2013). For example, according to constructivist theory, learners construct new knowledge

through the presentation of their own ideas, discovery of new knowledge through active exploration of multimedia and interaction with peers within a social context (Dalgarno, 2001; Woo & Reeves, 2007) On one hand, these learning activities resemble traditional face-to-face settings; on the other, it requires a higher level of autonomy (for self-directed study) and certain mastery of technology to support task completion (Levy & Stockwell, 2013). In the new environment, learners who are better at using technology may benefit more, but in terms of getting new knowledge, they still learn from experience:

> Some of the best examples of online learning draw their inspiration from face-to-face experimental learning events and take the notion of learning from experience into new dimensions. Good examples of this include online debates and the use of simulations and role-plays for learning. (Alexander & Boud, 2001, p. 9)

In the area of CALL, various studies have been conducted on the application of different learning approaches such as behaviourism, sociocultural theory and constructivism (Gillani, 2003; Levy & Stockwell, 2013). On one hand, individual learning theory provides foundation for the design, teaching and research of online courses; on the other, a combination of different theories may help to develop suitable strategies and learner autonomy, in addition to the acquisition of language competence. In the new learning context, learners are still at the centre of the learning process, so it is not the new learning pedagogies that are needed: it is the application of the available technologies and existing pedagogies effectively and flexibly that would benefit the learners better (Golonka et al., 2012; Mayes, 2001).

It is the numerous discussions among learners that define success of an online course (Alvarez et al., 2012), and it is the massive and sustained participation of learners in discussions that create and maintain a successful community of learning. This is easier said than done as observed by Sun (2011):

> With careful and skilful facilitation by the teachers, everyone would come on board, socialize, interact and collaborate, we believed. It proves, however, to be only wishful thinking on our part. Nevertheless, students do try. At the first few weeks, students would usually do a lot of greeting the class: writing in the class blog, posting messages

> addressing the whole class, using group emails, trying pairing up or grouping, organizing practice sessions and so on. However, it would soon become quiet in the third or fourth weeks when most of them would have paired up or teamed up. They would start disappearing from the community. (p. 437)

Among the three types of interaction mentioned above, which one is the most important? This issue has been studied by a few researchers (Dodigovic, 2007; Swain, Brooks, & Tocalli-Beller, 2002) but little consensus has been reached (Chen, Lambert, & Guidry, 2010). More recently, some researchers have tried to find correlation between learner-to-learner and learner-to-instructor with such dependent variables as learners' satisfaction with the online course (Sher, 2009) and course completion rate (Grandzol & Grandzol, 2010). In Grandzol's (2010) study, while learner–learner interaction was significantly associated with course completion rate, learner–instructor interaction was not. But in Sher's (2009) study, both learner–instructor and learner–learner interaction were positively associated with learners' satisfaction. Although these two studies used two different dependent variables, they partially implied that it is difficult and probably impractical to search for conclusive answers to the question about the relative importance of each type of interaction. There are many other factors such as compulsory/voluntary interaction, technology, implementation and system quality that would contribute to the success or failure of an online learning course (Gulati, 2008; Satar & Özdener, 2008; Shackelford et al., 2012; Stepich & Ertmer, 2003).

2.2.2.4 Learner–interface interaction

Learners' interaction with peers, instructors and especially with content cannot be successful without a decent experience of using the technologies that enable the above interactions to take place. While some of the communication technologies are easy to use (e.g. email, text message and forum), others are not. Thus learners' familiarity with the interface – the point or means of their interactions with peers, instructors, course content and e-learning system – is important (Hillman, 1994; Keramati, Afshari-Mofrad, & Kamrani, 2011). In the same line of argument, Sun and Hsu (2013) have posited that interface provides learners with a scenario to engage in learning activities. Earlier, Dillon and Zhu (1997) stated that interface and human factors are the ones that could ensure efficiency and effectiveness of interaction with computers in web-based instruction

(WBI). Some researchers use the term ‘usability’ to describe this human–computer interaction which is a quality or attribute that represents the ease of use of computer interfaces (Yoon, Laffey, & Oh, 2008).

An interactive learning environment is one of the crucial factors that makes learners satisfied with an online course, together with their self-efficacy; that is, confidence in performing specific online tasks (Liaw & Huang, 2013; Liaw, Huang, & Chen, 2007; Sharma, Dick, Chin, & Land, 2007). An interactive learning environment provides learners with a wide range of information in forms of digital texts, animations, audio and video clips as well as direction on how to use these learning resources (Havice, Davis, Foxx, & Havice, 2010; Kramarski & Gutman, 2006; Wong & Kamariah, 2009). One of important characteristics of an interactive learning environment is its user-friendly interface, which includes such elements as ease of use and operational stability (Shee & Wang, 2008). In short, the interface (e.g. homepage and system functions) of an online course should be as easy to use for learners so that they can perform different communication activities by using email, chat forum and/or exploration activities through searching information and content inside and outside the online course.

2.2.3 Mode of interaction

In an online environment, learners interact with peers and instructors through two main modes: synchronous (at the same time) and asynchronous (not at the same time). Each mode of interaction has its advantages and disadvantages. The following part presents the studies that have been conducted to date about these two modes of interaction.

2.2.3.1 Asynchronous interaction

Asynchronous interaction is “a text-based human-to-human communication via computer networks that provides a platform for the participants to interact with one another to exchange ideas, insights and personal experiences” (Hew & Cheung, 2003, p. 249). Currently, asynchronous interaction is the dominant mode of communication in educational CMC (Toetenel, 2013). The most commonly used technologies for asynchronous learning are email, collaborative learning forums, e-board, application

sharing, simulation or virtual laboratory, online library/learning access, real-time test and evaluation, and video and audio streaming. This mode of interaction offers numerous advantages for learners to interact with peers, instructors and content.

Studies have shown that asynchronous interaction is a good environment for less confident, shy learners (Bassett, 2011). The mode leaves more time for learners to reflect and develop ideas (Hourigan & Murray, 2010). The participants in studies on asynchronous interaction have expressed others advantages such as convenience, positive experience and effectiveness (Finegold & Cooke, 2006; Gibby, 2007; Song et al., 2004; Yang & Wu, 2011). The design of asynchronous learning enables learners to develop both cognitive and performance skills and to apply more strategies in formulating questions (AbuSeileek & Qatawneh, 2013; Bowles, 2004).

Asynchronous interaction is not without disadvantages. The threaded asynchronous discussions tend to make learners focus more on the most recent posts (listed at the top of the forums) than posts with important content (Gao et al., 2013). The hierarchical structure of threaded forums also makes it difficult for instructors to promote interactive dialogues. Learners may also feel disconnected from online discussions because of the wait time between posts (Andresen, 2009). Synthesising ideas from threaded forums is also a hard job for the instructors and learners who are assigned to moderate the discussions (Gao et al., 2013).

2.2.3.2 Synchronous interaction

Synchronous interaction means real-time communication between learners and instructors or among the learners themselves in the online environment, mostly in the form of text chat (Budiardi & Anggraeni, 2013). With the development of advanced communication technologies, synchronous communication also includes more sophisticated forms such as virtual classrooms, videoconferencing and shared interactive whiteboards. Supporters of this interaction mode claim that it contributed to continuity and convenience with passionate discussion and high levels of social presence (Elola & Oskoz, 2010; Schwier & Balbar, 2002).

Other studies conducted on synchronous interaction also reported a number of disadvantages of this mode; for instance, rigidity and inefficiency (Pan & Sullivan, 2005), learners' nervousness (Wang & Reeves, 2007), different time zones, individual schedule and technical breakdown (Ernest et al., 2013; Sun, 2011). Another drawback is that learners need to have access to fast, reliable networks and sophisticated computing technologies (Bowles, 2004). Thus, synchronous e-learning may sound cost effective in terms of reducing the need to have physical classrooms, but the investment costs to set up state-of-the-art technologies might even be higher. In addition, human capital investments are also needed to use the facilities. In short, although a synchronous online environment may provide a good learning experience, it cannot be used for all subjects nor can it substitute for face-to-face study (Wang & Reeves, 2007).

In conclusion, each mode of interaction has proven to contain certain advantages and disadvantages. While synchronous interaction has been able to cater for urgent needs of learners and instructors, its cost and unreliable internet connections may hinder the interaction process. Asynchronous interaction can be realised at a low cost and in a more flexible manner. This mode also helps learners and instructors gain deeper knowledge because of the available time for them to read, think and provide feedback to others' posts. Nonetheless, the threaded design of most asynchronous discussion forums may make learners lose focus of their discussion and thus cannot ensure quality of information exchange. Therefore, a combination of both asynchronous and synchronous modes of interaction, together with occasional face-to-face sessions, would be able to cater for the diversified needs of learners as well as motivate their participation in online learning (Oztok et al., 2012). More recently, Gao et al. (2013) proposed multifunctional environments for interaction that would enable participants to achieve learning goals.

2.2.4 Pattern of interaction

Another important issue concerning online interaction is patterns of interaction. In online learning, how do learners and instructors interact with each other? Who starts the interaction process? How do participants maintain interaction throughout the course? These are some of the questions that draw attention from many researchers. For example, in their studies, Pawan, Paulus, Yalcin and Chang (2003), and Yang and Wu (2011)

examined how learners initiated, led or maintained interaction threads. They discovered that learners went through different stages of learning: information acquisition, negotiation of meaning and information contribution. This collaboration process would lead to knowledge building, which was reflected by the presence of high-level thinking stages in various interaction models (LaPointe & Gunawardena, 2004; Lee, 2012; Salmon, 2003).

Earlier, Howell-Richardson and Mellar (1996) explored the dynamics of learners' interaction in two computer-mediated communication courses, and reported that learners varied their message length, distribution and links in their interactional acts. This result was echoed by Fahy Crawford and Ally (2001), although these researchers looked at the density and intensity of interactions. Later studies by other researchers (Lally, Lipponen, Simons, & de Laat, 2007; Lee, 2012; Zhu, 2006) continued to explore various patterns of interaction between learners and peers, and learners and instructors, as well as learners with content. Like earlier studies, they found a big variation of interaction types: star type of network interaction and interconnected web, as well as different levels of engagement in the beginning, middle and final phases of a study course. For example, in Lee's (2012) study, participants' posts increased sharply on the due date. It was also observed in Sun's study (2011) that after the socialising phase, the interaction tended to be in form of one-to-one (learner–instructor, learner–learner) or in small groups as illustrated in Figure 1.

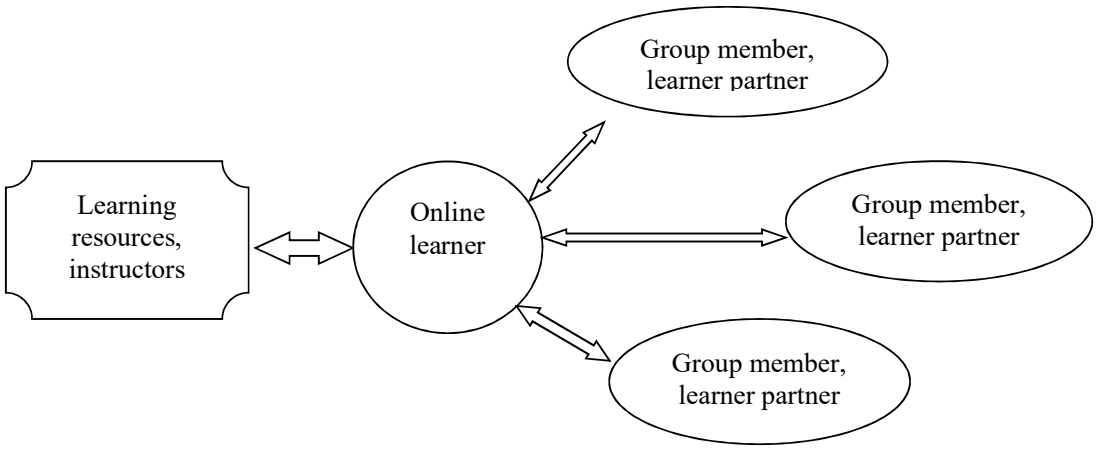


Figure 1: Online learner's learning centre (Sun, 2011, p. 441)

The above model shows that the learner is the centre of the interaction process. In an online learning environment, like a classroom setting, a learner communicates with peers, instructors and content in order to contribute to knowledge (Ke, 2010; Sing & Khine, 2006). Like in a classroom setting, an online learner's behaviour might vary with some high-responding learners (Mowrer, 1996) who take part in all the stages of interaction, from socialisation to knowledge construction and development while others are passive with little or zero contribution to the discussion process (Lipponen, Rahikainen, Lallimo, & Hakkarainen, 2003). The learner-centered or learner-initiated pattern of interaction is also found in study by Yang and Wu (2011) in which learners performed different tasks in the interaction process such as reading, commenting and editing peers' essays.

In some discussion forums, instructors are the ones who start the interaction process (instructor-initiated) as shown in Figure 2.

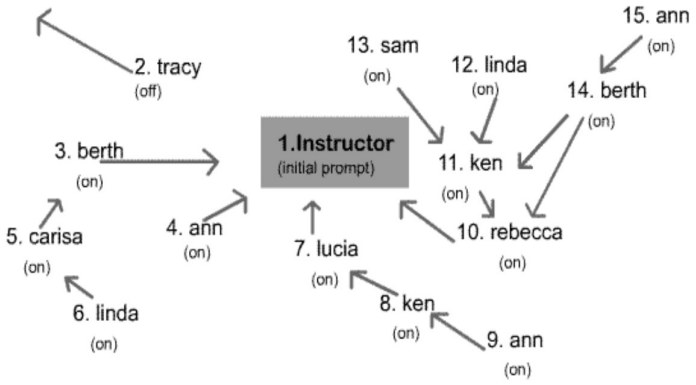


Figure 2: Instructor-initiated pattern of interaction
(Pawan et al., 2003, p. 128)

In this pattern of interaction, the instructor is the one who initially prompts the interaction process by raising an issue for discussion, engaging learners. The model shows that learners took part in the discussion but without a clear structure. One of the concerns was that learners did not build upon ideas that have been suggested by others. Another concern was that learners and instructors mostly have one-way interaction during the communication process. The above concerns were also reported by Lee (2012), who then suggested that "the instructor could assign students diverse roles such as summarizer,

initiator, or opponent regarding encouraging their participation and prevent lurking" (p. 269).

One of the reasons for one-way interaction in asynchronous communication forums is that posts (both from learners and instructors) may not contain words and phrases that call for comments from others, or that the discussion topic(s) were not controversial. It has been reported in a study by Zingaro and Oztok (2012) that notes (posts) with questions often receive more replies from peers. Another reason is that learners may spend most of their time reading other learners' messages without expressing their own opinions. When they do, the connection between their opinions and those of the earlier learners is rather weak. In other words, instead of commenting on peers' opinions, learners just express their own. Lamy and Goodfellow (1999) called this 'monologue', the term used to indicate that learners only post their piece of writing without inviting or receiving any comments from peers. They shared their experiences or opinions but did not connect to others' contributions (Garrison & Cleveland-Innes, 2005).

The patterns of interaction among language learners seem to share the above features. Study by Choo, Kaur, Fook and Yong (2013) revealed that learners differed in their levels of interaction with one another during the interaction process, but most of the interactions occurred in the sharing of information. These were phase I and II of Gunawardena, Lowe and Anderson's (1997) Interaction Analysis Model. There was little evidence of applying newly constructed meaning (Choo et al., 2013).

In short, studies on patterns of online interaction revealed that learners displayed different behaviours when communicating with others. While some are very active in both reading and responding to others' messages, still others prefer reading only with little participation. Both learners and instructors can be the ones who initiate the discussion process, and interaction among communicators occurs in different formats. Unfortunately, interaction is mostly one-way because learners tend to express their opinions without connecting to what has been posted by peers. Thus instructors have a very important role in making sure that the discussion is on track and learners play

different roles in the discussion process so that interaction can result in in-depth knowledge building (Lee, 2012; Sing & Khine, 2006).

2.2.5 Purpose of interaction

Studies have shown that learners had different purposes in mind when interacting with their peers and instructors. Their purposes could be classified into different groups, some of which were very general; for example, providing information, asking questions (Islam, 2003; Son, 2006), giving feedback (Lisa, 2011), gaining attention (Hirumi, 2002), or responding to learner's opinions (Dennen et al., 2007). Others were more specific to foreign language learning; for instance, helping with grammar points, the assignments or course infrastructure (Gibby, 2007). Some researchers classified the computer-mediated conversations into five focus group areas: article, content, technical, non-academic or procedural (Poole, 2001; Thomas, 1996).

According to Poole (2001, p. 169) 'article' messages were those that included the content of a reading task while the 'content' posts were also related to the course readings but indirectly elicited. In other words, the 'content' posts are the follow-up discussions of the reading or the topic of the week/lesson. The 'technical' and 'procedural' messages contained information about the use of the course website and requirements respectively. Finally, the 'non-academic' messages were those that did not directly relate to the class such as personal messages among the students to greet one another.

2.2.6 Factors influencing online interaction

Review of the literature in online learning has revealed that there are many factors that influence learners' interaction with the course content, peers and instructors (Bolliger & Wasilik, 2009; Lee, 2006; York & Richardson, 2012). The past studies have looked into many different aspects of influencing factors. While some researchers have investigated the barriers to distance education in general and online learning in particular (Bhuasiri, Xaymoungkhoun, Zo, Rho, & Ciganek, 2012; Muilenburg & Berge, 2005; Song et al., 2004), others focus their attention on the enabling factors that influence learner's interaction with the course content, peers and instructors. (Conaway, Easton, & Schmidt,

2005; Nguyen, 2009; Nisbet, 2004; Vrasidas & McIsaac, 1999; Yukselturk, 2010). These factors may be broken down into smaller criteria or elements such as the satisfaction, attitude and competence for the human factors (learners and instructors) as well as the user-friendliness of the interface, and ease of access for the non-human factor (technology). The following sections present an overview of the influencing factors that are related to the learner, instructor and online course.

Learner-related factors: Learners have always been the key subject of studies about influencing factors of online interaction. More specifically, researchers have been studying the impact of learners' demographics (e.g. age, gender and prior internet experience) on their online learning outcomes or satisfaction (Kim, Kwon, & Cho, 2011; Liaw & Huang, 2013; McSporran & Young, 2001; Yukselturk, 2010; Yukselturk & Bulut, 2007). The results of these studies have been inconclusive. For instance, while Yukselturk's (2010) study concluded that there were significant relationships between learners' gender and their level of participation in discussion forums, study by Kim, Kwon and Cho (2011) stated that demographic variables were not related to course satisfaction. Similarly, while some researchers (Chang et al., 2013; Chen, 2014b; Liang & Wu, 2010; Sun, Tsai, Finger, Chen, & Yeh, 2008) claimed that learners' technical prior experience or computer/internet self-efficacy was significantly associated with course satisfaction and confidence, studies by Kuo, Walker and Schroder (2013) and Lee (2006) have suggested that computer and internet self-efficacy was not a significant predictor of learners' satisfaction or perceived usefulness of an online course. The different results, sometimes by the same researcher as in the case of studies by Kuo et al. (2013), were partly due to the differences in participants involved in the studies. Other learner-related factors were learners' availability of time, their self-regulated learning capabilities, attitudes towards e-learning and language proficiency (Bhuasiri et al., 2012; Chen, 2014b; Compton, 2009; Kuo, Walker, Schroder, et al., 2013; Liaw et al., 2007; Yukselturk & Bulut, 2007).

Instructor-related factors: Instructors also have critical influence on the success of an online course. Their understanding about, commitment to, and attitudes about online learning are some of the key factors relating to the instructors (Palloff & Pratt, 2011).

Also, their timely response and feedback to learners' queries, for example, has been considered one of the most important factors (Alvarez et al., 2012; Sheridan & Kelly, 2010; Sun et al., 2008; Vrasidas & McIsaac, 1999). In the language interaction process, feedback is an important element which occurs when instructors react to learners' linguistic problems (Gass & Mackey, 2006). Unfortunately, it has been proven in the literature that instructors cannot always provide timely feedback to their learners' queries due to time and workload constraints (Brace-Govan, 2003; Hara & Kling, 2001; Hirumi, 2002; Vrasidas & McIsaac, 1999).

Other instructor-related factors include the ability to shift pedagogy (from traditional to online teaching, and most importantly from teacher-centered to learner-centered), clear communication of course goals and teaching presence (Kang & Im, 2013; Sheridan & Kelly, 2010; Sun et al., 2008). It was suggested by a few researchers that it was critically important to provide online instructors with a comprehensive set of skills that would cover technical, social and pedagogical competences (Hampel & Stickler, 2005; Sun, 2011).

The abovementioned competences are crucial for instructors because of a number of reasons. Technically, most higher education institutions nowadays offer online courses partially or fully, which demands instructors acquire necessary technological skills to provide guidance to learners. The technical advances have also brought about social changes on the parts of learners in their interaction with peers and instructors through the use of the internet, email, blogs, social networks and other communication tools (Beetham & Sharpe, 2013). The instructors may opt to use technological advances to interact with their learners or not, but in order to engage with learners, these technical and social competences should not be ignored.

What is more important for instructors would be the shift of pedagogy in order to engage learners in online learning (Keengwe & Kidd, 2010). For example, instructors need to know, besides their own technological competences and available facilities for online teaching and learning, how to move from traditional teaching to online coaching and mentoring, from onsite face-to-face meeting to online asynchronous meetings. Unlike in face-to-face teaching, where the lecturers can adapt to different learners through

pedagogical activities like repeating instructions, reassigning activities and rearranging groups, in an online environment all these activities have to be forethought and explicitly presented so learners are certain of what they are supposed do (Beetham & Sharpe, 2013). In addition, online learning is also more flexible in terms of time, location, how resources are used and even when assessment is taken. So instructors need to be adapted to those things as well (Boettcher & Conrad, 2010). In the same line of argument, Nelson (2008) claimed:

> Without the internet, the teacher is in charge of collecting the materials, disseminating information, controlling the discussion, and watching over the eventual end product. When the internet comes into play there are times when the teacher is asked to step aside and become an intellectual guide of facilitator. Students access information, collect their own material, have side discussions and connections, and watch over their eventual end product. In this sense, it is important for teachers to shift their thinking as they bring the Internet into their lesson-designing strategies. (p. 1)

Dakich (2008) also highlighted the important factor of the instructor in choosing and designing suitable pedagogical strategies and practices to meet the diversity of learners' needs. In e-learning, the design element (e.g. preparing and planning a lesson) has to be carefully forethought, obvious and pressing, which involves reflection, negotiation and adaptation of what has traditionally been a private and tacit area of work (Beetham & Sharpe, 2013). In short, online instructors should actively prepare themselves technically, socially and pedagogically when embarking into the field of online teaching.

Course-related factors: The third important set of factors that influences online interaction is related to the online course itself. These factors included such elements as course content, design and technology or course quality as a whole. Studies have shown that there was an association between learners' interaction with the course content and their learning outcomes and grades (Murray, Pérez, Geist, Hedrick, & Steinbach, 2012; Zimmerman, 2012). In this regard, Sun, Tsai, Finger, Chen and Yeh (2008) claimed that course quality "is the most important concern in this e-learning environment" (p. 1196). In order to have a quality online course, it is important for computer experts and content teachers to work collaboratively so as the course is well designed technologically and

academically to ensure learners' and instructors' satisfactions. Similarly, a study by Kuo et al. (2013) has suggested that "the design of online content may be the most important contributor to learner satisfaction" (p. 30). The course-related factors also cover other issues such as how the course is implemented and under what context, with or without support from institution management (Garrison, 2011; Khan, 2005; Lim, Lee, & Nam, 2007). In short, course-related factors play an equally important role in the quality of online learning.

Quality is a complex issue and carries different meanings to different stakeholders (Bigalke & Neubauer, 2009). In online learning, quality of interaction refers to content-based messages of different purposes like constructive feedback, correction, information provision and Socratic questions (for higher-order thinking skills), which altogether require certain actions from the part of the receivers (Blignaut & Trollip, 2003). Literature has shown that there are different ways to measure learners' quality interaction in on online course. For example, learners' messages can be analysed to see if learners can reach later stages of interaction: information exchange, knowledge construction and development (Salmon, 2003). Alternatively, learners' interaction can also be evaluated by using such tools as discussion analysis tools, rubrics, reflective self-assessment and team assessment (Conrad & Donaldson, 2011; Jeong, 2003).

Although quality of interaction is an important factor in online learning, it has not been widely studied in the literature. Indeed, this is a complicated pedagogical matter (Picciano, 2002). While participants in some research on this issue have claimed that there was a positive link between learners' frequency of interaction and quality of their performance (Curtis & Lawson, 2001; Picciano, 2002), study by Conaway, Easton and Schmidt (2005) has suggested the opposite. They argued that learner–content interaction did not correlate positively with learning outcomes. A similar finding was also reported in a study by Woo and Reeves (2007) which claimed, "every interaction in a web-based learning environment does not have an influence on increased learning" (p. 16); and for the interaction to be effective, it has to be meaningful, which should consist of exchange of messages to solve some real tasks (see Figure 3).

Meaningful interaction depends on many factors, such as instructional strategies, number and nature of learners, design of the course, facilitation and direction (Garrison & Cleveland-Innes, 2005; Hirumi, 2002).

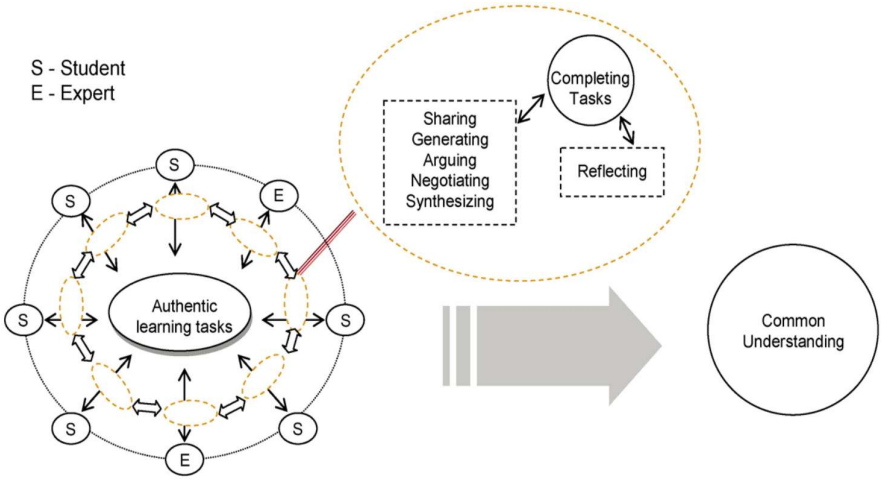


Figure 3: Meaningful interaction in social constructivism (Woo & Reeves, 2007, p. 19)

In conclusion, there are many factors that influence interaction in an online course. These factors are related to both human and non-human aspects of online learning, including learners, instructors and the online course itself. Literature has also revealed that the relative importance of each group of factors changes over time. For example, when information technology (IT) was not popular, learners' computer and internet experience was a decisive factor for the success or failure of an online course. This is not the case anymore as shown in study by Yukselturk (2010). Thus, future research with different groups of stakeholders (learners, instructors, computer experts and administrators) is needed to get their contemporary views on the issue.

Another key factor concerning online interaction is the issue of learner autonomy. Higher education contexts in Vietnam have not yet effectively undergone transitions from instructivist models of education to more student-centered practices; hence, learner autonomy is not reaching high levels compared to those reported in some OECD countries (Ananiadou & Claro, 2009; White & Reinders, 2011). According to Schwienhorst (2012), learner autonomy is a pedagogical concept or a learner-centered approach to learning in

which the learner is encouraged to make decisions about and take responsibility for their own learning (p. 11). However, in the sociocultural context of Vietnam, university students are often used to being told what to do. Therefore, if being given freedom and responsibility to look for knowledge, they may become confused and find the task too difficult (Dang, 2010). In addition, the issue of what to learn is often predetermined by teachers and curriculum, which reduces learner autonomy (Le, 2013).

2.3 Interaction in an online English language learning environment

2.3.1 Introduction

In the area of language teaching and learning, the invention and development of computers created a new way that language could be taught and learnt. Over the past 50 years, there have been many developments in the application of CALL approaches both in terms of hardware (from mainframe to handheld devices) and pedagogies (from behaviouristic to communicative and integrative theories) (Jarvis, 2013). With regards to interaction in CALL, there have been numerous changes as well. In the early stage, there was mostly interaction between learner and the computer that contained the language materials, exercises in the forms of diskettes, then CDs and DVDs (Wang & Vasquez, 2012). There was almost none or very little interaction between learners and instructors or among learners who used the same course or materials. It was not until the rapid development of the internet that human-to-human interaction was incorporated in CALL to enhance learning outcomes; hence, the application of computer-mediated communication or "communication that takes place between human beings via the instrumentality of computers" (Yukselturk, 2010, p. 1).

As in the above review about online interaction, the following part is divided into three subheadings: learner–content, learner–instructor and learner–learner interactions in language learning.

2.3.2 Learner–content interaction

Since the beginning of CALL, attention has been paid to the development of materials embedded in an online course to foster learners' macro language skills (listening,

speaking, reading and writing) and language areas (e.g. grammar and pronunciation). With the participation of both computer experts and language educators, online language courses have been able to provide learners with various activities or exercise types such as multiple choice, matching, point-and-click, or simple form filling. Most of the exercises are designed with task-based instruction which is conducive to second language learning (Bolliger & Wasilik, 2009). The underlying theoretical perspectives for these CMC instructions include the Interaction Hypothesis (Long, 2006), Sociocultural Perspective by Vygotskiĭ (1978), Output Hypothesis (Kuo, Walker, Belland, et al., 2013), Cognitive Perspective (Liang & Wu, 2010), and Constructivism (Kim, 2001). One of the key concerns regarding the application of theories for CALL was that different researchers have used different theories to interpret similar data (Blake, 2011; Levy & Stockwell, 2013). For example, an interactionist approach has been utilised by various researchers to analyse language learners' exchanges of information, including the use of videoconferencing, for the negotiation of meaning in the language learning process (Fernández-García & Martinez-Arbelaiz, 2002; Yanguas, 2010). Conversely, sociocultural theory, which emphasises social collaboration for language development with a focus on comprehensible outputs, has been utilised by other researchers to analyse online interactions among learners (Darhower, 2002, 2007; Wang & Vasquez, 2012).

A few studies have been conducted on the use of computer to teach specific macro language skills. As for *reading*, empirical studies have claimed that technology enhances learners' comprehension of inputs (Taylor, 2009). Similarly, Marzban's (2011) study on how CALL helps Iranian learners of English enhance their reading skills showed that learners who were taught by CALL could significantly perform better than those who were taught through traditional teacher-centered approach. Another study by Lan, Sung and Chang (2007) suggested that learners' reading skills could be improved through the use of mobile devices. In line with the above claims, studies by Murphy (2010) and Hsieh and Ji (2013) revealed that learners could build up their reading skills and that their reading comprehension could be promoted via computer-mediated feedback. Although these studies and many others have reported the benefits of using computers to improve learners' reading skills, there are still numerous issues that need further investigation, such as the role of affective variables (interest, motivation and reading purpose) in online

reading, and the use of multimedia such as video games, films and emerging technologies (Abraham, 2008; Shawback & Terhune, 2002).

Regarding *listening* skills, computers allow storage of both video and audio files for learners to listen and do accompanying tasks. In addition, learners have a variety of choices to listen/watch with or without looking at the subtitle or transcript, and to get instant feedback from the computer for their performance. With additional functions such as faster and slower buttons, learners can be in full control of doing the tasks based on their level of listening proficiency. The use of computer and web technology has been proven to make learners' listening comprehension more effective and efficient (Roussel, 2011). Studies by Brett (1997), Klassen and Milton (1999), Fotos and Browne (2004) and Lee (2007) have revealed that learners' ability to understand oral messages is greatly enhanced with computer-based and web-based listening activities. Additionally, learners can download audio files and store them in their portable devices such as MP3 players or smartphones and practice listening whenever and wherever they wish (Bryan & Hegelheimer, 2007).

One of the contributing factors for the better aural skills was attributed to learners' application of different strategies while doing the listening tasks (Roussel, 2011). These strategies can be trained to learners of different levels (beginner, intermediate, advanced) so they are in full control of doing the listening tasks most effectively and efficiently. At the same time, there are many other factors that may either promote or hinder learners' use of web-based materials to develop their listening skills. These include their motivation and proficiency in using technology for language learning. When learners are motivated, they tend to apply different strategies to make to most of available materials on the web; whereas their proficiency in technology has profound impact on their anxiety, and listening output accordingly (Chen et al., 2013).

Writing is one of the productive skills that has been taught online through various means. There are completely online courses that offer learners the key aspects of writing conventions ranging from grammar and word usage to the process of writing an academic essay (Klimova, 2011). The nature of the skills needs tangible input from the learners

themselves (as authors) as well as feedback from peers and others (as readers), so the use of wikis and blogs have been extensively applied (Ducate & Lomicka, 2008; Gass & Mackey, 2006; Lee, 2010b; Taki & Fardafshari, 2012). The application of advanced technology has also made immediate corrective and targeted feedback possible (Dodigovic, 2007) and learners' frequency of editing their own written works increases (Yoon, 2008).

One of the challenges to effectively teach writing online is for the instructors to migrate from onsite or face-to-face classrooms to an online environment (Warnock, 2009). On the one hand, the migration should be able to help learners achieve as good learning outcomes as in traditional settings. On the other, it should not create too much burden for the instructors, especially in marking learners' pieces of writing. The instructors might use different pedagogical strategies in providing comments to learners' written work, one of which was corrective feedback. However, study by Loewen and Erlam (2006) showed that there was not significant learning as a result of online corrective feedback from instructors. Similarly, the results of the study by Dekhinet (2008) has shown that there are many problems associated with providing corrective feedback to learners. In this regard, Gibby (2007) stated that instructors need to explain the learners' mistakes when giving feedback to their written work. In addition, learners themselves should perform self- and/or peer evaluation of their work before sending it to instructors for suggestive feedback (Guasch, Espasa, Alvarez, & Kirschner, 2013).

Another productive skill in language learning, *speaking* skills, has also been made possible in online courses. It has been claimed in the literature that with technology, learners can improve their pronunciation proficiency and speaking skills accordingly (Carey, 2004; Chiu et al., 2007; Hardison, 2004; Tanner & Landon, 2009). The use of automatic speech recognition (ASR) technology enables online learners to engage in speaking practice. More specifically, learners can listen to sample words or sentences and repeat them. This kind of pronunciation training is often more valued by beginning learners than by intermediate or advanced ones who need other aspects of oral skills, for example communication strategies, public speaking competencies, and so on (Chiu et al., 2007; Harrington & Levy, 2001).

The state-of-the art ASR technology can give the learners feedback by telling them scores of their performance, as seen in the following example.

Figure 4: Visual feedback to learners' oral production

There are two main issues with current ASR technology. Firstly, some speech recognisers have low level of accuracy; that is, they do not correctly evaluate learners' oral performance because of hardware or software issues (Carey, 2004; Chiu et al., 2007). Secondly, qualitative feedback cannot be provided to learners about their performance. It is not possible for the computer to tell the learners specifically which word(s) they mispronounce, or if they have problems with word and sentence stress. Thus qualitative input from the instructors or peers is still needed.

Despite these concerns, online speaking practice has a number of advantages over the face-to-face mode. For example, learners can practice at ease without being afraid of 'losing face', a common obstacle for Vietnamese learners (Borton, 2000). It is also a great environment for those who rarely have opportunities to interact with native speakers of the language they are studying. To date, most researchers claim that the application of ASR technology yields positive attitudes from learners. Another positive aspect of online oral skills is learners' ability to use spoken language appropriately in different communication contexts. Study by Chiu, Liou and Yeh (2007) revealed that online branching practice could be designed to help learners enhance their ability to use appropriate speech acts in different contexts, though this type of practice did not help improve learners' clarity of their speech.

In an effort to provide learners with more personalised guidance for their interaction with content, linguistic and computer experts have collaborated to develop intelligent computer assisted language learning, or iCALL (Segler, 2007). This advanced system explores the use of natural language processing (NLP) technology to analyse learners' input and individualise their learning accordingly (Amaral & Meurers, 2011). Numerous iCALL systems have been developed for the teaching of such languages as English, Japanese, French, German and a few others (Amaral & Meurers, 2011; Gamper & Knapp, 2002).

As mentioned earlier, feedback is crucial for effective language learning. The more detailed the feedback, the deeper knowledge about language a learner can acquire. In iCALL, three main approaches of feedback can be embedded in the system: pattern matching-based approach, statistical-based approach, and rule-based approach (Shaalan, 2005). Each of these approaches has its advantages and disadvantages but it was commonly accepted that the rule-based approach can perform detailed analysis for both well-formed and ill-formed answers (Amaral & Meurers, 2011; Shaalan, 2005). The rule-based approach not only appreciates learners' correct answers but also gives more detailed explanation of learners' wrong answers so they can learn from their errors. Hence, learners can acquire more linguistic knowledge during their reading, grammar or vocabulary exercises.

Recently, the massive open and online course (MOOC) and open education resource (OER) movements have offered freely accessible online resources for learners of all disciplines, including languages (Audsley et al., 2013; McAuley et al., 2010). There are many advantages of using open and online resources, some of which include accessibility, flexibility and the encouragement of self-paced learning (Bruff et al., 2013). In addition, Salmon (2011) has suggested that the use of open resources could avoid high expenditure by educational institutions on content development and copyright.

In Vietnam, lecturers and students can also make use of many free and open resources. For example, there is a vast number of ICT tools for language teachers and learners to teach and learn macro skills in areas such as YouTube, TeacherTube and the

Massachusetts Institute of Technology's (MIT) Opencourseware (Dang, 2014). On the websites of the well-known broadcasting agencies such as the Australia Broadcasting Corporation (http://www.australianetwork.com/), British Broadcasting Corporation (http://www.bbc.co.uk/worldservice/learningenglish) and the Voice of America (http://learningenglish.voanews.com/), there are also free sections for English language learning.

There are a few obstacles to the utilisation of the open resources to be used officially by a higher educational institution. The free online materials might not be relevant or structured according to the needs and interest of the undergraduate learners (Son, 2007; Toetenel, 2013). Adaptation is needed to meet the learners' specific needs, but adaptation is a long process that takes time and effort on the part of instructors (Richter & McPherson, 2012). Furthermore, the sheer provision of online materials may not be able to ensure quality learning on the part of learners. It has been shown in the literature that learner–content interaction alone or heavy reliance on materials is necessary but insufficient for meaningful learning (Dunlap, Sobel, & Sands, 2007; Pacheco, 2005). Similarly, Toetenel (2013) viewed that freely available content does not always facilitate interaction between learners.

In conclusion, advanced technologies have been applied extensively in language learning which enable learners to develop macro language skills (Pacheco, 2005). By interacting with online materials and doing accompanying exercises, learners engage in a learning environment that is both interactive and effective. That said, learners' interaction with content cannot occur and sustain by itself. Specific instruction and encouragement from the instructors as well as participation from peers have an important role to play. The following part of the chapter discusses learner–instructor and learner–learner interactions in an online language learning environment.

2.3.3 Learner–instructor interaction

According to Yang (2011), "a key element in successful language learning through CMC is to engage learners in learner–instructor interactions for online learning activities" (p. 3). However, there is little research in this area, especially on issues like how learners

of second/foreign languages use online interaction with instructors to enhance their language competence, which mode of interaction is more effective, or in what language (native or target) they should use in the course of interaction.

Language learners interact with their instructors through instant messages, emails, forums, blogs, wikis, social network sites and videoconferencing (Goertler, 2009; Sharma, 2010). The interaction can be synchronous if learners and instructors are not barred by time zone and academic calendar (Wu & Marek, 2013). Interaction can also be asynchronous because learners, especially beginning ones, may need more time to think and write to their instructors in the target language (Chen et al., 2010). It is evidenced from past studies on CMC-based interaction that developing instructors' skills to support language learners' interaction with content and learner–learner interaction is critical (Ernest et al., 2013; Yang, 2011).

Unlike in physical environments, learners' online interaction with their instructors is hindered by various factors, some of which are beyond their control; for example, instructor's availability of time, interaction preference and their belief in the contribution of online interaction for language learning. What language learners expect the most from their instructors would be feedback, especially prompt, specific and constructive feedback to learners' oral or written works (Alvarez et al., 2012; Graham, Cagiltay, Lim, Craner, & Duffy, 2001; Lee, Srinivasan, Trail, Lewis, & Lopez, 2011).

Effective online instructors are the ones who know how to organise for the learning to happen, and to create a dynamic learning community in which the learning occurs autonomously. Successful online instructors should thus connect their learners, especially with native speakers or excellent speakers of the language they are studying, so as to increase learners' motivation in learning languages online (Wu et al., 2011). In this context, the language instructors face many challenges, not just in pedagogical shift (from traditional to online) but also technical, psychological and online facilitating skills in order to promote meaningful interaction between the learners with content and peers (Compton, 2009; Ernest et al., 2013; Sun, 2011).

2.3.4 Learner–learner interaction

Current language theory places a high level of importance on learners' interaction with peers in order to construct new knowledge. Learners' collaboration with peers to solve linguistic problems is of particular importance in the process of learning a second language (Swain et al., 2002). The sociocultural theory (Vygotskiĭ, 1978) has stated that learning occurs between people (interpersonal level) first and then within a person (intrapersonal level) through the Zone of Proximal Development (ZPD). In the interaction process using a second language, learners use different approaches to make themselves understood through producing comprehensible output and trying to understand input presented by peers (Krashen, 1985). This continuous exchange of information is instrumental to cognitive development for both novice and experienced learners (Zeng & Takatsuka, 2009).

Learners' interaction with peers can be realised through different technological means (email, forum, Skype), in different modes (synchronous and asynchronous) and in different formats (text-based or voice chat). Studies have shown that there are many benefits for learners to take part in online language interaction, especially for shy ones who find face-to-face interaction a big challenge (Wu & Liu, 2012; Wu & Marek, 2013; Wu et al., 2011). Some of those benefits include increased confidence, motivation and ability for learners to communicate with peers, especially with native speakers of the target language they are studying. The use of social network sites for peer-to-peer interaction has also been studied by a few researchers (Budiardi & Anggraeni, 2013; Harrison & Thomas, 2009; Kabilan, Ahmad, & Abidin, 2010; Toetenel, 2013). These studies seemed to suggest that through casual chats with their friends on social networks, learners could learn new words, and have higher confidence and motivation. This can be an innovative way for learners to gain skills and knowledge in the language they are studying.

Besides enjoying general benefits through interaction with peers, learners can also have their macro language skills enhanced. For example, a study by Blake (2009) concluded that through text-based chats, learners had higher gains in oral fluency as compared to those who had face-to-face interaction or who did not have interaction with peers or

instructors at all. One of the reasons for their better performance (measured by speaking rate, phonation time ratio, articulation rate, mean length of run and average length of pause) was that participants of the online chat group could produce sentences simultaneously whereas those in face-to- face mode had to take turns to produce sentences. Although participants in Blake's (2009) study used text-based chats (written medium), it was suggested in Levelt's (1993) model of language production that learners of a second language go through similar cognitive processes of formulating outputs regardless of the medium: oral, written or even signed. This was confirmed in the study by Satar and Ozdener (2008) that there was significant increase in speaking proficiency for both groups of participants who experimented with voice chat and text-based chats. The results of Satar and Ozdener's study rejected the hypothesis that text-based chat could not lead to similar speaking proficiency levels as voice chat because of the transfer of skills from written to spoken language involved (Satar & Özdener, 2008).

Learners' interaction with peers benefits them the most in writing skills. This is realised through taking part in collaborative writing process using advances in Web 2.0 technologies, mostly wikis, blogs and social networks (Budiardi & Anggraeni, 2013; Elola & Oskoz, 2010; Hourigan & Murray, 2010). Study by Elola and Oskoz (2010) showed that when working collaboratively to produce an essay using wikis or chats, learners' overall quality of the essay is enhanced. There was a constant self-reflection process of written work, especially on grammar, because learners were aware of the fact that their piece of writing was going to be read by others.

When working collaboratively, learners could enrich content and improve structure of their joint essays (Elola & Oskoz, 2010). In the study by Armstrong and Retterer (2008), learners produced significant amounts of assignments on both personal and community blogs. This was made possible due to the fun and motivating nature of blog writing as well as the fact that learners' assignments were not graded. Although study by Armstrong and Retterer (2008) did not conclude that the more learners wrote in the blogs the better their language performance was, it was possible to say that active participants did have some improvements in the accuracy of verb tense and aspect. This claim has been

confirmed in other similar empirical studies (Ducate & Lomicka, 2008; Lee, 2010b; Raith, 2009).

The above studies did not mention in detail how learners' correction of their peers' messages was made, and how learners valued the correction. Another unanswered question was how learners viewed the roles of instructors in this collaboration process. Thus more empirical studies are needed based on different online learning models. The following part of the chapter gives a brief overview of two models that have often been used in research in online learning in general and online interaction in particular.

2.4 Model of online learning and interaction

Researchers in the field of online learning and teaching have developed a few models that centred on three key agents: instructor, learner and content; and two main modes: synchronous and asynchronous (Anderson, 2008). In these models, learners have been put at the centre of the learning process in which they actively show their presence online through interaction with content, peer and instructor.

2.4.1 Community of Inquiry model in online interaction

At the end of the 20th century, with the fast development of new communication media, Garrison, Anderson and Archer (1999) suggested a model to measure outcomes of the learner and instructor participation in an online course. To date this Community of Inquiry (COI) model has served as the theoretical framework for many studies in online learning (Rourke & Kanuka, 2009). The framework consists of three key elements; namely social, cognitive and teaching presences (see Figure 5).

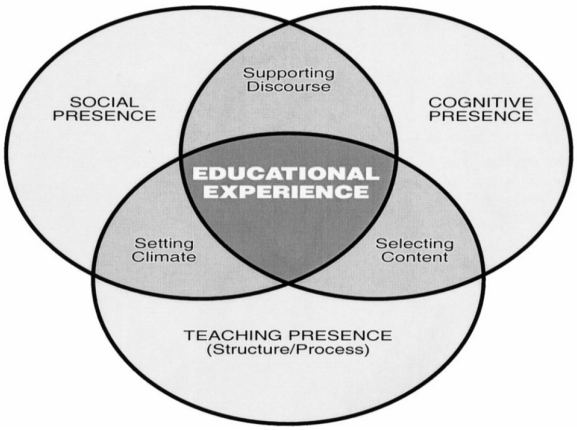


Figure 5: Community of Inquiry model (Garrison et al., 1999)

2.4.1.1 Social presence

Social presence is defined by Garrison et al. (1999) as "the ability of participants […] to project their personal characteristics into the community, thereby presenting themselves to the other participants as real people" (p. 94). According to social presence theory, "social presence is the feeling that other actors are jointly involved in communicative interaction" (Walther, 1992, p. 53). In his study, Kehrwald (2008) stated that social presence is synonymous with quality of people, and "it is people who make online learning environment productive" (p. 99). In an online environment, due to the lack of non-verbal communication, social presence is a crucial element to help learners feel less isolated (Volery, 2001; Wise et al., 2004), and get to know other learners (Yildiz, 2009).

In the virtual world, the sense of presence may be different from that in the real world where outspoken learners may dominate interaction. This might not be the case online where shy learners may be more confident to express their thoughts and feelings. The sense of presence can include two interrelated elements: being there and being together (Lehman & Conceição-Runlee, 2010). Having strong presence online is the result of dynamic behaviour or actions such as responding to a post, uploading a photo or changing an avatar. In other words, a learner with strong presence online does much interaction with content, peers and instructors. By using different tools to be actively present, learners gradually have a stronger sense of community (Ernest et al., 2013).

2.4.1.2 Cognitive presence

According to Garrison et al. (2001), cognitive presence is "the extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication" (p. 11). The studies that use COI as a theoretical framework claimed that cognitive presence is the heart of educational experience and it is associated with social and teaching presence (Garrison, Cleveland-Innes, & Fung, 2010; Rourke & Kanuka, 2009; Shea et al., 2010). In the COI model cognitive presence is shown in four phases, starting with a triggering activity in which learners identify problems to be solved. This is followed by the exploration phase where learners reflect the problems individually or collaboratively. In the third phase, learners show their ability to construct meanings from ideas that were developed in the previous phase. Finally, learners apply new knowledge in educational or work contexts.

One of the challenges for researchers using COI as a theoretical framework is that it is difficult to find clear instances of cognitive presence (Rourke & Kanuka, 2009; Shea & Bidjerano, 2009a). On one hand, studies that used survey or learners' transcripts extracted from discussion forums claimed that learners could not reach higher phases of cognitive presence (Garrison & Cleveland-Innes, 2005; Kanuka, Rourke, & Laflamme, 2007; Schrire, 2004; Stein et al., 2007). A study by Alavi and Taghizadeh (2013) even concluded that cognitive presence did not adequately occur in the virtual English centres of their studies. On the other hand, studies by Shea and Bidjerano (2009a) and Ke (2010) revealed that learners could reach the highest level of cognitive presence, especially when they are assisted to gain comfort and confidence in online discussion.

2.4.1.3 Teaching presence

In online learning, teaching presence consists of two general functions: design of the educational experience, and primary presentation of course content (Garrison et al., 1999, p. 89). Teaching presence is the least researched sub element in the COI model, despite its important role (Arbaugh & Hwang, 2006; Dringus, Snyder, & Terrell, 2010). While social presence functions as a support for cognitive presence, teaching presence has a very important part to play in promoting both social and cognitive presences so that

educational objectives can be realised. Teaching presence should be the catalyst for the other two presences (Ke, 2010).

In the COI model, an instructor's teaching presence is shown through three roles: (i) instructional design and organisation; (ii) discourse facilitation; and (iii) direct instruction (Garrison et al., 2001). The presence of instructors occurs even before an online course starts because of their contribution to the development of course content and design, together with computer experts. When the course starts, the instructors' clear instruction on how to use it, their facilitation for learner–content and learner–learner interactions are crucial to ensure achievement of study outcomes (Anderson, Rourke, Garrison, & Archer, 2001). Researchers have agreed that teaching presence is a significant determinant of learner-perceived learning usefulness, satisfaction and sense of community (Garrison & Cleveland-Innes, 2005; Swan & Shih, 2005).

The correlation between the above three presences has been investigated by many researchers, who used different analytical tools such as exploratory factor analysis, structural equation model, and chi-square automatic interaction detection (Garrison et al., 2010; Shea & Bidjerano, 2009b; Shea et al., 2010). The results of these studies seem to conclude that a combination of social and teaching presence could result in cognitive presence; that is, learning outcomes, as presented in the following figure.

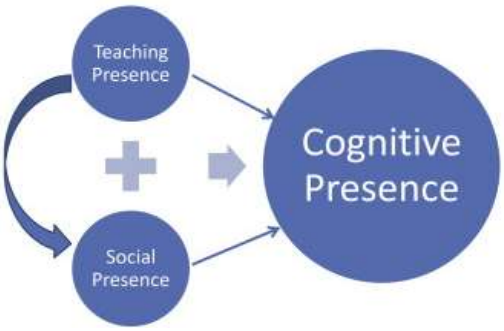


Figure 6: Relationships within the COI model
(Shea & Bidjerano, 2010, p. 4)

In their review of the COI model, Shea et al. (2009b; 2010; 2010) asserted that in order to fully understand about online learning, another construct is needed; that is, learning

presence. This was because it is the learners' self-efficacy (one component of learner self-regulation) that helps them achieve significant outcomes.

Although COI model has been used in some studies about online learning, it was not used in the present study because of the following reasons:

Firstly, studies that adopted a COI model often used only one standardised survey instrument that has 34 items describing social, cognitive and teaching presence to collect quantitative data whereas this study gathered data from four different sources (survey, online messages, interviews and focus group discussions). Because the focus of this thesis was to investigate interpersonal interaction, not much on learner-content interaction in an online English language learning environment, the model was not a good fit for the analysis of online messages, transcriptions of the interviews and focus group discussions.

Secondly, one of the major concerns for the COI model is that researchers (Garrison et al., 2001; Garrison & Cleverland-Innes, 2005; Kanuka, Rourke, & Laflamme, 2007; Schrire, 2004; Stein at al., 2007) were all unable to find clear evidence of cognitive presence in their studies. In a review of the COI model and its use as a theoretical framework, Rourke and Kanuka (2009) even argued that, "the COI fails as a model for achieving deep and meaningful learning because the procedures for achieving those outcomes do not materialize" (p. 43). They further stated that the positive correlations between social, cognitive and teaching presences as presented in past studies were largely derived from self-reports which were dubious in the best of circumstances.

Thirdly, the instructors involved in this study did not take part in the development of the content of the online course. Their participation in the online forums was also very limited. Thus it was not possible to measure accurately their teaching presence (via teaching presence related constructs such as: '*The instructor was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn'* or '*Instructor actions reinforced the development of a sense of community among course participants'* (Shea & Bidjerano, 2009b, p. 546). In addition, the way that this online

course was delivered – mainly online, with little integration with face-to-face lessons and term tests – made the use of a COI model less valid.

2.4.2 Salmon's model of teaching and learning online

In the same line of query about teaching and learning online, Salmon (2003) suggested a model with five stages: stage one – access and motivation; stage two – online socialisation; stage three – information exchange; stage four – knowledge construction; and stage five – development (see Figure 7). This model, which serves as the theoretical framework for this study, was developed through the analysis of actual messages and revealed incremental stages of teaching and learning, each of which required different technical and e-moderating skills from participants.

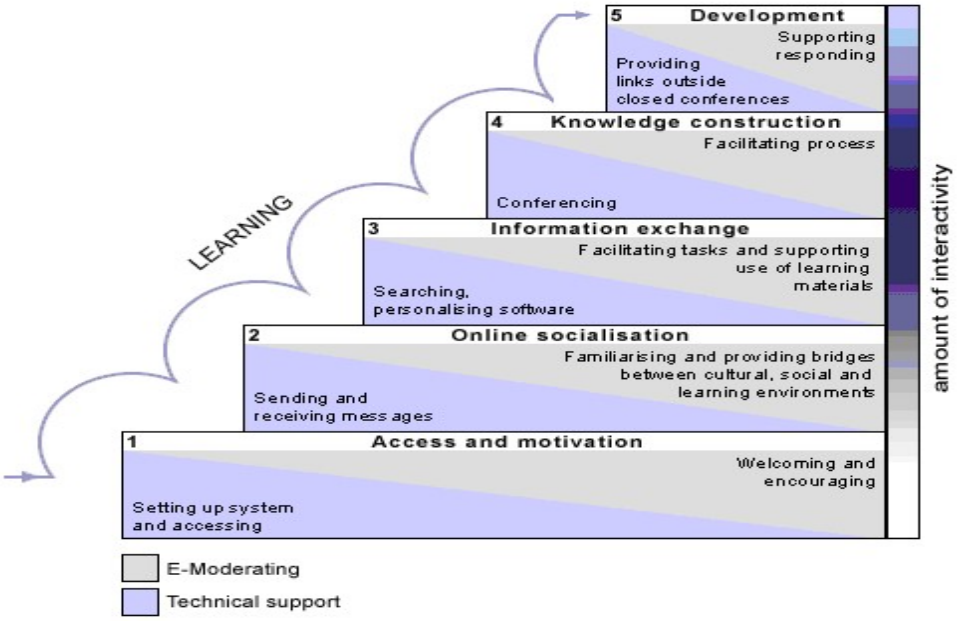


Figure 7: Model of teaching and learning online
(Salmon, 2003, p. 29)

In the first stage, access and motivation, the key element is quick and easy access to the online course. For learners who have experiences with using the internet, this sounds simple but it is not for those who are novice users of computer and the internet. In other words, not all learners have similar level of technological confidence in leveraging

technology (Johnson, Hornik, & Salas, 2008). In addition, a lot of problems may occur including faulty equipment, slow internet connectivity or even fear and anxiety of computers and technology (Muilenburg & Berge, 2005; Sun et al., 2008). These technological problems surely discourage learners in taking part in online courses (Sun et al., 2008). In addition, using an online language course may not only involve simple actions of logging in and out of the system or sending and receiving messages. Participants may also have to learn how to create an avatar, to drag and drop, to submit completed assignments and when to speak into the microphone in voice recognition exercises. Although there is inconclusive evidence about relationship between internet self-efficacy and learner satisfaction with an online course, it is useful for learners to get training on internet skills before online courses are delivered (Kuo, Walker, Belland, et al., 2013).

Another important aspect in stage one of the model is the e-moderator's ability to motivate learners. Clear instructions on technical and academic aspects of the online course should be thoroughly explained, queries satisfactorily responded to, benefits clearly conveyed and enjoyment joyfully elevated (Wu et al., 2011). Unfortunately, learners' rate of enjoyment in an online course is often lower than expected (Trinidad & Pearson, 2008). Thus, the positive attitude of the e-moderator or instructor is a critical factor to help motivating learners (Liaw et al., 2007; Sun et al., 2008; Yang & Cornelious, 2005). In addition, external rewards like financial incentives and certifications could also be used as a means to motivate learners' participation in an online course, especially in developing countries (Bhuasiri et al., 2012).

In the second stage, online socialisation, learners start getting to know other users as well as understanding about the online course, learning environment and community (Salmon, 2003). Their social presence begins to take shape in both synchronous and asynchronous communication modes through the use of social cues such as emoticons, avatars and images (Salmon, 2011; Yamada & Akahori, 2007). This social presence is crucial for the establishment and maintenance of a sense of community as well as trust among learners (Dawson, 2006; Tu & McIsaac, 2002), which can be a good foundation to start building a community of practice.

There are certain elements of the online environment that present both opportunities and challenges for learners; for example, the lack of non-verbal and visual clues during the interaction process. In addition, sociocultural differences may hinder learners to be online and interact openly with others, especially in Asian countries where learner–instructor hierarchy is clearly defined (Kang & Im, 2013). The e-moderator needs to use social and psychological moderating skills to connect learners, defuse any problems and counsel those who feel that they are offended during the interaction with others. The e-moderator's ability to generate discussions among learners through effective social activities can foster participation in the exchange of information in the next stage of learning (Dawson, 2006).

Stage three, information exchange, marks the commencement of the real learning process, in which learners start to exchange information about the course content or visit external links to online sources. Like in a physical class, there are learners who are more active and vocal whereas others might be more quiet. With state-of-the-art technologies, e-moderators can extract a quantitative summary of learners' participation in the discussion, but what is more difficult is getting a qualitative feedback and summative assessment from the discussion threads. Accordingly, one of the challenges for the e-moderator is how to ensure that discussions are well structured through productive and constructive information sharing. This is because in asynchronous interaction mode, learners tend to give their feedback to the most recent posts (located on top of the discussion threads) and thus may forget the focus of the discussion points (Armstrong & Retterer, 2008).

Stage four, knowledge construction*,* takes the exchange of information to a higher level. Participants begin to relate information from course content and peers' messages to personal and real-life situations and experiences. Working together on the constructivist approach they start to construct knowledge, which is the aim of this stage. However, discussion may become wild if participants do not have an open mind about other participants' ideas, answers and knowledge. In other words, participants should learn to accept that knowledge is not something fixed and, at times, it is not possible to have right or obvious answers to certain issues. This way of thinking is easier for Western learners, but Asian learners are accustomed to the thoughts that what is written in a textbook or

presented as knowledge from an instructor is correct and should not be questioned (Marambe, Vermunt, & Boshuizen, 2012; Tran, 2013). Hence, e-moderators have an important role of weaving ideas and opinions together and relating them to concepts and theories of the course.

In the fifth stage of the model (development) participants are not only able to be responsible for their own learning, to reflect the use of technology in the online learning process, but can also take on the role of e-moderators. Some of them can provide technical and academic support to newcomers to the system. At this stage, participants and e-moderators share a constructivist approach to learning whereby deeper thinking and reflection can be fostered through higher-level skills to articulate and evaluate their own thinking and the thoughts of others. This is the highest level of cognitive domain in Bloom's taxonomy structure – the evaluation (Krathwohl, 2002).

In short, Salmon's model describes in detail different phases or stages that participants experience during an online learning course, from familiarising with the technology and getting to know other learners and instructors through to collaboration and construction of knowledge. This model can be used to analyse learners' and instructors' activities in any online course. What is missing is the role of other factors such as technological ones, which are said to have important influences on e-learning and the diverse online teaching contexts in which the instructors may have to take many responsibilities for the learners' online study (Baran et al., 2011; Parsazadeh, Zainuddin, Ali, & Hematian, 2013).

As educational technologies evolve, Salmon has included in later editions of her model (2011) the use of popular interactive tools such as podcasts, blogs and Facebook for interactional purposes. These tools offer extensive opportunities for e-moderators to enhance learners' collaboration in online learning. For example, through the use of podcasts, e-moderators can send audio files of their own voice to the learners to explain and clarify, and encourage learners to participate more actively in different stages of their online learning (Salmon, 2011, 2013).

As mentioned earlier, this model is used as a theoretical framework for this study because the learners' and instructors' online messages were analysed to investigate their behaviour in the online course, including which stage(s) of learning and moderating these messages could reach. In addition, the implementation of the online course matched the five stages that were described in the above section. It started with the orientation session to provide learners with access (technical aspect) and motivation (academic aspect) followed by online socialisation and information exchange and so on. The instructors' activities throughout the study duration also matched the e-moderating elements of the model, including technical support such as answering the learners' technical questions or referring them to technical staff for help. Further rationale for using this model as the theoretical framework is presented in the next chapter.

2.5 Summary

The above review of literature shows that online interaction is a complex topic. In their online learning process, learners have to interact with content, instructors and peers in order to achieve learning outcomes, and at the same time to be socially connected. Studies have shown that the content of an online course was important in motivating learners during their involvement in all learning activities, and achievements of study outcomes accordingly. It has also been stated in the literature that the instructors had a critical role in encouraging learners to make the most use of the course content, and to interact with peers for optimal effectiveness in online learning.

The review has also presented two models that have been used extensively in online learning research. The COI model (Garrison et al., 1999) used three constructs of social, cognitive and teaching presences to measure learners' perceptions about the usefulness of their interaction with content, peers and instructors. The researchers, who used this model to analyse three types of online 'presence', seem to have an agreement that teaching presence has an important role to foster cognitive and social presence (Garrison et al., 2010; Kozan & Richardson, 2013). However, studies that adopt this model as a framework for analysis often use survey as the main method of data collection, which raises some concerns about the validity of study results.

On the other hand, Salmon's (2003) model of teaching and learning online used actual online messages from learners and instructors to capture their involvement in different stages of learning, from initial accessing, socialising and exchanging of information to constructing and developing knowledge. This model seems to be straightforward in depicting incremental involvement of both learners and e-moderators in an online course. The current study adopts this model as its theoretical framework because it provides a useful ground for the analysis of online messages to show which stage(s) of online learning the participants could reach. In addition, the model as well as the accompanying resources present a useful reference for the training and professional development of Vietnamese online instructors, who were in the pedagogical shift from traditional face-to-face teaching to online instruction. Further justification is presented in section 3.1.4 of Chapter 3.

The above review of literature has provided essential background for the studies of interaction in an online learning environment in general and online foreign language learning in particular. Yet there is a gap in previous studies about the role of interpersonal interaction (learner–learner and learner–instructor) in fostering learners' English language competence, especially in developing countries like Vietnam where English is a foreign language. More specifically, it is not clear how interpersonal interaction can be facilitated to help in enhancing learners' macro language skills (listening, speaking, reading and writing). Furthermore, little attention in the literature has been paid to the online language teaching pedagogies in order to create an online learner-centered environment for the 'Net' generations of learners.

Based on the existing body of knowledge on interaction in an online foreign language learning environment, this study examines learners' interpersonal interaction in an online English course implemented at a university in Vietnam. The central aim of the study is to investigate how online interpersonal interaction occurred in an online English language learning environment in a Vietnamese public university. It seeks to address the following three specific questions:

- What are the patterns of text-based interpersonal interaction (learner–learner and learner–instructor) in the online English language learning environment?
- Which factors influence the interaction?
- What are the effective practices that enhance the interaction?

The study follows a mixed methods design. Both quantitative and qualitative methods were used in this investigation, in which the results of analysing quantitative data were supported and/or explained by the findings from analysing qualitative data (online messages, transcriptions of focus group discussions and semi-structured interviews). The research data in this study were drawn from four main sources: survey, online messages, focus group discussions and semi-structured interviews.

This is one of the first studies reporting interpersonal interaction in an online English language course in Vietnam. Therefore, it contributes to existing knowledge about the role of interpersonal interaction in enhancing learners' English language competence in an online language learning environment. This study will also serve as a base for future studies and policy development of online language courses in a developing country where technological conditions and online teaching pedagogy are yet as advanced as in developed countries.

CHAPTER 3: METHODOLOGY

The previous chapter provided an overview of past research in online learning in general and online language learning in particular, together with the theoretical framework for the current study. This chapter aims to provide an overview of research methodology, a description of the online course and participants of the study as well as the procedures employed in the process of data collection and analysis. The first part of the chapter restates the research questions of this study.

The current study set out to investigate interpersonal interaction in an online English language learning course at a Vietnamese university. In order to achieve this aim, three specific questions were identified:

- What are the patterns of text-based interpersonal interaction in the online English language learning environment?
- Which factors influence the interaction?
- What are the effective practices that enhance the interaction?

The following part of the chapter presents an overview of research methodology that is adopted to find answers for the aforementioned three questions.

3.1 Overview of methodology

3.1.1 Mixed-methods design

Mixed methods research has been an alternative to the qualitative and quantitative traditions throughout the 20th century and continues into the 21st century in social and behavioural sciences (Creswell, 2009; Teddlie & Tashakkori, 2009a). It makes the most of the strengths of both qualitative and quantitative methods whereby a set of data can be used concurrently and/or sequentially to inform the other set depending on the timing, weighting and mixing of the two sets (Creswell, 2009). The use of a mixed methods approach helps to answer different types of research questions, provide better inferences,

and give chances for a more diversified presentation of different views thanks to the use of parallel mixed design (Teddlie & Tashakkori, 2009b).

Mixed methods research has been utilised by many researchers in studies about online interaction. For example, Huang and Nakazawa (2010) used this method to investigate learner– learner and learner–instructor interaction while using wikis for online learning tasks. Similarly, Su and Beaumont (2010) used the method to study how wikis were used for collaborative learning. Many studies in online English language learning have also used a mixed methods approach. For instance, Chen, Lambert and Guidry (2008) did a study to see if there was any differences between learners' acquisition of English as a foreign language in Taiwan with and without wikis. Son (2006) used the method to investigate the patterns of interaction that emerged through online discussion in computer-mediated communication (CMC).

In the current research, the process of data collection reflects the sequential explanatory nature of the mixed methods design.

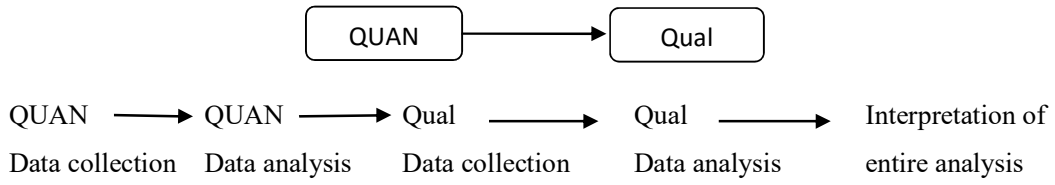


Figure 8: Sequential explanatory design
(Creswell, 2009, p. 209)

The rationale for using sequential explanatory strategy (Creswell, 2009) for this study was that it captured the complexity and diversity of interpersonal interaction in the online English course. For example, the initial findings that emerged from the analysis of quantitative data informed the researcher about key factors that affected the interaction. These factors were then examined more deeply during the semi-structured interviews as well as the focus group discussions. This combination enhanced the meaning and validity of the research findings (Clark & Creswell, 2007).

The mixing of quantitative and qualitative data served five purposes (Onwuegbuzie & Combs, 2011): triangulation (comparing quantitative findings to qualitative results), complementary (clarifying, expanding, illustrating findings from one analysis to the other analysis), development (using results from one analysis to inform data collection and analysis of the other), initiation (identifying contradictions that might reframe the research question), and expansion (expanding scope and focus of study based on quantitative and qualitative analyses). The mixed analysis of data in this study followed the four-phased approach identified by Greene (2007) of (i) data transformation; (ii) data correlation and comparison; (iii) analysis for inquiry conclusions and inferences; and (iv) using aspects of the analytical framework of one methodological type within the analysis of data from another type.

3.1.2 Identification of major factors influencing online interaction

The identification of factors that had impact on the learners' interaction with their peers and instructors of this online course were conducted through both simple descriptive and principal component analyses. There were a certain level of agreement between the results obtained from the above two analytical techniques. For example, both analyses showed that the factors that were related to the learners, instructors, technology and course content were considered as more important than others. The design of this study allowed the confirmation of the previous findings through the focus group discussions with both the learners and instructors. This was one of the advantages of the sequential design in mixed methods study (Creswell, 2014).

The results of the abovementioned analytical techniques were similar to the findings of other research in the literature. For example, Volery (2001) concluded in a study that technological factors, and instructors' and students' characteristics, were found to be the critical success factors in e-learning. Selim's (2007) study yielded similar results with most of the key factors relating to the infrastructure and the characteristics of instructors and students. Similarly, through the use of descriptive and exploratory factor analytical techniques, among others, Kang and Im (2013) found out that instructors' presence and instructional support (support and management of learning materials), had better predictors of learners' satisfaction. Although other studies have applied different methods

and frameworks in the identification of factors that influenced online learning and e-learning, the results of these studies revealed that the online course (e.g. structure, content and design), the learners (e.g. computer self-efficacy, attitudes) and the instructors (e.g. feedback, facilitation techniques) were the most common (Kim et al., 2011; Lee, 2006; Sun et al., 2008).

3.1.3 Conceptual framework and rationale

As mentioned earlier, Salmon's (2003) model was used as the conceptual framework in order to frame the research questions and interpret the findings of this study. Firstly, the framework was used to guide the researcher in framing the first and third research questions in order to investigate learners' levels of online interaction, as well as instructors' levels of participation from the beginning to the end of the course. The framework provided a scaffold for the researcher in designing a survey questionnaire, developing protocols for focus group discussions and interviews as well as extracting learners' online messages.

Secondly, in the data collection process, the framework also assisted the researcher in obtaining information about the learners' frequency and patterns of interaction with peers and instructors, to see if there was an increase in learning as well as interactivity as learners progressed through the course of study. The model was also instrumental in guiding the research to find out if there was a chronological improvement or differences in learners' online messages. After the first and second stages of online learning, would learners be able to post messages in the online forums that exemplified their exchanges of information or even construction of knowledge? The researcher used the model to formulate questions in the semi-structured interviews and focus group discussions to obtain learners' and instructors' perspectives on how interpersonal interaction could enhance their English language competence (construction of knowledge).

The second research question of this study aimed to examine factors that influenced learners' interactions with peers and instructors. Salmon's (2003) model guided the researcher in designing the questions in the survey, focus group discussions and interviews. For example, one of the survey items was to seek learners' perspectives on

the importance of instructors' presence and feedback (usefulness and timeliness). In the focus group discussions and interviews, there were questions seeking learners' and instructors' opinions on how to maintain and facilitate learners' interpersonal interaction for enhancement of English language competence. The findings and discussion of these will provide evidence for the researcher to put forward recommendation for policy and practice in the training of Vietnamese e-moderators of an online course. In other words, Salmon's model was instrumental in guiding the collection and analysis of data, which in turn informed the researcher's recommendations and suggestions for future studies.

Thirdly, the model was used to investigate if there were incremental steps that learners and instructors followed as the online course progressed. In this way, the model as a whole could be used as a guiding tool for the decision-makers, managers, instructors and technical people to refer in to the different stages of online teaching and learning. Although the model was developed for online teaching and learning in general, its stages could also be applicable to an online language learning course. In the context of Vietnam, however, special attention should be paid to the characteristics of instructors and learners who were yet autonomous in their online teaching and learning process.

The following part of the chapter provides in-depth information about the context and participants of the study and their online learning process.

3.2 Context and participants

3.2.1 The university

As mentioned earlier, the university used in this research is a public higher education institution in Vietnam. It is one of the biggest universities in Vietnam that provides foreign language training and other disciplines for local and international students. The university offers courses in Chinese, English, French, Russian and many other foreign languages for local students, and Vietnamese language to international ones (Anh & Winter, 2010; Nguyen, 2007). English is also used as the medium of instruction in the teaching of other disciplines such as Computer Science, International Studies, Finance and Banking and Business Administration (Anh & Winter, 2010; Nguyen, 2007).

Over the last decade, the university has been active in the application of information technology in its administrative and academic work. The intranet system and website of the university have been extensively utilised to help its leaders, managers, staff and students to communicate online easily and effectively. All the academic departments of the university have their own websites using the modular object-oriented dynamic learning environment (MOODLE) to enable supporting and academic staff to interact with their students. The lecturers of some departments have uploaded their teaching materials on these websites as part of their teaching requirements. The university has also been using a number of English online courses for its students. Most of these courses were commercially available ones such as Dynamic English and English Discoveries Online (Pham, Thalathoti, Dakich, & Dang, 2013).

The university's online English language learning environment is thus an appropriate subject for this study. Nonetheless, it is not possible to claim that results of the study can represent the whole picture of online English learning in Vietnam. The aim of the study is to investigate one aspect of the learners' interactions during their online learning; that is, learners' interaction with peers and instructors. The literature review in Chapter 2 revealed that learner–learner and learner–instructor interactions are the key elements for successful online learning (Wu & Marek, 2013; Wu et al., 2011; Yang & Wu, 2011). Nevertheless, there is little research in this area, especially in a developing country like Vietnam (Dang, 2014). Although the findings of this study may not be generalizable, it provides an insight for other institutions in their decision-making process regarding the selection and implementation of English online courses.

3.2.2 The online environment

The online English course (entitled English Discoveries Online) was a commercially available online language learning platform used at the Vietnamese university. The following sections give a brief description of the course content, learning and teaching tools and resources for the learners as well as the instructors.

The ‘Home’ page of the online course contained different tools for the learners to interact with content, instructors and peers as shown in Figure 9.

Figure 9: Learner homepage

3.2.2.1 Learner–content interaction

The main content of this course was grouped into three levels of English competence: basic, intermediate and advanced – each of which was further divided into sub-levels as shown on the left column of Figure 10. Depending on the learners’ level of English (suggested through the placement test), the instructors assigned the learners with appropriate levels only, or all available levels. Better learners were assigned with all levels so they could work at their own pace and weaker learners were assigned with a suitable level.

In each level there were eight units (see the middle column of Figure 10), which covered different topics such as family life, sports, communication and business. For each unit, the learners had a choice of practicing their listening, reading, speaking and grammar. In each of these components, the learners were advised to follow three steps. For example, in the listening component (see the right column of Figure 10), the learners should start

by reading the 'Explore' section to get some inputs presented in different multimedia formats such as audio and video. Next, they had to do the exercises in the 'Practice' section, for example filling in blanks, answering questions and matching. The learners often received instant automated feedback from the system about the correctness of their answers. Finally, they could move on to the 'Test' section to consolidate what they had done in the previous steps.

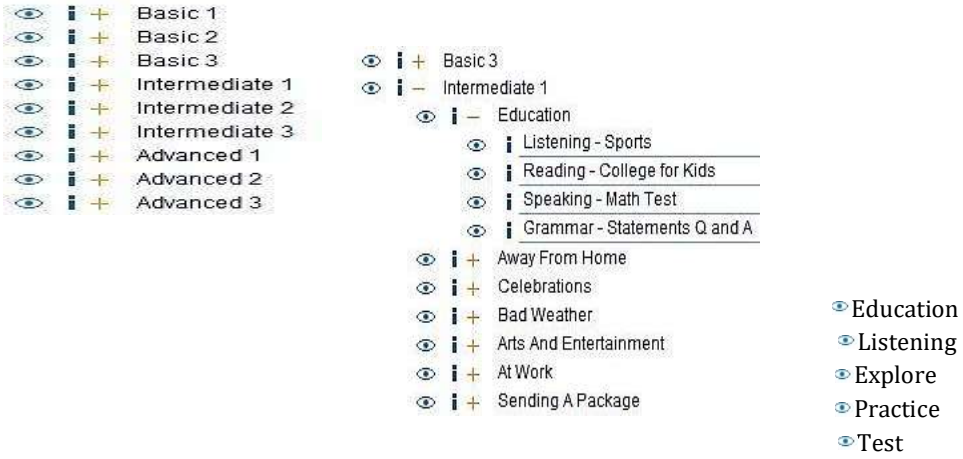


Figure 10: The online course content

The course included the automatic speech recognition (ASR) technology in the listening and speaking practice entitled 'Record Yourself'. After doing their listening comprehension practice, learners could select different sentences to listen and repeat. Their repetition was recorded and scores were given to tell them the accuracy of the oral production, which could also be sent to the instructors for comments. In the speaking component, the learners could do the same, and/or enhance their verbal reaction by responding to prompts in a dialogue. Figure 11 illustrates an example of the system's response to a learner's oral production.

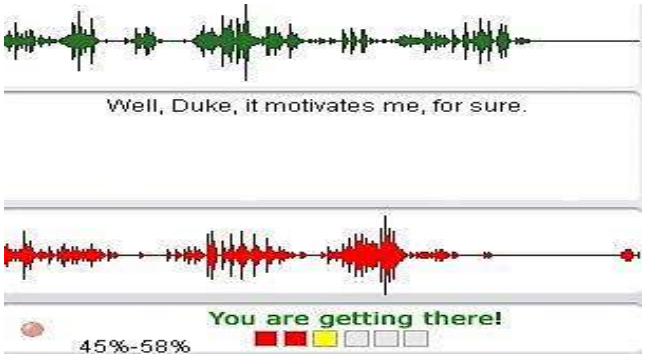


Figure 11: Record Yourself tool

Besides the content in the 'My Courses' section (see Figure 9), learners could utilise supporting materials in other areas of the homepage. For example, they could read monthly updated articles in the 'Magazine' to broaden their knowledge and to enhance their reading comprehension skills at the same time (see Figure 12). There were updated articles organised under different themes such as Business, Environment, Computer and Technology and so on. In the 'Wordzone' section, learners could work on vocabulary improvement whereas the 'Talking idiom' area stored many fixed expressions and idioms with explanation and guidance on their usage. The latest version of the online course also included a 'BBC Learning English' part for general English practice.

Figure 12: Community space

In order to make sure that these learners made the most use of the course content, the university issued a regulation that required all learners to complete at least 80% of

interaction with the assigned levels of study before the end of each semester. Failing to do this meant that the learners would not be allowed to sit for the end-of-the-semester test. The instructors obtained this information through the teacher management system (TMS) that recorded what and how much each learner interacted with the course content as shown in Figure 13.

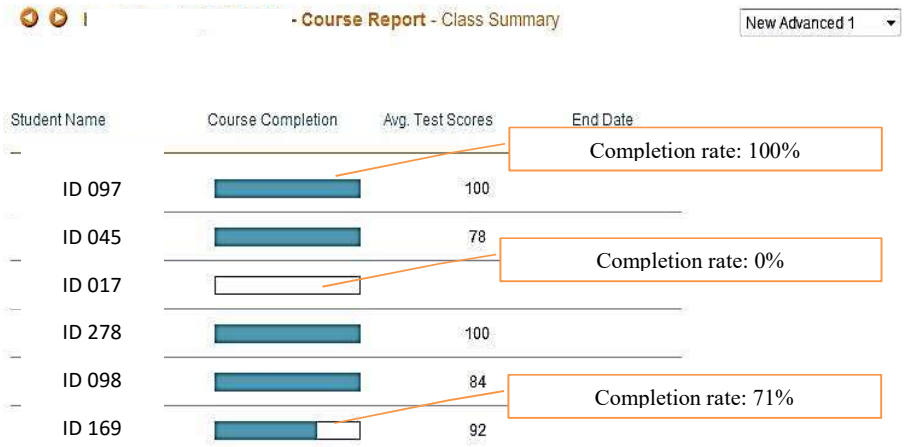


Figure 13: Summary of learners' course completion rate

The data in Figure 13 show an example of the completion rates for some learners of a group. By the date the supervising instructor accessed the TMS, three learners had completed 100%; one had finished 71%, and one had not done anything at all in the New Advanced 1 level. By using a tool like this in the TMS, an instructor could tell who had completed 80% of interaction with the content, and who had not by the end of the semester. Those who had not completed the required interaction with content received a reminder like this.

> Dear all,
> Please keep informed that some of you are doing very well. I highly appreciate those who have finished your tasks early (name of learners). But some of you haven't done very well and even some of you are not doing anything at all (name of learners). If you do not finish your tasks before the deadline, I am not responsible for any problems which may arise later on. Thank you very much. (instructor – ID 02)

Vietnamese policies and norms relating to privacy and confidentiality do not require educational institutions or teachers to ask for consent from learners in publicizing information about their study. The instructors of this online course are permitted to mention the names of learners who did or did not complete the assigned tasks, and this may not be considered as an act of violation of privacy.

3.2.2.2 Learner–instructor interaction

The learners mainly interacted with their instructors through the 'Support' forum. This forum was a simplified version of email whereby learners received messages, wrote messages or checked the messages that they had sent to their instructors. The system allowed the instructors to forward their messages/ replies to the learners' external email and to attach files of different formats.

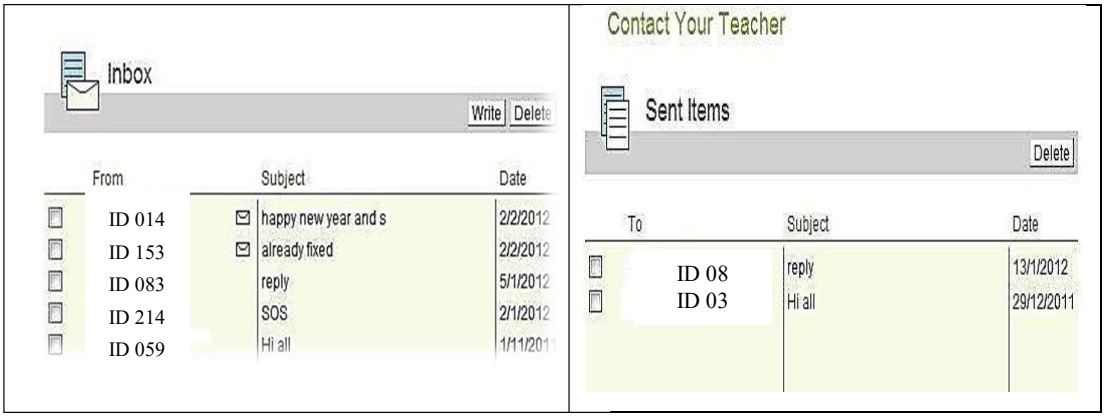


Figure 14: Message from and to the instructors

The learners could also interact with their instructors and peers through the Class Discussion forum. When an instructor wanted the learners to discuss certain topics, he or she could create a forum, assign it to the group(s) and moderate it accordingly.

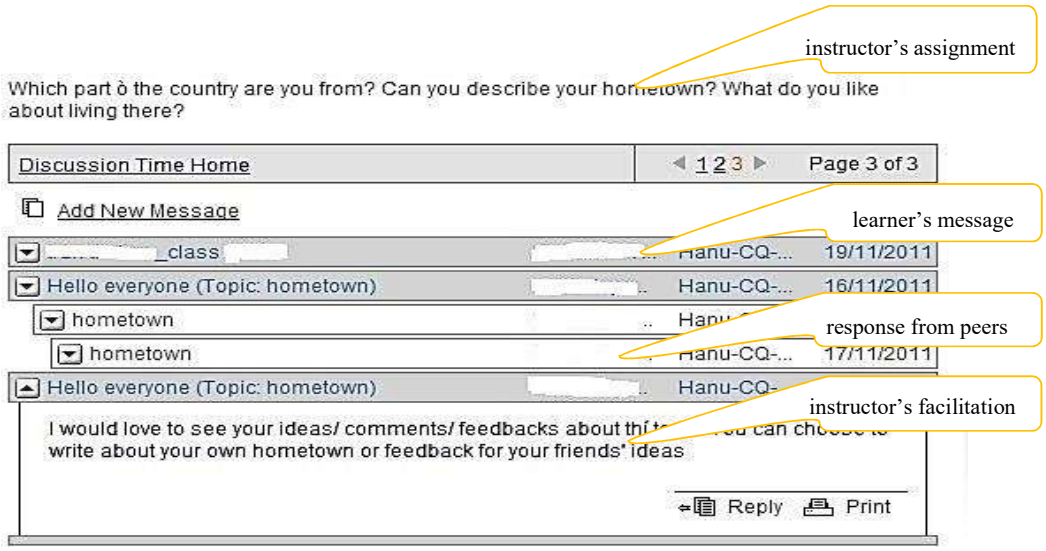


Figure 15: Learner participation in Class Discussion forum

3.2.2.3 Learner–learner interaction

There were two forums for the learners of the online course to interact with their peers (classmates and users from other groups and countries): they were Class Discussion and Community Discussion forums. In the Class Discussion forum, the interaction among learners of a same group was initiated by the topic(s) of the supervising instructor. Figure 16 shows an example of the list of topics that an instructor assigned to his/her group. The numbers in the brackets next to each topic represent the number of responses from learners of the group.

Figure 16: Topics in Class Discussion forum

Another forum for the learners to interact with peers in the same group as well as users from other groups and all over the world was called Community Discussion. At the time

this study was conducted, there were eight general discussion topics in this forum, including two specific ones for the users from Vietnam and Panama. Each topic had a lead-in statement that invited opinions from other users. For example, the topic 'Getting To Know You' had the following lead-in statement: *"This is the place to write all about yourself: the country you come from, your interests, your family, etc. Read about others and what their lives are like".*

The learners took part in the discussion by selecting the topic(s) of their interest and creating a new message or commenting on a pre-created post (see Figure 17).

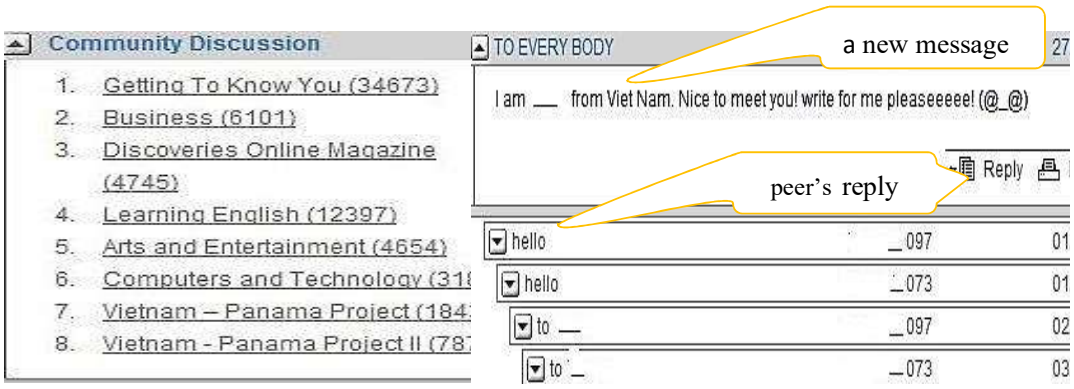


Figure 17: Topics in Community Discussion forum and learners' participation

The Vietnam–Panama projects were designed specifically for the previous cohorts of Vietnamese learners and their peers in Panama, but not for the participants of this study. Therefore, the researcher did not browse the users of these two forums. The Vietnam-Panama projects were added by the developers of the course because they might have wanted to create an authentic environment for learners from two different countries and cultures to interact.

There were two more forums for the learners to interact with other users of the course: You!Who? and WebPal. While the You!Who? forum was a synchronous chat room for all the users who were online at the same time, the WebPal was an asynchronous interaction forum where learners could find and make friends with those who had similar hobbies or interests. However, taking part in all the aforementioned forums (learner-

instructor, learner-learner) was not compulsory. There was no specific requirement about the number of messages that learners had to post in their online study process.

3.2.2.4 Instructor's homepage

The homepage for the instructors looked similar to that of the learners'. It included the tools for the instructors to assign study levels for their respective learners, and create and moderate forums as shown in Figure 18. The most commonly used part of this homepage was the Teacher's Corner.

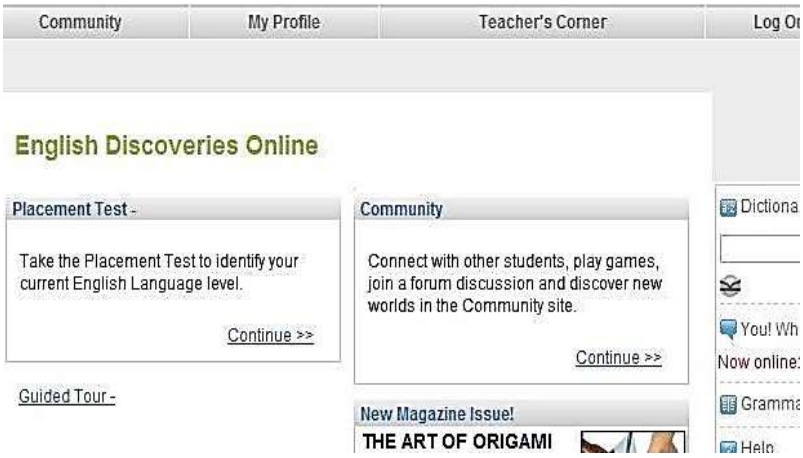


Figure 18: Instructor's homepage

In the Teacher's Corner, there were six blocks: Registration, Curriculum, Reports, Settings, Communication and Resources – each of which was set for a different purpose as shown in Figure 19.

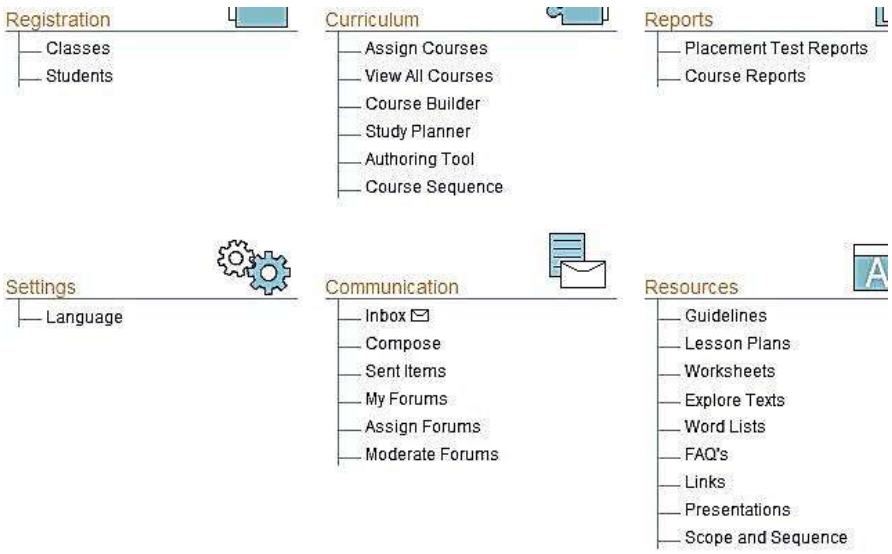


Figure 19: Teacher's Corner

In the Registration block, instructors could find information about the groups and learners under their supervision. The Curriculum block provided instructors with the tools to facilitate the learning process, for example, assigning courses (basic, intermediate, advanced) to different groups or learners, planning their study path or adding supplementary materials of their own. In the Report block, the instructors could get an overall picture of the progress of their learners' online study. For example, they could know which level or unit or even skills a particular learner had done from the beginning of the course. The Setting block allowed the instructors to select a preference for support in (native) language because the online course was customised to learners from different countries where English is not the first language. In the Communication block, the instructors could interact with the learners of the groups under their supervision, and create, assign and moderate forums for those groups. Finally, the Resources block consisted of materials for the instructors to implement the course.

The online course was delivered in a blended mode in which there was integration between online and face-to-face study. The online instructors also taught their learners in the face-to-face environment, in which they reminded learners of the need to complete assigned tasks before deadlines and to take part in forums. Some instructors also used

topics in the face-to-face lessons as online writing exercises. However, online course content was not included in end-of-semester tests.

At the beginning of their first academic year, every learner was provided with an account to access the online course, together with an orientation session. Learners gathered in one big hall to listen to a brief description about the online environment and how to interact with the content, peers and instructors. The orientation focused more on technical than pedagogical aspects of online learning.

3.2.3 Participants

3.2.3.1 Learners

The participants of the study were first-year students who used the online course as part of a four-year study in a Bachelor of Arts degree specialising in interpreting and translation. In the first two years of this degree, they focus on English language practice, both in traditional face-to-face lessons and online study. At the beginning of their first academic year, every learner was provided with an account to access the online course together with a hands-on orientation session. They were required to complete 80% of interaction with the content of assigned levels by the end of each semester. Failure to do so meant that they were not allowed to sit for the end-of-semester tests. Two hundred and seven students voluntarily took part in the survey, ten in the semi-structured interviews and nine in the focus group discussions respectively. All of the participants were aged over 18 at the time of this study.

Table 1 below provides descriptive information about each learner who took part in the interviews.

Learners (pseudonyms)	**Years of learning English**	**Favourite macro skills**
Orchid	9	Writing
Lily	13	Speaking
Rose	13	Listening
Daisy	11	Reading
Tulip	5–6	Listening
Lotus	7	Phonetics and speaking
Peach	7	All four skills
Apricot	2	Listening and speaking
Flamboyant	7	Speaking
Carnation	7	Speaking and listening

Table 1: Descriptive information of learner interviewees

At the time of interviews, the majority of learners had been studying English for more than six years and three had over 10 years of learning the language. Only one learner had studied English for two years because this learner only changed from specialising in other subjects (mathematics, physics) to English in the last year of high school. Their favourite macro skills were different: some preferred listening while others liked reading the most. It seems that more learners focused on listening and speaking – the two skills that receive little attention at school level in Vietnam.

Vietnamese learners have traditionally been regarded as hard-working and respectful to their teachers. Quite a few school students have received international prizes in different subjects such as mathematics and physics (Chau & Le, 2010; Hai, 2013; Koblitz, 2011). The traditional rote learning methods are being replaced by active learning thanks to the application of learner-centered approaches in teaching at all levels of study, especially at the university level (Dang, 2010). Nevertheless, due to the influence of Confucian ideology, it is still not common for learners to argue openly with their teachers about

knowledge, or to question the correctness of what is written in textbooks (Truong, 2013). Similarly, they are reluctant to ask questions even if they fail to understand something because of the fear of losing face (Le, 2011). This learning culture, together with their weaknesses in oral and written English, impedes them from asking questions in the traditional and online learning contexts.

3.2.3.2 Instructors

The instructors were the lecturers of English Department and the Foundation Studies Department, where the online course was used. They taught learners in the traditional face-to-face lessons, and were also assigned to supervise their online study. The instructors' online duties included assigning learners with homework, answering their queries, and reminding learners of the deadlines. They were also requested to write monthly reports to the course managers about the online learning situation of the groups they were supervising. Twelve instructors took part in the semi-structured interviews and six participated in the focus group discussion. Table 2 presents descriptive information about the 12 instructors who took part in the semi-structured interviews.

Instructor ID	**Years of teaching English**	**Years of teaching the online course**	**Mode of teaching the online course**
ID 01	12	NA	Computer lab
ID 02	4	1	Both computer lab and online
ID 03	3	1	Online only
ID 04	5	5	Both
ID 05	5	4	Both
ID 06	12	4	Mainly in computer lab
ID 07	10	3–4	Both
ID 08	14	6	Online only
ID 09	3	2	Both
ID 10	3	3	Online only
ID 11	3	3	Both
ID 12	2	3	Both

Table 2: Descriptive information of instructor interviewees

The instructors had different traditional face-to-face and online teaching experience. The most experienced instructor had been teaching for 14 years, and the most junior one had only two years of experience. Some junior instructors had similar or even longer experience working with the online course because they had been assigned to work as online tutors while still studying at the same university. More than half of the instructors (seven) had experience teaching both in the computer lab and supervising online learning while two had experience working in computer labs only. The remaining three instructors had experience of doing online supervision only.

3.3 Data collection procedure

Prior to commencing the study, ethical clearance was obtained from both Vietnamese and Australian universities as well as from the management boards of the departments where the participants were studying and teaching (see appendices 4 and 5). The data collection process was conducted according to the study design described in Figure 20.

3.3.1 The study design

Following is the flowchart of the study design.

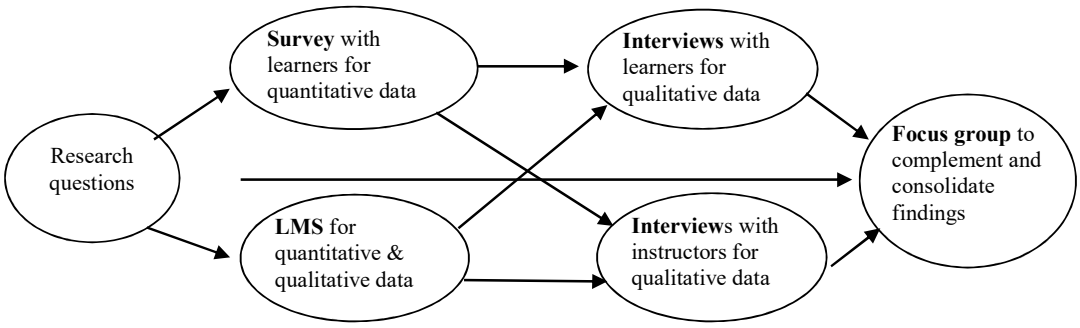


Figure 20: The study design

The study used a purposeful sampling method (Babbie, 2010) to collect data from four sources in a sequential manner. They were (i) survey with the learners; (ii) the information from the LMS for online messages; (iii) semi-structured interviews with the learners and instructors; and (iv) focus group discussions with the learners and instructors.

3.3.2 Data sources

3.3.2.1 Questionnaire

The questionnaire aimed to obtain the learners' perspectives about their interactions in the online course that they were using. The questionnaire was divided into five parts containing 22 items (see Appendix 1). It gathered information about:

- learners' demographic characteristics
- access to internet and the online course
- use of interaction tools, frequency and modes of interaction
- interaction purposes
- factors influencing interaction

Most of the questions required the learners to tick on a five-point Likert-type scale (Likert, 1932). There was an open-ended question at the end for the learners to express additional opinions about the online course. The questionnaire was written in English although the participants' first language is Vietnamese. This was because the participants were the first-year university students of a foreign language majoring in English.

Once the questionnaire was developed based on the reviewed literature, it was piloted in two steps. Firstly, it was emailed to five instructors who had experience with the online course for feedback and to obtain their professional comments to ascertain validity and clarity of the instrument. This resulted in the deletion of a few items in the questionnaire to make it more focused. Secondly, prior to its administration to the target population of the study, the questionnaire was given to 41 learners who also used the online course as part of their curriculum, but studied in a different English department of the same university. This was aimed to enable the researcher to decide if the items included in the questionnaire would produce data from which meaningful conclusions could be drawn to answer some of the research questions. It also aimed to make sure that the data could be processed by the Statistical Package for the Social Sciences (SPSS) with meaningful results. In addition, it double-checked the level of clarity with learners, whose English

was at a lower level than the instructors. The participants involved in the pilot testing were not included in the final administration of the survey and data analysis.

Although the sample of the pilot study was small, a test of reliability showed an acceptable internal consistency among test items with the Cronbach alpha coefficient of .76.

Reliability statistics		
Cronbach's alpha	Cronbach's alpha based on standardised items	Number of items
.760	.742	41

Table 3: Value of Cronbach's alpha for pilot study

The survey with the learners was administered in a face-to-face context. Most of the learners agreed to complete the *Consent Form for Participants Involved in Research* (Appendix 5), and to take part in the survey accordingly. The researcher was present during the administration to clarify any questions or concerns that the learners had. On average, it took the learners about 15 minutes to complete the questionnaire and they did not have any problems understanding the questions. The main purpose of conducting the face-to-face survey was to ensure a high rate of return. In addition, the timely return of the completed questionnaire enabled the researcher to perform preliminary analysis of the quantitative data in order to obtain necessary findings for the follow-up interviews and focus group discussions.

Data from the survey questionnaire provided an important input for the researcher to revise the protocols for semi-structured interviews and focus group discussions. It also provided opportunities for further triangulation of findings emerging from the online messages, and assisted the researcher to pinpoint similarities and differences between what learners said and what they really did in the online environment. Further examples of triangulation are presented in Section 3.4.3 of the thesis.

3.3.2.2 Online messages

The online messages in this study were downloaded from the three interactional forums of the course: Support, Class Discussion and Community Discussion. These messages were posted from the end of October 2011 to the end of May 2012 (seven months). The downloading of these online messages for analysis was necessary because literature has shown that the self-reported accounts of participants regarding their online interaction (via the questionnaire) were sometimes unrelated to their online behaviour (Blau & Barak, 2012).

The online messages from the learners and instructors were entered into different matrices according to the purpose of the research; for example, frequency levels and patterns of interaction. The researcher counted manually the number of participants who took part in different forums as well as their date(s) of posting messages. The instructors' messages were downloaded and stored in the same way to identify their online interaction. Detailed information about the online messages enabled the researcher to yield the findings on the participants' frequency (number, time and gap) and patterns (initiation, direction) as well as purposes of interaction.

3.3.2.3 Semi-structured interviews

The semi-structured interview questions were open-ended (see Appendix 2). The interviews with the instructors explored their experiences, among other things, in supervising learners' online interaction, how to motivate learners' interaction with other people and how the interaction could enhance their English competence. The interviews with the learners aimed to obtain their views on similar issues, but from different perspectives. Below are examples of the interview questions:

- What suggestions do you have to enhance interaction amongst the learners? (instructors)
- How do you think online interaction can contribute to your learning of English? (learners)

3.3.2.4 Focus group discussions

According to Litosselity (2003), "focus groups are useful for gaining information on participants' views, attitudes, beliefs, responses, motivations and perceptions on a topic: why people think or feel the way they do" (p. 18). In the current study, the researcher aimed to examine in detail the views, attitudes and comments of the participants about a number of findings that were yielded from analysing the survey data. After conducting the survey, the researcher performed a preliminary analysis of the quantitative data to obtain some findings about the learners' preferred mode of interaction, whom to interact with, the factors that affected their interaction and how interaction helped them learn English. These findings formed the bases for the follow-up focus group discussions (see Appendix 3). Examples of the discussion points were:

- From the survey, students prefer to interact with other students in order to learn English. In your opinion, why is this?
- From the survey and interviews, it seems that online interaction can enhance the learners' English by explaining their mistakes, understanding grammatical points, etc. In your opinion, how can the explanation of mistakes, understanding of grammatical points, etc., help them learn English?

The participants of the focus group discussions were invited (in writing) during their earlier interviews. Nine learners and six instructors came for the discussions, which were appropriate numbers (Krueger & Casey, 2009; Litosseliti, 2003). The written discussion points (see Appendix 3) were handed to the participants to facilitate their thoughts about the issues being discussed. During the discussion, the researcher acted as a moderator and used a series of techniques to ask questions like listing things, rating items and/or drawing a picture (Krueger & Casey, 2009). The discussions were conducted in Vietnamese language, digitally recorded, transcribed and translated by the researcher. Certification of the translation was obtained from a professional NAATI (National Accreditation Authority for Translators and Interpreters) accredited translator.

3.4 Coding and analysis of data

The current study follows a mixed methods design in which analyses of quantitative and qualitative data produced compelling analytic conclusion. Key analytical procedures included coding of data, quantifying qualitative data, and comparing and contrasting different sources of data (Onwuegbuzie & Combs, 2011).

3.4.1 Quantitative data

As mentioned earlier, SPSS was used to analyse the quantitative data. The software is powerful for quantitative data analysis and helps the researcher to reach more accurate results, especially in finding association among different variables about learners' interaction with the course and others (peers and instructors). The labels for each item in the survey questionnaire were coded and entered into the SPSS software system. When the data were being entered into SPSS, visual checking and recounting of data was done to ensure accuracy. A codebook was prepared to guide the entering of data into the SPSS program (Pallant, 2011). Below is an example of the codebook items that can be found in Appendix 7.

Question No. 6: *How confident are you in using the internet? Please tick (☑) appropriate box.*

Very confident	Confident	Normal	Not very confident	Not confident at all

Coding in SPSS

Full variable name	**SPSS variable name**	**Coding instruction**
How confident to use internet	Confiin	5 = very confident; 4 = confident; 3 = normal; 2 = not very confident; 1 = not confident at all

Table 4: Sample of coding survey items in SPSS

Simple descriptive statistics was used to analyse online messages to obtain the frequency levels of interaction (Byrne, 2002). The researcher focused on comparing number of posts in the three communication forums, conducting a longitudinal investigation of the number

of posts during the seven months of their online study, and exploring time gap between sent and received dates of the posts. When it was necessary to produce a chart or graph, Excel software was used to provide a more readable and flexible labelling of the data.

The quantitative data set from survey questionnaire was mostly measured on nominal (categorical) and ordinal (ranked) scales, so non-parametric techniques were used for analysis. The quantitative data from the survey questionnaire included the following information about the participants:

- demographic characteristics
- access to the internet and online course
- the use of interaction tools
- frequency and preferred mode of interaction with peers and instructors
- interaction purposes
- factors that influence learners' and instructors' online interaction
- contribution of online interaction to English language learning

Whenever possible, inferential statistical procedures were also utilised to interpret the quantitative data (Pallant, 2011). For example, a chi-square test for independence was used to explore relationships between gender and their mode of interaction or whom to contact. Another example included the use of principal component analysis to identify the factors that had influence on the learners' and instructors' online interaction.

3.4.2 Qualitative data

The coding of qualitative data was conducted for three subsets: online messages, transcriptions of focus group discussions and interviews. For each subset, the researcher prepared a matrix to order and categorise emerging themes. These include the following steps:

- reading the transcriptions on the screen and printing copies
- preparing memos (Grbich, 2013) for developing coding scheme
- reading and coding

- sorting and classifying similar codes (Grbich, 2013)
- relating emerged themes with theoretical framework in literature

Each online message was used as a unit of analysis to explore emerging patterns and purposes of the interaction. There were a few difficulties in this method of coding because, in a number of cases, a post was split up into two or three parts with different communication purposes. For example, a post could start with a greeting, followed by making excuses or reporting a technical problem. This difficulty was solved by focusing only on the key purpose(s) of a post because this is not a discourse analysis study.

With regards to the transcriptions of focus group and interviews, the coding was conducted in two steps. First, descriptive, topic and analytic coding techniques were used to analyse randomly selected transcriptions: one for learner and one for instructor. Each single statement from the learners and instructors was used as a unit of analysis to explore topics and themes that were emerged in the transcriptions (Lee, 2012). Second, a more refined set of codes was drawn up after the coding of all the transcriptions.

In the analysis of the qualitative data, NVivo (Version 10) was used and findings were generated from the statements pertaining to each topic and theme (Bazeley & Jackson, 2013; Gibbs, 2002). The first stage of using NVivo in this project involved entering the details of qualitative data. All translated versions of the interviews, focus group discussions and their accompanying audio files were imported into the internal section of the project. A separate folder was created to contain documents related to administration of the research such as data collection schedule, letters of consent, and interview guide. The most important documents in the internal section were transcriptions of the interviews and focus group discussions. A colour code is set for each category of information it contains; colours corresponding to the participants were blue for instructors and green for learners.

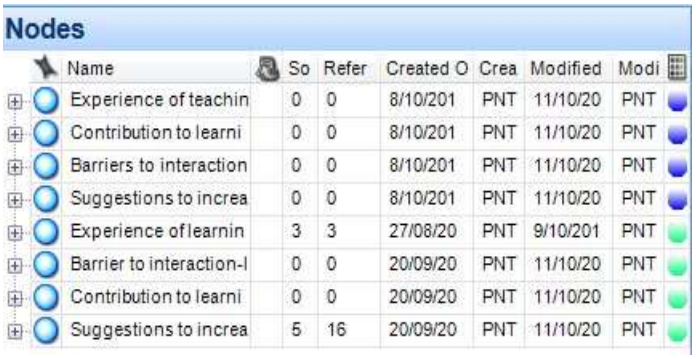


Figure 21: Broad nodes for interviews

Under the interview script folder of the internal section, all translated versions of the interviews with the learners and instructors were stored as shown in Figure 22.

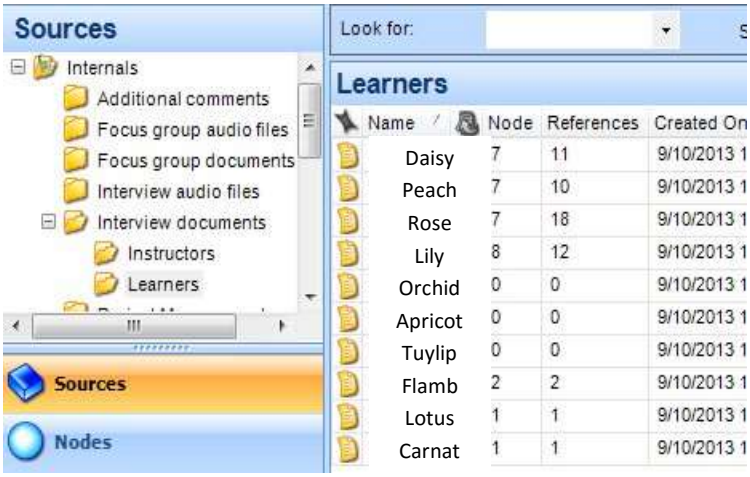


Figure 22: NVivo's store of the transcriptions

Using NVivo helped the researcher to draw a map of attributes, values and classification of the learners and instructors. According to Edhlund (2011), "attributes are the characteristics or properties of a source item or a node which has or will have an impact when analysing data" (p. 123). In this study, the attributes corresponding to the characteristics or properties of the learners' were (i) years of learning English; (ii) favourite macro skills; (iii) technical support; (iv) communication tools outside the online course; (v) preferred mode of interaction; and (vi) language used in online interaction.

The above attributes were collected for a number of purposes in the analytical process. First, they provided complementary information to the findings that were emerged from the quantitative analysis. For example, over 25% of messages from the instructors to their respective learners were either to provide direct technical support or to refer them to the technical department of the university. This was confirmed in responses by the learners in the interviews that seven out of 10 (70%) of learners participants said that they needed technical support, especially at the beginning of the course. Half of the instructors also reported technical difficulties experienced by their learners or themselves either in computer labs or online study modes. Second, the attributes were instrumental to make a comparison among the instructors themselves for a number of issues; for example, if there was a difference in their thoughts about how interaction can help improve learners' English between learners and instructors.

The second stage (topical analysis) of using NVivo to analyse the data commenced with the identification of the topics from the transcriptions of the interviews with the learners and instructors. Coding in NVivo software allowed the grouping of similar concepts known as 'nodes'. From the transcriptions of the interviews with the learners, four broad nodes were created to explore different aspects of learning with the online course in general and especially those about learner–instructor interaction in particular (see Figure 21). The four nodes were:

- experience of learning/teaching with the online course
- learner–learner interaction
- suggestions for more interaction
- contribution of interaction to enhancement of English

Similarly, five major nodes emerged in the topical analysis of the transcriptions of the interviews with the instructors. They were:

- experience of online teaching: in computer lab and online supervision
- level of learner–learner interaction and reasons for limited interaction
- suggestions for more interaction: about course design, learners' sense of responsibility, university regulation and the role of the instructors

- contribution of interpersonal interaction to the enhancement of the learners' English: macro language skills and soft skills

In the third stage of using NVivo (analytical coding or comparative analysis), the researcher investigated the similarities and differences in the perspectives of learners and instructors about comparable issues. They were communication tools, technical issues, learner–learner interaction, suggestion for more interaction and contribution to learners' English.

In short, qualitative data were analysed to provide an in-depth understanding about views of participants on different aspects of interaction in the online course, to consolidate and complement findings emerged from the quantitative analysis. This study used the general inductive approach for data analysis (Thomas, 2006). The researcher used coding and categorising (Grbich, 2013; Miles & Huberman, 1994) to identify emerging themes, topics and patterns. Table 5 summarises the techniques adopted in the analysis of qualitative data.

Data source	**Analysing technique**	**Findings**
Transcription of focus group discussion	General inductive	Consolidation of findings from survey Themes, topics, patterns of interaction
Transcription of interview	General inductive	Themes, topics, patterns of interaction
Learner's answer to open-ended question in the survey	General inductive	Additional factors that facilitate or hinder interaction
Online message	General inductive	Purposes of interaction between learners and instructors

Table 5: Qualitative data analysing technique

3.4.3 Triangulation of two data sets

The research design of this study adopted a mixed methods approach with results of analysing quantitative data being supported and/or explained by findings from analysing qualitative data of the focus group discussions and interviews. This is called a triangulation of findings from both data sets (Bergman, 2008; Greene, 2007; Teddlie &

Tashakkori, 2009a). For example, the finding from analysing survey data revealed that the learners preferred synchronous interaction mode. In the focus group discussions, this finding was further discussed and confirmed by both the learners and instructors, who mentioned a number of advantages of this mode such as being easy, less time-consuming, motivating and quick to gather opinions, uninterrupted, convenient and one-to-many. At the same time, they also raised few disadvantages of this interaction mode like technical errors, too many different opinions or the use of Vietnamese instead of English in the interaction process.

Another example of the triangulation was the complementary use of different sources of data to identify and explain the frequency levels of interaction between the learners and instructors. The findings from the survey showed that 56% of the learners had used the Support forum to interact with their instructors during the interaction period (seven months). Assuming that each learner sent one message to their instructor per month, and 56% of them (n=116) did as the result shown in the survey, there would be a total of 812 messages sent during that period.

> 207 learners × 56% × 1 message/month × 7 months = 812 messages

However, the total number of online messages that the instructors received was only 200. This discrepancy was further investigated by analysing the content of online messages. For example, many of the instructors' messages aimed to inform all the learners of their study progress.

> Dear all,
> Just a friendly reminder. For those who haven't finished Intermediate Level 1, please complete it in the next ten days. At the end of this month, I am going to stop your access to this level. Thank you. (instructor – ID 02)

When receiving a message like this, the learners only read and acted upon the information in it. They were not required to reply. When filling in the survey, the learners might have considered this action of reading the instructors' message as one use of the Support forum.

In other words, the discrepancy was explained by different perceptions about the use of the forum; that is, reading the message only or both reading and responding to messages.

The abovementioned triangulation of different data sets was a useful technique to "describe and explain an object from different perspectives, and in this way to obtain a more complete result" (Swanborn, 2010, p. 160).

The following diagram reflects how different sources of data were collected, analysed and triangulated to answer research questions of the current study.

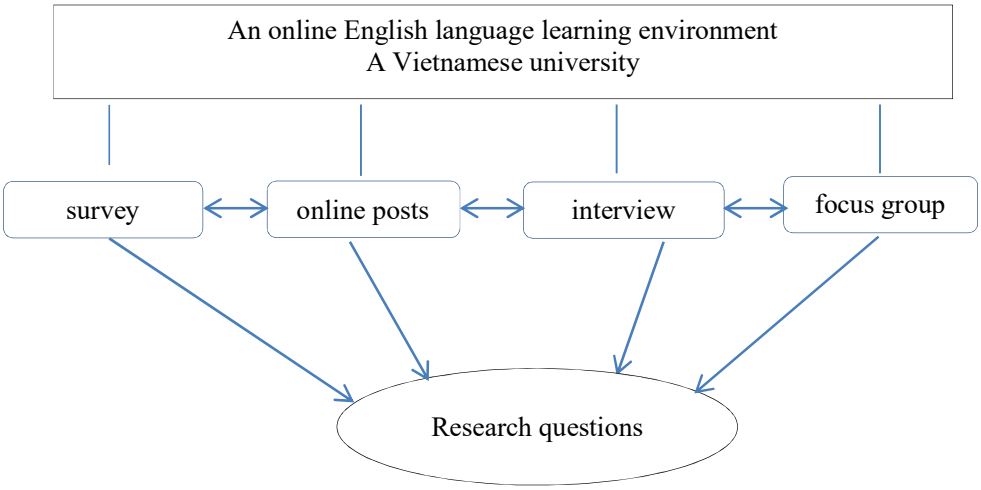


Figure 23: Triangulation of data analysis

The above figure shows that the findings from the quantitative and qualitative data were triangulated not only for the purpose of cross-checking and validation but also for the purpose of merging multiple perspectives related to the research phenomenon in order to arrive at new knowledge. Table 6 presents a more detailed matrix of the data triangulation process.

Sources of data →	**Findings** →	**Research questions**
Survey Online message Interview Focus group discussion	Frequency of interaction	**Question 1:** What are the patterns of text-based interpersonal interaction (learner–learner and learner–instructor) in the online English language learning environment?
	Patterns of interaction	
Survey Online message Interview Focus group discussion	Course - content - design - delivery	**Question 2:** Which factors influence the interaction?
	Learner - gender - place of origin - mode and target of interaction - internet and academic self-efficacy - perceived usefulness of interaction - purpose of interaction	
	Instructor - feedback - pedagogy - online presence	
Survey Online message Interview Focus group discussion	Suggestion to enhance interaction	**Question 3:** What are the effective practices that enhance the interaction?
	Contribution to language learning	

Table 6: Matrix of data triangulation

3.5 Ethical considerations of the study

The study took into account all ethical considerations including protecting the participants, the online study course and the integrity of the researched institution. The research was conducted according to the principles of human research ethics of Victoria University, Melbourne, Australia. Before administering the survey, the researcher obtained consent from the leaders of the researched institution as well as from the participants themselves.

The researcher used to be a lecturer at this university; hence, meticulous attention was paid to make sure that voluntary participation was not compromised by a power relationship between the researcher and participants. Firstly, the research was conducted on the principle of "respect for persons, respect for knowledge, respect for democratic values and respect for the quality of educational research" (Stutchbury & Fox, 2009, p. 498). Secondly, the learner participants were informed that their withdrawal from taking part in the research at any time would not have any impact on the scores of their semester tests (Lawrence, 2007).

In the selection of participants for the interviews, the instructors were approached via email and phone while the learners indicated their willingness by ticking in a box in the *Information to Consent Form for Participants Involved in Research* (see Appendix 5) handed to them during the surveying process. Those who voluntarily expressed their interest in the interview were approached directly by the researcher through mail. Afterwards, their confirmation to participate in the interview was reconfirmed with the researcher by phone or email. Ten learners and 12 instructors came for the interviews that were digitally recorded. The interviews were conducted in Vietnamese so that the participants could comfortably and easily express their opinions. The transcriptions of the interviews were translated into English by the researcher. The translation was double checked by a NAATI-accredited translator (see Appendix 6).

Information about the online learner–instructor interaction obtained from the online course was used by the researcher only, and was not disclosed to any third party. The survey questionnaire was completed anonymously. The interviews and focus group

sessions took place in a friendly and non-threatening environment. In the data analysis and interpretation process, the researcher made sure that participants' anonymity and confidentiality were well protected by using pseudonyms (Dawson, 2009). Wherever online messages were downloaded, the identity of the writers was protected by using the last three digits of the learners' accounts or instructors' pseudonyms. Finally, the research results were only disclosed to other parties with written permission from Victoria University (Creswell, 2014; Lawrence, 2007).

3.6 Summary

In this chapter, the research design and methodological choices for the study were presented, including a rationale justifying their application. The use of a mixed methods approach aimed to help the researcher gain both breath and in-depth views of learners and instructors of the online course.

The rich description of the participants, the university and online environment provided background information about online learning in Vietnam and the need to conduct an investigation for better understanding and improvement. The number of participants in three methods of data collection as well as the downloading of all online messages in the course allowed the researcher to have sufficient materials to conduct different analytical methods to answer the research questions of the study. The researcher took great care to protect the identity and confidentiality of the participants and online information respectively.

The collection and analysis of the data were carefully designed and conducted to ensure the highest possible results necessary for the researcher to answer three research questions. Data were collected from multiple sources to cover the majority aspects interaction. The analysis of two data sets aimed to yield both broad and deep results, which were discussed in the light of theoretical framework of the study. Most importantly, the triangulation of the analytical results was adapted to allow the researcher to consolidate and extend findings for different steps of data collection and analysis. In the next chapter, the findings that emerged from of data analyses will be presented.

CHAPTER 4: FINDINGS OF THE STUDY

This chapter reports the results of the analysis of all the four sets of data: survey, online message, focus group discussion and semi-structured interview. As mentioned in Chapter 3, 207 learners took part in the survey, 10 in the interviews and nine in the focus group discussions. The survey was not conducted with the instructors, but 12 of them voluntarily participated in the interviews and six in the focus group discussion.

The mixed methods approach adopted here was useful for the triangulation of both sets of data: quantitative and qualitative. There was a constant comparison and contrasting of findings to explore empirical evidence to answer the research questions. This triangulation of data was different from some other mixed methods studies in which there may be a separated presentation of quantitative and qualitative results, and then a section incorporating the two sets. In this study, results of analysing both numeric and text data were concurrently triangulated to answer three research questions:

- What are the patterns of text-based interpersonal interaction (learner–learner and learner–instructor) in the online English language learning environment?
- Which factors influence the interaction?
- What are the effective practices that enhance the interaction?

The following sections present the findings for each of the research questions in detail.

Research question 1: Frequency and patterns of interaction

All the four sources of data were analysed to investigate different aspects of the learners' interaction in the discussion forums of the online course such as their level of participation, number and time of the posts and the time gaps between the sent and received messages. In addition, the analysis of online posts yielded different patterns of interaction such as instructor-initiated, learner-initiated, one-way, two-way and multi-directional.

4.1 Frequency of interaction

4.1.1 Level of learner–learner interaction

The online course had four forums for the learners to interact with peers and users from other countries. They were Community Discussion, Class Discussion, You!Who? and WebPal. Figure 24 shows survey data about the learners' use of each forum.

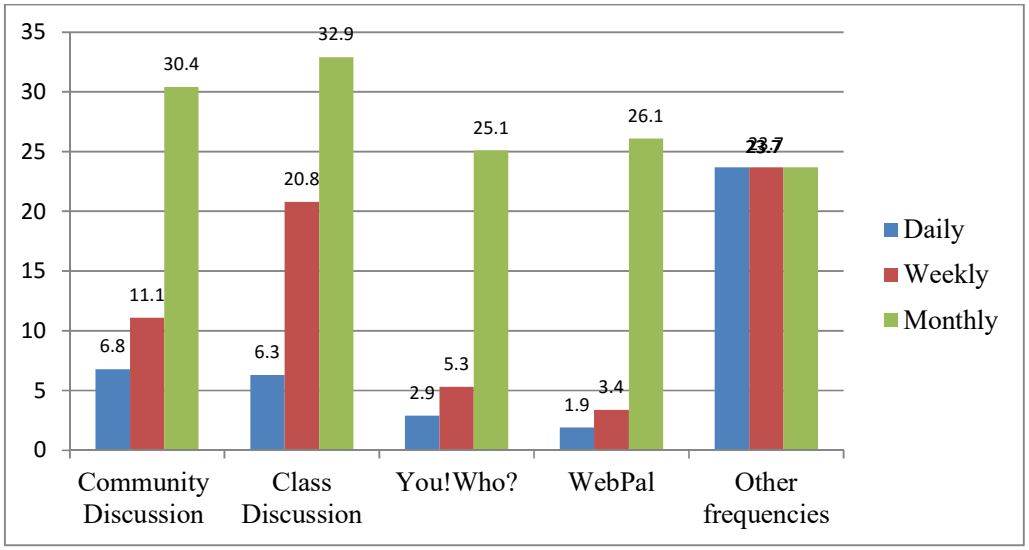


Figure 24: Learners' interaction with peers (in percentage)

Figure 24 indicates that more learners interacted with peers in the Class Discussion (32.9%) forum than in the Community Discussion (30.4%) one. The above result was not supported by the number of online messages found in these two forums in which a higher number of messages were found in the Community Discussion (113) than in the Class Discussion (78) (see Table 7). Over a quarter of the learners reported using the You!Who? and WebPal to interact with peers. Although the system did not record their use of the You!Who?, a random browsing of 10 learners' records of using the WebPal showed that none of them had made friends with other users of the online course, either from Vietnam or other countries. Nearly 24% of the learners reported that they had never interacted with peers, but the analysis of the learners' actual participation in the Community Discussion and Class Discussion forums revealed that as of the end of the online study time, only 11% and 14% had actually posted messages in these two forums respectively. In short,

there was a certain level of discrepancy between reported and actual level of participation in the forums.

4.1.2 Number of posts

Forum	**Total posts**	**Number of participating learners**	**Average number of posts/learner/week**
Support	209	95	0.08 (209/95/28*)
Community Discussion	113	27	0.15 (113/27/28*)
Class Discussion	78	35	0.08 (78/35/28*)
Total	**400**		

**seven months of online study*

Table 7: Number of posts from learners

All the learners' messages were downloaded from the course system. The above table shows that the largest number of posts was seen in the learner-to-instructor interaction forum (Support) with 209 posts from 95 learners. This was followed by the posts in the Community Discussion: 113 posts from 27 learners. The smallest number was found in the Class Discussion: 78 posts from 35 learners. The above data could translate into an equal weekly number of 0.08 posts per learner in the Support and Class Discussion forums and 0.15 posts per learner in the Community Discussion forum.

The average number of posts per learner per week was rather disappointing. In the focus group discussion, the learners mentioned three main reasons why their interaction with the instructors was infrequent: (a) instructors' busy schedule; (b) differences in the hobbies between the learners and instructors; and (c) knowledge gaps between them. Particularly, one learner reported that the supervising instructor only sent one or two messages to the group for a whole semester. The data from online messages confirmed this statement – one of the instructors sent only four messages in one semester.

When asked in the interviews about learners' interaction with peers, the instructors gave similar observations to the above results. In other words, their learners did not have any

or had very little interaction with peers. They suggested that it was because the learners already had a lot of face-to-face contact. Furthermore, it was due to a lack of sense of self-directed study or the fear of losing face, *"weak learners are reluctant to interact with others due to their fear of losing face"* (instructor – ID 06). Some also mentioned technical glitches compared with other interaction tools such as Yahoo messenger, Skype, email or phone messages. The learners gave similar reasons why they did not interact with peers in the online study process, "*I don't take part much in online forums. I often use Yahoo or Facebook to interact online with friends. Our class has a Facebook page too*" (learner-Orchid).

The majority of the participants in the interviews stated that they rarely used the online forums to interact with peers due to technical problems when using the system as well as the availability of other more convenient interactional tools such as Facebook and Skype. One learner suggested: *"If learners can be connected through another social network like Facebook, many more learners may participate. For example, if we can log in EDO from Facebook, it will be easier and faster"* (learner – Lily).

4.1.3 Number of participating learners

The total number of the learners who had access to this online course was 252 but not all of them interacted online with their peers and instructors. The survey data revealed that 13% of the learners had never interacted with peers and 23.7% never interacted with instructors. These results were not in agreement with the evidence recorded in the online system. More specifically, only 38% of the learners wrote to their instructors via the Support forum, and around 20% took part in the learner-to-learner interaction forums (Class and Community Discussion). The total number of the learners taking part in the forums is presented in Table 8.

Number of forums	**Number of learners**
Only one forum	91 (76%)
Two forums	21 (17%)
Three forums	8 (7%)
Total	**120**

Table 8: Participating learners and corresponding number of forums

The above table shows that out of the 120 learners (48% of the total 252) who took part in the three forums, the majority (76%) posted messages in only one forum. The remaining learners contributed their messages in two and three forums at the ratios of 17% and 7% respectively. The following table further elaborates the number of participating learners and their corresponding number of posts.

Number of learners	**Number of messages posted**
102 (85%)	1–5
17 (14%)	6–10
1 (<1%)	10 and over
Total: 120	

Table 9: Participating learners and corresponding number of posts

Table 9 shows that the majority of the learners (85%) wrote 1–5 posts, while only 14% of them contributed 6–10 messages during the seven months of the online study. Interestingly, one learner posted as many as 50 messages in all three communication forums but the content analysis of the online posts revealed that there was no relationship between the quantity and quality of interaction. For instance, one learner (ID 017) participated in only one forum, but wrote nine messages while another learner (ID 258) posted only four messages in three forums. In one of the forums this learner wrote only one word, *"Hi"*. Similarly, another learner (ID 097) wrote 50 messages in three forums, but 48 of them were in the Community Discussion. Many of these messages were not meaningful with just a greeting like *"Hello, everyone"*.

4.1.4 Time of participation

The learners started accessing this online course in October 2011 and completed it in May 2012. There was a chronological consistency in their time of participation in the three forums. After a slow start, their participation increased sharply from November until the middle of December in all three forums. Their engagement fell sharply afterwards and stayed low for the next three months. In fact, their participation in the Community Discussion almost came to a halt after February 2012. The intensity of interaction only

rose slightly during the months of April and May when the second semester of the learners' academic year was about to end (see Figure 25).

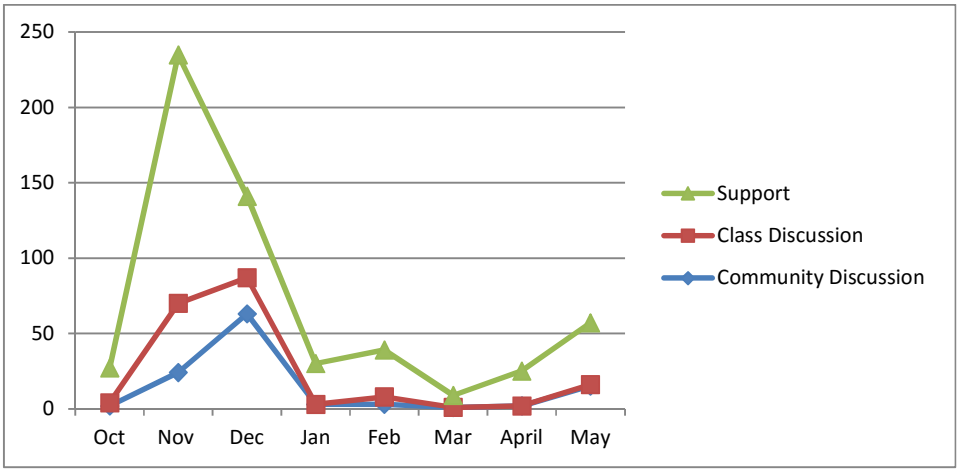


Figure 25: Posting time of messages in three forums

When the learners first enrolled in the course at the end of 2011 and beginning of 2012, the majority of their messages were found in the Community Discussion forum in the form of simple greetings. For example, the messages from learner ID 097, who was the most active participant in online discussion, were mostly greetings or introduction: *"can u introduce more about u? hi iam from viet nam. how old are u? are u boy or girl?* [*sic*] (dated 1/12/2011). This message is evidence of socialisation – the second stage of Salmon's (2003) model.

In the later period of the online study, this learner posted messages which showed higher levels of learning, for example:

> I am from viet nam.nice to meet u.!.english is now very popular and helpful.but i think we should learn anorther language such as chinese,japanese,etc. In current society,everyone learn E so E is not strange.in my oppinion,strange things may lead to success [*sic*] (dated 24/3/2012)

> I know your trouble. But as you know, everyone comes from the different countries, so we just discuss on forum. And I think you should start a main E couse instead of looking for the helping. Good luck. "NO pain, No gain" so you don"t give up [*sic*] (dated 24/5/2012).

The above messages revealed that the learner could provide some advice to peers. Thus there was some improvement in the level of learning. Unfortunately, this phenomenon did not happen with all learners because some of them posted very few messages at the beginning of the course. This was possibly because participation in online discussion was not compulsory. The above assumption was confirmed during the interviews with some of the learners. When asked whether they took part in the online forums, the majority of participants stated that they rarely did.

4.1.5 Response time

The analysis of the time gap between the outgoing and incoming messages revealed some interesting results. Firstly, there was a large variation in the time gaps in the Support forum (learner–instructor interaction). While the majority of messages (72%) were replied within one to five days, there were also a few cases in which the learners' questions were not responded to for a month. This was possibly because of the periods of national and traditional New Year holidays or semester break. In addition, the learning management system did not allow the learners to forward their messages to instructors' external email addresses. Hence, the instructors only knew about these messages when they logged on to the course.

Secondly, in the Class Discussion, the time of the learners' response to the instructors' assigned topic varied a great deal. For instance, one of the instructors assigned a topic on 8 November 2011, but it was not until two weeks later that the first learner started to post opinions about the topic, and the discussion on this topic continued until the end of the academic year. On the other hand, another instructor (ID 03) assigned two topics on 16 November 2011, and only two days later, the first learner posted the first message, and within a week, 10 others followed. Checking the online interaction between this instructor and the learners, it was discovered that the day after assigning the topic, this instructor sent out a message to all the learners (via the Support forum) informing them of the topics that had been assigned and requested the learners to post at least one comment each with a deadline of participation.

> Look for the 'Forum' and there will be 2 topics for you to discuss (people you admire and Hometown – you can see my name next to the topics). I want you to leave at least 01 comment in the one of the 2 assigned forums. (Note: in the title of the comment, remember to write your name + class). Deadline: 25/11/2011. [*sic*] (instructor – ID 03)

The analysis of the learners' participation in the Community Discussion forum yielded similar results. Over half of the learners' posts (57%) were in the topic "Learning English" and they were scattered from the beginning to the end of the course (October 2011 to May 2012). In one particular case, as many as 10 posts were found on the 28th and 29th of May 2012 in which the learners expressed their understanding about an article in the Discoveries Magazine (a reading resource). This was because an instructor (ID 03) asked the learners to read the article and express their opinions about it.

> Find one article in Discovery magazine (Level: advanced. Topic: free. Choose the one you like the most). Read and (a) write a short summary about the reading or (b) explain the reason why you like that reading. (maximum: 10 sentences). Deadline for this task will be 27/5.

As in the previous analysis, a message with clear task and deadline from the instructors seems to make the learners participate more intensely in the forum.

4.1.6 Unanswered and unread messages

The analysis of online messages also suggested that some messages were not answered or opened, both from the learners and instructors. Of the total 209 messages that the learners sent to their instructors, 70 (≈ 30%) were not answered. The content analysis of these messages showed that some learners were reporting about study progress while others asked technical questions and/or made excuses for not studying according to the schedule. The instructors might have thought that it was not necessary to reply to these messages or they might have just forwarded the messages to the technical department.

The online data also revealed that quite a few messages from the instructors were not read by the learners. Like in popular email systems (Yahoo, Gmail), the read and unread messages had the following signs.

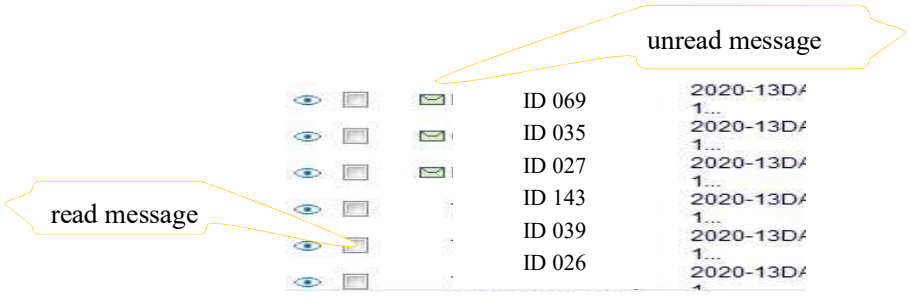


Figure 26: Read and unread messages

Altogether, 40 learners did not read the messages from their respective instructors. There was a big variation among the groups in the number of learners who did not read the messages as shown in Table 10.

Group code (25 learners/group)	**Number of learners who did not open instructors' messages**
11	15
07	10
14	6
09	3
13	3
12	2
08	1
06	0
10	0
15	0
	Total: 40

Table 10: Number of learners who did not read instructors' messages

The above table shows that while all the learners of some groups (6, 10, 15) were active in reading their instructors' messages, nearly half of the learners from groups 7 and 11 did not read the incoming messages from their instructors.

4.1.7 Level of interaction with the instructors

The learners of this course could interact directly with their instructors through the Support forum and indirectly through all other four forums of the online course. Figure 27 shows the survey data about the learners' frequency of interaction with the instructors using available tools.

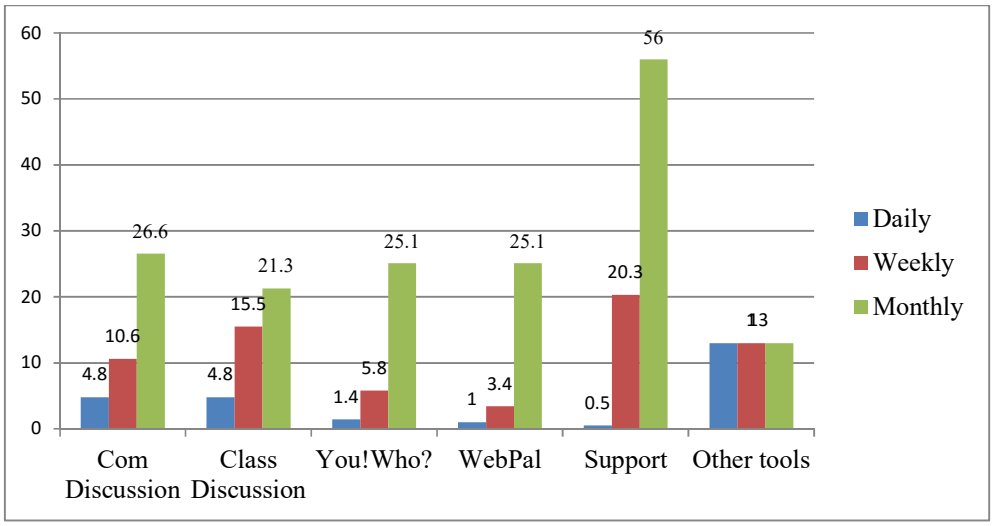


Figure 27: Learners' frequency of interaction with instructors (in percentage)

It is apparent from Figure 27 that more than half of the learners (56%) interacted with their instructors on monthly basis in the Support forum. The above finding is in agreement with the number of online messages found in this forum (see Table 7 above). Secondly, over 25% of the learners stated that they interacted with their instructors using Community Discussion, You!Who? and WebPal. In fact the instructors did not take part in the Community Discussion forum, and their use of the You!Who? and WebPal was almost minimal. Thirdly, although only 13% of the surveyed learners reported that they did not interact with the instructors, the findings from analysing online messages revealed that 62% of the learners did not write to their instructors during the online study time.

In order to understand more about the learners' and instructors' online interaction during the online study period, the researcher conducted content analysis of their posts, using

each message as a unit of analysis (Hara, Bonk, & Angeli, 2000; Lisa, 2011). This qualitative analysis of the posts aimed to examine the patterns of interaction.

4.2 Patterns of interaction

The analysis of online messages revealed that the patterns of interaction varied depending on which forum the learners and instructors took part in. The following section presents key interaction patterns: instructor-initiated, learner-initiated, one-way, two-way and multi-directional.

4.2.1 Instructor-initiated pattern of interaction

This pattern of interaction was recorded mainly in the Support forum. Due to the set-up of this communication space, the interaction was only possible between an instructor and one or more learners within the same group. Based on the messages downloaded from this forum, the following pattern could be drawn:

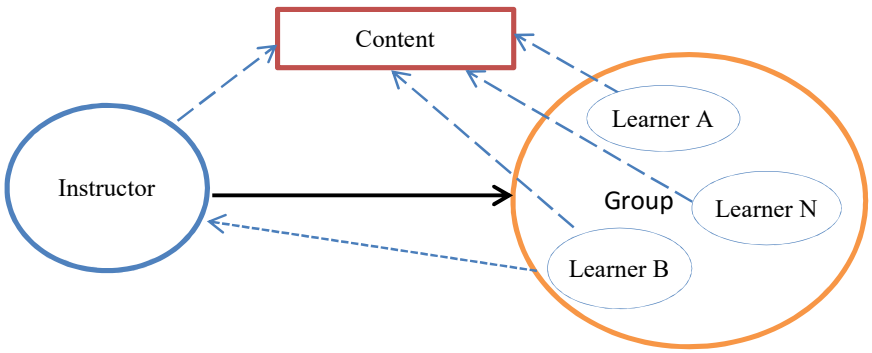


Figure 28: Instructor-initiated pattern of interaction in Support forum

In this forum, the intermediary point of contact was the content of the online course. The online data showed that some learners were active in engaging with assigned tasks and activities, but others were not. Seeing this, the instructors sent out messages to all learners reminding them of the need to complete assigned tasks. After receiving such messages (solid arrow), individual learners started to interact with the content (dashed arrow) and fulfil the assignments. Some learners composed a message and sent it to the instructor (dotted arrow) to report their study progress or technical problems (e.g. learner B). The

results of analysing the online messages showed that not all the learners replied to their instructors because interaction with instructors was not compulsory. This explained why only about 38% of the learners sent messages to their instructors in this forum.

The instructor-initiated pattern of interaction was also found in the Class Discussion forum. Due to the set-up of this forum, the interaction had to start from the instructors who created topics and encouraged the learners to take part in the discussions. When the learners posted messages in this forum, they were seen by everyone. The analysis of these posts showed that most of the reflective comments (giving feedback to peer's posts) were from the learners. The instructors' engagement was limited to assigning topics to the groups under their supervision. The learners' level of participation in this forum varied from group to group. For example, in one group, 37 messages from the learners were found, but in another group only one comment was made.

4.2.2 Learner-initiated interaction

The results of analysing the online messages indicated that the learners also started the interaction process. This occurred primarily in the Community Discussion forum where the learners could communicate with anyone who had access to the online course. The researcher browsed all eight topics in this forum and selected the users who were participants of this study (identifiable through account configuration). Their engagement was calculated and analysed to see if they were initiators or commentators, and who they were interacting with.

The descriptive analysis of the learners' online posts in this forum showed that the learners were both initiators and commentators in the interaction process, but the latter role accounted for a much higher proportion: 79% versus 21%. They interacted more with international than Vietnamese peers: 43% versus 29%.

When a learner initiated a new discussion thread, he or she triggered an interaction process which resulted in multi-directional communication as shown in Figure 29.

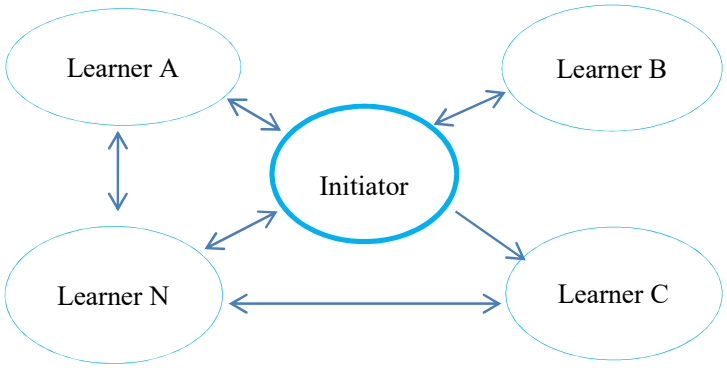


Figure 29: Learner-initiated pattern of interaction

The above figure shows that when a learner initiated a message, he or she could be responded to by a number of other users, both from Vietnam and other countries. This, in turn, triggered interactions between other respondents (e.g. learners C and N). The above analyses also indicate that interactions between the learners occurred in different directions: one-way, two-way and multi-directional.

4.2.3 One-way interaction

There were a number of occasions in which the interaction was one-way. For example, all the instructors sent their learners an announcement about an online contest in February 2012, but none of the learners responded to this piece of information. Similarly, the learners' submitted assignments and reports of study progress did not normally receive comments and responses from instructors.

4.2.4 Two-way interaction

Two-way interactions occurred when a learner sent a question to the instructor and received a response. On a few occasions this resulted in several rounds of interaction back and forth between individual learners and the instructors. Two-way patterns of interaction were also recorded in the Community Discussion forum between the initiator of a message and only one peer, as shown in Figure 30.

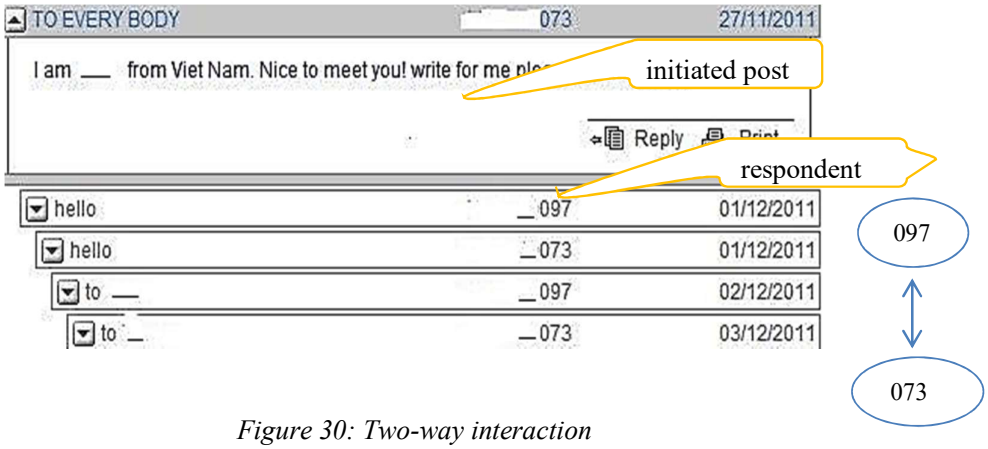


Figure 30: Two-way interaction

The above figure shows a two-way interaction between an initiator (ID 073) and one respondent (ID 097). More specifically, on 27 November 2011 a learner (ID 073) posted a general message to everyone: *"I am __from Vietnam. Nice to meet you! Write for me, please"*. Four days later, this learner received a response from one peer (ID 097). Two learners continued the interaction for a few days, until 3 December.

4.2.5 Multi-directional interaction

In the Community Discussion forum there were a few occasions in which more than two users took part in the discussion, as shown in Figure 31.

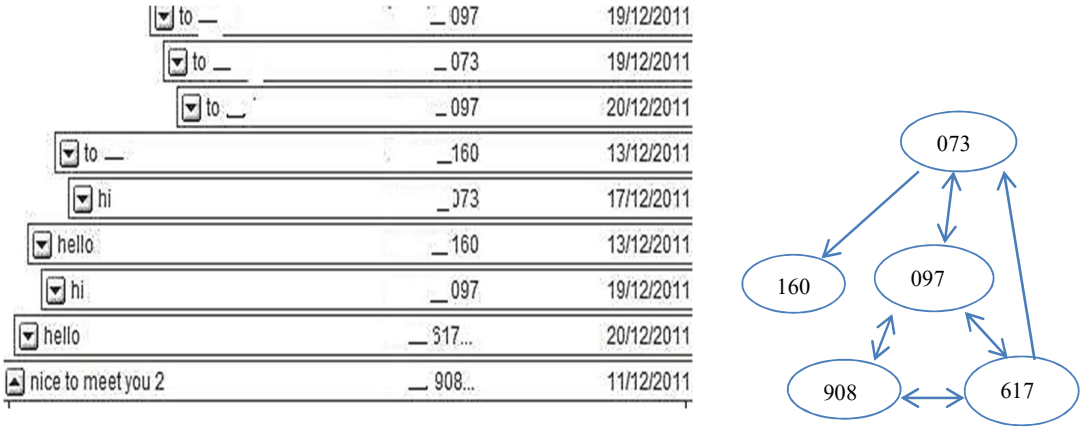


Figure 31: Multi-directional interaction

Figure 31 shows that many learners took part in the discussion thread. Although the threaded structure of the discussion made it difficult to see when the interaction started, it is apparent that there were quite a few exchanges of messages among these learners.

The threaded structure revealed who were responding to whom. For example, the learner ID 097 was active in responding to peers (e.g. IDs 160, 073). The date of the post also indicated whom a learner was writing to. For instance, it seems that the learner ID 908 responded to the author of the original message dated before 11 December. Overall, the above figure indicated that one learner (ID 097) was the centre of the discussion, and that not all participants were connected.

Research question 2: Factors influencing online interaction

The review of literature in online learning has revealed that there are many factors that influence learners' interaction with the course content, peers and instructors (Bolliger & Wasilik, 2009; Lee, 2006; York & Richardson, 2012). In this study the researcher analysed all four sources of data and classified the factors into three groups relating to the learners, instructors and the online course itself. Each of these groups was broken down into sub-factors for further analysis and discussion. The next part of the chapter starts with a general descriptive and principal component analysis of influencing factors. This will be followed by the presentation of other factors that were commonly discussed in the literature such as learner demography, mode of interaction and the confidence of using the internet.

4.3 Identification of major factors influencing online interaction

4.3.1 Descriptive analysis of the factors

In obtaining the learners' views about factors that affected their online study, the researcher developed a 21-item Likert-style survey instrument which was based on the online interaction framework consisting of three types of interaction: learner–learner, learner–instructor and learner–content (Moore, 1989). The survey question was: *How important is each of the following factors in facilitating your online interaction in the course?*

Due to low count in some cells, responses were collapsed into three categories. The original variables were *extremely important, very important, important, not important and no opinion*. Similar collapsing of the data was conducted for other table as well (e.g. tables 18, 19, 29).

Factors	Important (%)	No opinion (%)	Not important (%)
1. Ability to communicate in English	94.6	0.5	4.9
2. Content of the online course	81.9	2.0	16.1
3. Learners' availability of time	76.9	6.4	16.7
4. Sense of belonging to a virtual group	45.4	18.7	35.9
5. Linkage between interaction and learning goals	74.3	8.1	17.6
6. Interaction preferences: face-to-face vs. online	57.2	11.5	31.3
7. Technical support	80.7	5.9	13.4
8. Regulations about online interaction	47.0	12.5	40.5
9. Level of confidence in using the internet	49.6	6.3	41.1
10. Typing skills	41.7	9.3	49.0
11. User-friendliness of the communication tools	52.0	15.0	31.0
12. Cost of the online course	67.7	7.8	24.5
13. Internet speed	79.8	5.4	14.8
14. Regularity of online presence by instructors	71.2	10.8	18.0
15. Usefulness of feedback from instructors	86.8	3.4	9.8
16. Timeliness of feedback from instructors	68.5	9.4	22.1
17. Joy of interaction with the instructors	63.0	13.4	23.6
18. Regularity of online presence by peers	46.9	13.8	39.3
19. Usefulness of feedback from peers	62.6	11.3	26.1
20. Timeliness of feedback from peers	47.0	14.8	38.4
21. Joy of interaction with peers	63.2	11.8	25.0

Table 11: Factors influencing interaction in the online course

Table 11 shows that the major factors influencing interaction in this course were related to the learners, instructors, technology and course content. These factors were classified into two categories: having influence and not having influence on the interaction process. The influencing factors (shaded ones in Table 11) are those that have values accounting for 60% and above of the total respondents. Although this is not a clean procedure for

making up the threshold, as a working device, it might work in differentiating the factors (Byrne, 2002). Accordingly, factors numbered 1, 2, 3, 5, 7, 12, 13, 14, 15, 16, 17, 19 and 21 were considered having some influence on the interaction process.

In the follow-up focus group discussion, the researcher presented the factors with very high important values to a group of nine participants and asked them to indicate (through a vote of hand) which ones were the most important. A quick collation of their ranking revealed three most important factors: (i) content of the online course; (ii) ability to communicate in English; and (iii) internet speed. A similar exercise was also conducted in the focus group discussion with six instructors. Results of the latter discussion revealed that content of the online course, the joy of interaction and internet speed were the most important factors.

4.3.2 Principal component analysis of influencing factors

As explained in the previous section, out of 21 items mentioned in the survey, items (factors) numbered 1, 2, 3, 5, 7, 12, 13, 14, 15, 16, 17, 19 and 21 were considered having some influence on the interaction process. These factors were related to the learners (6 items), instructors (3 items), and the course itself (4 items). In order to explore empirical usefulness of these groupings, principal component analysis (PCA) was utilized to identify other potential constructs underlying respondents' answers to the question. The main purpose of conducting PCA was to complement and consolidate the aforementioned simple statistical findings. Another objective of using PCA was to triangulate the information gathered from the four sources of data (survey, online messages, interviews and focus group discussions). The exclusion of the factor about learners' English language proficiency is in line with the instructors' views (expressed in the focus group discussions) that the level of English in this course was lower than that of the learners', "[…] *because their level of English is much higher*".

The 21 items that facilitated the learners' interaction processes were subjected to this analysis. Initial analysis results showed that three items (1, 8, 17) have low loadings (e.g. under .3) suggesting that these components be removed from the analysis. Examination of communalities values also showed that six items (1, 4, 5, 6, 7, 8) had low values (e.g.

less than .3) indicating that these items did not fit well with other items in its component. Altogether it was decided that seven items (1, 4, 5, 6, 7, 8, 17) be removed from analysis.

Prior to performing the PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .03 and above. The Kaiser-Meyer-Olkin (KMO) value was .71, exceeding the recommended value of .6 (Kaiser, 1970, 1974), and the Bartlet's Test of Sphericity (Bartlet, 1954) indicated statistical significance, supporting the factorability of the correlation matrix (see Table 12).

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.714
Bartlett's Test of Sphericity	Approx. chi-square	804.650
	Df	210
	Sig.	.000

Table 12: Results of the KMO and Barlett's test

Principal components analysis revealed the presence of seven components with eigenvalues exceeding 1, explaining 19.9%, 8.1%, 7.3%, 6.7%, 5.4%, 5.2%, and 4.8% of variance respectively as shown in Table 13.

Component	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings[a]
	Total	% of variance	Cumulative%	Total	% of variance	Cumulative%	Total
1	4.170	19.859	19.859	4.170	19.859	19.859	2.914
2	1.711	8.147	28.006	1.711	8.147	28.006	2.218
3	1.535	7.309	35.315	1.535	7.309	35.315	1.846
4	1.407	6.700	42.015	1.407	6.700	42.015	2.398
5	1.141	5.432	47.446	1.141	5.432	47.446	1.630
6	1.098	5.227	52.673	1.098	5.227	52.673	1.242
7	1.013	4.823	57.496	1.013	4.823	57.496	1.781
8	.969	4.616	62.112				
9	.911	4.336	66.448				
10	.868	4.133	70.581				
11	.845	4.024	74.605				
12	.829	3.949	78.553				
13	.714	3.398	81.952				
14	.687	3.269	85.221				
15	.636	3.028	88.249				
16	.555	2.645	90.894				
17	.518	2.466	93.360				
18	.452	2.150	95.510				
19	.404	1.923	97.433				
20	.292	1.389	98.823				
21	.247	1.177	100.000				

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 13: Principal component analysis – total variance

Before accepting the factors, additional criteria were used such as Scree plot and parallel analysis (Williams, Brown, & Onsman, 2012). The Scree plot is a graph of eigenvalues. It is recommended to retain components lying to the left of the elbow which is a break from linearity (Williams et al., 2012). An inspection of the Scree plot (Figure 32) revealed a clear break after the fourth component.

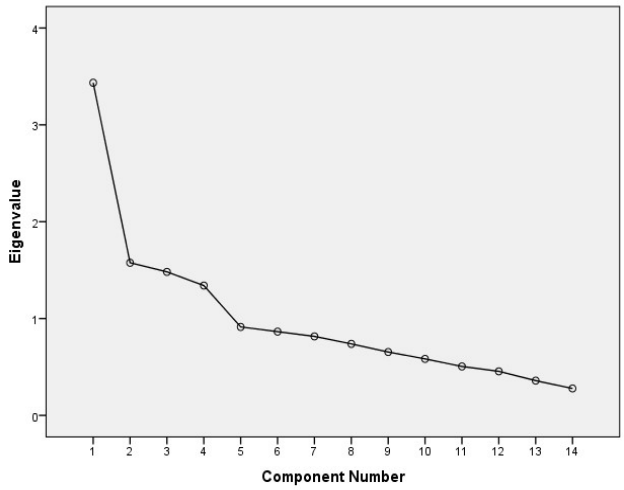


Figure 32: Scree plot of four groups of factors

The findings from the Scree plot were further supported by the results of parallel analysis, which showed only four components with eigenvalues exceeding the corresponding criterion values for the randomly generated data matrix of the same size (21 variables × 207 respondents). Table 14 shows the results of parallel analysis.

Component number	**Actual eigenvalue from PCA**	**Criterion value from parallel analysis**	**Decision**
1	4.170	1.6180	Accept
2	1.711	1.5137	Accept
3	1.535	1.4244	Accept
4	1.407	1.3517	Accept
5	1.141	1.2860	Reject
6	1.098	1.2279	Reject
7	1.013	1.1705	Reject

Table 14: Eigenvalues from PCA versus parallel analysis values

The four-component solution explained a total of 55.9% of the variance, with Component 1 contributing 24.5%, Component 2: 11.3%, Component 3: 10.6% and Component 4 contributing 9.6% as shown in Table 15.

Total variance explained			
Component	Initial eigenvalues		
	Total	% of variance	Cumulative%
1	3.434	24.532	24.532
2	1.576	11.258	35.790
3	1.482	10.583	46.372
4	1.341	9.577	55.949

Table 15: Total variance explained by each of four groups of factors

To aid the interpretation of these four components, oblimin rotation was performed. The rotated solution revealed the presence of simple structure with four components showing a number of strong loading, and most variables loading substantially on only one component. The interpretation of four components was consistent with previous research on factors influencing interaction in an online course (Vrasidas & McIsaac, 1999) with high loadings on aspects such as other learners (feedback, presence), online course (content, cost), learner prior experience (internet skills, typing) and instructors (presence, feedback) (see Table 16).

The Cronbach alpha values for all the retained items were over .70, which suggests acceptable internal consistency among the items (DeVellis, 2003).

Factor	Pattern coefficients					Cronbach's alpha if item deleted
	Item	Component				
		1	2	3	4	
Other learners	20. Timeliness of feedback from peers	**.831**	–.124	.099	.143	
	19. Usefulness of feedback from peers	**.758**	–.041	.224	.065	.715
	21. Joy of interaction with peers	**.729**	.225	–.097	–.133	.729
	18. Regularity of online presence by peers	**.531**	.397	–.181	.124	.718
Prior experience	09. Level of confidence in using the internet	.087	**.710**	–.144	.108	.737
	11. User-friendliness of the communication tools	.042	**.675**	.161	–.114	.735
	10. Typing skills	.073	**.601**	.039	.054	.735
Online course	02. Content of the online course	.093	–.095	**.689**	–.095	.746
	13. Internet speed	–.056	.304	**.559**	.110	.727
	03. Learners' availability of time	.120	–.089	**.555**	.099	.734
	12. Cost of the online course	–.161	.421	**.548**	.034	.738
Instructor	14. Regularity of online presence by instructors	–.150	.213	–.238	**.780**	.740
	16. Timeliness of feedback from instructors	.216	–.126	.089	**.744**	.725
	15. Usefulness of feedback from instructors	.049	–.073	.228	**.712**	.726

Table 16: Principal component analysis of influencing factors

The survey data contained in Table 16 reveal four distinctive factors that had an impact on the learners' interaction process. The first factor (items 18, 19, 20, 21) concerns other learners, more specifically their social and cognitive presence in the interaction process. The highest loadings for items 19 and 20 (.76 and .83 respectively) show that learners wanted timely and useful feedback from peers. However, the usefulness of feedback was not strongly supported by the online messages because most of them were in the form of

monologues whereby the learners just posted their thoughts without paying much attention to commenting on other's messages. The joy of interaction with other learners was also given high value (loadings .73). The findings emerged from two sets of data (online messages and survey) indicated some discrepancies. This phenomenon is discussed in detail in section 5.1.2 of the next chapter.

The second factor (items 9, 10, 11) is mainly related to the learners' prior experience – more specifically their competence in using computer, the internet and familiarity with the interface of the online course. In regard to the learners' prior experience in using the internet, while nearly half of the survey respondents (49.6%) believed that it was important, 41.1% of them stated that it was unimportant. Similarly, although 52% of them considered the user-friendliness of communication tools important, 31% of them thought it was not important. In short, the learners of the course believed that neither their competence in using computer and the internet nor the interface had an impact on their interaction.

The third factor (items 2, 3, 12, 13) was about the online course with the exception of item three (learners' availability of time). The learners placed high values on the importance of the content and cost of the online course (81.9% and 67.7%). The analysis of interview and focus group discussion transcriptions revealed that the content level was lower than that of the learners, which limited the interaction process. The learners later stated in the focus group discussion that useful content could increase their online presence.

The fourth factor (items 14, 15, 16) that emerged from the principal component analysis was related to the usefulness, timeliness of feedback and regularity of presence of the instructors. With regard to the usefulness of feedback, descriptive data showed that 86.8% of the learners considered it important while only 9.8% thought it was not important. During the focus group discussion, the learners commented that although they had more interaction with peers, when it came to the quality of feedback, they often turned to the instructors: one learner stated*, "if we are not sure who's right, or if we're not sure of the answer, then the instructor will have the last say"*.

The survey respondents also perceived that the regularity of instructors' presence was significant (loadings .78). The instructors mostly posted messages in the Support forum (159 out of 368 posts). Their participation in the Class Discussion forum mainly involved creating and assigning topics to their groups of the learners and their participation in the Community Discussion was minimal. In short, it seems that the instructors' online presence was not as high as the learners' expectations. The following sections present the factors relating to the learners, instructors and the course in detail.

4.4 Learner-related factors influencing online interaction

The results of simple descriptive and PCA analyses (see section 4.3) revealed that the factors that had impact on the learners' online interaction included their ability to communicate in English, the availability of time, and the usefulness of feedback from peers. The issue of ability to communicate in English was chosen for further elaboration in the focus group discussion and the learners mentioned a few reasons why this factor was important, for example: *"Without good command of English, learners are reluctant to log in"* and *"In an English speaking environment, ability to communicate is the key"*.

For these learners, good pronunciation, rich vocabulary and good use of words were the key elements to enhance their confidence in communicating in English. Other elements were background knowledge and discussion topics. Although the instructors did not verbally mention the importance of this factor, in their written ranking of the influencing factors, they considered this as the most important one.

Beside the above factors relating to the learners, the current research also investigated whether other factors also had influence on the learners' online interaction, including their demography, perceived usefulness of interaction and so on. The following section presents the influence of these factors in detail.

4.4.1 Factors relating to learners' gender

A majority of the learners (91.8%) were female and only 8.2% were male. In Vietnam, more girls enrol in social science studies than boys, especially for language institutions. At the English Department where this study was conducted, statistics in the three

consecutive years, from 2009 to 2011, showed that the ratio of female/male students was over nine to one as shown in Table 17.

Year 2009			**Year 2010**			**Year 2011**		
Female	Male	Total	Female	Male	Total	Female	Male	Total
242	24	246	263	33	296	229	24	253

Table 17: Number of female and male students in three cohorts: 2009, 2010 and 2011

The Vietnam NetCitizens Report (2012) showed that Vietnamese men are higher than women in the internet penetration (66% versus 50%). The report did not disaggregate the gender for the age groups (19–22) of the participants of this study. Thus, it is not possible to draw a definite conclusion about the impact of this factor on their online interaction.

The researcher was interested to see if there was an association between the learners' gender and their level of confidence in using the internet. The chi-square analysis showed that three cells had expected count less than five, so an exact significant test was selected for Person's chi-square. This exact significant test was applied for all the contingency tables in the rest of the analysis (e.g. tables 19, 20) wherever a cell count is less than five. There was no significant association between gender and their level of confidence in using the internet: χ^2 (3, n=207) = 7.2, exact p=.06.

		Confidence in using the internet					
		Not very confident	Normal	Confident	Very confident	Total	Chi-square
Origin	Female	10	97	62	21	190	7.2
	Male	0	4	9	4	17	
	Total	10	101	71	25	207	

χ^2 (df 3, n=207) = 7.2; Exact Sig. (2 sided): 0.06

Table 18: Association between learners' gender and level of confidence in using the internet

4.4.2 Factors relating to learners' place of origin

More than half of the learners (52%) were from Hanoi, the capital city of Vietnam. Other provinces were in the north of the country. Vietnam's internet infrastructure has been developing rapidly in the last decade. This resulted in the increasing number of internet users in the whole country. The report on statistics of internet users in Vietnam (2013) revealed that as of May 2013, over 55.2% of Vietnamese people had access to the internet. Thus it was possible to assume that learners from Hanoi and other provinces had a similar level of confidence in using the internet. This assumption was confirmed in the results of chi-square test for independence which showed no significant association between place of origin and level of confidence in using the internet.

		Confidence in using the internet					
		Not very confident	Normal	Confident	Very confident	Total	Chi-square
Origin	Hanoi	4	50	36	13	103	0.55
	Other provinces	6	50	33	12	101	
	Total	10	100	69	25	204	

χ^2 (df 3, n=204) = 0.55; Exact Sig. (2 sided): 0.91

Table 19: Association between place of origin and level of confidence in using the internet

4.4.3 Factors relating to mode of interaction

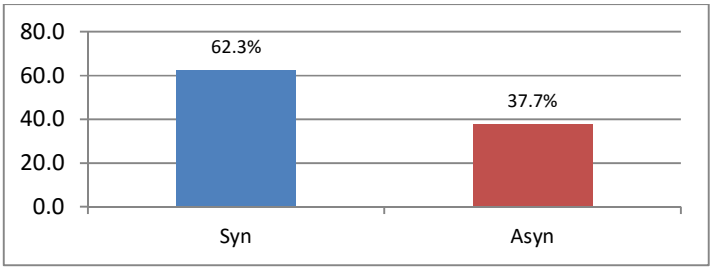


Figure 33: Learners' preferred mode of interaction

In response to the survey question about interaction mode, 62.3% of the learners expressed their preference to synchronous mode as compared with 37.7% of

asynchronous one. This result was confirmed in the follow-up focus group discussion in which the learners mentioned a number of advantages of synchronous interaction. For them this mode was easy, less time consuming, motivating and quick to gather opinions from different participants. It could also help them to have uninterrupted and deep discussions on any particular topic of mutual interest. One learner stated in the focus group discussion: *"Synchronous interaction makes it easier for us to discuss easy questions. We don't have to wait for long, right? It's also less time consuming"*.

During the focus group discussion with the instructors, this question was also raised. On one hand, the instructors agreed with the learners' views about the advantages of synchronous interaction mode such as its convenience and time saving. On the other, they observed that the learners used Vietnamese instead of English during the synchronous chat, and that network breakdown was a hindering factor. The instructors also argued that the learners seemed to be rather impatient in waiting for the answers from others. That was why they preferred the synchronous interaction mode. When the learners raised a question, either to peers or instructors, they demanded instant answers; one instructor commented in the focus group discussion: *"They ask and demand instant answer. They would say: Ms. Teacher, it's urgent, I have lessons tomorrow"*.

A chi-square test was conducted to examine the association between the learners' preferred mode of interaction and their perception about usefulness of interaction with instructors. There was no significant association between these two variables.

		Usefulness of interaction with instructors						
Mode of interaction		Not useful at all	Not very useful	Useful	Very useful	Extremely useful	Total	Chi-square value
	Synchronous	6	37	56	23	3	125	7.78
	Asynchronous	0	30	28	15	5	78	
	Total	6	67	84	38	8	203	

χ^2 (df 4, n=203) = 7.78; Exact Sig. (2 sided): 0.09

Table 20: Association between mode and usefulness of interaction with instructors

A similar test was conducted to investigate the association between the learners' preferred mode of interaction and their perception about usefulness of interaction with peers. There was no significant association between interaction mode and perceived usefulness of interaction with peers as shown in Table 21.

		Usefulness of interaction with peers						
Mode of interaction		Not useful at all	Not very useful	Useful	Very useful	Extremely useful	Total	Chi-square value
	Synchronous	14	43	49	21	1	128	3.80
	Asynchronous	5	21	37	13	2	78	
	Total	19	64	86	34	3	206	

χ^2 (df 4, n=206) = 3.80; Exact Sig. (2 sided): 0.44

Table 21: Association between mode and usefulness of interaction with peers

In addition, the chi-square test for independence (with Yates continuity correction) indicated no significant association between the mode of interaction and whom the learners want to interact with: the instructors and peers (see Table 22).

	Mode of interaction				Chi-square value
Whom to interact with		Synchronous	Asynchronous	Total	
	Instructor	37	27	64	0.55
	Other learner	92	51	143	
	Total	129	78	207	

χ^2 (df 1, n=207) = 0.55; Sig. (2 sided): 0.46

Table 22: Association between mode and target audience of interaction

In short, the mode of interaction did not seem to influence the learners' interaction process. Although they preferred synchronous interaction, this mode was more useful to them in gathering quick information and answers than obtaining in-depth replies from the instructors and peers.

4.4.4 Factors relating to target audience of interaction

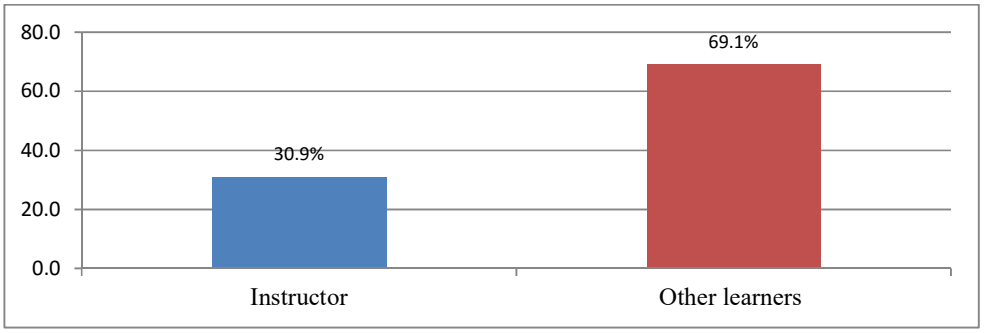


Figure 34: Learners' interaction with instructors and peers

Figure 34 (survey data) shows that the learners interacted more with their peers than instructors: 69.1% versus 30.9%. When the learners who took part in the focus group discussions were asked about the above preference, they mentioned a few advantages of peer-to-peer interactions. Firstly, the peers had more free time to chat than the instructors. Secondly, the peers often spoke the same language because of similar age, and in most cases, of the same sex (female). Thirdly, it was easier to argue with a peer than with an instructor because of cultural reasons; that is, students should always respect their teachers (tôn sư trọng đạo). One of the learners commented in the focus group discussion: *"in fact although sometimes I'm not satisfied with the instructor's answers, I still have to take it"*.

Although the learners preferred to chat among themselves, they still turned to the instructors for confirmation or re-check if they could not be sure of answers from their peers. This finding was confirmed in the focus group discussion with the instructors who indicated that it was easier for the learners to share opinions among themselves because of similar age, time and level of English. Furthermore, when chatting in English the learners did not often find or comment on peers' mistakes. This made the dialogue or conversation among themselves more comfortable or relaxing because some instructors tended to correct the learners' mistakes very thoroughly, which might cause embarrassment.

A chi-square test for independence was conducted to examine whether there was an association between whom the learners preferred to interact with and their perceived usefulness of interaction with the instructors. There was no significant association between who the learners preferred to interact and their perceived usefulness of interaction with the instructors as shown in Table 23.

		Usefulness of interaction with instructors						
Whom to interact with		Not useful at all	Not very useful	Useful	Very useful	Extremely useful	Total	Chi-square value
	Instructor	1	20	24	14	3	62	1.6
	Other learner	5	47	60	24	5	141	
	Total	6	67	84	38	8	203	

χ^2 (df 4, n=203) = 1.6; Exact Sig. (2 sided): 0.82

Table 23: Association between target audience and usefulness of interaction with instructors

The researcher also explored if there was an association between whom the learners preferred to interact with and their perceived usefulness of interaction with peers. There was no significant association between who the learners preferred to interact and their perceived usefulness of interaction with the peers (Table 24).

		Usefulness of interaction with peers						Chi-square value
Whom to interact with		Not useful at all	Not very useful	Useful	Very useful	Extremely useful	Total	
	Instructor	10	20	27	7	0	64	7.23
	Other learner	9	44	59	27	3	142	
	Total	19	64	86	34	3	206	

χ^2 (df 4, n=206) = 7.23; Exact Sig. (2 sided): 0.12

Table 24: Association between target audience and usefulness of interaction with peers

The above test results seem to suggest that whom the learners preferred to interact with did not have any impact on their perception about the usefulness of interaction, either with the instructors or peers.

4.4.5 Factors relating to learners' internet and academic self-efficacy

When asked for their perceived level of confidence in using the internet, nearly half of the survey respondents (48.8%) reported that their confidence level was normal. A small percentage of the learners (4.8%) felt that they were not very confident while 12.1% and 34.3% indicated very confident and confident respectively.

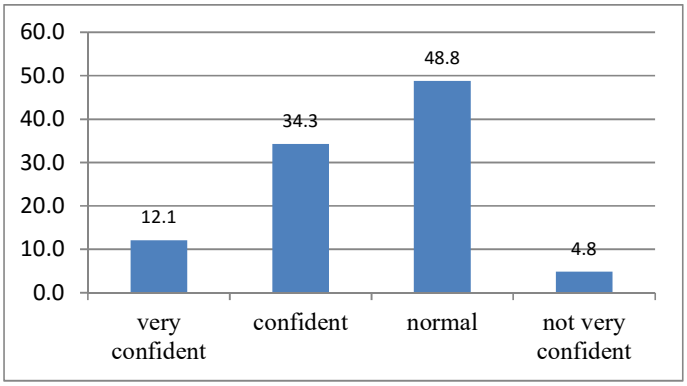


Figure 35: Learners' level of confidence in using the internet

This study did not aim to investigate the learners' internet self-efficacy in detail, but measurement of the learners' perceived internet self-efficacy could be similar to the instrument that Tsai and Tsai (2003) used in their study. A learner's normal level of confidence in using the internet might mean he or she knew how to use a web browser, know what Yahoo was and could make good use of the internet (Tsai & Tsai, 2003).

Does the learners' level of confidence in using the internet have an impact on their online interactional behaviour, for example, mode of interaction or whom they preferred to interact with? To answer this question, the researcher conducted a chi-square analysis to see if there was an association between the learners' level of confidence in using the internet and their preferred mode of interaction (synchronous or asynchronous).

		Mode of interaction			Chi-square value
Level of confidence in using the internet		Synchronous	Asynchronous	Total	2.2
	Not very confident	8	2	10	
	Normal	59	42	101	
	Confident	46	25	71	
	Very confident	16	9	25	
	Total	129	78	207	

χ^2 (df 3, n=207) = 2.2; Exact Sig. (2 sided): 0.54

Table 25: Association between level of confidence in using the internet and mode of interaction

The exact significant test for Pearson's chi-square indicated no significant association between the learners' level of confidence in using the internet and their preferred mode of interaction.

A similar chi-square test to see if there was an association between learner's level of confidence in using the internet and whom they preferred to interact with (instructors or peers) indicated no significant association between the two variables either. Thus it appears that the learners' level of confidence in using the internet did not have any impact on their preferred mode of interaction or the target audient of interaction.

		Whom to interact with			Chi-square
Level of confidence in using the internet		Instructor	Peer	Total	6.3
	Not very confident	5	5	10	
	Normal	34	67	101	
	Confident	22	49	71	
	Very confident	3	22	25	
	Total	64	143	207	

χ^2 (df 3, n=207) = 6.3; Exact Sig. (2 sided): .10

Table 26: Association between target audience and level of confidence in using the internet

In relation to academic (English) self-efficacy, a majority of the learners (90%) had been studying English for more than six years and three had over 10 years of learning the language (see Table 1). Only one (10%) had studied English for two years because this learner only changed from specialising in other subjects (mathematics and physics) to English in the last year of high school. Their favourite macro skills were different: some preferred listening while others liked reading the most. It seems that more learners focused on listening and speaking – the two skills that did not receive attention at school level in Vietnam. The analysis of the interview transcriptions with the learners revealed that there was no relationship between their favourite skills and the one(s) that the learners worked with the most in the online course. Some learners preferred writing in general, but they did more listening exercises of the online course. In fact, the learners had to work on all the skills in order to complete the required 80% of interaction with the assigned study levels.

Analysing the learners' online messages revealed some contradictory results. Most of their English assignments were understandable, and so were their messages to the instructors. Some of the messages were written in Vietnamese, sometimes for a very simple purpose: *"Cô ơi, bao giờ thì có bài kiểm tra ạ – Dear Teacher, when is the test, please?"* (learner – ID 173). Similarly, some of the messages in the Community Discussion forum contained quite a few spelling and grammatical errors shown in the following post:

> iam a student of english department.i passed both A and D.but i loved english so i choosed hanoi university.first, i felt very excited but now iam also abit embarassedwe had a mid-semsster test 1 week ago.but i think my score is not hight iam abit disappointed.hix.do u have to study very hard?and must have ELTS degree in first year. i also want to learn another degree.but it''s very difficul.i am afraid i can''t get elts 6 point.can we exchange about english to improve our english [*sic*] (learner – ID 097).

It seems that the learners were more relaxed in the use of language and focused more on the content in the exchange of messages among themselves. Fewer errors were observed in the messages sent to the instructors in the Support forum.

4.4.6 Factors relating to the purpose of interaction

The identification of the interaction purposes was based on the review of literature. Studies have showed that there were different ways that interaction purposes were categorised. The survey used here was based on earlier studies which classified the purposes of interactions into different categories, some of which were very general, for example, providing information, asking questions (Islam, 2003; Son, 2006), giving feedback (Lisa, 2011), gaining attention (Hirumi, 2002) or responding to learner's opinion (Dennen et al., 2007). Others were more specific to foreign language learning; for instance, helping with grammar, assignments, course infrastructure or suggested argumentation in collaborated writing (Alvarez et al., 2012; Gibby, 2007). With regards to analysing the online messages, some researchers classified computer mediated conversations into five groups: article, content, technical, non-academic or procedural (Poole, 2001; Thomas, 1996).

The purposes used in the survey provided a foundation for analysing online messages. Each message was considered as a unit of analysis, but only the main purpose of interaction was identified. The validity of identification of the interaction purposes were supported by employing member checking, external audit (see Appendix 6) and peer reviewing (from journal articles and conference papers).

4.4.6.1 Purpose of interaction with instructors

The learners of this study reported different purposes in mind when interacting with their instructors. Figure 36 (survey data) shows that the majority of them (76.8%) submitted their homework. They also used a considerable amount of time to read the instructors' feedback and respond to their questions and comments (46.9% and 40.6% respectively). Nearly 40% of the learners indicated that they reported and asked for technical support from their instructors. A very small percentage of the learners (2.9%) stated that they used the forums to get to know more about their instructors. One of the reasons for the above results was that the instructors also taught them in traditional face-to-face lessons.

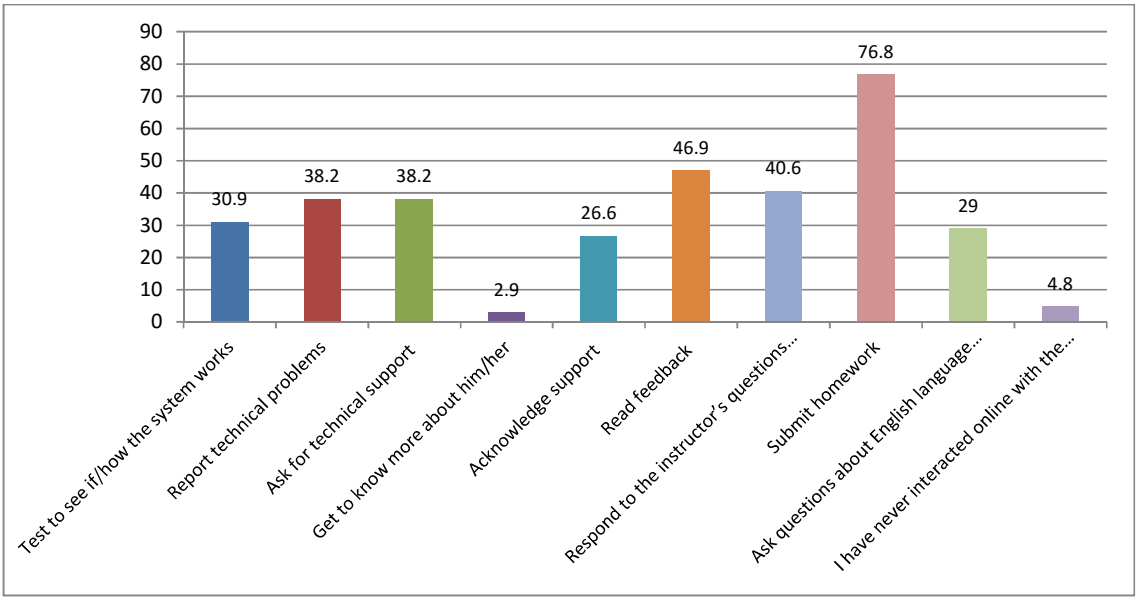


Figure 36: Purpose of interaction with instructors (in percentages)

The above purposes were compared with the results of analysing the learners' online messages in the Support forum. The comparison of reported and real purposes was made for ones that were identical and similar in the two data sets as shown in Table 27.

Purpose (survey)	**%**	**Purpose (online message)**	**%**
Test to see if/how the system works	30.9	Test to see if/how the system works	NA
Report technical problems and ask for support	38.2	Report technical problem and ask for support	22.3
Get to know more about him/her	2.9	Ask for personal contact details	1.08
Acknowledge support	26.6	Acknowledge response and support	3.2
Read feedback	46.9	Read feedback	NA
Respond to the instructor's questions and comments	40.6	Ask for extension	27.3
Submit homework	76.8	Submit homework	23.0
Ask questions about English language learning	29	Ask questions about English language learning	0
I have never interacted online with the instructor	4.8	Number of non-participants	62.4

Table 27: Comparing reported and actual purposes of interaction with instructors

The following section presents a comparison and contrast of the above results using Thomas' (1996) framework, which divided computer mediated conversations into five focus areas*:* article, content, technical, non-academic or procedural (see section 2.2.5).

Group 1 – interaction about an online article. Although this purpose (reading an article) was not provided in the survey, it was evident in some assignments from the learners that they were required to read articles from the online course materials and express their opinions about the article. Following was an example of an instructor's (ID 03) requirement and a learner's response to the task.

Instructor: I'm glad that you'd finished everything. This is the new task for May: Find one article in Discovery magazine (Level: advanced. Topic: free. Choose the one you like the most). Read and (a) write a short summary about the reading or (b) explain the reason why you like that reading (maximum 10 sentences). Deadline for this task will be 27/5.

Learner: "Food forests" is the article I like most. The idea mentioned in the article is not only creative but also practical and helpful. That is wonderful when people eat fresh fruits which they grew themselves. I really hope there will be such kind of "forests" in Vietnam one day. (learner – ID 138)

Group 2 – interaction for content. This group includes two purposes mentioned in the survey; that is, submitting homework and asking questions about English language learning. The majority of survey respondents (76.8%) reported that submitting homework was one of their interactional purposes. The analysis of the learners' online messages showed that 80% of the posts in the Class Discussion were the assignments in which the learners composed pieces of writing on different topics at the request of the instructors; yet, the rate of assignments was lower in the Support and Community Discussion forums, 30% and 11% respectively. This could be explained by the specific objectives of these two forums – mainly for exchange of information and socialisation, not much for knowledge building. Following was an assignment submitted in one of the forums.

> Hi everyone! I come from Yen Bai province, it's a large mountainous area located in the North West of Vietnam. Yen Bai city is just like other city in Viet Nam, but when you

> travel to some districts far from the city, you can enjoy fresh, quiet air and you can see the variety in cultural lives of ethnic people. (learner – ID 225)

Occasionally, the learners also expressed their opinions about a topic that was created by the instructor as in the following reflection to the topic: working time changed (a proposal made by Hanoi city authorities at that time).

> I think this adjustment is worse because of the following reasons: First of all, this change does not have effect on reducing traffic jam. Moreover, changing time means changing our daily life. Women do not have enough time to take care of their families. Students have to go to school earlier and miss the bus. Study time finishes later so students go home when it is dark and it is so dangerous. In conclusion, this adjustment it is not effective. Therefore, I think we should not change the working and study time. (learner – ID 090)

The above examples indicated that a few learners showed their meaningful participation in online discussion. Further interpretation of these purposes will be presented in the next chapter.

Regarding the purpose of asking questions about learning English, the data from the survey and online messages found in the Support forum revealed interestingly different results. While 29% of participants reported that this was one of their purposes of interacting with the instructors, the analysis of the online messages did not yield the same results. Indeed, the learners did not ask their instructors any questions about English language learning. This was possibly because they also had face-to-face lessons with the instructors, so they could have asked these questions in the classroom instead of the online environment.

Group 3 – interaction for technical support. This group consisted of two items in the survey: testing to see if/how the system works and reporting technical problems. Over 30% of those surveyed reported that testing the system was one of their purposes in communicating with the instructor. Online messages indicated that some of the learners encountered difficulty in using the Support tool. Less than 1% of the learners sent blank

messages to their instructors, which might have been inferred as a test of the interaction with the instructors.

In respect of reporting technical problems and/or asking for support, more than 38% of the learners stated in the survey that this was one of their interactional purposes. The online messages showed a corresponding rate of 26%. Some learners only reported technical problems, but most of them also asked for support; following is one of the messages:

> Dear teacher,
> I can't complete the review part of grammar 1 because of some problems. There was a pop up which said "Authentication required. I don't know what to do. I've keyed in the username and password but nothing worked. What should I do? Please answer me. Thank you very much. (learner – ID 165)

When receiving such a report about technical problems, most instructors referred the learners to the technical department: *"all the technical problems will be solved by the EDO team"* (instructor - ID 03). Nevertheless, some instructors also provided the learners with solutions for the problem.

> Dear [learner ID]
> I myself have never experienced the situation you mentioned. But I recommend that you change your internet network or computer, for example change the computer you use (instructor – ID 02).

Group 4 – interaction about non-academic matters. This group included three items in the survey: getting to know about others, acknowledging others' support and reading feedback. Only a very small percentage of respondents (2.9%) selected 'getting to know about others' as the purpose of their interaction. This was because all the instructors also taught these learners in face-to-face lessons. In the online messages, the learners did not ask any questions about their instructors except for three learners (1.2%) who asked personal contact details (email address and phone number), and two learners (less than 1%) sent wishes to their instructors during special occasions – the New Year or when one

instructor stopped teaching them in the face-to-face lessons: *"Happy New Year, teacher! I wish you good health, success and happiness in your life!"* (learner – ID 059).

Over 26% of the survey respondents indicated that they acknowledged their instructors' support during the interaction process, but the analysis of online messages did not reveal the same results. The number of acknowledging messages accounted for only 3.2% of the total posts; following is one of the few:

> Dear Teacher,
> Thank you so much for your mail. I'll do tasks in order of your guidance and complete Intermediate 1 level as soon as possible. Greetings to you, Miss [name of instructor]. (learner – ID 109)

In response to the survey item about reading others' feedback, nearly 47% of the survey respondents indicated that they read feedback from their instructors. The online system showed that a majority of the learners had opened their instructors' messages. In the Class Discussion it was not known whether the instructors' feedback were read or not, but feedback from the instructors to the learners' posts in this forum was very limited, accounting for only 5%.

Group 5 – interaction for procedural matters. This group corresponded to the item 'responding to the instructor's questions and comments' in the survey. More than 40% of the respondents reported having this purpose in their mind when contacting the instructors. The analysis of online messages showed that quite a few learners wrote to their instructors to ask for an extension of the deadline or seek information about study plan; one learner reported:

> Dear Ms. [name of instructor]
> I'm … from [class code]. I haven't finished Basic 3 yet but I have already completed Intermediate 1, so I was wondering whether I have to finish Basic 3 or not? Hope to receive your feedback. Thank you very much. (learner – ID 216)

In short, the learners mainly interacted with their instructors for content, technical and procedural purposes. While there was a discrepancy between reported and real data, these purposes accounted for high percentage in both sets of data (survey and online messages). In addition, the learners seem to assume that reading instructors' messages (one-way) could also be considered as an act of interaction. This issue will be further discussed in the next chapter.

4.4.6.2 Purposes of interaction with peers

Learners had different purposes in mind when interacting with their peers. Table 28 showed that 41%, 38.2%, 35.7% and 35.3% of the learners interacted with their peers in order to ask questions about English, share additional learning materials, or comment on others' posts respectively. A relatively small percentage of the learners (6.2% and 8.2%) stated that they provided technical support to peers and tested to see if/how the system works.

It was difficult to compare the reported results of the survey with the real purposes reflected through the online messages. First of all, although the online course had four communication forums that allowed the learners to interact with peers, only two (Community Discussion and Class Discussion) recorded their online messages. Thus it was not possible to get an accurate account of their participation. Table 28 shows the results of comparing two data sets: survey and online messages.

Purpose (survey)	%	Purpose (online message)	%
Test to see if/how the system works	8.2	Test to see if/how the system works	3.7
Ask for and provide technical support	24.7	Ask for and provide technical support	0
Get to know more about him/her	25.1	Ask questions, make friends, greet peers	28.1
Acknowledge their support	15.5	Acknowledge their support	0.5
Comment on their posts	35.7	Comment on their post, agree with peers + discuss with peers/discuss and advice	12.7
Ask questions about English language learning	41.0	Ask questions about English language learning	14.0
Respond to a question/comment	35.3	Response to peers	6.3
Share additional learning resource(s)	38.2	Share additional learning resource(s)	0
Interact with learners from other countries	24.2	Interact with learners from other countries	42.0
I have never interacted online with other learners	16.9	Non participants	77.7

Table 28: Comparing reported and actual purposes of interaction with peers

The comparison of purposes from two sets of data was carefully conducted, using the purposes in the survey as the reference list. There were some perfect matches between two sets, but others could only be inferred. For example, in the online messages, the purposes such as agreeing with peers or discussing with peers could be inferred as commenting on peers' posts. Similarly, the messages in the Community Discussion forum that aimed to ask the peers questions and to greet the peers could be considered as the purpose of getting to know more about him/her in the survey. Many purposes that were inferred from online messages did not match with the purposes in the survey, for instance, presenting ideas, introducing oneself, inviting thought and giving information.

The following part presents a detailed comparison and contrast of the two data sets, using Thomas' (1996) framework. Unlike in the previous part, there were only four groups of purposes in the learner-to-learner interaction because the learners were not tasked to

provide information and course requirements to each other (procedural purpose). Hence, the purposes of the learners' interactions with peers were analysed according to four groups: article, content, technical and non-academic.

Group 1 – interaction about an online article. This group could correspond to the sharing of additional resources item in the survey and online messages. The analysis of the two sets of data yielded interestingly different results. Although 38.2% of the survey respondents reported that they shared additional resources with peers, this action did not occur in online posts. This was possibly because the learners were yet autonomous in their online study, and thus did not share external study links with their peers.

Group 2 – interaction for content. This group consisted of three items in the survey: commenting on their posts, responding to a question/comment and asking questions about English learning. Nearly 36% of the surveyed respondents stated that they commented on their peers' posts. This action was evidenced in the Community Discussion in which some learners read and commented on their peers' posts. For example, after reading a user's post about his/her family, one learner responded, *"How happy you are! I love children. I guess that your children are very cute and lovely"* (learner – ID 223). In addition, some learners expressed their interests in arguing about learning English.

- I think we should listen every day to improve. We can surfe [*sic*] the Internet and listen to English. (learner – ID 073)
- I agree with you that vocabulary is very important. And we can't enlarge out vocabulary immediately, right? (learner – ID 097)

In the Class Discussion forum, the messages that could be termed as commenting on peers' post were relatively limited, accounting for around 25%. One learner had the following comment after reading his/her peer's post about the hometown:

> Wow, I'd like to visit your hometown someday to enjoy the cropping season. As you've said, there are now more and more buildings. So is there still space for farming and is the air as fresh as it was before? And do you love this kind of development in your hometown? (learner – ID 120)

Regarding the purpose of responding to a question/comment, more than one third of the surveyed learners (35.3%) reported that they responded to peers' questions and comments. In the Class Discussion forum, this action was barely seen. In other words, the learners rarely continued to exchange ideas and opinions with peers after getting their comments. In the Community Discussion forum, on the other hand, the discussion sometimes lasted longer, as seen in Figure 37.

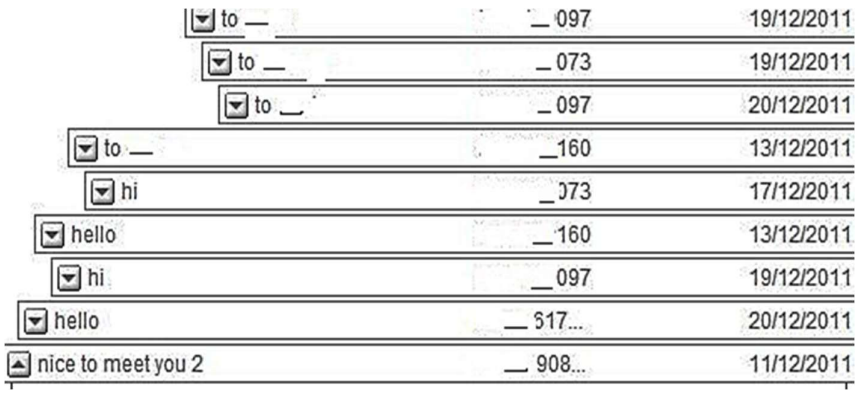


Figure 37: Sustained conversations between peers

Concerning the purpose of asking questions about learning English, the survey data showed that 41% of the respondents reported doing this when interacted with peers. In the Class Discussion forum, by contrast, the online messages did not contain any content for this purpose. In the Community Discussion forum, although the majority of messages (58%) were found in the topic 'Learning English' only 14% of them could fit the category. Many messages were off-track, in which the learners greeted one another or asked personal questions instead of asking about English language learning.

Group 3 – interaction for technical support. This group included two purposes: testing the system and asking for technical support. With regards to the first, only 8% of the survey respondents reported that they had to test the system. The analysis of online messages yielded similar results (6%). Only one of the learners (ID 262) posted a sentence, *"how do you do?"* six times, and another learner (ID 053) wrote, *"Tingting. Adadadad"* in his/her message. These actions could be inferred as a test of the system.

In respect of reporting technical problems, nearly 25% of the learners reported in the survey that this was one of their interactional purposes. Nonetheless, the learners' online messages in the Community Discussion and Class Discussion forums did not contain any content about technical matters. This was possibly because the learners knew that they would rather consult the instructors or technical staff rather than peers about technical issues.

Group 4 – interaction about non-academic matters: This group consisted of three purposes: getting to know about others, acknowledging support and interacting with foreign learners. The survey results showed that more than 25% of the learners considered getting to know others as one of their interactional purposes but this action was not seen in the Class Discussion forum. This was because the learners already knew about their classmates. On the other hand, in the Community Discussion forum, quite a few messages (47%) aimed to get to know more about peers; for example, *"What is your name?, "Introduce yourself, please?"* and *"Can we make friends?"*.

The survey results also indicated that 15.2% of the learners stated that they acknowledged their peer's online support. However, this action was not observed in the online messages. In fact, only one of the posts in the Community Discussion forum could fit this purpose in which a learner thanked the peer for advice; the learner (ID 097) wrote, *"Hi. Thank you very much. I will try"*.

In their online messages, it is interesting to notice that some learners used emoticons in their communication, for example:

> I'm ___ from Vietnam. Nice to meet you!write for me pleaseeeee (@_@) [sic] (learner ID 075).
>
> Hope we can improve English together (^.^) [sic] (learner ID 128).

The use of alphanumerics, punctuations, or other characters to represent emotion or affect in text-based communication has become common in modern online communication. Nonetheless, emoticons may result in misunderstanding or confusion between people from different cultures (Park, Barash, Fink, & Cha, 2013). This issue needs to be

explained to the learners in order to avoid breakdown in their communication with learners from other countries.

Finally, nearly one fourth of the survey respondents reported that they wished to interact with learners from other countries. In the Class Discussion forum, this purpose was not seen because all the learners were Vietnamese. There were three foreign learners among the participants of this study, but they did not take part in any communication with the instructors and peers. In the Community Discussion forum, the learners were more active in responding to foreign learners than to Vietnamese peers: 42% versus 28%.

4.4.7 Factors relating to the usefulness of interaction with instructors and peers

The survey respondents were asked to rate the usefulness of interaction with their instructors and peers. Data in Table 29 shows that that the learners placed the usefulness of interaction with instructors a little higher than with peers: 64% versus 60%. This result confirms the above observation that although the learners preferred to interact with peers, they highly appreciated the quality of interaction with the instructors.

Target audience of interaction	Useful	Not useful
Instructor	64%	36%
Peer	60%	40%

Table 29: Usefulness of interaction with instructor and peer

A chi-square test was conducted to examine the relationship between participants' perceived usefulness of interaction with the instructors and peers. Due to low count in some cells, responses were recoded to collapse data into three categories. The original variables were recoded as 4 = very useful (comprised of responses 4 and 5 indicating the factors were extremely useful and very useful); 3 = useful (comprised of response 3 indicating the factors were useful); and 2 = not very useful (comprised of responses 2 and 1 indicating the factors were not very useful and not useful at all).

	Usefulness of interaction with peers					Chi-square value
Usefulness of interaction with instructors		Not very useful	Useful	Very useful	Total	
	Not very useful	29	30	13	72	3.41
	Useful	39	30	15	84	
	Very useful	14	23	9	46	
	Total	82	83	37	202	

χ^2 (df 4, n=202) = 3.41; Sig. (2 sided): 0.49

Table 30: Association between usefulness of interaction with instructors and peers

The results of chi-square test showed that there was no relationship between the two variables: usefulness of interaction with instructors and peers.

In short, the results of the simple and PCA analyses shows that most of the factors relating to the learners' demography, interaction mode, internet self-efficacy and perceived usefulness of interaction did not have impact on their online interaction with their peers and instructors. There were no significant associations among these factors; neither were there any highly skewed distributions of responses in the survey for the abovementioned factors. Further discussion of these results will be presented in Chapter 5.

4.5 Instructor-related factors influencing online interaction

The descriptive analysis (see section 4.3) reveals that the factors relating to the instructors included the usefulness and timeliness of their feedback and regularity of their online presence. Another factor emerged during the interviews and focus group discussions: their online teaching pedagogy. The following section presents the findings for each of these three factors in detail.

4.5.1 Factors relating to timeliness and usefulness of instructors' feedback

As mentioned earlier, the majority of the learners placed a high value on the timeliness and usefulness of feedback from the instructors. Although some of the messages were

answered very late and some were not responded to at all, most of the learners' posts (72%) were replied to within one to five days. The instructors had different frequency levels of checking and responding to their learners' messages. While some stated in the interviews that they did it regularly and instantly, others were only online on certain days of the week: *"I often check my email on Tuesday and Saturday to answer interesting questions"* (instructor – ID 12).

It is worth mentioning that most of the instructors met their learners in the traditional face-to-face lessons where the questions and queries might have been responded to: *"I remind them to do homework directly in the face-to-face lessons"* (instructor – ID 06). The instructors who taught the online course in computer lab reported that interaction between the learners and instructors were timely because all academic and technical questions could be dealt with instantly. One instructor commented in the interview:

> … and the instructors can respond to all queries instantly: both language queries as well as simple technical problems the learners faced. (instructor – ID 07)

The usefulness of the instructors' feedback received a very high value (86.8%) from the surveyed respondents. The analysis of qualitative data reveals that the learners valued their instructors' online messages, especially those that reminded them about study progress or deadline. Indeed, the learners considered this 'reminding' purpose was very useful. This was possibly because if the learners had failed to complete 80% of interaction with content before the semester ended, they would not have been allowed to sit for the semester test. The instructors did not correct the learners' linguistic errors during the interaction process. Hence, one may argue that there was an absence of the usefulness in the interaction. The discussion on this issue will be further presented in Chapter 5.

4.5.2 Factors relating to online teaching pedagogy

The instructors had varied experience in teaching English in the face-to-face and online contexts. The most experienced instructor had been teaching English for 14 years while the most junior had only two years of experience. Nine of the instructors had experience teaching both in the traditional context (computer lab or normal classroom) and online

supervision. Three instructors, on the other hand, only supervised their learners' online study.

The instructors who used the online course in the computer lab (blended) reported that interaction was more effective. The learners were more active, and they interacted with the content more regularly than in fully online setting. However, these instructors mentioned a few problems regarding the learners' lack of attention because the exercises were too easy and that the learners browsed other websites during the lessons instead of focusing on the study. One of the instructors stated in the interview that it was necessary to come up with some innovative ways to exploit the course content in order to engage the learners more during the lessons: *"I only exploited the key points of a unit to teach in the class"* (instructor – ID 06).

The instructors who taught the learners in the face-to-face and supervised their online study commented that in order to make online learning more effective, it was important to make sure that weekly assignments were done thoroughly by the learners and that the instructors had to find a good way to push learner–content interactions.

> We do not just assign tasks to learners; we need to have a way to make sure that the tasks are done. This is very important. (instructor – ID 08)

The instructors who only supervised the learners' online study stated a few difficulties in reaching the learners because some of them never took part in the interaction processes: *"for some groups, I never received any responses from any learners"* (instructor – ID 04). This was because virtual learning environment was still new in Vietnam and without the instructors' close supervision, the learners often let go of their study or waited until the deadline to complete the assigned tasks: *"every week, I assign them homework, but they only do the additional exercises, not the main ones no matter how I push them"* (instructor – ID 12).

Another issue concerning the instructors' pedagogy was the language they used in the interaction processes. In the Support forum, a majority of the instructors' messages were

in English (118 out of 139). In general, when the instructors sent out messages, they wrote in English. This also applied when they responded to the learners' English messages. When replying to messages in Vietnamese they tended to write in Vietnamese as well. In the Class Discussion forum, all of the messages were written in English.

It is also interesting to observe that the learners' mistakes in using English were not corrected by the instructors; some of whom stated in the interviews that online correction of the learners' writing was neither convenient nor effective.

> Virtually, we can only write our comments, which might be very specific, but learners might not understand what we mean. They may have to come to us and ask whether their correction is ok or not. So they need face-to-face interaction anyway.
> (instructor – ID 01)

In addition, the instructors commented during the focus group discussion that they had to be sensitive in correcting the learners' mistakes in order to avoid their losing face, a common phenomenon for Vietnamese learners of English. One of the instructors reflected:

> When learners make a grammatical mistake in a sentence, the instructor should not state that publicly because that would cause embarrassment and disruption of the interaction. Instead the instructor may rewrite that sentence and intentionally make it correct. Learners may notice that the instructor's sentence is correct and follow suit.

The above findings indicate that besides pedagogical competences, an instructor needs to master certain technological skills in order to be successful in online teaching. One of the most time-consuming tasks for instructors is to provide comments to learners' written work through a combination of suggestions and corrective feedback. This requires the instructors to attend to the content, structure as well as style of a piece of writing, together with technological skills to use certain applications to perform these tasks; for example, track changes. This issue will be further discussed in the next chapter.

4.5.3 Factors relating to online presence

All five instructors who supervised the learners' online study posted messages in the Support and Class Discussion, but none of them took part in the Community Discussion forum. The number of posts found in the Support and Class Discussion forums was 159 and 95 respectively. However, the majority of the posts in the latter forum were the topics that the instructors assigned to their respective groups. The above figures could translate into average numbers of 1.4 and 0.7 posts per instructor per week in the Support and Class Discussion. Table 31 shows the number of posts and corresponding number of instructors participating in each communication forum.

Forum	**Total no. of posts**	**No. of instructors out of total**	**Average number of post/instructor/week**
Support	159	5 of 5	39 (195/5/28) = 1.4
Class Discussion	95	5 of 5	19 (95/5/28) = 0.7
Community Discussion	0	0 of 5	NA

Table 31: Number of posts from instructors

A breakdown in the number of posts in the Support forum revealed that there was a large variation among the instructors in the number of messages that they sent out and received. To maintain confidentiality and anonymity, instructors' real names were replaced with pseudonyms and the number of groups of the learners was altered. The data presented in Table 32 summarise number of outgoing (from the instructors) and incoming (to the instructors) messages.

Instructor	Supervising groups	Support	
		Instructor message	Learner message
ID 03	10, 12	55	56
ID 12	6, 15	33	89
ID 02	8, 11	33	35
ID 09	5, 13	20	8
ID 10	7, 14	18	21
Total		**159**	**209**

Table 32: Number of posts in the Support forum

Each instructor was in charge of supervising two groups of learners. The most active instructor (ID 03) sent out 55 messages while the least active one (ID 10) sent out only 18 posts. The data in Table 32 also show that there was a relationship between the number of messages that the instructors sent out and received, except for the instructors ID 12 and ID 09. It is interesting to see that while the instructor ID 12 sent out only 33 messages, 89 posts were received from the learners. On the other hand, the instructor ID 09 sent out 20 posts, but received only eight from the learners.

The difference in the number of the instructors' messages was partly because of the time they stopped interacting with their learners as shown in the Table 33.

Instructor (group)	First message (2011)		Last message (2012)	
	Outgoing	Incoming	Outgoing	Incoming
ID 10 (7)	1/11	25/10	02/2	25/1
ID 10 (14)	1/11	23/10	02/2	03/5
ID 12 (6)	5/10	29/10	29/5	28/5
ID 12 (15)	18/10	27/10	29/5	23/5
ID 03 (12)	31/10	01/11	30/5	27/5
ID 03 (10)	31/10	17/10	15/5	29/5
ID 09 (9)	20/10	21/10	15/2	8/3
ID 09 (13)	20/10	27/10	14/2	26/12/2011
ID 02 (8)	16/11	19/10	07/5	09/5
ID 02 (11)	8/11	04/11	07/5	08/3

Table 33: Dates of the first and last message from and to instructors

Table 33 shows that all instructors started writing to their learners at the same time – around the end of October or early November of 2011; however, the last date of their online interaction varied. While three instructors maintained their online interaction until the end of the academic year (May 2012), two other instructors (ID 10 and ID 09) ceased writing to their learners as early as February.

The analysis of the online messages for groups 9 and 13 revealed that although an instructor (ID 09) stopped teaching the learners in the face-to-face lessons, the online supervision still continued.

> Dear all,
> It's a pity I'm no longer teaching you this term, but we'll keep in touch via a program called EDO. I wish you and your family a prosperous and a happy new year. Keep in mind that I enjoyed all the time working with you guys. All the best!

The last messages from this instructor to the two groups under the supervision were in the middle of February, nearly three months before the end of the academic year. It is apparent that when the instructors and learners stopped seeing each other in the traditional setting, their online interaction came to an end as well. This observation did not apply for the instructors of groups 7 and 14 in which the instructor (ID 10) still met face-to-face with their learners; yet they did not write to each other in the online environment. The non-obligatory nature of participating in the online forums could have been one of the reasons for this phenomenon.

In the Class Discussion forum, there was also a large variation in the number of topics that the instructors assigned for their groups of learners. The data presented in Table 34 below shows the number of topics that each instructor assigned to their groups and the number of learners' posts.

Instructor	Supervising groups	Class Discussion	
		Instructor topics	Learner posts
ID 03	10, 12	4, 4 (8)	54
ID 12	6, 15	2, 0 (2)	2
ID 02	8, 11	8, 11 (19)	0
ID 09	9, 13	2, 2 (4)	11
ID 10	7, 14	62, 0 (62)	1
Total		**0**	**68**

Table 34: Number of topics and learners' posts in Class Discussion forum

The data in Table 34 show that there was a large variation among the instructors in assigning topics for discussions. While the instructor ID 10 assigned as many as 62 topics, instructors ID 03, ID 09 and ID 12 created only two, four and eight topics to their groups respectively. There was also a big variation within some instructors. For example, the instructor ID 10 supervised both groups 7 and 14, but assigned 62 topics to one group (7) and none to the other (14). The table also shows that there was no relationship between the number of topics assigned and the number of comments or contributions from the learners; only one comment was found in the group that was assigned with 62 topics (supervised by instructor ID 10), but as many as 54 comments were seen in the two groups that were assigned with only eight topics (supervised by instructor ID 03).

4.6 Course-related factors influencing online interaction

The above findings have shown that the learners and instructors had very important roles for the interaction in an online English course. Yet one of the interesting study findings was that the course itself had an important influence as well. Although learner–content interaction was not a key aspect of this study, the findings from the analysis of the data reveal three factors relating to the course: content, design and delivery. The following section presents the findings about each factor in detail.

4.6.1 Factors relating to content of the online course

Survey respondents placed high importance on course content with 81.9% (see Table 11) considering it as important. This was confirmed in the written scoring from both the learners and instructors who took part in the focus group discussions. They commented that the content of this online course was at a lower level than the learners' levels of English. Thus the learners could do most of the exercises without having to seek support from the instructors. Accordingly, they did not have a desire or need to interact with the instructors. In the focus group discussion, one of the learners explained why the content was important:

> All students look forward to quality. And the content of the course has to guarantee that after the course, the learner has quality outcomes. That's why I think content is the most important.

The analysis of the interview and focus group transcriptions with the learners reveals that they had more negative comments about the course content than positive ones. Out of 10 learners, only four mentioned a few good points about the course content; for example, new things to learn and good for grammar practice. On the other hand, all 10 learners expressed their concerns about the course content because it was boring – *"the speaking practice is simply the repetition exercise"* (learner – Rose) – or because of the technical problems such as internet connectivity, background noise in the listening practice: *"errors occur now and then. I can't log in"* (learner – Apricot). Those who had more neutral views about the course did not sound motivated either. They expressed the reluctant completion of the assigned study levels: *"In fact I have to complete all of them"* (learner – Peach).

4.6.2 Factors relating to design of the online course

As mentioned in Chapter 3, this online course was designed for learners to practice their macro English skills: listening, speaking, reading and writing (through doing grammar exercises and interpersonal interaction). The course content was divided into three levels of study: basic, intermediate and advanced. There were additional functionalities for the learners to practice other areas of English such as vocabulary and fixed expression. The

course was installed with automatic speech recognition (ASR) technology to measure the learners' oral production.

The analysis of focus group discussion and interview transcriptions showed that the learners and instructors had different opinions about the design of the course. Some instructors viewed that the practice with grammar was effective to help them improve their English language competence: *"EDO itself is a rather perfect environment of what is needed for English learning. If the learners can make the most if it, they can make progress already"* (instructor – ID 01). However, others claimed that interacting with the content was not useful because of two main reasons: the quantitative methods of measuring the learner–content interaction and the inaccurate feedback of the ASR technology: *"The repetition itself is not quite useful because the voice recognition technology does not work correctly all the time"* (instructor – ID 04).

One of the instructors further stated that through interactions with the content, the learners could not develop advanced speaking skills such as presentation or how to respond in different situations.

In addition, the learners viewed that the communication tools in the course were not convenient, and were also out-dated. Given the fact that there were more convenient social networking tools such as Facebook, Yahoo Messenger, the learners would prefer to use them instead of logging in the course and entering the interaction forums. One of the learners commented in the focus group discussion*: "I think we should use the most convenient tools, both inside and outside EDO. The main objective is to get the learners interact with instructors and peers".*

During the focus group discussions, some of the instructors expressed their agreement with the learners' views about making online learning convenient and entertaining in order to motivate learning. One stated, *"If we want the learners to sit for 4 hours to work on EDO, there would be something in it for them to enjoy, similar to their 4 hours on Facebook"*. Conversely, other instructors voiced some reservations about this issue because Facebook was a social network via which everything could be discussed, whereas

this online course was designed for the discussion of certain topics only, and mostly for learning purposes.

Two instructors shared the need to link the content of course with the semester test. A senior instructor (ID 01) said, *"I think the biggest factor that makes the learners interact is the pressure to take exams"*. This was further supported by the Vietnamese learners' way of study; that is, more test-oriented. During their school years as well as at university they had to take too many tests. Thus the instructors claimed that the course content as well as the interaction tasks should be closely linked to the tests; otherwise, the learners would not study. One commented in the interview, *"We should integrate parts of EDO into the final test so as the learners are more motivated in their study"* (instructor – ID 07).

4.6.3 Factors relating to delivery of the online course

In respect of the course delivery, survey respondents indicated three important sub-factors: cost, technical support and the expected level of interaction. Firstly, the learners had to make an additional payment on top of their regular tuition fee to use the online course. Hence, the majority of them considered this factor important (67.7%). Secondly, the analysis of the learners' online messages revealed that they often encountered technical problems during the study. Thus, they placed a high level of importance on this factor. One learner commented in the focus group discussion, *"Without technical support and good internet speed, no one wants to log in"*.

Out of the total learners' online messages, technical-related content accounted for a relatively high percentage (15%), second only to submitting assignment (23%). The analysis of the focus group discussion transcriptions with the learners revealed the same results. In addition, they expressed the need to have the course run on different operating systems or there should be a mobile version to make online learning more convenient.

Thirdly, with regards to the regulation about expected interaction with content, although 47% of the learners considered it an important issue, over 40% of them did not think so. In the focus group discussion, while some learners stated that the expected interaction

was necessary, others expressed their dissatisfaction with it: one of them commented, *"I think 80% does not represent quality. The fact that is most learners finish it just because they have to".*

Examining the way that the instructors assigned online study levels to their learners revealed another factor concerning the course delivery: flexibility of the learners' online study. In this course, all learners were required to complete the same levels of study, usually from basic English, before moving on to the next level without taking into account their actual level of English competence. Only one of the interviewed instructors tried to individualise the learners' study basing on their language competence as seen in the following comment:

> With the class that I assign different levels to different learners, if a learner fails to complete the tasks, I would mark that red, and then give a warning […] so they are afraid and do as told. (instructor – ID 02)

In the next section of the chapter, the findings about how online interactions could be further facilitated, and in what way the online interactions could enhance the learners' English, will be presented.

Research question 3: Effective practices enhancing online interaction

The third question of this study examines how interpersonal interaction can be facilitated in order to enhance the learners' competence of English. Data from survey, focus group discussion and interview were used to draw findings about two specific aspects: (i) suggestions to enhance online interaction; and (ii) contribution of interaction to the learners' English competence.

4.7 Suggestions to enhance online interaction

Given the fact that interpersonal interaction in this course was limited, during the semi-structured interviews, the researcher explored the perceptions of the learners and

instructors on how to improve the situation. The analysis of their responses revealed three main types of suggestions:

- combination between study and entertainment
- better facilitation of interpersonal interaction
- enhanced role of instructors in the interaction process

4.7.1 Combination between study and entertainment

Most of the learners suggested that in order for them to interact more with content and with each other, it was important to include some 'fun' elements in the learning process. For example, all 10 interviewees had Facebook accounts and six of them specifically said that the online course should be linked to Facebook for convenience of communication: *"Yahoo chat. Some learners may like Skype or Facebook. More on Facebook"* (learner – Lily). However, two learners argued that Facebook was for entertainment only, not for study. The learners also mentioned the need to include video clips, films to make the learning more interesting and useful in addition to the creation of interesting topics for discussion.

The instructors expressed similar views about the need to combine learning with enjoyment by including video clips or television series in the content. Furthermore, they suggested organising promotional activities such as contests for the learners to engage in the interaction processes. Given the fact that there were other networking tools such as Facebook and Yahoo Messenger, some instructors also suggested that linking Facebook with the online course would motivate and sustain online interaction, as discussed in section 4.2.

4.7.2 Better facilitation of online interaction

As mentioned in Chapter 3, the university issued a regulation that made the interaction with content compulsory, and the learners had to complete 80% of the assigned study levels. When asked if a similar regulation should be issued to promote interpersonal interaction, only three learners agreed: *"yes, because it's difficult to let the learners study*

on voluntary basis" (learner – Carnation); while six disapproved of the idea: *"no, because it should be a voluntary thing"* (learner – Tulip). When this question was raised at the follow-up discussion, it was argued by the majority of learners that online learning should be voluntary. The instructors could make it effective by assigning weekly homework and topics for the learners to interact with content and each other.

Five out of 12 instructors (41%) shared the views that a regulation about compulsory interpersonal interaction would be necessary given the fact that Vietnamese learners are passive in online learning, and that letting it be voluntary did not work. While one instructor was undecided, the remaining six implicitly or explicitly questioned the practicality of such a regulation.

> I think the university or language unit should only encourage, not impose regulation because the later would be rather strict. We know that language is something flexible. It's not a good idea to force the learners and instructors send letters or give feedback to each other, I think. Interaction thus can't be regulated. (instructor – ID 01)

Instead of making interaction compulsory, these instructors emphasised on the need to make the learners see the benefits of interaction: *"I think if there are certain benefits, the learners will be more active"* (instructor – ID 05). Even if such a regulation were issued, the learners would reluctantly obey to it and interaction would only be superficial and ineffective: *"... so I think it would not be effective"* (instructor – ID 03).

4.7.3 Enhanced role of the instructors

In the Vietnamese context, where the learners are still passive in their learning in general and online learning in particular, instructors do have a very important role to play. Whilst in traditional classroom settings, lecturers can organise many activities for the learners to interact with one another, it is not clear how online interaction can be promoted. During the interviews, this question was asked and the learners provided many interesting ideas. Some learners wanted to know more about their instructors and added that they would prefer to interact more with those (instructors) who were sociable, humorous and friendly

during their contact. Two of the learners wished they could meet face-to-face with their instructors; one of them stated, *"I have never met my instructor"* (learner – Daisy).

According to most of the learners, the instructors should encourage them more by giving additional exercises, being more attentive to the learners' study, showing more enthusiasm in the replies, organising content and mentioning the benefits of taking part in forums. This was because the learners felt that the instructors did not have time to reply enthusiastically to each and every question from the learners: *"I think the instructors are too busy to interact with us"* (learner – Peach). While some instructors gave their learners feedback instantly, others did not reply the messages for a week or even a month.

In the focus group discussion, this issue was also discussed and the learners mentioned one more reason: they were reluctant to argue openly with the instructor; one stated, *"in fact sometimes I don't feel very satisfied with the instructor's answer but I have to take it"*. Another learner proposed that the instructors should refuse to answer questions during face-to-face meeting time to draw everyone to online interaction.

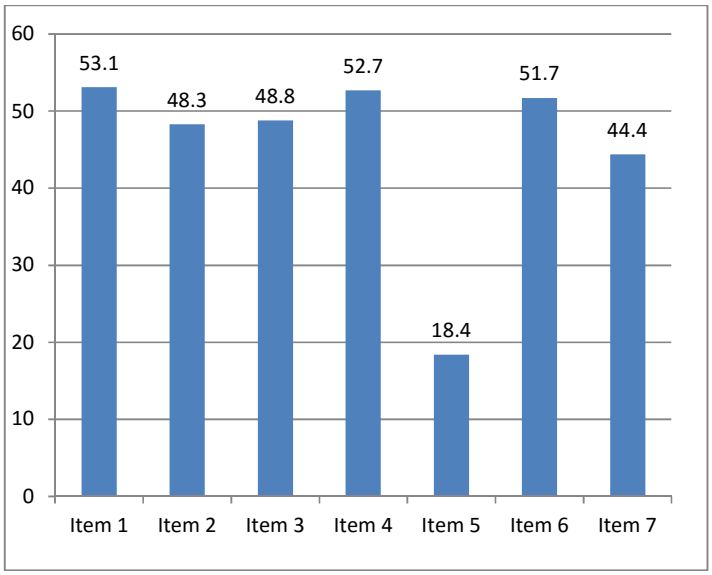
In response to the question about their role in online interaction, five instructors felt that they should do more to make the learners active in the interaction processes. For example, the instructors should continuously encourage their learners to interact with one another, and with the instructors. In the interaction process, the instructors should show their enthusiasm to set a good example for the learners to follow: *"I think if instructors show their enthusiasm and activeness, learners will follow suit* (instructor – ID 10). Four instructors mentioned the important role of creating interesting, practical topics to attract the learners' attention: topics that combine learning with entertainment. Three instructors spoke of the need to have awards to the active learners, and one thought that the interactions should be made compulsory.

> If instructors do not raise topics that are attractive to the learners, they won't participate voluntarily. [….]. We should make participation compulsory because of limited voluntary involvement. (instructor – ID 08)

According to the majority of the instructors, their current role was limited to guiding the learners to study (interaction with content), reminding them of the need to complete the assigned tasks before deadline, and responding to the learners' messages: *"I just log in to see if there are any messages from the learners, to which I provide feedback. I also encourage those who have not done their online homework"* (instructor – ID 04).

4.8 Contribution of online interaction to learners' English competence

One of the sections in the survey required the respondents to indicate their views about the contribution of interaction to the enhancement of English. The data presented in Figure 38 summarise the results of their answers.



Legend

Item 1 = *It helps to explain my mistakes*

Item 2 = *It presents me with examples of grammatically correct language*

Item 3 = *It helps me understand grammatical points*

Item 4 = *It reminds me of the assignment that I have to do*

Item 5 = *It helps to improve my writing skills*

Item 6 = *It helps to improve my reading comprehension skills*

Item 7 = *It makes me think in English*

Figure 38: Contribution of interaction to English language enhancement

Figure 38 shows that the learners put equal values (around 50%) for the ways that interaction could enhance their English competence, with the exception of Item 5 (It helps to improve my writing skills, 18.4%). In the follow-up focus group discussion with the learners and instructors, the items were discussed in-depth and the results were very interesting. First of all, the learners stated that interpersonal interaction did not enhance their reading comprehension as reflected in the results of the survey. They argued that through the interaction their critical thinking ability might be improved, not their reading

comprehension skills. In addition, they used simple words and language in the interaction processes, so vocabulary might have been enhanced, not reading skills.

Secondly, with regards to the contribution of interpersonal interaction to grammar, the learners commented that the interaction process did not help much to improve their grammar unless grammar was the topic of discussion. They also stated that the peers did not normally point out their grammatical mistakes, so they could not learn much about this area through interpersonal interaction. In this regard, the instructors viewed that their modelling use of short and simple sentences could possibly contribute a little to the learners' use of English grammar. One of the instructors stated that they were careful when writing to the learners because, *"instructors should not make mistakes"*.

The contribution of interaction in helping the learners to better their English was also discussed during the interviews. Two key themes were emerged relating to the enhancement of (i) the learners' language macro skills (listening, speaking, reading and writing); and (ii) their soft skills.

4.8.1 Enhancement of language macro skills

The enhancement of language macro skills such as writing and speaking through text-based interaction has been mentioned by a few participants of the study. Four learners stated that their general language use could be improved because of intensified interaction with others. For example, Daisy reported that interaction with the instructors led to a more positive attitude towards online learning, and thus was more motivated to study. In the words of Rose, through chatting with other learners and the instructors, conversational English was better. It was also claimed by Lily that through the interaction, the language used by foreigners in everyday conversation can be acquired. Another learner commented in the interview:

> I think interaction will improve a lot of our abilities: confidence in learning, in communication. Interaction with instructor is useful for better language skills. Thanks to feedback from instructors about our progress, our language competence will develop fast. (learner – Peach)

Interestingly, one of the learners argued that interpersonal interaction in this online course did not result in any improvement of language skills. This learner stated that self-study was the most common way to study speaking and he/she had never asked the instructors questions about how to listen better. Two other learners, on the other hand, claimed that writing skills could be improved through the interactions, especially their formal written language. Nevertheless, this idea was not supported by another learner, who stated that in the written communication with others, they used short sentences. Hence, writing skills did not improve much. With regards to speaking, two learners spoke of more natural use of informal language through the use of short sentence, abbreviation and slangs in text-based chats or Skype: *"we learn to use informal English in speaking"* (learner – Tulip). The instructors who took part in the interviews shared some of the learners' perceptions. Most of the instructors believed that through text-based online interaction, learners' writing skills would improve: *"… writing skills because they have to write a lot on computers"* (instructor – ID 06). Another instructor (ID 08) commented:

> I could see that the learners often made mistakes at the start of the course, and used wrong format, for example using an exclamation mark after "hi teacher" or writing a letter without addressing to any receiver. I guess they learnt from the format of my messages, and made clear progress in their writing.

The instructors concurred that by writing to other people, the learners naturally had a better production of a written work. Nonetheless, one instructor argued that it was necessary to explicitly teach the learners certain rules about writing, especially when writing a letter.

> I often correct the learners' writing when addressing the lecturer. For example, instead of "Dear + first name", they should write "Dear + last name". That will help the learners in writing. Similarly, when starting a letter with "Dear Sir/Madam", they would end with "Yours faithfully", not "Yours sincerely". I also tell the learners that when writing to friends, they should use "Dear + first name", not last name. (instructor – ID 06).

The aforementioned issues were confirmed in the real messages that the learners sent to their instructors. Many of these messages contained errors in the use of English as well as incorrect letter writing conventions; underneath was one of the learners' posts:

> hi teacher,i don't know why my computer only practises test from test 1 to 7.when i do exercise 8 it don't run. [*sic*] (learner – ID 217)

In addition to better writing skills, some of the instructors spoke of enhanced speaking skills, especially when taking part in forums in English: *"the forum can also improve speaking skills"* (instructor – ID 02). According to the instructor ID 06, a senior one, the English that was used in forums was everyday language, and thus the learners could enhance their natural communication skills in English as well. On the other hand, some other instructors argued that online interaction with peers or instructors could do little to help the learners' spoken English: *"I think it's difficult for speaking and listening because interaction mainly occurred among Vietnamese, not with foreigners"* (instructor – ID 05).

4.8.2 Improvement of soft skills

Besides the contribution of interaction to language macro skills, the majority of the learners who took part in the interviews stated that the interaction could improve their soft skills, including communication: *"the more we interact, the more communication styles we know"* (learner – Lily). Two other soft skills that could be enhanced, according to some learners, were better confidence and ability to make the most of online courses. However, according to one learner, interaction could not enhance any soft skills: *"I think EDO is only for online learning. Without interaction with human being, soft skills won't improve much"* (learner – Lotus).

In respect of this issue, most of the instructors shared the learners' views. They explained further that there were certain differences in the communication protocols between English and Vietnamese language, and through the exchange of messages, the learners could develop their sense of appropriateness to suit various communication contexts. One instructor (ID 11) noted that, *"... probably because of the way to call someone. We have*

to say: Mr Nguyen Tan Dung, but he's simply addressed as Mr Dung in foreign newspapers".

Better computer skills were reported by one of the instructors, who described how the learners made progress from typing with two fingers to using 10, better use of hot keys for quick 'cut and paste' action and even changing proxies to have access to certain webpages.

4.9 Summary

In this study, the triangulation of four different sources of data was utilised to find the answers for three research questions:

- What are the patterns of text-based interpersonal interaction (learner–learner and learner–instructor) in the online English language learning environment?
- Which factors influence the interaction?
- What are the effective practices that enhance the interaction?

Different patterns of interaction were observed: learner-initiated and instructor-initiated. This phenomenon resulted in different directions of interaction, mostly one-way, two-way, and multi-directional in a few cases. As for the level of participation, while some learners took part in all the three forums of the online course, others did not. After a relatively active initial period of posting in the forums, the learners' interest went down and they only maintained some interactions with the instructors in order to report their study progress or technical problems. They preferred to interact with peers, but turned to the instructors for quality answers. The instructors' level of participation was also varied with some of them showing enthusiasm in guiding their learners to study online and others seemingly reluctant to encourage online interpersonal interaction.

The triangulation of the data (Yin, 2009) showed that the factors that had influence on the learners' interaction included those about the online course, the instructors and learners themselves. The factors that were related to the online course included its content, design and delivery. The learner–content interaction was not very useful due to a number of reasons, including easy learning tasks, quantitative measurement of learners' interaction

and the lack of linkages between the course materials and the semester tests. Technical glitches and rigid assignment of study levels to all the learners also demotivated their interaction.

The instructor-related factors were their feedback, online presence and pedagogy. The analysis of the timeliness and usefulness of their feedback did not yield conclusive findings about its importance but the instructors' limited presence seems to have negative impact, especially when the learners were yet autonomous in online learning. In respect of pedagogy in online teaching, while some instructors possessed effective methodology, others did not seem to have acquired necessary skills to facilitate online learning. This indicates the need to provide additional facilitation skills to the instructors.

Regarding the learners, their perceptions about the usefulness and purposefulness of interaction were considered as important factors, but their demographic characteristics, including gender, place of origin, internet and English self-efficacy, did not seem to influence online interaction. The learners perceived that interaction with the instructors were useful, but the unstructured interaction with peers did not seem to help enhance their language competence. This is further discussed in Chapter 5.

In response to the third question of the study, the participants of the study concurred that more 'entertainment' elements should be added to the online course through adding video clips, television series and linking the course with Facebook. Most of them stated that a regulation about required interpersonal interaction was not necessary. For them, this interaction should happen on the voluntary basis to meet real need of individual learners and instructors. They agreed on the important role of the instructors in encouraging discussion among the learners, and facilitating quality participation in the forums. While the learners viewed that the instructors needed to be more enthusiastic in their responses, the instructors argued that their key role in this course was limited to reminding the learners to work harder through active interactions with the course content.

In respect of the contribution of interpersonal interaction to the enhancement of the learners' English, different findings were observed. While the survey respondents indicated that the interpersonal interaction did not help with writing skills, the majority

of those who took part in the interviews stated otherwise. Similarly, unlike the results from the survey, most of the learners and instructors stated that interpersonal interaction could not contribute to enhancement of their reading and listening skills. On the other hand, there was an agreement from survey respondents and those who took part in the interviews and focus group discussions that the interaction could help with speaking skills; more specifically, the learners' spoken English could become more natural. In addition, their soft skills – for example, communication – could also be facilitated through the interaction processes.

CHAPTER 5: DISCUSSION OF FINDINGS

This study sets out with the aim of investigating interpersonal interaction in an online English language learning environment at a Vietnamese university. The findings from previous chapters show a great variety of issues and factors that deserve in-depth discussion relating to the learners, instructors and the online course itself. Therefore, the purpose of this chapter is to examine the significance of the key findings in the light of three research questions:

- What are the patterns of text-based interpersonal interaction (learner–learner and learner–instructor) in the online English language learning environment?
- Which factors influence the interaction?
- What are the effective practices that enhance the interaction?

The current study examined perceptions of 207 learners and 12 instructors who participated in an online English course as part of their undergraduate study at a university in Vietnam. The study adopted a mixed methods approach in designing and analysing four different sources of data: questionnaire survey, online messages, focus group discussions and semi-structured interviews. The sequential design of the study with quantitative data (survey and online messages) collected in the first stage allowed the researcher to expand and clarify some of the findings in the second stage of data collection; that is, focus group discussion and semi-structured interview (Clark & Creswell, 2007; Onwuegbuzie & Combs, 2011).

As mentioned in Chapter 3, the mixing of quantitative and qualitative data was conducted through triangulation, complementarity, development and expansion techniques (Greene, 2007). There was also a conversion of qualitative data into numerical codes that could be analysed quantitatively or quantitising (Miles & Huberman, 1994; Teddlie & Tashakkori, 2009a). For example, the content of online messages was analysed to determine how many times learners responded to their peers' posts, and whether they preferred to interact with Vietnamese or foreign learners. However, this study did not implement the

conversion of quantitative data into narrative data or qualitising (Teddlie & Tashakkori, 2009b).

The following table shows a matrix of how the findings of this study (presented in the previous chapter) are discussed in the light of past research and the theoretical framework that were reviewed in Chapter 2.

Research questions	Discussion points	Sources of findings
Question 1: What are the patterns of text-based interpersonal interaction (learner–learner and learner–instructor) in the online English language learning environment?	Frequency of interaction	Survey Online message Interview Focus group discussion
	Patterns of interaction	Online message Focus group discussion Interview
Question 2: Which factors influence the interaction?	Course - content - design - delivery	Survey Focus group Interview
	Learner - gender - place of origin - mode and target of interaction - internet and academic self-efficacy - perceived usefulness of interaction - purpose of interaction	Online messages Survey Focus group Interview
	Instructor - feedback - online presence - pedagogy	Interview Focus group
Question 3: What are the effective practices that enhance the interaction?	Suggestion to enhance interaction	Survey Focus group Interview
	Contribution to language learning	Focus group Interview

Table 35: Matrix for discussion of study findings

The first part of this chapter will discuss the findings about the frequency and patterns of interaction in this online course. Based on the results that emerged from the survey, online messages and interview, the researcher will discuss the quantity of online messages (including number and time) as well as the relationship between the quantity and quality of these posts. Then the key interactional patterns (learner-initiated, instructor-initiated) and directions (one-way, two-way and multi-directional) will be discussed.

The second section of this chapter interprets the factors that influenced the interaction process in this course. The findings from the survey, online messages, focus group discussions and semi-structured interviews showed that three main factors that influenced interaction were the online course, learners and instructors. The course content, design and delivery were three sub-factors that had some impact on the learners' interaction with the content, peers and instructors. The factors that were related to the learners, including their demographic characteristics, interaction mode and perceived purposefulness and usefulness of interaction will be examined. As for the instructors, the factors relating to their feedback, online pedagogy and presence will be discussed in detail.

The third part of this chapter will explore how the interpersonal interaction could facilitated in order to enhance the learners' competence of English. Based on the findings from analysing the survey data, online messages, focus group discussions and interviews, two main issues will be explored. Firstly, what are the practices that will increase learners' online interaction with their instructors and peers? Secondly, how does the text-based interpersonal interaction contribute to learners' English language competence, especially their macro skills of speaking, reading, listening and writing?

Question 1: Frequency and patterns of interaction

In order to capture the learners' frequency and patterns of interactions in this online course, four sources of data were analysed: survey, online messages, focus group discussions and semi-structured interviews. The analysis of the data enabled the researcher to draw preliminary findings that were presented in the previous chapter. The

interpretation of these findings is presented below in the light of the theoretical framework identified in Chapter 2.

5.1 Frequency of interaction

The analysis of the data relating to the learners' frequency of interaction with the instructors and peers revealed two key issues: their level of interaction and the discrepancy between the reported and observed frequency level of interaction.

5.1.1 Learners' level of participation

The quantitative analysis of the online messages revealed that the average number of posts per learner was very low: about 0.14 messages per learner per week. In fact, only 20% and 38% of the learners took part in the learner-to-learner and learner-to-instructor interactional forums respectively. It is difficult to make an accurate comparison with other studies because of different contexts involved, but the study by Hara et al. (2000) had reported an average of one note per week per student. Similarly, Schellens and Valcke (2005) had found that each learner in their study posted 1.48 messages per week. A higher average of 3.36 messages per student per week was seen in Lee's study (2012).

There are several possible explanations for the learners' limited participation. Firstly, the interpersonal interaction in this online course was not compulsory, so the learners were not required to post or read others' posts. This result seems to be consistent with Mowrer's (1996) finding which suggested that learners would avoid responsibility if they were not required to post or read peers' posts. These learners had just left the school environment where they had been used to being told what to do; hence, they might not be autonomous enough in the exchange of messages with others and were ignorant of participation. These findings confirm the results of earlier study by Ryman et al. (2009). Secondly, there was no explicit link between the participation in the forums and their learning goals, an important factor to make online discussion effective as suggested in a study by Zhu (2006). At the end of the study semesters, these learners had to take English tests in listening, speaking, reading and writing while the posts in these forums were mainly short, simple written ones with no or little linguistic correction from the peers or instructors.

The learners' limited participation in this online course raised a question about their lack of motivation for online learning. It seems that they interacted with the course content mainly because of the regulation issued by the university management (see section 3.3). When the interpersonal interaction (with the peers and instructors) was on a voluntary basis, their participation was limited. This result seems to be consistent with other research findings which suggest that learners had motivation problems and could not maintain a high level of interaction in the entire course (ChanLin, 2009; Lai, Shum, & Tian, 2014; Yukselturk & Bulut, 2007; Zingaro & Oztok, 2012).

In the first stage of Salmon's model (2003), access and motivation are the two crucial elements at the start of an online course. The participants of this study had relatively high internet self-efficacy (confidence), and a majority of them had convenient access to the internet and the online course (from home). According to Chang et al. (2013), this should be translated into a high level of learning performance and motivation. The learners were given orientation sessions at the beginning of the course on how to use different components of the online course. However, it seems that in this orientation session the issue of technical problems was not well addressed. Hence, their internet self-efficacy was not reflected in a high level of using the course. This finding is in agreement with the results of earlier studies which suggested that the internet self-efficacy was not associated with the intention to seek information on the internet sites (Lu et al., 2007; Yang, Lay, Tsao, Liou, & Lin, 2006).

According to Hung et al. (2010), orientation for courses should help the learners encounter as few technical difficulties during their study as possible. The findings from this study showed that the learners still had quite a few technical problems such as not being able to log in, equipment failure and internet connection drops. Furthermore, the automatic speech recognition (ASR) technology sometimes failed to accurately evaluate the learners' spoken English. The system did not point out pronunciation errors in the learners' input, like human beings. These findings are consistent with the results of past studies (Chiu et al., 2007; Kim, 2006). It has been argued that ASR technology is still far away from being able to replace human interaction in terms of pronunciation, stress and intonation (Kim, 2006). Confronted by these problems, the learners might have become

impatient and been driven away from the interactions. One of the interviewed instructors wondered why the learners could sit for three or even five hours for Facebook, but were not motivated to do so for online study. This may be because of the aggregated disappointment (due to technical issues) and boredom (due to the course design).

This suggests that careful hands-on orientation provided to the users of the course was extremely important. Although the learners were confident in using the internet, there were certain skills that they had to master when accessing specific online courses, especially those for language learning. For example, in this course the learners had to download and install on their personal computers ASR software for speaking practice. They also needed an earphone/headphone with a recording function. These seemed to be simple activities, but many learners found it difficult, especially when the operating system of their computers was not compatible with the software. Similar findings were also reported in study by Cleveland-Innes and Ally (2013) in which learners had challenges in accessing the course content (vClass). Hence, course designers should take into account ease of use, as suggested by Sun et al. (2008).

5.1.2 Discrepancy between reported and observed frequency

There was a large discrepancy between the reported and observed frequency of interaction. While only a quarter of the learners reported in the survey that they had never interacted with their peers, the descriptive analysis of the online messages showed that nearly 85% of the learners did not write any messages in the learner-to-learner forums (Community Discussion and Class Discussion). Similarly although 13% of the learners reported that they did not interact with the instructors, the findings from analysing the online messages revealed that 62% of them did not take part in the learner-to-instructor forum (Support).

A possible explanation for the above discrepancy is that the learners might have thought that reading the messages from the instructors and peers could be considered as an interactional act without having to specifically responding to the messages. Furthermore, the investigation of the read and unread messages showed half of the learners of some groups had not opened their respective instructors' messages. The above findings were

validated in the interview with the learners in which a majority of the interviewees stated that they had never interacted with the instructors and peers. It was also confirmed in the Class Discussion forum in which the learners' comments on their peers' posts were very limited. The triangulation of the findings that emerged from the analyses of different sources of data helped explain the discrepancy (Bergman, 2008).

In summary, the learners of this online course had limited frequency of interaction with their peers and instructors. This phenomenon calls for further investigation into the role of conducting careful technical and pedagogical orientation at the beginning of the course. In accordance with the above observation, previous studies have demonstrated that the institutions that provide online learning to their students need to reserve sufficient technical staff to tend to various technical problems the learners may encounter, especially during the beginning periods because the seemingly minor technical mishaps may discourage the learners from interacting with the content, peers and instructors (Herrington & Oliver, 1997; Hoven, 2003). In addition, the benefits of online learning need to be clearly presented and reiterated during the whole studying period. In developing countries, where online learning is still in its infancy and infrastructure for online learning is still poor, the mentioning of challenges that the learners may face is also advisable. One-sided or biased perceptions from technical, academic staff and institution managers may create doubts among the learners, especially when technical problems occur or when the results of online learning are not as expected.

5.2 Patterns of interaction

The patterns of interaction in this online course were derived from the analyses of the online messages in three communication forums. The results of these analyses showed that the interaction started both from the instructors and learners. The direction of interaction was one-way, two-way or multi-directional. The patterns varied with the instructor-initiated interaction occurring more often in the Support and Class Discussion forums, and more learner-initiated interaction in the Community Discussion forum.

5.2.1 Instructor-initiated patterns of interaction

The instructor-initiated patterns of interaction mainly occurred in the Support and Class Discussion forums where the instructors sent out announcements and assigned different topics for discussions. The instructors' messages and assigned topics served as constant reminders to the learners about the need to interact with the course content and each other to improve their English. This started the online learning process for the learners through doing exercises, submission of written homework and participation in the discussions in the target language (English). In a Vietnamese context, where online learning was new and learners are passive, the instructor-led interaction was crucial to make the learning happen. These findings support the idea of the need to have frequent reminding to make learners study hard throughout the course (ChanLin, 2009).

The initiation of an interaction process by instructors resulted in a few positive chains of action from the learners. In the first month, the number of posts found in the forums was rather plentiful, but the forums became quieter in the following months. This finding was in congruence with that of Sun's (2011) study. In terms of cognitive presence, a number of messages from the learners in the Support forum as well as the assignments (written compositions) in the Class Discussion forum showed that the interaction reached stage four of Salmon's (2003) model (knowledge construction).

Although the learners' compositions were mostly monologues (pieces of writing about their hometown and persons they admire the most), they proved that the learners invested some time and effort to construct new knowledge (written English). The responses from peers to these assignments, though limited in number, were also a manifestation of two-way interaction with tangible learning outcomes. These findings corroborate the ideas of Son (2007), who suggested that by doing online task-based activities, learners could enhance their language learning. If all the instructors had been more proactive in their initiation of interaction, the learners would have been more active in producing their written works, and commenting on their peers' posts.

5.2.2 Learner-initiated patterns of interaction

The learner-initiated interactions, which occurred mainly in the Community Discussion forum, provided a good environment for the learners to apply what they had learnt from the course content, and classroom context. The interaction in this forum was topic based, but the learners were free to write on any issue in English. Furthermore, having opportunities to interact with learners from other countries was a good catalyst for Vietnamese learners to enhance their English, and communication skills. This was really valuable for these learners to practice English outside the classroom context as suggested by Zeng and Takatsuka (2009).

The learners' participation varied a great deal depending on the topics. Furthermore, most of the posts by the learners were still short, and interaction mainly stalled at the socialisation stage. The learners' initiated posts were normally just a greeting and self-introductory phrase like *"Hello all of you. My name is ___"*. These posts did not lead to a deeper level of discussion or application of newly constructed meaning as observed in other studies (Choo et al., 2013; Marden & Herrington, 2011). Like in the study by Pawan et al. (2003), learners of this online course did not develop ideas suggested by the others. For example, many learners proposed working together to enhance English learning, but replies from peers did little to develop these suggestions further. In other words, their message mainly stalled at the simple provision and exchange of information.

The learners also started the discussion process in the Class Discussion forum by posting their views about certain topics that were assigned by the instructors – although their posts were normally long and one-way monologues, which did not invite or provoke peers' comments or opinions. According to Zingaro and Oztok (2012), it is the notes with questions inviting comments that receive more replies than the ones without. These findings also match the results observed in earlier studies (Lamy & Goodfellow, 1999; Pawan et al., 2003), which have stated that learners did not engage in arguments or counterargument types of discussion.

In Salmon's (2003) model, the provision and exchange of information occur in stages two and three (online socialisation and information exchange). In this online course, the

socialisation activities mostly occurred in the Community Discussion forum. However, the inability to use avatars in this forum hindered learners from the feeling of having one's own identity, and connection with others. According to past research, the use of avatars, emoticons or an image in these stages has been crucial for the learners to socialise, create an identity and build trust with each other (Salmon, 2011; Tseng, Tsai, & Chao, 2013; Yamada & Akahori, 2007). It is also a fundamental condition for the establishment and maintenance of a sense of community (Dawson, 2006; Tu & McIsaac, 2002). The results of past studies have revealed that learners are more motivated to communicate if they see images from peers (Yamada, 2009; Yamada & Akahori, 2007). In short, the inability to use personal appearance in the interaction process made the learners feel less attractive to online discussion in this online course than in other social networks (e.g. Facebook).

The analysis of online messages also showed that the directions of both learner–learner and learner–instructor interactions were rather diversified: one-way, two-way and multi-directional. This finding is similar to the results of the study by Pawan et al. (2003). Their interactions resulted in certain levels of learner social presence of as reflected in the numerous exchanges of messages to peers and written compositions in English. The presence of social interaction usually has some direct effect on their use of a web-based learning system as observed by Pituch and Lee (2006). Nevertheless, the learner–learner interaction was less structured and seemed to halt at the simple exchange of information rather than construction of knowledge or cognitive presence. This could partly be due the architecture of each communication forum (mostly threaded) and partly because of the way that online discussion was regulated (not compulsory) and practised (not well-structured). It is, therefore, crucial to train instructors how to engage the learners in more meaningful and structured discussion sessions for higher levels of cognitive presence as suggested in earlier studies (Lee, 2012; Pawan et al., 2003; Salmon, 2011; Sun, 2011).

Question 2: Factors influencing online interaction

The second question of the current study examined critical factors that influence the learners' interaction with others (human and non-human). The review of literature in online learning reveals that there are many groups of factors that have an impact on

learners' interaction with the course content, peers and instructors (Bolliger & Wasilik, 2009; Lee, 2006; York & Richardson, 2012). Literature has also shown that the relative importance of each group of factors changes over time. For example, when IT was not popular, learners' computer and internet experience was a decisive factor for the success or failure of an online course. This was not the case later as shown in the study by Yukselturk (2010).

As presented in the previous chapter (section 4.3) both the simple descriptive and principal component analyses revealed that three groups of factors relating to the online course, learners and instructors were the ones that had impact on learners' online behaviour. The findings from the survey of this study were complemented by the results of analysing the online messages, transcriptions of the focus group discussions and interviews. In the following section, the above three groups of factors will be discussed in detail.

5.3 Learner-related factors influencing online interaction

The learners of this online course were the undergraduate students of the English Department of a university in Vietnam. In the first two years of their four-year study for a bachelor degree, the students focused on macro English language skills, and the online course was part of their study curriculum. Before starting to learn online, each learner was provided with an account and a hands-on orientation session in which the technical staff and instructors (normally their class lecturers as well) gave them step-by-step instructions on how to use the online course. There was also a regulation from the university stating that the learners had to complete 80% of the interaction with the assigned study levels before a certain deadline, usually the end of a semester. Failure to do so meant that they were not allowed to sit for the semester tests. Two hundred and seven students took part in the survey, 10 took part in the semi-structured interviews and nine took part in the group discussion.

The learners' interaction in an online course is influenced by many factors, which can be divided into two main areas: internal and external. The internal factors include elements like computer and internet self-efficacy, attitudes towards online learning and sense of

responsibility (Bhuasiri et al., 2012; Yukselturk & Bulut, 2007; Zeng & Takatsuka, 2009). The external factors are related to the course (content, structure), instructor feedback and presence (Garrison et al., 2010; Vrasidas & McIsaac, 1999; York & Richardson, 2012). In an online English language course, the ability to communicate in English is also important (Ng et al., 2006; Wu et al., 2011). In this study, the following internal factors about learners were analysed: their demographic characteristics, level of confidence in using the internet, mode and target of interaction, and their perceptions about the usefulness and purposefulness of interaction.

5.3.1 Factors relating to the learners' gender

There was a pronounced imbalance between the male and female learners in this course. This was a common phenomenon as there was generally a larger female enrolment at the university (see Table 17). However, the result of a chi-square test showed that there was no association between gender and level of confidence in using the internet: χ^2 (3, n=207) = 7.2, exact p=.06. In other words, the gender factor does not influence the learners' internet self-efficacy. These results are similar to the findings of study by Deursen and Dijk (2011), which revealed that there were no differences between men and women in internet skills. However, the above results were different from other studies that have showed that male students expressed significantly higher confidence of using the internet than female ones (Huffman, Whetten, & Huffman, 2013; Liaw & Huang, 2013; Wu & Tsai, 2006).

Study on gender difference in online learning in Vietnam is limited. There have only been few studies on this issue: one of which was conducted by Peeraer and Petegem (2012) which claimed that, "there is no significant influence of gender, age or subject teaching on the integration of ICT in teaching practice over the variance explained by ICT skills and computer confidence" (p. 7). In other words, if male and female teachers have same ICT skills and computer confidence, they are also in similar positions to apply modern technologies in their teaching. Similarly, a study by Dang (2014) claimed that the gender factor showed negative significance in the language teachers' preparatory and instructional use of ICT. The participants in this study were categorised as 'Net'

generation (Chen, 2014b; McCrindle, 2006), and thus it was assumed that gender did not have strong impact on the their online interaction.

5.3.2 Factors relating to the learners' place of origin

As mentioned in section 4.4.2, the learners of this online course mainly came from the northern provinces of Vietnam, and more than half of them were from Hanoi, the capital city. Statistics from the Vietnam NetCitizens Report (2012) revealed that these cities and provinces had similar ratios of internet usage. The findings from a study by Peeraer and Petegem (2012), which investigated the information and communication technology in teacher education in Vietnam, showed a similar result. Only 10% of respondents (teacher educators in Vietnam) had no access to the internet, either at home or at school. In short, the learners' place of origin (hometown) is not an influencing factor on their online learning.

The fast development of computer ownership and internet connectivity was the main reason why the majority of the learners had access to the internet and the online course from home. According to the Vietnam NetCitizens Report (2012) nearly 80% of the internet users had their access at home. This meant that the learners from Hanoi could have access to the internet daily from their home while those from other provinces could do so from their rented places. Enjoying such a favourable condition, the learners preferred to access the course from home. This result is in agreement with the findings of Pool's (2001) study, which indicated that nearly 75% of the learners used the computer to access the course materials from home.

In summary, the simple descriptive and statistical analyses revealed that the learners' demography did not have impact on the learners' online interaction with the course content, peers and instructors. The above findings are in agreement with the study by Kim et al. (2011), which stated that demographic variables were not related to course satisfaction. However, they are different from the results of Yukselturk's (2010) study, which concluded that there were significant relationships between learners' gender and their level of participation in discussion forums. In the following section, other factors that might have impact on learners' online interaction will be discussed.

5.3.3 Factors relating to the mode of interaction

Between the two interaction modes – synchronous and asynchronous – the majority of learners in this study preferred the former. This finding was confirmed in the group discussion and interviews in which the participants elaborated their preferences for synchronous interaction with such advantages as ease of use and quickness in gathering opinions. The above result is in contrast with the findings of other studies which have revealed that learners preferred asynchronous interaction and that this mode helps language learners to perform better (AbuSeileek & Qatawneh, 2013; Bassett, 2011; Vonderwell, 2003; Woo & Reeves, 2007). For them, asynchronous interaction was useful to increase learners' confidence in online interaction.

The instructors were in agreement with their learners about the advantages of synchronous interaction, but they pointed out that the learners tended to use Vietnamese instead of English during the interaction process, either in voice or text. This finding is in agreement with the result of Le's (2011) study, which asserted that Vietnamese learners tend to speak Vietnamese to each other in class. It is also consistent with the results of Lee and Wang's (2013) study, in which learners used Chinese instead of English in a wiki collaborative for an English as a foreign language (EFL) project.

Similar to previous studies (AbuSeileek & Qatawneh, 2013; Oztok et al., 2012), the findings of this study suggest that a combination of both synchronous and asynchronous modes of interaction benefit learners most. Recent investigations into these two modes of interaction suggest that synchronous mode is more suitable for discussions of topics that inspire learners passionately (Schwier & Balbar, 2002) whereas asynchronous mode was possibly more suited for in-depth and thoughtful discussions (Branon & Essex, 2001; Tu & Corry, 2003). In their study, So and Brush (2008) found that shy learners preferred asynchronous interaction while vocal and active ones preferred synchronous mode, like in traditional classroom.

Instructors should not be too rigid in making their learners take part in either mode of interaction. Instead, learners should be allowed to choose the mode that they find most comfortable. The application of the most advanced technologies for synchronous

interaction such as video-based or web-based conferencing may motivate, and thus bring about positive impact on, learners in their online study (Chen et al., 2010; Smyth, 2011). Plans for such real-time interaction should be well prepared to make sure that learners benefit qualitatively from participation. Inviting experienced language teachers to share their knowledge about language learning and then allowing time for questions and answers is one of the ways to motivate learners.

In short, it is not possible to conclude which mode of interaction has stronger influence on the learners' interaction with peers and instructors. More in-depth experimental investigation is needed to compare the usefulness of each mode on the learners' study, especially in language learning. It is, though, possible to draw a conclusion that the combination of both modes may be able to satisfy those who wish to have their questions answered quickly as well as others who prefer to have in-depth thoughts about a discussion topic.

5.3.4 Factors relating to the target audience of interaction

The analysis of survey data showed that the learners of this online course liked to interact with peers more than with instructors. However, their actual communication in the three forums revealed a different result; that is, more learners wrote to the instructors than to peers. In addition, although they mentioned (in the focus group discussion) that it was easier to chat with peers, they still turned to the instructors for quality answers. These findings seem to be consistent with other research which has showed that learners valued guidance of the instructor during discussions (Shackelford et al., 2012). One of the possible reasons was that the learners were of the same age, and thus could socialise without much difficulty. In terms of supporting each other for language learning, they were reluctant. In other words, the learner–learner interaction reflected their social presence while the learner–instructor interaction was conducive for cognitive presence. In addition, their limited interaction with the instructors were attributed to the norm in East Asian culture, where learners often refrain from arguing openly with teachers, who are viewed as a respectable authority, a role model and an ultimate source of knowledge in their field (Chen, 2014; Sit, 2013; Thanh, 2011).

The results of this study corroborate the inconclusive findings of past studies about the influence of preferred target audience on the learners' online interaction (Kelsey & D'souza, 2004; Mazzolini & Maddison, 2007). On one hand, a few researchers have claimed that learner–learner interaction does not have significant influence on the learning perceptions of the learners: it is the learner–instructor and learner–system interactions that are associated with higher perceptions of learning (Arbaugh & Benbunan-Fich, 2007). The learner–instructor interactions have been found to be the most important ones in guiding learners to interact with content and peers (Kelsey & D'souza, 2004). On the other hand, other researchers claimed that learner–learner interactions give learners strong motivations to excel through mutual collaboration for learning, thus helping them improve study outcomes (Blake, 2009; Kanuka et al., 2007; Sharma, 2010).

Using Salmon's (2003) model to analyse the learner–learner interaction in this online course revealed that their interaction mainly stalled at the third stage; that is, information exchange. This finding matches those observed in other studies which have suggested that learners were not ready to move beyond sharing information and did not reach high levels of cognitive presence (Rourke & Kanuka, 2009; Wallace, 2003). Nevertheless, the learner–instructor interaction in this course could lead to stage four whereby learners could produce some evidence of knowledge construction (pieces of writing about their hometown, people they admire the most or some reflective comments). This was partly because the instructors made their expectations clear to the learners through the creation of topic (easy and practical), inviting the learners to discuss and giving deadlines for participation. Meaningful interactions in these situations corroborates earlier findings by Dennen et al. (2007).

In summary, both instructors and peers influence the learners' interactional behaviour. It is possible to draw a conclusion from the findings of this study that the instructors need to be trained on how to motivate and engage their learners in the interactions with their peers for both social and cognitive development (e.g. making friends with learners from other groups and countries and collaborating with one another for the construction of knowledge). At the same time, it is also important to increase the learners' confidence in uploading their posts and commenting on their peers' posts.

5.3.5 Factors relating to the learners' internet and academic self-efficacy

The results of descriptive and principal component analyses show that the participants were confident in using the internet, familiar with the communication tools of the online course and good at typing. This result confirms the findings of Hung's (2010) study, which indicated that nowadays college students are rather confident in their computer/internet self-efficacy. The finding of the present study is also in agreement with the results of a series of research by Tsai and his colleagues (Peng, Tsai, & Wu, 2006; Wu & Tsai, 2006) on college students' internet self-efficacy, which revealed that students had adequate confidence in using the internet both for general and communicative purposes. The report on statistics of internet users in Vietnam (2013) revealed that as of May 2013, over 55.2% of Vietnamese people had access to the internet. This could have resulted in a high internet self-efficacy, especially for the participants of this study, who were considered as the 'Net' generation (Chen, 2014b; McCrindle, 2006).

Notwithstanding, further analytical tests (chi-square) showed that the learners' level of confidence in using the internet was not associated with their online behaviour; for example, mode of interaction, $\chi^{2} = (3, n = 207) = 2.2$, $p = .54$, or target audience of interaction, $\chi^{2} = (3, n = 207) = 6.3$, $p = .10$. These findings support the results of study by Wang and Wu (2008) which revealed that self-efficacy did not significantly predict online learning behaviours. On the other hand, the above results are different from the findings of an earlier study by Vrasidas and McIsaac (1999), who stated that prior experience with CMC influences interaction whereby less experienced learners were not confident in the online synchronous chats. Indeed, inconsistent findings are found in the relationships between learners' internet self-efficacy and their online behaviour (Tsai, Chuang, Liang, & Tsai, 2011).

There are a few explanations for the mismatch between learners' high level of confidence in using the internet and their online learning behaviour. Firstly, the majority of Vietnamese use the internet for three main groups of purposes: information gathering, online entertainment and online communication (VNNIC, 2013). Online learning is still relatively new in Vietnam and thus people are still sceptical about quality of this learning method (Hong, 2009). In language learning, the majority of lecturers and students

perceived that face-to-face interaction was much more effective than working virtually, especially in helping learners to speak and write English.

Secondly, while using the internet usually included simple browsing of websites or sending and receiving emails, this online course required learners to perform a few other activities such as drag and drop, speaking and recording one's voice and submitting homework. These activities might cause anxiety to those who failed to perform the tasks smoothly, or when the network broke down and they had to start the learning process again.

Thirdly, the frequent occurrence of technical problems while working with the online course demotivated the learners, including those who were very confident in using the internet. Thus, providing careful orientation at the beginning of the course and continuous technical support to the learners during their study was crucial in making learners gain high self-efficacy and be ready to use the online course. Similarly, Salmon (2003) placed strong emphasis on preparing and motivating learners technically and academically during the first and second stages of online teaching and learning.

The academic or English self-efficacy refers to learners' ability to use English in their interaction with the course content, peers and instructors. The learners' ability to use English has been considered the most important factor in the interaction processes, both in traditional and online settings (Shamsudin & Nesi, 2006; Wu et al., 2011). In this study, it seems that learners did not have much difficulty in understanding the instructions as well as the content of the course. On the contrary, as mentioned earlier, the course content was lower than their language ability. By the time these learners started using the course, most of them had studied English for six years or more, and had just passed a national entrance exam in three subjects, one of which was English.

The abovementioned finding was confirmed in the interviews, in which both the learners and instructors stated that English language competence was not an inhibiting factor to their online interaction. Conversely, the learners seemed to prefer such receptive skills as grammar, reading and listening instead of productive skills like speaking and writing in

which they had to interact more with human beings (peers and instructors) than with the system. This was possibly because they did not want to lose face in the interaction process, one of the barriers for Vietnamese learners of English (Borton, 2000; Le, 2011). Hence, the learners' communication skills tended to be a more important issue than their English language competence. It is observed by earlier researchers (Roper, 2007; Salaberry, 2000) that good online communication self-efficacy was an enabling factor for comfortable online interaction, especially in text-based asynchronous mode.

In short, both the internet and academic self-efficacy of the learners of this course did not have significant influence on their interactional process with peers and instructors. The learners were capable of understanding the instructional language of the course and interacting in English, but it seems that their cultural characteristics have certain impact on their wish to interact. Similarly, although they were confident in using the internet, their ability to manoeuvre different components of an online English course was still hindered by the some technical aspects specific to the course itself.

5.3.6 Factors relating to the purpose of interaction

As mentioned in Chapter 3, the learners' purposes of interacting with their peers and instructors were identified using the framework that was adopted by Thomas (1996) and Poole (2001), which classified online messages into five main groups: article, content, technical, procedural and non-academic.

For the learners, the results of analysing the survey data showed that they had different purposes when interacting with peers, both for academic (content) and non-academic groups such as commenting on peers' posts and getting to know about others. However, the analysis of the online messages showed that the proportion of content-related posts was rather limited and the learners seemed to express more desire to socialise with their peers, rather than collaborating for English language learning. These results accord with earlier assumptions that learners mostly reached the third stage of learning in Salmon's model (2003), exchange of information (stage three), and to a limited extent, construction of knowledge (stage four).

Indeed the number of online messages that showed the construction of knowledge was relatively small compared to the exchange of information. Only 20% of posts contained reflective conversation in which the learners asked questions, and discussed or agreed with their peer's opinions. This finding is in agreement with Son's (2006) findings, which showed that the percentages of interactive messages were limited. This finding is also congruent with other studies (Ng & Murphy, 2005; Pena-Shaff & Nicholls, 2004) that have suggested that the posts were mainly self-reflective in nature rather than a dialogue process in which a post was built on each other's contribution. In this regard, Johnson et al. (2008) have stated that "it is through the viewing, cognitive processing and responding to the postings that improves the effectiveness of the [online learning] environment" (p. 364). Thus more interactive, structured communication among the learners through commenting on peers' posts may lead to more construction of knowledge.

In their interaction with the instructors, the learners exemplified more diversified purposes focusing on academic (article, content), technical and procedural groups. It is possible to assume that the submitted assignments as well as the online messages, written in English, asking for technical support or study progress (procedural) were evidence of knowledge construction (enhancement of written English), and thus reached phase four of Salmon's (2003) model. Although collaborative learning did not occur often among the learners, their summaries of the articles and free writing on the topics '*your hometown's* or '*people you like the most'* were proofs of the construction of knowledge. Salmon (2011) quoted the words of one of the e-moderators that wrote, "conferencing is a medium that can add extra dimension to the developing ideas and increasing understanding of the course materials" (p. 58). The absence of messages in which the learners asked about learning English (grammar and macro skills) could have been because the learners and instructors also met face-to-face at least once a week when these questions could have been asked and answered.

For the instructors, the most important purpose of their interaction with the learners fell into to three groups: academic, procedural and technical. These included the messages that aimed to (i) assign topics and homework; (ii) remind the learners of their study progress; and (iii) respond to their technical and procedural questions. Interestingly, both

the learners and instructors stated that the second purpose was the most important one. This was true for Vietnamese learners (and possibly Asian learners) because of their passive learning styles. During their previous learning experiences at school, they had been used to being told what and even how to study. This passive behaviour could not be changed easily in a year or so. This was why both the learners and instructors thought that it was necessary to remind the learners of their progress, and to warn those who were behind the study schedule as shown in the following message:

> Dear all,
> Just a friendly reminder. For those who haven't finished Intermediate Level 1, please complete it in the next ten days. At the end of this month, I am going to stop your access to this level. Thank you! (instructor – ID 02)

In this study, the instructors also answered some technical questions from the learners. This raises an open question concerning the role of instructor in the interaction process. In an online language learning context, should the instructors deal with all queries from the learners, or should they only focus on helping the learners enhance language competence? Some researchers (Alvarez et al., 2012; Hampel & Stickler, 2005) have posited that an online tutor or instructor needs to provide learners with answers, advice, encouragement and praise, and should acquire various competences, ranging from basic ICT to online socialisation and facilitation skills. In order to be able to acquire all the skills as suggested by Hampel and Stickler (2005), a tutor or instructor needs to be trained extensively for many extra skills beside his/her professional competence. This might be difficult in the context of this study because of the large number of online learners per instructors (over 50) and their other academic duties.

The above discussion shows that the purpose of interaction is an important factor to enhance or hinder learners' interactions with the instructors and peers. For an online English course, it is crucial to minimise technical problems and make the procedural matters as clear as possible (in form of questions and answer – Q&A) so that learners can focus their interaction on academic purposes, for example commenting on peers' posts, doing homework and asking questions about learning languages. However, creating a

meaningful reason for learners to interact with instructors as well as among the learners themselves is not an easy endeavour.

5.3.7 Factors relating to the usefulness of interaction with peers and instructors

The learners of this online course expressed different views about the usefulness of interaction with their peers and instructors. While a majority of them gave a high value to the usefulness of interaction with the instructors, a more balanced value was given to the usefulness of interaction with peers. On one hand, the learners preferred to interact with peers; on the other hand, they valued feedback and responses from the instructors. These results were validated in the chi-square test which indicated no association between the usefulness of interaction with peers and instructors: χ^2 (4, n=202) = 3.41, p=.49. These findings also agree with the results of other studies which have revealed that students prefer teacher feedback because of its higher reliability than peer feedback (Guasch et al., 2013; Yang, Badger, & Yu, 2006).

The above findings were further confirmed in the focus group discussion, in which many learners mentioned that the quality of interaction was more important than the quantity. These findings are consistent with the results of a study by Grandzol and Grandzol (2010), which showed that "more is NOT always better" (p. 1). The majority of online messages in the Community Discussion forum did not show meaningful interaction, and it seems that the learners did not pay much attention to peers' posts. This result is in agreement with the observations in Garrison and Cleveland-Innes' (2005) study, which noted that learners shared their experiences but did not connect to others' contributions. The lack of connectedness between the learner–learner interaction and the study goals (discussed below) made the interaction less useful and meaningful; it should consist of exchange of messages to solve real tasks, as indicated in other studies (Kim, Mendenhall, & Johnson, 2010; Woo & Reeves, 2007).

There are several explanations for the above results, one of which could be that these learners were of the same level of study (first-year) and thus they might have been reluctant to comment on peers' posts; furthermore, they could have been unsure of the correctness of their answers or comments. These findings agree with those observed in

earlier studies which revealed that learners did not provide enough input and feedback in their discussions (Vrasidas & McIsaac, 1999; Yukselturk, 2010). In addition, past researchers have suggested that learners' limited interaction with peers in English was possibly due to their fear of 'losing face' (Borton, 2000) and being passive in engaging in classroom activities (Le, 2011). Furthermore, Vietnamese learners tend to avoid commenting on their peers' work in order to maintain good relationships (Thanh, 2011).

As mentioned earlier, the learners of this online course placed a higher value on the usefulness of interaction with the instructors. These findings seem to be consistent with other research, which has revealed the important role of instructors for success in online courses (Compton, 2009; Ernest et al., 2013; Garrison & Arbaugh, 2007). In East Asian culture, learners view their teachers as a respectable authority, a role model and an ultimate source of knowledge in their field (Chen, 2014a; Sit, 2013; Thanh, 2011). One might argue that the instructors should have corrected the learners' mistakes in using English that occurred in the online messages, but these instructors might have followed a communicative teaching approach: if the messages were understandable, there was no need to point out linguistic errors. Furthermore, the instructors could have been too busy to make corrections. Each of them was assigned to supervise over 50 learners, and correcting all linguistic mistakes would take too much of their time. The above number of learners per instructor is also far above the suggested optimum figure of 30 participants per one e-moderator suggested by Salmon (2011).

The usefulness of learners' interaction with peers and instructors could have been better felt and acknowledged if the content of these interactions had been integrated in the semester tests. This was partly because in Asia in general and Vietnam in particular, there is a phenomenon of exam-oriented or exam-dictated measurement of learning success (Chen, 2014a; Le, 2011; Le, 2013). The instructors of this online course were also the examiners of the learners' semester tests, but the content of these tests had to follow a fixed guideline with little or no mentioning of the online course. At the end of the semesters, the learners had to take tests that followed the International English Language Testing System (IELTS) format, which was different from the types of online exercises that the learners had to complete, and the content of interpersonal interaction between the

learners and instructors. In short, there should be a certain level of integration between the online course content, the substance of online discussions and the semester tests.

In summary, the usefulness of communicating with peers and instructors have certain impact on their desire to interact. While interacting with peers may be useful in socialising, and to some extent building a community of online learning, interaction with the instructors prove to be instrumental in a number of ways; for example, reminding, guiding and supporting with language enhancement. The usefulness of learner–learner and learner–instructor interactions can be better acknowledged if they are linked to study goals for the learners. This could be realised through involving the instructors in the design of the online course content. In the following part of the chapter, the influencing factors that were related to the instructors will be discussed.

5.4 Instructor-related factors influencing online interaction

The instructors of this online course were lecturers of English and were tasked to teach the online course in computer labs or supervise the learners' online study. They had a variety of experiences in working with learners – some in a blended setting (i.e. in the computer labs and physical classrooms) while others in fully online contexts. These different teaching circumstances had certain impact on their perceptions about the course (design, content and delivery) and the learners' online interaction. The results of analysing the survey data (factor analysis), online messages, transcriptions of focus group discussions and interviews indicated that there were three instructor-related factors that had certain influence on the learners' online interaction: their feedback, pedagogy and online presence. The following part of the chapter discusses these three factors in detail.

5.4.1 Factors relating to timeliness and usefulness of the feedback

The analysis the focus group discussion and interview transcriptions with the learners revealed that they valued the timeliness of the instructors' feedback. The in-depth analysis of the timeliness of feedback indicated that the time gap between sent and received posts of this online course was inconsistent, particularly in the learner-to-instructor interaction. Some of the learners' messages were replied within a day, but others were weeks later.

Ideally, all questions from learners should be answered within two weeks (Mazzolini & Maddison, 2007) although an average response time of two to three days or less would be more acceptable to learners (Gibby, 2007; Hew & Cheung, 2008). In order to meet these targets, study by Chen et al. (2011) revealed that a dedicated assistant was needed to respond to students queries for several hours per week. No such assistance was available in this online course. Furthermore, each of the instructors had to supervise over 50 learners; hence, answering all the questions would have taken too much of their time. It is also worth noting that the learners and instructors of this study met face-to-face every week, which provided the learners with a regular opportunity to have their questions answered offline.

As mentioned earlier, the learners of this course valued the usefulness of instructors' messages, especially those reminding them to complete assigned study online. Literature has shown that the usefulness of instructor feedback is a key factor affecting learner's online interaction (Guasch et al., 2013; Sheridan & Kelly, 2010). Be that as it may, the instructors of this course did not comment on learners' assignments or messages even though some of them were full of linguistic errors, for example:

> i don't know how to start my edo. can u suggest me what i should do the first.the second.....etc when i do my edo for the first time. thaks u so much! [*sic*]
> (learner – ID 224)

The above message from a learner contained many linguistic errors in grammar, spelling and the use of capital letters. The learner might have expected the instructor to correct or point out mistakes when replying. However, due to the vast number of similar messages that they received, instructors could not perform the corrections. In this case, the purpose of interaction was a more important factor. This could be one of the reasons why the instructors only replied to the message without explicitly correcting the mistakes. Instead, they applied the corrective feedback method to show the learner how to write a correct sentence (Loewen & Erlam, 2006).

> I do not really understand your request, I think. You said you did not know how to start EDO, but at least you know how to log in the site, right? (instructor – ID 02)

The above finding appears to be consistent with the results of a study by Alvarez et al. (2012) which suggested that instructors should combine suggestions with questions or corrections when giving responses to learners' [writing] work. This requires the instructors to attend to the content and structure as well as style of a piece of writing. Similarly, it has been revealed in the study by Guasch et al. (2013) that learners benefit more from their own and/or peer evaluation before sending their work to the instructors for suggestive feedback. In addition, it was evidenced from Loewen and Erlam's (2006) study that there was no significant learning as the result of online corrective feedback from instructors. In the same line of argument, Gibby (2007) has indicated that feedback needs to explain learners' mistakes.

In summary, although the instructors tried to give learners timely and quality feedback, they were unable to do so due to a number of reasons about their time availability, online teaching approach and skills. The instructors could not have time to reply to all individual messages or to correct all writing mistakes. Furthermore, they could have adopted a communicative method in the interaction process in which the content of the messages was more important than its technicality (e.g. structure and word usage). In addition, they could have had doubts whether individualised feedback to learners would enhance their academic performance. Indeed, it was suggested by Bocchi et al. (2004) that numerous feedback from instructors may actually be counterproductive to learners' performance. Thus, what seems to be more important was the instructors' skills in motivating and organising learners to work together to form a community of learning, or their shift in pedagogy to facilitate online discussion.

5.4.2 Factors relating to online teaching pedagogy

The study findings indicate that instructors' shift in pedagogy plays a critically important role in facilitating online interaction. The online English course used in this study was a commercially available online language learning platform. The instructors did not take part in the design or selection of learners' online activities. Instead, some of them created topics and requested their learners to take part in online asynchronous discussions, and provided additional online learning resources for learners. Unlike in traditional face-to-face lessons, all these learning activities had to be prepared well in advance and presented

clearly with specific instructions so that learners were certain of what to do and why they had to perform such learning activities.

The analysis of the instructors' online messages showed that there was a big difference among them in creating topics, moderating discussions and engaging learners. On the positive side, some instructors were tactful in creating topics, selected and adapted materials that suited the learners' interests and needs, informed the learners of the presence of the topics and requested them to participate with a deadline. This finding is in agreement with Compton's (2009) view about using pre-prepared materials for online teaching in order to make online learning successful. By contrast, on the negative side, some instructors just copied the topics from a list and posted them in the Class Discussion forum, and others gave very general instructions to the learners about what to do each week. Due to the above differences, the learners' participation in the interactional forums of the course varied, even when the same topics were assigned.

Engaging learners in online learning needs more preparation time at the beginning than in traditional classroom (Conrad & Donaldson, 2011). At the beginning, learners often curiously explore a new way of gaining knowledge with the support of technology. Hence, instructors need to engage learners in such interactive activities as ice breakers, individual introduction and netiquette, as specified in the first phase of the Engagement framework (Conrad & Donaldson, 2011). It is important at this stage that learners are motivated and gain personal control and confidence in accessing different components of the online course (Salmon, 2011). In this first step, it is essential that learners establish their social presence and build interdependent relationships with others for the construction of knowledge in the later stages (Ryman, Burrell, & Richardson, 2010). In a well-designed web course, the engaged learners should be able to perform certain tasks such as formulating questions, sharing knowledge and reflecting on their online learning process (Egbert, 2005).

In face-to-face teaching, learner participation in a discussion can be moderated through the lecturers' facilitation and adaptation of instructions. For example, the lecturers can group and regroup learners according to their interests and characteristics, or engage more

quiet learners through forced participation. In online learning, the instructors have to think of these activities in advance and give learners more specific guidance due to the absence of face-to-face contact. The findings from the learners' participation in the Class Discussion forum showed that their messages lack the reflective elements between initiators and followers of the posts. This issue can be addressed easily in the face-to-face context, but not in online settings. Thus the instructors have to be trained on how to engage learners in a more active and meaningful manner. Furthermore, the ability to synthesise and refocus the online discussions requires instructors to gain online communication skills, which might be different from those applied in face-to-face settings (Rudestam & Schoenholtz-Read, 2010; Salmon, 2003).

The instructors of this study, new and experienced, were given some hands-on training on how to use the online course and were also provided with specific job descriptions for their supervision of the learners' online study. While the hands-on training session (usually half a day) was sufficient to familiarise the instructors with the course content, imbedded technologies and interactional forums, it cannot prepare them well for other pedagogical skills. It seems that most of the instructors still lacked the necessary techniques in promotion of online learning, which includes such skills as encouraging, summarising and connecting the learners' posts. In addition, they seemed to perceive that the online course was an environment for learning only; hence, they did not socially chat with the learners, either in Class Discussion or Community Discussion forums.

In preparing e-moderators for online teaching, Salmon (2003) proposed a list of five competencies ranging from understanding about online learning, technical skills and online communication skills to content expertise and personal characteristics (p. 106). She also quoted other researchers stating that traditional lecturers need to acquire new skills in engaging learners in an online interactive environment – although with the fast development of advanced educational technologies such as mobile and wireless learning, this change of pedagogy is too simplistic (Salmon, 2011). Lecturers need to engage in real, practical online teaching experiences from designing of learning activities to facilitation of online discussion and assessment of online learning outcomes.

In short, the instructors of this course needed further training to enhance their online pedagogy, especially in engaging the learners. Ideally, they should be invited to take part in the design of the course content and online activities for the learners to interact with content, peers and instructors. However, in the context where lecturers have a high teaching workload, caution should be exercised over their involvement in different components of online teaching, as pointed out in other studies (Brace-Govan, 2003; Garrison, 2011).

5.4.3 Factors relating to online presence

The participants of this study agreed on the importance of having regular instructors' online presence throughout the study period. These findings match those observed in the literature, which has showed that the instructors' teaching presence plays a crucial role in engaging the learners and results in the construction of knowledge (Liu & Jernigan, 2013; Shea & Bidjerano, 2010). Studies have shown that there is a relationship between teaching presence and learners' social presence, cognitive presence, satisfaction, self-efficacy and sense of community (Garrison & Cleveland-Innes, 2005; Garrison et al., 2010; Swan & Shih, 2005).

The instructors of this online course also had different levels of online presence. Some were active in replying to their learners' messages, and creating and moderating class discussion forums; others were not. The higher level of participation in the interaction forums by some instructors of this online course is consistent with results of some studies in which the instructors were active in the interaction with learners (Islam, 2003; Sing & Khine, 2006; Stodel, Thompson, & MacDonald, 2006). The lower level of participation by other instructors is also similar with the results of another study in which the instructors posted fewer messages and mainly played the role of 'starter' and 'wrapper' (Hara et al., 2000). In this regard, Garrison and Cleveland-Innes (2005) noted, "it is not educationally desirable or reasonable from a time-management perspective to have the teacher respond to each comment. But it is crucial that the teacher moderate and shape the direction of the discourse" (p. 145).

In this study, the results of analysing the instructors' frequency of participating in the Support and Class Discussion forums revealed a ratio of 1.4 and 0.7 posts per instructor per week respectively. Although these frequency levels were higher than those of the learners' (0.08), they were incomparable with results of some published studies by Sing and Khine (2006) and Hara et al. (2000) with the ratios of 2.3 and 2.1 respectively. The different ratios of interaction in different forums were, however, in agreement with the results of study by Pawan et al. (2003), which indicated an uneven instructor participation in different online courses.

Regarding the influence of the instructors' online presence to learners' online interaction, past studies have yielded contradicting results even by the same researchers. For example, Mazzolini and Maddison (2003) indicated that the particular infrequency of instructor posts might have negative influence on learner satisfaction with online study. Later study by the same authors stated that more posts from the instructors did not increase the learner's level of participation (Mazzolini & Maddison, 2007). This finding was similar to the results of the study by Dennen et al. (2007), which showed that too many posts from the instructors may have adverse impact.

There are several possible explanations for some of the instructors' limited online presence in this course. Firstly, English lecturers in Vietnam often have a high teaching load; thus, their online presence mainly might have been limited to performing required tasks only. In other words, their lack of time was a major influencing factor, as observed in the study by Park and Son (2009). Secondly, it might have been because of their different online teaching attitudes and behaviours. While some of the instructors were active in facilitating participation and replying to the learners' queries, others were not. Thirdly, their weekly face-to-face meeting with the learners may also have diminished the need to interact online, as has been suggested by Marden and Herrington (2011).

In short, three main factors that were related to the instructors of this course were their feedback, online teaching pedagogy and presence. Firstly, although they could not answer all the learners' messages in a timely manner, their fulfilment of assigned duties – that is, reminding the learners to interact with the course content – had certain positive impact

on the learners' online interaction. Some of the instructors seem to have acquired effective online teaching pedagogy, reflecting their capability to engage more learners in the submissions of assignments and participation in online discussions, than others.

5.5 Course-related factors influencing online interaction

With regards to the online course, the three main sub-factors that influenced the learners' behaviour were content, design and delivery.

5.5.1 Factors relating to content of the online course

The survey respondents put a high value on the importance of course content. This was confirmed in group discussions as well as in the interviews with both the learners and instructors, in which they mentioned the need to have an online course that was suitable to the learners' level of English. The online course studied here included nine levels, from basic to advanced. It was claimed by the producers of this course that it could help the learners enhance all macro language skills: listening, reading, speaking and writing. Be that as it may, both the learners and instructors reported that the content of this online course was not effective because of uninteresting study materials, easy exercises, and most importantly the quantitative method of measuring learner–content interaction such as doing multiple-choice, true/false and fill-in-the-blank exercises. This method of evaluating online leaning has been questioned by earlier researchers (Chen et al., 2013; Conrad & Donaldson, 2011; Sun et al., 2008).

One of the reasons for the above problem was because this online course was a commercial one with pre-created content. The instructors and learners were not involved in the design and development of the course content. Although the engagement of the learners in the development of curriculum and course content is not a common practice in Vietnam, the lack of involvement of the instructors seems to make them feel less motivated, an important factor for successful online teaching (Palloff & Pratt, 2011). The course designers allowed the instructors to insert their own materials in the course content through an authoring tool, but the actual implementation of this action was not easy, as one of the instructors reported:

> Once I was taught by an expert to use a tool to design exercises for learners. I was eager to do that, but after successfully designing the exercises, I could not assign them to my learners. I copied the link and sent it to the learners, but there were many technical problems. For example, learners could not type their answers for open questions. I could neither know the percentage of completion nor the correctness of the answers. I could only put the exercises online and checked on each and every computer to know how my learners worked with them. I did follow the instructions, but it did not work very well. (instructor – ID 04)

One of the significant findings from the analysis of focus group discussions and interview transcriptions was that the learners wanted the course content to be more enjoyable. More specifically, the content should include songs, films, cartoons and television series to make learning enjoyable throughout the course. This finding is in agreement with the results of studies which have indicated that enjoyment had a major impact on the process and long-term study of learners (Ng et al., 2006; Wu et al., 2011). Through watching video clips from films and songs, together with doing interactive exercises, the learners can be in control of their learning (learner-centered) and, at the same time, feel more motivated (Havice et al., 2010; Shawback & Terhune, 2002).

Studies on curiosity, arousal and boredom have revealed that it was crucial to incorporate graphics, animation or any means to gain learners' attention (Kim et al., 2011; Kopp, 1982; Pregitzer & Clements, 2013). The application of varied educational technologies (e.g. Softchalk, White Board, PowerPoint, mobile and wireless learning) may make learners feel more interested and self-regulated in learning (Kondo et al., 2012; Pregitzer & Clements, 2013; Sharples, 2013). Studies on learner–content interaction have also shown that such interaction was the strongest predictor of learner satisfaction and learners who frequently interact with the content gain higher study outcomes (Kuo, Walker, Belland, et al., 2013; Murray et al., 2012; Zimmerman, 2012).

An interesting but little researched issue in online learning is the ownership of instructors in the development and design of the online course content. Unlike in traditional teaching, in which the lecturers have a lot of authority in conducting and adopting the content according to the need of learners, the content of an online course is often fixed and has to

be designed with clear instructions to invisible learners (Beetham & Sharpe, 2013). Hence, an online course should leave plenty and convenient room for the instructors to insert their own teaching materials and learning activities to cater for the needs of different groups of learners.

Furthermore, it has been reflected in the results of this study and in the work of past researchers that the learner–content interaction has to be meaningful (Dunlap et al., 2007; Woo & Reeves, 2007). While in the classroom context, the meaningful or quality learner–content interaction is constantly checked by lecturers or peers; it might not be easy to do the same in the online environment. The quantitatively instant and automated feedback from the course system might not be sufficient to show the full benefits of interaction with the course content. Qualitative comments and encouragements from peers and instructors might encourage learners to interact more with the content in a meaningful manner.

Another issue concerning the course content, or rather its delivery, was technological matters. This online course applied common technologies in the CALL field for learners to develop their language competence, including ASR. The participants of this study did not seem to trust the quality of this ASR technology in evaluating their spoken English. Another problem is the incompatibility of the course technology with the latest operating systems. As shown in the previous chapter, a majority of the learners used the online course on their own desktops or laptops, which were often running with the latest versions of internet browsers (Internet Explorer Version 9, Google Chrome or Firefox) while this online course could only run on the Internet Explorer Version 7. According to Johnson et al. (2008), this incompatibility caused inconvenience and a lack of trust on the part of the online learners.

The application of intelligent computer assisted language learning (iCALL) systems could be used in the future to enhance the learners' feeling of trust for the online course because their true language competence can be rightly assessed, not just quantitatively, but also qualitatively. This advanced technology can develop individualised plans for different learners through using natural language processing (NLP) technology to analyse

their linguistic inputs. The systems have been developed for the study of different languages including English, Japanese, French, German and a few others (Amaral & Meurers, 2011; Gamper & Knapp, 2002). This application might be able to reduce the workload for the instructors in assigning appropriate levels to the learners. They may then focus their attention on facilitation of learners' study instead of having to monitor learners' progress.

Furthermore, the results this study showed that the learners often encountered technical problems, not only because of the internet connection, but also because of errors with the system itself. According to Sun (2011), one should not overlook the problem of technical failing and its pressures on learners. The analysis of learners' online messages revealed that they often put off their study until the end of term. When they wanted to hurry up and complete assigned study levels, technical glitches really discouraged their online learning. This finding is in agreement with the results of earlier studies (Song et al., 2004; Sun et al., 2008), which observed that learners were often discouraged by technical difficulties.

5.5.2 Factors relating to design of the online course

This online course was designed to help the learners enhance their reading, listening and speaking skills with interactive exercises whereby learners could get instant automated feedback about their performance. These features have shown to get strong interests from educators (Ghasemi & Hashemi, 2011). As mentioned earlier, the participants of this study commented that the measurement of their performance was more of a quantitative nature. For them, it should be the quality that mattered, not the quantity of interaction. This finding seems to be consistent with the results of other research (Garrison & Cleveland-Innes, 2005; Lee, 2012; Mowrer, 1996). For diligent and motivated learners of English, the quantity and quality aspects may go hand in hand. In other words, patient practice of the online exercises might help better their English. It would have been better if the course designers had applied iCALL technology to describe learners' workflow, from which the instructors could see the learners' gradual performance qualitatively and plan individualised learning experiences so that their learners could achieve planned outcomes. There are still a few challenges for the system design of iCALL, for example

parsing of the learners' input to incorrect answers and identifying a learners' errors in linguistic terms (Amaral & Meurers, 2011; Garrett, 2009).

This online course did not have a component specially designed for writing practice. In the interviews, the instructors mentioned a few difficulties with regards to correcting learners' pieces of writing online, one of which was the complexity of the online correction process (downloading assignments, using track changes and explaining errors). These findings support previous research into this area, which indicated that there were many challenges for the instructors to migrate from traditional to online environments (Warnock, 2009). Despite the fact that advanced technologies can make immediate corrective and targeted feedback possible (Dodigovic, 2007), knowledge of results (KR), knowledge of correct response (KCR) and elaborated feedback (EF) from peers and instructors were necessary and encouraging (Wang & Wu, 2008). Comments from peers would have been more useful had the discussions in the forum been better collaborated and structured (Armstrong & Retterer, 2008; Lee, 2010a). Literature has revealed that the use of wikis and blogs seems to provide useful platforms for collective writing practice (Ducate & Lomicka, 2008; Klimova, 2011; Lee, 2010b; Lee, 2012).

The online English course examined this study contained most of the components that past researchers (Levy & Stockwell, 2013; Pacheco, 2005) have considered necessary in an effective web-based and CALL learning course, including general information, course information, resources, multimedia presentation of study materials, virtual classroom, assessments and testing. It was designed with authentic materials and integrative exercises to develop four macro language skills (speaking, reading, listening and writing), at three different language levels (basic to advanced) and different stages of learning (presentation of inputs and the practice and drills for meaningful outputs). However, the course did not qualitatively assess the learners' interaction with the materials. There was also a lack of linkages between the learners' online interaction with content, peers and instructors with their study goals.

The fast development of technologies has enabled course designers to flexibly develop content that can be used on various learning management systems (LMSs) such as

WebCT, Blackboard and Moodle. In the area of CALL, new technologies have offered various affordances for the practice of individual language area (grammar and pronunciation), for example grammar checker and ARS or an integrated content corpus for the practice of four macro skills (Golonka et al., 2012). One of the common features of the above application of LMS technologies is that the instructor was in charge of uploading study materials for the learners to study.

5.5.3 Factors relating to delivery of the online course

The factors relating to the course delivery were the cost, technical support and flexibility of online interaction. While the factor relating to cost was not indicated by the respondents as the most important, it was necessary to consider the cost/benefit ratio of an online course delivery, as suggested in past studies (Abrami, Bernard, Bures, Borokhovski, & Tamim, 2011). It was apparent that the learners of this course were not satisfied with the learning gains from the online course; hence, they might not have been happy with the additional payment on top of their regular tuition fee.

In respect of technical support, the learners considered this factor important to their online interaction. While the instructors could provide answers to simple technical questions, they usually had to refer the learners to the technical staff for more difficult ones. Interaction through a third person like this might not have been convenient to the learners. This raised the important issue of providing careful hands-on orientation as well as convenient, continuous technical support for learners during their online study time. These results match those observed in the study by Kuo et al. (2013), which indicated that providing technical training and technical support to both learners and instructors is crucial in online learning.

The findings of this study also suggest that the online course should be delivered flexibly, in particular the assignment of study levels to learners of different language ability. According to Ng et al., (2006) the fixed assignment of all the learners with the same study levels was questionable because the fixation can only satisfy either higher proficient learners or lower ones, not both. In addition, the compulsory completion of 80% of interaction with the assigned levels for all the learners did not seem to encourage the

learners to study harder. Although it might be necessary to make these learners study because of their passive learning style, the rigid adherence of the same study levels and completion rates meant that they had less autonomy. This result corroborates the findings of Kuo et al. (2013), who suggested that a rigid course made learners less autonomous. Furthermore, some of the exercises were too easy for these learners. It was observed in Berge's (2007) study that both overly challenging and too easy tasks demotivated learners.

Another issue concerning flexibility is the expected interaction with other people. In this course, interaction with peers and instructors was not compulsory; here, the interviewees of the study did not favour the idea of making interpersonal interaction compulsory. This finding is consistent with results of other studies in which learners suggested that online learning should be independent and self-regulated (Ke, 2010). That said, online self-regulation does not happen automatically. According to Abrami et al. (2011), it was necessary for the instructors to impose certain rules and structures including personal accountability and positive interdependence from the start of their online learning process. Similarly, it has been observed by Eneau and Develotte (2012) that learners need the continuous encouragement of instructors in order to build up their autonomy both in self-learning and in cooperating with others. Other studies have revealed that flexibility was one of the reasons for the learners' satisfaction, while the lack of it could have a negative impact (Arbaugh & Hwang, 2006; Kuo, Walker, Belland, et al., 2013; Sun et al., 2008).

A large number of learners (116/252) who did not participate in the discussion forums raised a few issues regarding the delivery of the course. On one hand, it shows that in a country where learners' autonomy is still limited, it is crucial for instructors to find effective ways to facilitate online discussions. Linking discussion topics to test preparation could be one solution to encourage learners to participate more actively, because of their test-oriented way of studying. Here, the usefulness of interaction needs to be clearly demonstrated to learners through practical, interesting discussion topics and possibly a requirement for a minimum number of messages to be posted per study period.

In summary, the three factors relating to the content, design and delivery of this online course had strong impact on the learners' interaction with the course itself, and with their peers and instructors. Although further investigation is needed to evaluate the influence of the course content and design, it seems that the learners were not satisfied with the overall usefulness in helping them to enhance their English language competence. The digital materials of an online course should meet the learners' indispensable requirements for language learning (Chen, 2014b). In addition, in a developing country like Vietnam, where decision-making often follows an authoritative process (Lam, Boymal, & Martin, 2004), technical support and flexibility in the course delivery are two decisive factors. Studies have shown that an online course should be delivered in such a way that learners can make the most of it, and that face-to-face meeting should not be excluded (Khan, 2005; Lim et al., 2007). Institutions that intend to open online courses should prepare sound strategic plans (vision, needs and risk assessment, infrastructure and support services) in order to ensure successful implementation (Garrison, 2011). The plans need to include preparing learners and instructors because they are the key people in the implementation of an online course.

Question 3: Effective practice enhancing online interaction

The third question of this study examines how interpersonal interaction could be facilitated in order to enhance learners' competence of English. More specifically, two main issues were explored: firstly, the practice that promotes learners' and instructors' online presence; and secondly, the contribution of the interpersonal interaction to the learners' enhancement of English language competence, especially their macro skills of speaking, reading, listening and writing. The analysis of the survey, focus group discussion and interview data yielded some interesting results that were presented in Chapter 4.

5.6 Suggestions to enhance online interaction

The findings from analysing quantitative and qualitative data of the study revealed that there were different ways that interpersonal interaction could be enhanced, and thus contribute to the learners' English language competence. It was suggested by the

participants of this study that through a combination of study and entertainment, better facilitation of interaction and enhanced roles of the learners and instructors, a higher level of the learners' online presence could be achieved. This would in turn contribute to the betterment of the learners' English. In the following section, the opinions of the learners and instructors are discussed in the light of Salmon's (2003) model of online teaching and learning, especially how the information exchange (stage three) can further lead to the construction and/or development of knowledge (stages four and five).

5.6.1 Combination between study and entertainment

The participants of this study suggested two ways that online learning could be combined with entertainment. First of all, the findings presented in the previous chapter revealed that a majority of the learners often used Facebook, Yahoo Messenger or Skype to interact with each other. Hence, they supported the linkages between Facebook and the online course, which was agreed by the instructors. This finding is congruent with results of earlier studies which have shown that Facebook was used by learners to contact each other about class schedules and assignments, check class-related materials, practice the use of English (especially writing) and have interpersonal communication (Bosch, 2009; Dang, 2010; Kabilan et al., 2010; Rod & Guerrero, 2013).

However, it is cautionary to conclude that Facebook can bring learning outcomes (Manca & Ranieri, 2013; Toetenel, 2013), especially when the learners' autonomy and responsibility were still at limited levels (Le, 2013). It is feared that the combination of the online course and Facebook may make things worse; that is, that learners forget about doing exercises in the online course because of the distracting nature of Facebook, as suggested in other studies (Bosch, 2009; Duffy, 2011).

Secondly, the participants of this study suggested the inclusion of more video clips of films, songs and news to motivate their learning. Past researchers have suggested that the use of video and other multimedia materials may be able to enrich the course content and help with language learning (Jarvis & Achilleos, 2013; Wu & Marek, 2013). In addition, the inclusion of short, multimedia-rich digital videos of the instructors and learners may enhance the learner's social presence (Garrison & Cleveland-Innes, 2005).

The above suggestion again raises the importance of involving the instructors in the development of course content. Their involvement might lead to a more diversified inclusion of content in different media: text, audio and video. In this regard, instructors should be trained on how to guide learners to download and play digital files on small portable digital devices (music players, smartphones, tablets, e-readers, etc.), which might create a sense of convenience to learners, and a higher level of online presence accordingly (Godwin-Jones, 2011; Salmon, 2011).

5.6.2 Better facilitation of online interaction

When asked to express their views about the regulation which made the learners have compulsory interaction with the course content, learners explicitly commented that they had to adhere to the regulation mainly because of the possible penalties – that is, not being allowed to take the semester test – instead of their real need to improve their own language competence. This finding accords with the idea that "requiring student interaction just for the sake of interaction may lead to diminished completion rate" (Grandzol & Grandzol, 2010, p. 9). Similarly, Gulati (2008) views that compulsory participation limits learners' autonomy.

However, other researchers have suggested that required collaboration in learning activities leads to increased interaction (So & Brush, 2008; Vrasidas & McIsaac, 1999) and a minimum level of interaction is needed for online learning to be successful (Arnold & Ducate, 2006; Stepich & Ertmer, 2003). This supports earlier observations that when learners are passive, especially in online learning, certain levels of required participation might be necessary. The result is also congruent with the finding of Islam's (2003) study, which suggested that it was necessary to get learners online first before involving them in discussions with peers and instructors. These results have led to an important factor relating to learners' self-regulated or self-directed learning, including self-directed use of technology for language learning (Hung et al., 2010; Kuo, Walker, Schroder, et al., 2013; Lai et al., 2014; Wong & Kamariah, 2009).

In online environments, self-directed learning and learner control have been proved to be the two dimensions that need special attention (Hung et al., 2010). It was proven in this

online course that when the interpersonal interaction was not made compulsory, the learners' participation was relatively limited. In Vietnam, learners were used to being told what to do, so it might be important to impose certain levels of forced communication before learners could have a high level of self-directed learning and control over their study. In addition, it was difficult for the first year students to adjust their learning habits right after moving from high school to a virtual learning platform. In other words, moving from being told to being in control of what to study is tough for Asian learners in general and Vietnamese ones in particular. This is not to mention learner differences in cognitive capacities to learn another language (Gass & Mackey, 2006).

5.6.3 Enhanced roles of the learners and instructors

It seems that the learners of this online course did not consider themselves as one of the factors that promote or hinder interaction with content, instructors and peers. In the focus group discussion and interviews, they mainly spoke of external factors such as the online course and instructors that had influence on their online presence. However, from the discussion with the instructors and the learners' actual participation in this online course, two aspects relating to the learners themselves can be observed and discussed: (i) their online learning autonomy; and (ii) their sense of responsibility. These aspects are closely related.

For a number of reasons, learner autonomy and sense of responsibility does not happen automatically. It is observed by Salmon (2011) that "few learners start to learn online with much experience of communicating with each other and their tutors through computers" (p. 161). Hence, it is crucial to provide continuous support and encouragement for learners (both novice and experienced) before they can have a habit of working together online for knowledge sharing and construction. In contexts where there is a combination between online and traditional contacts, careful organisation of the learning process, such as setting goals, moderating participation, encouraging collaboration and rewarding active learners, are some of the key skills that online tutors or instructors need to master. In a CALL environment, learner autonomy is dependent on a range of factors such as motivation, learning environment and social interactions with peers and instructors (Stockwell, 2012).

Learner autonomy includes many elements such as learning outside the classroom, self-access and self-instruction, and in other skills needed for CALL (Benson, 2007). It is considered a necessary condition for the application of a learner-centered approach in language learning. Learner autonomy can be manifested in two aspects: the freedom to interact with the course content and the capacity to be responsible for one's own learning (Benson, 2007; Dang, 2010; Le, 2013). In the context of this online course, while the first aspect of the autonomy was dependent on the instructors' pedagogical perception – for example, opening all the levels for the learners to study at their own pace and teaching the learners in how to learn online – the latter was completely in the hands of the learners themselves. In other words, the learners were in control of and responsible for their own study progress.

In an online learning environment, learner responsibility to one's own and others' learning outcomes is a crucial but difficult aspect. In the traditional classroom, the responsibility is manifested by a variety of real-time actions such as taking part in verbal discussions, submitting paper-based assignments and answering the lecturers' questions. In this online course, many learners only submitted their assignments if reminded by the instructor, with clear deadlines. Normal reminders did not seem to work, which showed the lack of the learners' self-responsibility to their own learning process. This result is in agreement with Yukselturk and Bulut's (2007) findings, which showed that instructors have been concerned about their learners' regular failing to perform requirements. In addition, there were little efforts from the learners in the joint discussion about the topics assigned by instructors, or reflection on peers' posts. These actions, if they occurred, would have shown learners' responsibility in providing comments to peers' messages and engaging in online discussion forums.

Thus, learner autonomy and responsibility are two elements that play a critical role in promoting learners' online interaction. Nowadays, a majority of learners are confident in using the internet. This could be translated into their confidence in using the online course after careful orientation sessions. Therefore, it is possible to hypothesise that with ongoing support from the instructors and technical staff, and well-designed course content, learners can gradually become autonomous in their online learning behaviours.

According to past studies, this will lead to higher levels of responsibility as well because learner autonomy is a situation where learners are completely responsible for the performance of their learning activities (Dickinson, 1987; Kondo et al., 2012; Snodin, 2013). In order to help learners reach high levels of autonomy and be responsible for their own learning, instructors have an important role to play (Levy & Stockwell, 2013).

In this course, the instructors' main role was to remind the learners to interact with the content. Most of them also performed other tasks such as creating and moderating forums, and replying to learners' messages. These results suggested that they had positive attitudes toward online learning, and that they provided certain facilitation and adaptation to the online course designed by others. To some extent, these activities could create a sense of being there for the learners. This finding supports the idea of the need for the instructors to be there and be with the learners during the online learning process (Lehman & Conceição-Runlee, 2010). However, their facilitation fell short of effective indicators of an excellent instructor, including being enthusiastic. In this regard, Salmon (2011) proposed that it was important to select lecturers who showed "empathy and flexibility in working online, paying willingness to be trained as e-moderator" (p. 104). Through these competences, the instructors or moderators will show their higher level of teaching presence online, which leads to learners' higher levels of social and cognitive presence (Garrison et al., 2010; Ke, 2010; Liu & Jernigan, 2013). The instructors' teaching presence could be reflected in their provision of instruction, evaluation and comments to the learners' performance (Liu & Jernigan, 2013).

The 'reminding' role of instructors in this online course is rather unique because in Vietnam, online learning is still new and learners are passive. Therefore, the instructors' reminding messages serve as a catalyst to facilitate interaction with content and other people, and keep learners progressing. This finding is in agreement with the results of other studies that revealed that frequent reminding would make the learners work hard during the course (ChanLin, 2009; Gibby, 2007; Lehmann, 2004; Palloff & Pratt, 2011). In addition, by creating and moderating discussions among the learners in the Class Discussion forum, the instructors initiated learners' processes of building knowledge, exemplified by learners' numerous written assignments and some reflective feedback

from peers. If all instructors had been active in these activities, learners might have posted more messages, and taken part more actively in commenting on their peers' posts. In other words, there would have been more evidence of construction of knowledge and development.

The above discussion shows that the instructors needed to do more to encourage learners to interact with content, peers and the instructors themselves. According Keengwe and Kidd (2010) this would require a shift of their teaching pedagogy, from traditional to online teaching. In addition to acquiring basic technological competences, they need to know how to adapt to different learners' through pedagogical activities like repeating instructions, reassigning activities and rearranging groups in online learning. All these activities need good preparation, design and clear instruction to online learners. This change of pedagogy might not be as easy as it sounds because these instructors themselves did not have direct experience of online learning, and thus were unable to fully understand the impact of the new approach on learning. These findings are in congruence with results of earlier studies (Beetham & Sharpe, 2013; Ernest et al., 2013).

Indeed, when the instructors of this course replied to their learners' questions, they applied the corrective feedback method through modelling correct ways to use the language. Shackelford and Maxwell (2012) have suggested that modelling was the most important factor in developing a community of learning. In doing so, the instructors had to pay attention to the content and structure as well as style of their messages, in addition to mastering technological skills. Their messages also contained other motivational elements such as advice, encouragement and praise. These results matched those observed in earlier studies (Alvarez et al., 2012). Furthermore, the instructors' sharing of external links for extra learning activities aimed to take learners to a higher level of learning (development of knowledge).

What seems to be missing from the instructors is the enthusiasm of interaction with learners. Most learners wanted to see more friendly and enthusiastic messages from their instructors, which has proven to be important to help students improve language skills (Park & Son, 2009). Indeed, breaking the power gap between lecturers and students in

Vietnamese culture is not easy. One of the instructors stated that although the learners were encouraged to consider the instructor as their friend and ask any questions they wished, there was still some level of reluctance from the part of the learners in the interactional process.

The formal relationship between lecturers and students in the Vietnamese contexts may prove to be an obstacle for more spontaneous interactions occurring in discussion forums resembling Web 2.0 environments. The mode of addressing instructors in Vietnamese language used by learners (thưa cô, thưa thầy = Dear Mr/Miss Teacher) makes the social connectedness less easy to establish than in Western culture. Study by Kang and Im (2013) has suggested that there was no association between social intimacy and (Korean) learners' achievement and satisfaction. In addition, it seems that the instructors intentionally used more of formal language in their messages in order to ensure the most important goal: having their learners complete 80% of interaction with assigned levels of study. Thus creating a "warmth and human touch" atmosphere between online Vietnamese online learners and instructors is not as easy as suggested by Lehmann (2004).

In short, the learners and instructors had important roles in making online learning more effective. On one hand, the learners themselves had to show their responsibility and build up their autonomy in their online study. On the other, they needed guidance and support from the instructors, who should shift their pedagogy from traditional to online pedagogy in the design of learning activities. Before implementing the course, it may also be necessary to conduct a survey with the learners to get their views on different aspects of online language learning, including the expected user behaviour.

5.7 Contribution of interaction to the learners' language competence

One of the issues investigated in this study was how facilitated interpersonal interaction may contribute to the learners' enhancement of English language competence. This issue was raised in the survey, focus group discussions and especially in the semi-structured interviews. The triangulation of all the sources of data, including online messages, revealed some interesting and sometimes contradictory results. The following section

discusses how the interaction could help enhance the learners' macro skills and improvement of soft skills such as communication, confidence and language writing conventions.

5.7.1 Enhancement of language macro skills

Generally, the results of the study show that the instructors' online messages, especially those that the reminded the learners about their study progress and the need to complete assigned levels before deadlines, were useful in encouraging learners to interact with the course content, peers and instructors. This was confirmed in the focus group discussions and interviews with instructors, who viewed that their most important role in this course was to push the learners to study online. Although the reminding messages did not directly help learners' English, they facilitated the interaction with the content, and thus enhancement of language competence. As discussed earlier, this reminding function from the instructors is necessary in the Vietnamese online learning context, where learners are not yet autonomous in their study.

In respect of the contribution of the interaction to specific language macro skills, the findings from analysis of the survey data indicated that interpersonal interaction could help learners improve their reading skills and grammar. However, these results were not supported in the focus group discussion with the learners. As for reading, the limited number of words in the online messages did not enhance the learners' reading comprehension skills. It might help them learn new words, and possibly help with word usage. These findings do not support previous studies which showed that web-based learning does contribute to learners' enhancement of reading comprehension (Marzban, 2011; Taylor, 2009). In these cases, the learners' reading comprehension skills could possibly be enhanced due to interaction with course content, not with peers or instructors.

Similar doubts were expressed about the contribution of text-based interpersonal interaction to the learners' grammar. This was confirmed in the online messages in which the learners did not give linguistic comments on their peers' pieces of writing. One of the possible reasons was that the learners were not confident enough to do so. The instructors did not correct the learners' grammatical errors either, possibly because they adopted a

communicative approach in language teaching; that is, as long as messages were understandable, there was no need to correct grammatical errors. Furthermore, it would not be viable logistically and technically for the instructors to do so because of their online supervision workload (over 50 learners per instructor).

Regarding the contribution of text-based interpersonal interaction to speaking skills, some learners viewed that the exchange of messages could help them practice informal English. This view was supported by some instructors for the same reason, but disapproved by others because a lot of messages were in Vietnamese, and not many learners interacted with the foreigners. The online messages, written in English, reflected the learners' ability to express their thoughts freely. These texts were in written format, but it was suggested in Levelt's (1993) model of language production that learners of a second language go through similar cognitive processes of formulating outputs regardless of the medium, oral or written. In other words, text-based chats could help enhance learners' oral production. However, there are still some concerns about learners' pronunciation due to the lack of real oral production of outputs (Satar & Özdener, 2008).

Through the exchange of short and natural messages, the learners become more linguistically competent in everyday conversation. This is a good opportunity for shy learners to express themselves freely. According to Le (2011) these shy learners seldom speak in the classroom because of different reasons, including the fear of losing face. The exchange of online messages in the forums could function as good environments for these learners to express themselves naturally. These might help Vietnamese learners of English to overcome the barriers of not knowing 'what to say and how to say it' when real opportunities to interact with foreigners occur. These interactive chats also provided ideal opportunities for learners to develop communication strategies such as asking questions and turn taking.

The macro skill that benefits the most from text-based interpersonal interaction, according to both the learners and instructors, is writing. This result agrees with the findings of other studies in which the application of ICT benefits learners' writing skills (Elola & Oskoz, 2010; Klimova, 2011; Park & Son, 2009; Taki & Fardafshari, 2012; Wang & Vasquez,

2012). Through writing to their peers and instructors more often, the learners might naturally develop skills in formulating simple short sentences, longer compositions, better structure and content. Some of the paragraphs found in the three communication forums of this online course indicated that the learners could reach stage four of Salmon's (2003) model. In addition, messages from the instructors could serve as correct sample pieces of writing for learners to follow. In other words, by reading these messages, they might internalise correct linguistic elements of a good piece of writing.

However, the results of this study showed that enhancing learners' writing skills was not an easy task. As mentioned in Chapter 2, one of the challenges to teach writing online is for the instructors to shift from correcting learners' paper-based pieces of writing to online correction. The learners might find submitting their written work online more convenient, but correcting these assignments online increases the burden for instructors. Therefore, the instructors were still cautious about online correction because of the increased workload. Using corrective feedback was one of the methods that instructors of this online course applied when replying to learners' messages, but study by Loewen and Erlam (2006) has showed that there were little significant learning outcomes as the result of online corrective feedback from instructors. The combination between epistemic (self- and peer-reviewing) and suggestive feedback (suggestions for changes from instructors) has proven to be more effective (Guasch et al., 2013).

5.7.2 Improvement of soft skills

The results of this study indicated that online text-based interpersonal interaction contributed to the learners' soft skills, more specifically the communication skills. Although these skills were not directly taught through the interaction processes, the learners could have been equipped with such skills as commenting on peers' posts appropriately, being willing to share personal ideas and feelings, and focusing on both content and structure of the message. In the interviews, both the learners and instructors also stated that through interacting with each other in written forms, the learners could implicitly enhance their communication skills, notably their confidence in writing formal and informal English. The above finding is in congruence with the results of research in the literature (Taylor & Gitsaki, 2004; Wu & Marek, 2013).

The number of learners participating in the three forums of this course was still limited, and thus the instructors needed to encourage inactive and low self-efficacy learners to participate more in all communication forums. The more they took part in different forums, in different formats and with different people, the better their communication skills would be. If Web 2.0 technologies had been applied in this course, the learners would have been able to develop their communication skills further. One of the most commonly reported benefits of using Web 2.0 technologies is to increase learners' writing confidence and overall writing skills (Wang & Vasquez, 2012).

In summary, text-based interpersonal interaction had certain contributions to the learners' language competence, notably their written and spoken English. As for writing skills, through exchange of messages, the learners could express themselves in English more freely. Hence, their written English could be improved both in terms of content and structure due to extended practice outside the classroom context This written ability could be demonstrated in oral communication situations as well because there was a similar cognitive process of formulating outputs regardless of the medium: oral or written. Finally, through the extended interaction with the instructors and peers, their soft skills, notably communication ones, were enhanced as well.

5.8 Summary

This chapter discussed the findings of the study framed by Salmon's (2003) model of online teaching and learning. Three key elements of online learning related to the learners, instructors and the online course itself were interpreted in relation to the three key issues of the research:

- patterns of text-based interpersonal interaction in an online English language learning environment in Vietnam
- factors influencing the interaction
- facilitation of interaction to enhance learners' English competence

In respect of the patterns of interaction, the results of analysing the survey and online messages revealed that both the learners and instructors initiated the interaction process,

which resulted in one-way, two-way or multi-directional communications. This led to a certain level of cognitive presence, exemplified by a number of written messages in the forums. However, the interaction among the learners mainly stalled at the exchange of information, and thus further efforts were needed to make it more meaningful.

The interpretation of the findings about factors that had influence on the learners' online interaction revealed that there were two broad groups: internal and external. The internal ones were related to the learners themselves and the external factors concerned the online course (content, design and delivery) and instructors (feedback, pedagogy and online presence). While most of the learner-related factors did not have strong impact on their online interaction, the factors that concerned the instructors and online course did. It seems that the learners were not yet autonomous and responsible for their online learning. One of the reasons could have been because of the way the online course was designed and delivered. In addition, the instructors needed further professional development in online teaching in order to gain sufficient pedagogical know-how and skills to facilitate online learning.

The final question of this study focused on the contribution of interpersonal text-based interaction to the improvement of the learners' language (English) competence. The participants had different opinions on this issue, but it was generally agreed that speaking and writing were the two skills that could be enhanced the most. Furthermore, the interpretation of participants' views revealed that in order for the interaction to help learners better their English, it was important, first and foremost, to increase both learners' and instructors' online presence. The learners' online presence, together with the social and teaching presence, could result in cognitive presence as suggested in past studies (Liu & Jernigan, 2013; Shea & Bidjerano, 2010).

CHAPTER 6: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS FOR FUTURE STUDY

The purpose of this study was to investigate the following issues relating to learner–learner and learner–instructor interaction in an online English language learning course in Vietnam:

- patterns of text-based interpersonal interaction
- factors influencing the interaction
- facilitation of interaction to enhance learners' English competence

A mixed methods design was utilised for data collection using survey questionnaire, online messages, semi-structured interviews and focus group discussions. The data were analysed using both simple descriptive and inferential statistics (Byrne, 2002; Pallant, 2011) and content analysis (Grbich, 2013; Hara et al., 2000; Lisa, 2011). This study applied Salmon's model (2003) of online teaching and learning to examine which stage learners' online messages could reach. The following part of this chapter presents the key findings of the study.

6.1 Key findings of the study

The investigation of the text-based interpersonal interaction in the online course examined in this study has enabled the researcher to answer the abovementioned research questions. First of all, there were different frequency levels and patterns of interaction between the learners and instructors as well as among the learners themselves. This phenomenon was caused by many factors, particularly the learners' perceptions about the usefulness and purposefulness of online interaction with the course materials, peers and instructors: it was crucial to link these interactions with the study goals for the learners, especially their end-of-semester tests. Secondly, through online interaction, learners' writing and speaking skills could be enhanced the most, in addition to some soft skills such as communication and confidence in online interaction. The following sections of the chapter present each key finding in detail.

6.1.1 Patterns of interaction

One of the key findings of this study was the learners' levels of frequency and patterns of interaction with peers and instructors.

In respect of the frequency of interaction with peers and instructors, the analysis of the survey data and online messages in the interactional forums of the course showed that not all of the learners were active in the exchange of online messages. Some of them took part in all the three forums, but many others did not engage in any discussions, either with their peers or instructors. There were many possible explanations for these phenomena, one of which was the fact that the interaction was not compulsory. Learners did not take responsibility if they felt that they had no obligation to post a message or to read peers' posts. The learners of this online course had just finished high school, where they were used to being told what to do. Hence, they might not have been independent enough to study online voluntarily and responsibly.

Another possible explanation of the learners' limited frequency of interaction with peers and instructors was that they did not see the reasons for the interaction. These learners met with their peers and instructors regularly in the face-to-face setting and this could have diminished their need of interacting online for academic purposes. The interaction did not seem to result in cognitive development for the learners because of the lack of meaningful interaction. This was reflected in the fact that after a relatively active period of exploring how the system worked, and using the available forums, learners' engagement decreased to the submission of assignments and reporting their study progress or technical problems.

Regarding patterns of interaction, the study findings showed that both the learners and instructors initiated the interaction process, resulting in one-way, two-way or multi-directional interactions. The instructor-initiated patterns of interaction mainly occurred in the Support and Class Discussion forums, where the instructors sent out announcements and assigned different topics for discussions. The instructors' messages served as constant reminders to learners for the need to interact with the course content, and with one another to improve their English and/or learn from external sources. However, the results of this

study also indicated that the instructors' provision of information (announcements) and the learners' written assignments mostly resulted in one-way communication.

The learner-initiated interaction in the Community Discussion forum provided a good environment for learners to apply what they had learnt from the course content, and classroom context. The learners posted quite a few messages and had a chance to interact with learners from other countries. This was a good catalyst for the Vietnamese learners to enhance their English, and communication skills. Nonetheless, most of the posts by the learners of this online course were short, and interaction mainly stalled at getting to know about each other, stage three of Salmon's (2003) model of teaching and learning online. There was also a lack of structured discussion and leadership from the initiator(s). Consequently, it did not result in cognitive presence or quality discussion for the purpose of English language enhancement.

6.1.2 Factors influencing online interaction

The findings of this study reveal that the learners' interaction was dependent on many factors relating to the course content, the instructors and the learners themselves. These factors were thoroughly analysed and interpreted in the previous two chapters.

Learner-related factors influencing online interaction: The analysis of the study data shows that the learners' levels of internet self-efficacy were quite high due to the fast development of ICT infrastructure in Vietnam (VNNIC, 2013). These learners were considered as the 'Net' generation and had a very high rate of internet penetration; over 95%. Their internet self-efficacy did not necessarily equate with the smooth utilisation of the online course. Although this was partly because of the technicality of the online system itself, it is possible to infer that some of the learners were not sufficiently autonomous in seeking solutions to the technical glitches they experienced during their study.

The learners did not highly value the usefulness of the interaction with the course content, peers and instructors. On the one hand, they were not satisfied with the quality of the course content for the different reasons given in the above section. On the other hand,

they felt that the interpersonal interaction did not contribute much to their semester tests either. In addition, the non-compulsory nature of the interaction with peers and instructors made them downplay the usefulness of the interaction. Their weekly face-to-face meeting with their peers and instructors might also have been another reason why they refrained from online interaction.

As indicated in Chapter 5, the learners of this online course had been used to being told what to study in their high school environment; hence, their personal responsibility in learning, especially online learning, was limited. It was reflected in a relatively high rate of non-participation in the learner–learner and learner–instructor interactions during the study period of seven months. In that context, certain rules and encouragements might have been necessary to make the learners be accountable and responsible for their own study.

Instructor-related factors influencing online interaction: The findings of this study show that the three most important factors relating to the instructors were their feedback, online pedagogical approaches and online presence. Regarding feedback, most of the instructors' replies to learners tended to be more about procedural and technical matters than academic ones. This was possibly because the instructors mainly focused on performing their assigned duties: to remind the learners of compulsory interaction with the content and to help them with technical issues. In addition, these instructors also taught the learners in the traditional face-to-face lessons during which academic questions could have been dealt with more easily and effectively.

In this study each instructor had to supervise over 50 learners. Consequently, they could not give timely online feedback to each learner, which has been considered one of the most important factors in online learning. This explained why all the instructors of the course often sent messages to groups of learners to inform them of the overall study progress, to announce updated news and remind non-participating learners. Their replies to individual learners varied among the instructors, partly because of their weekly face-to-face contact with the learners and partly because of the instructors' high teaching loads in both traditional teaching and online supervision.

In respect of the usefulness of the feedback, it was shown from the results of this study that the instructors' reminding messages prompted the learners' interaction with the course content, which in turn resulted in a certain level of academic improvement on the part of the learners through their continuous practice in English. However, had the instructors provided the learners with some knowledge related to the semester tests, the learners would have appreciated more the value of their posts. This was because of the exam-oriented attitudes of Vietnamese learners in their study.

The findings of this study reveal that the instructors had different pedagogical approaches in the facilitation of online interaction, reflecting in varied techniques, skills and possibly attitudes about online teaching. Besides performing their duties as assigned, some instructors were active in replying to learners' queries, creating forums for class discussion and providing external links for extra studies, while others had little online interaction with their learners. One of the significant findings of this study was that if the instructors assigned the learners to work on specific tasks (e.g. reading and summarising an article or listening to and transcribing a talk) with a deadline, the learners' participation was high. Similarly, creating a small number of suitable topics for discussions attracted higher participation than assigning too many topics without a clear purpose in mind. These are significant contributions of the current study to the body of knowledge about learner–instructor interactions.

Course-related factors influencing online interaction: The findings of the study showed that the interaction with course content interestingly turned out to be the most important factor for the learners of this online course. Although the course was designed to provide learners with incremental levels of English, from basic to advanced, it seems that they were not satisfied with the usefulness of interaction with the course materials. This was partly because of the rigid assignment of all study levels to all the learners regardless of their English competence: exercises that were too easy at the start made the learners feel that the interaction with the course content was of little use to improve their English. The types of online exercises did not match the semester tests that the learners had to take. In addition, it seems that many learners encountered technical problems in the interaction

with course content. All these factors made the learners feel that the online course did not contribute much to their study outcomes.

At the end of the study semester, these learners had to take a test in listening, speaking, reading and writing, mostly in the International English Language Testing System (IELTS) format. Although there were some similarities between the exercises of this online course and the IELTS test item types such as multiple-choice, gap-fill and matching, the course was not specifically designed to prepare the learners for the test. For example, in the speaking test, the learner had to take part in an interview with the tester on a variety of topics, whereas the oral practice in this course mainly provided the learners with 'listen and repeat' exercises. Similarly, the learners had to produce a written composition of about 150 words at the semester test while the online course did not have a component specifically designed for writing practice. This mismatch might have made the learners feel that the usefulness of interaction with the course materials was not particularly beneficial. In Vietnam, one of the ways to make learners feel the usefulness of a course of study is to link its content with semester tests, because Vietnamese learners tend to think they can pass the tests through memorising study curriculum.

6.1.3 Facilitation of interaction to enhance learners' English language competence

The analysis of all data sources revealed significant implications about how facilitated learner–learner and learner–instructor interaction contributed to the learners' English competence. First of all, it was generally agreed among participants that the interaction did not help much with listening and reading skills. While this was naturally true for the listening skills because of the text-based nature of the interaction, the short exchange of written messages among the learners and between the learners and instructors did little to help the learners' reading comprehension. Hence, these two macro skills might mainly be enhanced through the learners' interaction with the course content.

Secondly, the participants concurred that the interaction helped the learners the most in the enhancement of writing skills. Through extensive writing to peers and instructors as part of their participation in the course forums, the learners could naturally write better English, both in terms of technicality (e.g. grammar and spelling) and conventions

(e.g. starting a message and adopting appropriate styles). However, due to the limited participation of the learners in the discussion forums, the lack of comments from peers and possibly the architecture of the forums (mostly threaded), the learners' improvement of written English was not fully evident. In respect of speaking, it was viewed by the participants that the interaction could help to make their conversational English more natural.

Thirdly, the interpersonal interaction was useful to improve the learners' soft skills, especially the communication strategies either explicitly or implicitly. This contribution was very important to Vietnamese learners of English, especially those who are shy in face-to-face interaction and afraid of losing face because of their poor spoken English, a skill that was not focused on during their high school studies. Hence, the opportunities to have dialogues with their peers and instructors in English through written medium might gradually increase their confidence in using the language for communication purposes. It has been observed in the literature that good online communication self-efficacy can be instrumental for comfortable online interaction, especially in text-based asynchronous mode (Roper, 2007; Salaberry, 2000).

6.2 Implications of the study

In this study, the main aim was to investigate learner–learner and learner–instructor interactions in an online English language learning course. The study findings suggest several courses of action in order to enhance interaction in an online English language course. These include professional training of instructors, engagement of learners and development of suitable course content for learners of English.

6.2.1 Professional development of instructors

The findings of this study revealed that instructors' online presence was particularly important to facilitate learners' interaction with the course content and peers. Literature has shown that learners' satisfaction and perceived usefulness of learning is associated with teaching presence (Liu & Jernigan, 2013; Swan & Shih, 2005). However, the study findings also revealed that each instructor of this online course was overloaded with both

traditional teaching lessons and online supervision; hence, they could not reply to all messages from the learners. This phenomenon implies that it was necessary to develop good facilitation skills for the instructors so that they can organise for the learners to help each other for the mutual benefits of English language enhancement.

In their training programs for e-moderators and instructors, Salmon (2011), Plalloff and Pratt (2011) have proposed four-week courses which aim at providing novice instructors with shared vocabulary of technical language, first-hand useful experience of taking part in synchronous and asynchronous conferencing, practical skills in encouraging learners to engage and even the creation of an online course of study. These programs provide useful and effective resources for the language instructors to use as continuous self-study materials for their online professional development. Compton (2009) also proposed a framework which suggests technological, pedagogical and evaluation skills that online language instructors should master. Compton's framework also lists the responsibilities of other stakeholders such as students, course developers and managers in the online learning process.

Recently, under the national project for foreign language learning, Vietnam has developed an ICT framework for language teachers that include four groups of competences: technology, pedagogy, evaluation and collaboration (Lan, 2014). These are sufficient foundations for the development of a sound training program for online English instructors who should be encouraged to participate to "learn *about* online learning *through* online learning" (Slaouti & Motteram, 2006, p. 89). However, the findings of this study suggest that individualised professional development programs should be developed for different instructors due to their varied experiences and competences in online teaching.

6.2.2 Engagement of learners

The findings of this study showed that learners were capable of commenting on their peers' posts in English. In the discussion forums, the learners could not only produce their own work but also left comments on their peers' posts. According to Stevens-Long and Crowell (2009), these interactions could result in multi-layered dialogues among the

learners, who could enrich their thinking and participating experience in online discussion. However, these interactions were mostly spontaneous and limited in number because the tasks were not compulsory and the learners lacked skills in calling for comments from their peers. Hence, it is practical to introduce these skills to the learners as well as providing some guidelines on critical feedback. Wildflower (2009) has listed a few examples of these guidelines; for example, responding to online messages with respect, tact and generosity (p. 295). Similarly, other researchers have suggested that learners should be trained on peer review techniques, cooperative strategies and provision of quality feedback to their peers' work (Kim et al., 2010; Tuzi, 2004; Zeng & Takatsuka, 2009).

The above discussion implies that both academic and technical experts should be involved in the orientation sessions to introduce not only what is offered in the course, but also how interactions with content, peers and instructors will benefit learners. For example, while the technical expert can guide the learners on which tool they can use to practice speaking, the academic professional can give detailed instructions on how to repeat a sentence with the correct word and sentence stresses to match the sample words and sentences of the course system and especially on how to collaborate among themselves for the improvement of English competence.

The findings of this study also showed that retaining learners throughout the course was more difficult. After a short period of eager participation, the learners seemed to lose interest and only interacted at a minimum level, mostly because of the university requirement. After the initial stages of Salmon's (2003) model or the Engagement framework (Conrad & Donaldson, 2011), the learners should be aware of their new roles as collaborator and even initiator of the interaction process for knowledge construction and development. However, due to Vietnamese learners' general lack of autonomy, instructors still have a very important role to play. It was reflected in the study findings that if instructors gave the learners clear assignments with a deadline, they participated rather effectively and showed some evidence of knowledge construction. This implies that the learners were happy to engage in online interaction if there were innovative methods of moderation from the part of the instructors.

It was perceived by both learners and instructors of this study that obligatory engagement in interpersonal interaction was neither practical nor feasible in the context of online learning in Vietnam. One of their explanations was that the interaction should be meaningful and purposeful; otherwise the forced engagement will result in superficial interaction with little or no impact on the learners' study outcomes. In addition, this will create a higher burden for the instructors, who will have to read and respond to the learners' posts. This implies that there should be readily available resources for the instructors to organise for the learners to engage in the online discussions effectively and that the instructors should be supported in the facilitation of the learners' engagement.

For Vietnamese online learners, due to their lack of autonomy, the instruction for engagement has to be specific and direct. For example, in the second phase of the Engagement framework (Conrad & Donaldson, 2011), an instructor would write:

> Contact your assigned peer and discuss any questions you might have about the reading (Conrad & Donaldson, 2011, p. 12).

There are a few issues with the above instruction. First of all, Vietnamese learners are not active, so if they are asked to 'discuss any questions' they might not be able to, especially when they have to discuss in English. Secondly, it might be difficult for the instructors to track all the learners' interaction because each of the instructors is often assigned to supervise many learners (over 50). Hence, a more specific and direct task might be:

> Write a few sentences to summarise the reading/listening exercises. Upload your summary in the Class Discussion forum and give comments to at least one of your peers' work. Deadline ___

The findings of this study also have practical implications on the measurement of learners' engagement in online interaction. In an engaged learning environment, it is necessary to provide instructors with effective tools such as a discussion analysis tool, rubrics, reflective self-assessment and team assessment to evaluate the learners' quality of participation. However, in the context that the instructors have to supervise a large number of learners, it is suggested that the self-assessment and team assessment be

applied to lessen the instructors' burden and increase the learners' autonomy and responsibility in their online study. Adaptation of the team rubric, self-assessment and peer evaluation activities might be a good starting point to increase learners' engagement and to provide instructors with a better understanding of learners' online behaviour.

6.2.3 Development of course content

The findings of this study indicate that the online materials and accompanying exercises of an online English course should be designed and delivered in a way that is both useful and appropriate to the learners. In the Vietnamese context, involving the instructors in the content development would be advantageous in a number of ways.

First of all, with the involvement of instructors, it might be possible to have some qualitative assessment of the learners' interaction with the course content. Most of the current CALL courses often utilised traditional grammar CALL, which generated corrective feedback by checking learners' answers against item-specific stored correct answers. The quantitative method of evaluating the interaction is not considered useful by the learners of this study because they might not be able to get specific explanations about the correctness and especially the incorrectness of their answers. When the instructors take part in the development of the course content (learning materials and interactive exercises) they might be more active in giving qualitative comments to the learners' performance. This issue should be further investigated in future studies.

Secondly, the instructors' involvement may be able to enhance the linkages between the learners' interaction with the course materials and study outcomes. This is necessary in the Vietnamese context, where learners are usually test oriented in their study. Also, the instructors' teaching presence, reflected through clear communication of course goals, topics and learning activities, can be high. This is crucial in engaging and motivating learners' interaction with peers and instructors. The instructors' high teaching presence may also result in more structured discussions for the purpose of English language learning among learners.

Taken together, the study findings suggest that in the selection, development and implementation of an online English course, considerable preparation is needed to make sure that instructors are well trained to perform their jobs effectively; that learners are guided and supported thoroughly from the beginning to the end of their online study; and that course content is suitably developed and delivered to meet learners' specific online language learning needs. There have been a few suggestions from past researchers for the undertaking of the above tasks, especially the professional development of instructors and engagement of learners (Conrad & Donaldson, 2011; Golonka et al., 2012; Salmon, 2011). Nevertheless, adaptation might be needed to meet the particular needs of the instructors and learners of English in Vietnam.

6.3 Significance and contribution to knowledge

6.3.1 Theoretical contribution

This study adds to a growing body of literature on interaction in an online English language learning environment. First of all, the findings provide new perspectives on how interpersonal text-based interaction can be facilitated to assist the enhancement of learners' writing and speaking, as well as soft skills such as communication and confidence in online interaction. Through regular and structured exchanges of messages, learners may naturally develop skills in formulating simple as well as longer pieces of writing. The study findings also indicate that the exchange of written messages may also contribute to the improvement of learners' spoken language; hence, the current research extends our knowledge of the similar cognitive process of formulating linguistic outputs regardless of interactional medium: oral or written. Learners' soft skills can also be enhanced thanks to their interaction with native speakers of English, and instructors who directly or indirectly present models of proper pieces of written English in the interactional process.

Secondly, the current research expands the application of Salmon's (2003) model of online teaching and learning to the field of online English language learning in the context of a developing country. More specifically, on one hand, the results of the study support the idea that it is necessary to provide careful training to instructors on different

moderating techniques to promote learners' participation; on the other, it calls for collaboration among language instructors in the development of a common corpus of learning materials (course content) to ensure explicit links between learner–content interaction and learning outcomes. Similarly, collaboration among instructors is needed in the development of a repository of facilitating activities to engage learners to make contact with peers and instructors.

Furthermore, in the context of online English language learning in a developing country like Vietnam, it is necessary to provide learners with useful tips on what do to in different stages of learning. For example, some learners, especially novices, might not be able to know how to "develop their own online identity" (Salmon, 2003, p. 172). The findings of this study indicate that not all learners were able to take part in the discussion forum effectively. Hence, together with specific and careful moderating activities from the part of instructors, it is necessary to specify clearly what is expected from learners. This is crucial for online English language courses in which learners' linguistic competence is an additional barrier.

Thirdly, the study findings have gone some way toward enhancing our understanding about the role of interactional purpose, which has received little attention in the existing literature. Among the factors that influence learners' motivation to interaction online, the interactional purpose has a critical part to play. While technical and non-academic purposes contribute to learners' online socialisation – that is, getting to know about peers, instructors and solving technical problems – it is the interactions for academic purposes that promote meaningful learning and cognitive development. This implies that online course designers and developers need to focus their attention to make sure that learners' interaction with content, peers and instructors is for a particular study goal; otherwise, the interaction might be superficial.

6.3.2 Practical contribution

The findings of this study provide practical contributions to the online teaching and learning of English in a developing country like Vietnam. It enhances understanding of the Vietnamese stakeholders (e.g. course developers, managers and instructors) about the

important role of three types of interaction: learner–content, learner–learner and learner–instructor in the development and delivery of an online course in general and online language learning in particular.

This study examined the text-based interpersonal interaction in an online English language learning course at a Vietnamese university. The empirical evidence of the study informs the interested higher education institutions in Vietnam that in their decision to utilise online courses for English enhancement, it is critical to commission careful preparation and/or research into how online interaction can enhance learners' macro language skills. The study findings suggest that while learner–content interaction helps learners the most in the enhancement of their reading and listening skills, the learner–learner and learner–instructor interactions are effective for the improvement of writing and speaking skills.

Currently, Vietnamese higher education institutions are developing online courses to help their learners study English. However, the focus is more on the course content than the human-to-human (learner–learner and learner–instructor) dimensions of online interaction. Therefore, this study provides empirical evidence for the related stakeholders about the need to design a course that incorporates all three types of interaction in order to maximise the quality of online teaching and learning. The factors that are related to course content, learners and instructors must be taken into consideration in the process of developing and delivering an online course.

The study also contributes to the strengthening of policy in online language learning in Vietnam. The national project on foreign language teaching and learning has developed a framework on ICT competences that a language teacher needs to master in the online teaching of foreign languages (Lan, 2014). The implications of this study concerning the professional development of instructors presented in section 6.2.1 contributes significantly to the current national framework as well as institutional policy on the development and implementation of online language courses.

One of the important practical contributions of the study is the building of an online community of English language learners in Vietnam. The increase in the number of online courses may provide an abundance of online resources for learners of English. However, the study findings have shown that interacting with the course content alone is not sufficient. It is necessary to build a community of online language learners for sharing of study tips, resources and techniques, and for practicing in the target language (English). The popularity of social media tools such as Facebook and Yahoo Messenger in Vietnam is an enabling environment for the establishment of a community of online English language learners. Under the auspices of the National Project on Teaching and Learning Foreign Languages (MOET, 2008), the Vietnamese Association of Computer-Assisted Language Learning has been formed online. However, this forum is mainly for scholars and teachers of English. A similar online platform is needed for learners.

In summary, as Vietnam integrates itself strongly in the global economy and education, the country's language policy plays an important role in boosting the language proficiency of its people, especially in the English language, to the extent necessary. In this context, it is hoped that an effective online English learning environment will contribute to making a leap for Vietnamese people, especially the young, in their English competence, comparable to neighbouring countries. The findings of this study suggest that an understanding of online English learning will help decision-makers to promulgate a sound online teaching and learning policy that focuses not only on the development of the course content, but also on the professional development of online instructors in order to engage learners effectively in online learning.

6.4 Limitations and suggestions for future study

This thesis has focused on learner–learner and learner–instructor interaction in an online English course implemented at a public university in Vietnam. It has described how the learners used built-in communication tools for interaction, which factors influenced their interactions, and how interactions contributed to the improvement of their English. In doing so, it used four different sources of data: survey, online message, focus group discussion and interview. Although the researcher took great care in different aspects of the investigation, there are still unavoidable limitations.

The study did not take into account the relationship between learners' online interaction and their learning outcomes at the end of their study semester. Hence, it was not possible to draw a definite conclusion about the usefulness of the interaction. Future research in this field should include experimental investigation of the contribution of online interaction to the learners' final semester results. This would help obtain a fuller picture of learner–content, learner–instructor and learner–learner interactions in an online English language learning course. More information on the association between online interaction and study outcomes, in particular the scores of learners' IELTS tests, would be instrumental in the development of course content, pedagogical training of instructors and engagement of learners.

The learners' responses to the questionnaire reflected the self-report of their frequency and purpose of taking part in the discussion forums. One of the limitations of self-report data collection technique is a possible discrepancy between recall and what is happening in reality (Brutus, Aguinis, & Wassmer, 2013). This limitation was indicated in chapters four and five of this study. Future research should attempt to identify and investigate further this discrepancy by conducting in-depth interviews with the very active and inactive learners to explore their perceptions about different aspects of online interpersonal interaction such as usefulness, convenience and barriers. That said, meticulous ethical considerations should be taken in the interviews, especially with inactive learners and instructors.

This study investigated interpersonal interaction in an online English language learning course implemented at a public university in Vietnam; hence, any generalisation to another online language course might be difficult. Each online course has different a design with a different delivery mode (blended or fully online), and for different groups of learners. In addition, different groups of learners may have different demographic characteristics and attitudes about the usefulness of online English language learning. Therefore, future studies should consider investigating different online language courses used by different groups of learners in order to draw a more general conclusion about the aspects of online interaction, including those examined here.

Another limitation of the study was that it did not investigate how the online study was integrated with face-to-face lessons. Although the online course was delivered in a blended mode, there was very little connection between the two study environments. Hence, learners did not see the link between their online study and subsequent semester tests. Future studies should investigate these issues of integration and linkage more thoroughly, because they play a very important role in motivating learners to study online.

6.5 Concluding remarks

English has become important in Vietnam and the fast development of technological infrastructure in the country has enabled everyone to study the language whenever and wherever they wish. This provides an opportunity for language and technical experts to work together in the development of online English language courses that could practically meet the needs of different groups of learners. This study should serve as a sound investigation on how learners interact in an online English language learning environment and what could be done to make the interaction more useful and meaningful.

However, in the Vietnamese context, it is also important to consider sociocultural characteristics of both learners and instructors. The teacher-centered approach that still exists in the school system discourages learners from being autonomous in their study: both face-to-face and online. As for instructors, moving from traditional face-to-face to online teaching offers both opportunities and challenges. On one hand, advanced technologies offer new ways for them to teach English; on the other, teachers need to master new skills and competencies in terms of pedagogy and worldview about how language is learnt.

It is undeniable that 21st century lecturers should not only master fundamental pedagogies in language learning theories, but also have sufficient technological skills to facilitate online collaboration among their learners in the process of language learning. This research, together with an increasing number of studies in online language learning in Vietnam, would help policymakers to develop informed decisions relating to the fulfilment of the National Project on Teaching and Learning Foreign Languages in Vietnam for the period 2008–2020. The results of these studies can also be used to

develop targeted interventions aimed at supporting learners to study English effectively in an online English language learning environment.

REFERENCES

Abraham. (2008). Computer-mediated glosses in second language reading comprehension and vocabulary learning: A meta-analysis. *Computer Assisted Language Learning, 21*(3), 199–226.

Abrami, Bernard, Bures, Borokhovski, & Tamim. (2011). Interaction in distance education and online learning: Using evidence and theory to improve practice. *Journal of Computing in Higher Education, 23*(2-3), 82–103.

AbuSeileek, & Qatawneh. (2013). Effects of synchronous and asynchronous computer-mediated communication (CMC) oral conversations on English language learners' discourse functions. *Computers & Education, 62*(2013), 181–190.

Alavi, & Taghizadeh. (2013). Cognitive presence in a virtual learning community: An EFL case. *International Journal of E-Learning & Distance Education, 27*(1). Retrieved from http://ijede.ca/index.php/jde/article/view/818/1470

Alexander, & Boud. (2001). Learners still learn from experience when online. In J. Stephenson (Ed.), *Teaching & learning online: Pedagogies for new technologies* (pp. 3–15). London, UK: Kogan Page.

Allodi, Dokter, & Kuipers. (2014). WELLS: Web-enhanced language learning. In S. Jager, J. Nekbonne, & A. v. Essen (Eds.), *Language teaching and language technology* (pp. 123–135). Hoboken, NY: Taylor and Francis.

Alvarez, Espasa, & Guasch. (2012). The value of feedback in improving collaborative writing assignments in an online learning environment. *Studies in Higher Education, 37*(4), 387–400.

Amaral, & Meurers. (2011). On using intelligent computer-assisted language learning in real-life foreign language teaching and learning. *ReCALL, 23*(01), 4–24.

Ananiadou, & Claro. (2009). 21st century skills and competences for new millennium learners in OECD countries. *OECD Education Working Papers, No. 41*. Retrieved from http://dx.doi.org/10.1787/218525261154

Anderson. (2008). Towards a theory of online learning. In T. Anderson (Ed.), *Theory and practice of online learning* (pp. 45–74). Edmonton, Canada: Athabasca University Press.

Anderson, Rourke, Garrison, & Archer. (2001). Assessing teaching presence in a computer conferencing context. *Journal of Asynchronous learning networks, 5*(2), 1–17.

Andersson, & Grönlund. (2009). A conceptual framework for e-learning in developing countries: A critical review of research challenges. *The electronic Journal of information systems in developing Countries, 38*(2009). Retrieved from http://www.ejisdc.org/ojs2/index.php/ejisdc/article/view/564

Andresen. (2009). Asynchronous discussion forums: Success factors, outcomes, assessments, and limitations. *Educational Technology & Society, 12*(1), 249–257.

Anh, & Winter. (2010). Processes of modernisation in two public universities in Vietnam: University managers' perspectives. In G. Harman, M. Hayden, & P. T. Nghi (Eds.), *Reforming higher education in Vietnam: Challenges and priorities* (pp. 155–166). Dordrecht, Netherlands: Springer.

Arbaugh, & Benbunan-Fich. (2007). The importance of participant interaction in online environments. *DECISION SUPPORT SYSTEMS, 43*(3), 853–865.

Arbaugh, & Hwang. (2006). Does "teaching presence" exist in online MBA courses? *The Internet and Higher Education, 9*(1), 9–21.

Armstrong, & Retterer. (2008). Blogging as L2 writing: A case study. *AACE Journal, 16*(3), 233–251.

Arnold, & Ducate. (2006). Future foreign language teachers' social and cognitive collaboration in an online environment. *Language Learning and Technology, 10*(1), 42–66.
Audsley, Fernando, Maxson, Robinson, & Varney. (2013). An examination of Coursera as an information environment: Does coursera fulfill its mission to provide open education to all? *The Serials Librarian, 65*(2), 136–166.
Babbie. (2010). *The practice of social research*. Belmont, CA: Wadsworth Cengage.
Baran, Correia, & Thompson. (2011). Transforming online teaching practice: Critical analysis of the literature on the roles and competencies of online teachers. *Distance Education, 32*(3), 421–439.
Bartlet. (1954). A note on multiplying factors for various chi-squared approximations. *Journal of the Royal Statistical Society, 16(Series B)*, 296–298.
Bassett. (2011). How do students view asynchronous online discussions as a learning experience? *Interdisciplinary Journal of E-Learning & Learning Objects, 7*(1), 69–79.
Battalio. (2007). Interaction online: A reevaluation. *Quarterly Review of Distance Education, 8*(4), 339–352.
Bazeley, & Jackson. (2013). *Qualitative data analysis with NVivo*. London, UK: Sage Publications.
Beetham, & Sharpe. (2013). *Rethinking pedagogy for a digital age: Designing for 21st century learning*. Hoboken, NY: Taylor and Francis.
Beldarraina. (2006). Distance education trends: Integrating new technologies to foster student interaction and collaboration. *Distance Education, 27*(2), 139–153.
Belz. (2002). Social dimensions of telecollaborative foreign language study. *Language Learning & Technology, 6*(1), 60–81. Retrieved from http://llt.msu.edu/vol6num1/default.html
Benson. (2007). Autonomy in language teaching and learning. *Language teaching, 40*(1), 21–40.
Berge. (2007). Motivate and manage: Key activities of online instructors. In J. M. Spector (Ed.), *Finding your online voice: Stories told by experienced online educators* (pp. 73–82). Hoboken, NY: Taylor and Francis.
Bergman. (2008). *Advances in mixed methods research: Theories and applications*. Los Angeles, CA: Sage Publications.
Bhuasiri, Xaymoungkhoun, Zo, Rho, & Ciganek. (2012). Critical success factors for e-learning in developing countries: A comparative analysis between ICT experts and faculty. *Computers & Education, 58*(2), 843–855.
Bigalke, & Neubauer. (2009). *Higher Education in Asia/Pacific: Quality and the public good*. NY: Palgrave Macmillan.
Blake. (2009). Potential of text-based internet chats for improving oral fluency in a second language. *The Modern Language Journal, 93*(2), 227–240.
Blake. (2011). Current trends in online language learning. *Annual Review of Applied Linguistics, 31*(2011), 19–35.
Blau, & Barak. (2012). How do personality, synchronous media, and discussion topic affect participation? *Journal of Educational Technology & Society, 15*(2), 12–24.
Blignaut, & Trollip. (2003). Developing a taxonomy of faculty participation in asynchronous learning environments—an exploratory investigation. *Computers & Education, 41*(2), 149–172.
Bocchi, Eastman, & Swift. (2004). Retaining the online learner: Profile of students in an online MBA program and implications for teaching them. *Journal of Education for Business, 79*(4), 245–253.
Boettcher, & Conrad. (2010). *The online teaching survival guide: Simple and practical pedagogical tips*. San Francisco, CA: Jossey-Bass.

Bolliger, & Wasilik. (2009). Factors influencing faculty satisfaction with online teaching and learning in higher education. *Distance Education, 30*(1), 103–116.
Borton. (2000). Working in a Vietnamese voice. *Academy of Management Executive, 14*(4), 20–29. Retrieved from http://0-www.jstor.org.library.vu.edu.au/stable/4165682
Bosch. (2009). Using online social networking for teaching and learning: Facebook use at the University of Cape Town. *Communicatio: South African Journal for Communication Theory and Research, 35*(2), 185–200.
Bowles. (2004). *Relearning to e-learn: Strategies for electronic learning and knowledge*. Carlton, VIC: Melbourne University Press
Brace-Govan. (2003). A method to track discussion forum activity: The moderators' assessment matrix. *The Internet and Higher Education, 6*(4), 303–325.
Brady, Holcomb, & Smith. (2010). The use of alternative social networking sites in higher educational settings: A case study of the e-learning benefits of Ning in education. *Journal of Interactive Online Learning, 9*(2), 151-170.
Branon, & Essex. (2001). Synchronous and asynchronous communication tools in distance education. *TechTrends, 45*(1), 36–36.
Brett. (1997). A comparative study of the effects of the use of multimedia on listening comprehension. *System, 25*(1), 39–53.
Brown, & Vician. (1997). *An examination of the characteristics of student interaction in computer-based communication assignments*. Paper presented at the International Academy for Information Management Annual Conference, Atlanta, USA. Retrieved from http://eric.ed.gov/?id=ED422955
Bruff, Fisher, McEwen, & Smith. (2013). Wrapping a MOOC: Student perceptions of an experiment in blended learning. *MERLOT Journal of Online Learning and Teaching, 9*(2), 187–199.
Brutus, Aguinis, & Wassmer. (2013). Self-reported limitations and future directions in scholarly reports analysis and recommendations. *Journal of Management, 39*(1), 48–75.
Bryan, & Hegelheimer. (2007). Integrating CALL into the classroom: The role of podcasting in an ESL listening strategies course. *ReCALL, 19*(2), 162–180.
Budiardi, & Anggraeni. (2013). Facebook base writing learning for teaching English as a foreign language. *International Journal on Education, 1*(1), 31–36.
Byrne. (2002). *Interpreting quantitative data*. London, UK: Sage Publications.
Carey. (2004). CALL visual feedback for pronunciation of vowels: Kay Sona-Match. *CALICO Journal, 21*(3), 571–601.
Chang, Chen, & Hsu. (2011). Providing adequate interactions in online discussion forums using few teaching assistants. *Turkish Online Journal of Educational Technology, 10*(3), 193–202. Retrieved from http://eric.ed.gov/?id=EJ944965
Chang, Liu, Sung, Lin, Chen, & Cheng. (2013). Effects of online college student's internet self-efficacy on learning motivation and performance. *Innovations in Education and Teaching International, 51*(4), 366–377.
ChanLin. (2009). Applying motivational analysis in a web-based course. *Innovations in Education and Teaching International, 46*(1), 91–103.
Chau, & Le. (2010). *Selected problems of the Vietnamese mathematical olympiad (1962-2009)*. Singapore: World Scientific.
Chen. (2008). *The effect of applying wikis in an English as a foreign language (EFL) class in Taiwan.* (Doctoral Thesis, University of Central Florida, USA). Retrieved from http://etd.fcla.edu/CF/CFE0002227/Chen_Yu-ching_200808_PhD.pdf
Chen. (2014a). East-Asian teaching practices through the eyes of Western learners. *Teaching in Higher Education, 19*(1), 26–37.

Chen. (2014b). An empirical examination of factors affecting college students' proactive stickiness with a web-based English learning environment. *Computers in Human Behavior, 31*(2014), 159–171.
Chen, Lambert, & Guidry. (2010). Engaging online learners: The impact of web-based learning technology on college student engagement. *Computers & Education, 54*(4), 1222–1232.
Chen, Zhang, & Liu. (2013). Listening strategy use and influential factors in web-based computer assisted language learning. *Journal of Computer Assisted Learning, 30*(2013), 207–219.
Chiu, Liou, & Yeh. (2007). A study of web-based oral activities enhanced by automatic speech recognition for EFL college learning. *Computer Assisted Language Learning, 20*(3), 209–233.
Choo, Kaur, Fook, & Yong. (2013). *Patterns of Interaction among ESL Students During Online Collaboration*. Paper presented at the 6th Teaching and Learning Conference, Malaysia. Retrieved from http://www.sciencedirect.com/science/journal/18770428/123/supp/C
Cimigo Company. (2012). *Vietnam NetCitizens Report*. Retrieved on May 16, 2012, from http://www.cimigo.com/en/research-report/cimigo-netcitizens-2012-english-0
Clark, & Creswell. (2007). *The mixed methods reader*. Thousand Oaks, CA: Sage Publications.
Claro. (2009). Benefits for language students using CMC-evidence for and against equalization of student participation and increase in target language production. *Kitami Institute of Technology Repository, 5*(1). Retrieved from http://hdl.handle.net/10213/1717
Cleveland-Innes, & Ally. (2013). Affective learning outcomes in workplace training: A test of synchronous vs. asynchronous online learning environments. *Canadian Journal of University Continuing Education, 30*(1), 15–35.
Compton. (2009). Preparing language teachers to teach language online: A look at skills, roles, and responsibilities. *Computer Assisted Language Learning, 22*(1), 73–99.
Conaway, Easton, & Schmidt. (2005). Strategies for enhancing student interaction and immediacy in online courses. *Business Communication Quarterly, 68*(1), 23–35.
Conrad, & Donaldson. (2011). *Engaging the online learner: Activities and resources for creative instruction*. San Francisco, CA: Jossey-Bass.
Creswell. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications.
Creswell. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage Publications.
Curtis, & Lawson. (2001). Exploring collaborative online learning. *Journal of Asynchronous learning networks, 5*(1), 21–34.
Dakich. (2008). Towards the social practice of digital pedagogies. In N. Yelland, G. A. Neal, & E. Dakich (Eds.), *Rethinking education with ICT: New directions for effective practices*. Rotterdam, Netherlands: Sense Publishers.
Dalgarno. (2001). Interpretations of constructivism and consequences for computer assisted learning. *British Journal of Educational Technology, 32*(2), 183–194.
Dang. (2010). Learner autonomy in EFL studies in Vietnam: A discussion from sociocultural perspective. *English Language Teaching, 3*(2), 3–9.
Dang. (2014). *ICT in foreign language teaching in an innovative university in Vietnam: Current practices and factors affecting ICT use.* (Unpublished doctoral dissertation), La Trobe University, Melbourne, Australia.
Dang, Nguyen, & Le. (2013). The impacts of globalisation on EFL teacher education through English as a medium of instruction: An example from Vietnam. *Current Issues in Language Planning, 14*(1), 1–21.

Dang, Nicholas, & Lewis. (2012). Factors affecting ubiquitous learning from the viewpoint of language teachers: A case study from Vietnam. *4*(2), 57–68. Retrieved from http://webstat.latrobe.edu.au/url/hdl.handle.net/1959.9/204846

Darhower. (2002). Interactional features of synchronous computer-mediated communication in the intermediate L2 class: A sociocultural case study. *CALICO Journal, 19*(2), 249–277.

Darhower. (2007). A tale of two communities: Group dynamics and community building in a Spanish-English telecollaboration. *CALICO Journal, 24*(3), 561–589.

Dawson. (2006). Online forum discussion interactions as an indicator of student community. *Australasian Journal of Educational Technology, 22*(4), 495–510.

Dawson. (2009). *Introduction to research methods: A practical guide for anyone undertaking a research project* (4th ed.). Oxford, UK: Hachette.

Deci, & Ryan. (1985). *Intrinsic motivation and self-determination in human behavior*: Springer Science & Business Media.

Dekhinet. (2008). Online enhanced corrective feedback for ESL learners in higher education. *Computer Assisted Language Learning, 21*(5), 409–425.

Dennen, Darabi, & Smith. (2007). Instructor–learner interaction in online courses: The relative perceived importance of particular instructor actions on performance and satisfaction. *Distance Education, 28*(1), 65–79.

Deursen, & Dijk. (2011). Internet skills and the digital divide. *New media & society, 13*(6), 893–911.

DeVellis. (2003). *Scale development: Theory and applications* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Dickinson. (1987). *Self-instruction in language learning*. Cambridge, UK: Cambridge University Press.

Dillon, & Zhu. (1997). Designing web-based instruction: A human–computer interaction perspective. In B. H. Khan (Ed.), *Web-based instruction* (pp. 221-224). Englewood Cliffs, NJ: Educational technology publications.

Dodigovic. (2007). Artificial intelligence and second language learning: An efficient approach to error remediation. *Language Awareness, 16*(2), 99–113.

Dooly, & O'Dowd. (2012). *Researching online foreign language interaction and exchange: Theories, methods and challenges. Telecollaboration in education* (Vol. 3). Switzerland: Peter Lang Bern.

Dringus, Snyder, & Terrell. (2010). Facilitating discourse and enhancing teaching presence: Using mini audio presentations in online forums. *The Internet and Higher Education, 13*(1), 75–77.

Ducate, & Lomicka. (2008). Adventures in the blogosphere: From blog readers to blog writers. *Computer Assisted Language Learning, 21*(1), 9–28.

Duffy. (2011). Facebook or Faceblock: Cautionary tales exploring the rise of social networking within tertiary education. In M. J. W. Lee & C. McLoughlin (Eds.), *Web 2.0-Based E-Learning: Applying Social Informatics for Tertiary Teaching* (pp. 284–300). Hershey PA: Information Science Reference.

Dunlap, Sobel, & Sands. (2007). Designing for deep and meaningful student-to-content interactions. *Tech Trends, 51*(4), 20–31.

Edhlund. (2011). *Nvivo 9 Essentials*. Stallarholmen, Sweden: Form & Kunskap.

Egbert. (2005). *CALL essentials: Principles and practice in CALL classrooms*. Alexandria, Virginia: Teachers of English to Speakers of Other Languages.

Elola, & Oskoz. (2010). Collaborative writing: Fostering foreign language and writing conventions development. *Language Learning & Technology, 14*(3), 51–71.

Eneau, & Develotte. (2012). Working together online to enhance learner autonomy: Analysis of learners' perceptions of their online learning experience. *ReCALL, 24*(01), 3–19.
Ernest, Heiser, & Murphy. (2013). Developing teacher skills to support collaborative online language learning. *The Language Learning Journal, 41*(1), 37–54.
Fahy, Crawford, & Ally. (2001). Patterns of interaction in a computer conference transcript. *The International Review of Research in Open and Distance Learning, 2*(1). Retrieved from http://www.irrodl.org/index.php/irrodl/article/viewArticle/36/73
Fernández-García, & Martinez-Arbelaiz. (2002). Negotiation of meaning in nonnative speaker-nonnative speaker synchronous discussions. *CALICO Journal, 19*(2), 279–284.
Finegold, & Cooke. (2006). Exploring the attitudes, experiences and dynamics of interaction in online groups. *The Internet and Higher Education, 9*(3), 201–215.
Fotos, & Browne. (2004). *New perspectives on CALL for second language classrooms*. Mahwah, NJ: Routledge.
Fulford, & Zhang. (1993). Perceptions of interaction: The critical predictor in distance education. *The American Journal of Distance Education, 7*(3), 8–21.
Gamper, & Knapp. (2002). A review of intelligent CALL systems. *Computer Assisted Language Learning, 15*(4), 329–342.
Gao, Zhang, & Franklin. (2013). Designing asynchronous online discussion environments: Recent progress and possible future directions. *British Journal of Educational Technology, 44*(3), 469–483.
Gardner, & Lambert. (1972). *Attitudes and Motivation in Second-Language Learning*. Rowley: Newbury House Publishers.
Garrett. (2009). Computer-assisted language learning trends and issues revisited: Integrating innovation. *The Modern Language Journal, 93*(Focus), 719–740.
Garrison. (2011). *E-learning in the 21st century: A framework for research and practice*. NY: Taylor & Francis.
Garrison, Anderson, & Archer. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The internet and higher education, 2*(2), 87-105.
Garrison, Anderson, & Archer. (2001). Critical thinking, cognitive presence, and computer conferencing in distance education. *The American Journal of Distance Education, 15*(1), 7–23.
Garrison, & Arbaugh. (2007). Researching the community of inquiry framework: Review, issues, and future directions. *The Internet and Higher Education, 10*(3), 157–172.
Garrison, & Cleveland-Innes. (2005). Facilitating cognitive presence in online learning: Interaction is not enough. *The American Journal of Distance Education, 19*(3), 133–148.
Garrison, Cleveland-Innes, & Fung. (2010). Exploring causal relationships among teaching, cognitive and social presence: Student perceptions of the community of inquiry framework. *The Internet and Higher Education, 13*(1), 31–36.
Gass, & Mackey. (2006). Input, interaction and output: An overview. *AILA Review, 19*(1), 3–17.
Gayol. (2010). Online learning research. In K. E. Rudestam & J. Schoenholtz-Read (Eds.), *Handbook Of Online Learning* (2nd ed., pp. 197–225). Thousand Oaks, CA: Sage Publications.
Ghasemi, & Hashemi. (2011). ICT: Newwave in English language learning/teaching. *Procedia - Social and Behavioral Sciences, 15*(2011), 3098–3102.
Gibbs. (2002). *Qualitative data analysis: Explorations with NVivo*. Buckingham, UK: Open University.
Gibby. (2007). *Student perceptions of interaction in an online foreign language learning environment.* (Doctoral dissertation, University of Texas at Austin, USA). Retrieved from http://repositories.lib.utexas.edu/handle/2152/3219

Gillani. (2003). *Learning theories and the design of e-learning environments*: Lanham, MD: University Press of America.
Godwin-Jones. (2011). Emerging technologies: Mobile apps for language learning. *Language Learning & Technology, 15*(2), 2–11.
Goertler. (2009). Using computer-mediated communication (CMC) in language teaching. *Die Unterrichtspraxis/Teaching German, 42*(1), 74–84.
Golonka, Bowles, Frank, Richardson, & Freynik. (2012). Technologies for foreign language learning: A review of technology types and their effectiveness. *Computer Assisted Language Learning, 27*(1), 70–105.
Gorjian, Moosavinia, Kavari, Asgari, & Hydarei. (2011). The impact of asynchronous computer-assisted language learning approaches on English as a foreign language high and low achievers' vocabulary retention and recall. *Computer Assisted Language Learning, 24*(5), 383–391.
Graham, Cagiltay, Lim, Craner, & Duffy. (2001). Seven principles of effective teaching: A practical lens for evaluating online courses. *The Technology Source, 30*(5). Retrieved from http://www.technologysource.org/article/274/?utm_content=buffere64be&utm_source=buffer&utm_medium=twitter&utm_campaign=Buffer
Grandzol, & Grandzol. (2010). Interaction in online courses: More is not always better. *Online Journal of Distance Learning Administration, 13*(2). Retrieved from http://www.westga.edu/~distance/ojdla/summer132/Grandzol_Grandzol132.pdf
Grbich. (2013). *Qualitative data analysis : An introduction*. Thousand Oaks, CA: Sage Publications.
Greene. (2007). *Mixed methods in social inquiry*. San Francisco, CA: Jossey-Bass.
Guasch, Espasa, Alvarez, & Kirschner. (2013). Effects of feedback on collaborative writing in an online learning environment. *Distance Education, 34*(3), 324–338.
Gulati. (2008). Compulsory participation in online discussions: Is this constructivism or normalisation of learning? *Innovations in Education and Teaching International, 45*(2), 183–192.
Gunawardena, Lowe, & Anderson. (1997). Analysis of a global online debate and the development of an interaction analysis model for examining social construction of knowledge in computer conferencing. *Journal of Educational Computing Research, 17*(4), 397–431.
Hai. (2013, July 15th). Vietnam wins two gold medals at International Physics Olympiad. *Vienamnet*. Retrieved from http://english.vietnamnet.vn/fms/education/79140/vietnam-wins-two-gold-medals-at-international-physics-olympiad.html
Hampel, & Stickler. (2005). New skills for new classrooms: Training tutors to teach languages online. *Computer Assisted Language Learning, 18*(4), 311–326.
Hara, Bonk, & Angeli. (2000). Content analysis of online discussion in an applied educational psychology course. *Instructional Science, 28*(2), 115–152.
Hara, & Kling. (2001). Student distress in web-based distance education. *Educause Quarterly, 24*(3), 68–69.
Hardison. (2004). Generalization of computer-assisted prosody training: Quantitative and qualitative findings. *Language Learning & Technology, 8*(1), 34–52.
Harrington, & Levy. (2001). CALL begins with a "C": Interaction in computer-mediated language learning. *System, 29*(1), 15–26.
Harrison, & Thomas. (2009). Identity in online communities: Social networking sites and language learning. *International Journal of Emerging Technologies and Society, 7*(2), 109–124.

Havice, Davis, Foxx, & Havice. (2010). The impact of rich media presentations on a distrubuted learning environment: Engagement and Satisfaction of Undergraduate Students. *Quarterly Review of Distance Education, 11*(1), 53–58.

Herrington, & Oliver. (1997). Multimedia, magic and the way students respond to a situated learning environment. *Australian Journal of Educational Technology, 13*(2), 127–143.

Hew, & Cheung. (2003). Evaluating the participation and quality of thinking of pre-service teachers in an asynchronous online discussing environment: Part I. *International Journal of Instructional Media, 30*(3), 247–262.

Hew, & Cheung. (2008). Attracting student participation in asynchronous online discussions: A case study of peer facilitation. *Computers & Education, 51*(3), 1111–1124.

Hillman. (1994). Learner-interface interaction in distance education: An extension of contemporary models and strategies for practitioners. *The American Journal of Distance Education, 8*(2), 30–42.

Hirumi. (2002). A framwork for analyzing, designing, and sequencing planned e-learning interactions. *Quarterly Review of Distance Education, 3*(2), 141–160.

Hong. (2009, October, 24th). Đào tạo từ xa: Quá nhiều yếu kém! (Distance education: Too many weaknesses!). *Dantri*. Retrieved from http://dantri.com.vn/giao-duc-khuyen-hoc/dao-tao-tu-xa-qua-nhieu-yeu-kem-358062.htm

Hourigan, & Murray. (2010). Using blogs to help language students to develop reflective learning strategies: Towards a pedagogical framework. *Australasian Journal of Educational Technology, 26*(2), 209–225.

Hoven. (2003). Strategic uses of CALL: What learners use and how they react. *Australian review of applied linguistics, S*(17), 125–148.

Howell-Richardson, & Mellar. (1996). A methodology for the analysis of patterns of participation within computer mediated communication courses. *Instructional Science, 24*(1), 47–69.

Hsieh, & Ji. (2013). *The effects of computer-mediated communication by a course management system (Moodle) on EFL Taiwanese student's English reading achievement and perceptions.* (Doctoral dissertation, La Sierra University, CA). Retrieved from http://gradworks.umi.com/33/74/3374321.html

Huang, & Nakazawa. (2010). An empirical analysis on how learners interact in wiki in a graduate level online course. *Interactive Learning Environments, 18*(3), 233–244.

Huffman, Whetten, & Huffman. (2013). Using technology in higher education: The influence of gender roles on technology self-efficacy. *Computers in Human Behavior, 29*(4), 1779–1786.

Hung, Chou, Chen, & Own. (2010). Learner readiness for online learning: Scale development and student perceptions. *Computers & Education, 55*(3), 1080–1090.

Islam. (2003). *A case study of student participation in discussion in an online higher education course.* (Doctoral Dissertation, Victoria University, Melbourne, VIC, Australia). Retrieved from http://vuir.vu.edu.au/15351

Jarvis. (2013). Computer assisted language learning (CALL): Asian learners and users going beyond traditional frameworks. *Asian EFL Journal, 15*(1), 190–201.

Jarvis, & Achilleos. (2013). From computer assisted language learning (CALL) to mobile assisted language use (MALU). *The Electronic Journal for English as a Second Language, 16*(4). Retrieved from http://files.eric.ed.gov/fulltext/EJ1004355.pdf

Jeong. (2003). The sequential analysis of group interaction and critical thinking in online. *The American Journal of Distance Education, 17*(1), 25–43.

Johnson, Hornik, & Salas. (2008). An empirical examination of factors contributing to the creation of successful e-learning environments. *International Journal of Human-Computer Studies, 66*(5), 356–369.

Juwah. (2013). *Interactions in online education: Implications for theory and practice*. NY: Routledge.
Kabilan, Ahmad, & Abidin. (2010). Facebook: An online environment for learning of English in institutions of higher education? *The Internet and Higher Education, 13*(4), 179–187.
Kaiser. (1970). A second generation little jiffy. *Psychometrika, 35*(4), 401–415.
Kaiser. (1974). An index of factorial simplicity. *Psychometrika, 39*(1), 31–36.
Kang, & Im. (2013). Factors of learner–instructor interaction which predict perceived learning outcomes in online learning environment. *Journal of Computer Assisted Learning, 29*(2013), 292–301.
Kanuka, Rourke, & Laflamme. (2007). The influence of instructional methods on the quality of online discussion. *British Journal of Educational Technology, 38*(2), 260–271.
Ke. (2010). Examining online teaching, cognitive, and social presence for adult students. *Computers & Education, 55*(2), 808–820.
Keengwe, & Kidd. (2010). Towards best practices in online learning and teaching in higher education. *MERLOT Journal of Online Learning and Teaching, 6*(2), 533–541.
Kehrwald. (2008). Understanding social presence in text-based online learning environments. *Distance Education, 29*(1), 89–106.
Kelsey, & D'souza. (2004). Student motivation for learning at a distance: Does interaction matter? *Online Journal of Distance Learning Administration, 7*(2). Retrieved from http://www.westga.edu/~distance/ojdla/summer72/kelsey72.html
Keramati, Afshari-Mofrad, & Kamrani. (2011). The role of readiness factors in E-learning outcomes: An empirical study. *Computers & Education, 57*(3), 1919–1929.
Khan. (2005). *Managing e-learning strategies: Design, delivery, implementation and evaluation*. USA: Information Science Publishing.
Kim. (2001). Social constructivism. In M. Orey (Ed.), *Emerging perspectives on learning, teaching, and technology* (pp. 55–58). Zurich, Switzerland: Global Text.
Kim. (2006). Automatic speech recognition: Reliability and pedagogical implications for teaching pronunciation. *Educational Technology & Society, 9*(1), 322–334.
Kim, Kwon, & Cho. (2011). Investigating factors that influence social presence and learning outcomes in distance higher education. *Computers & Education, 57*(2), 1512–1520.
Kim, Mendenhall, & Johnson. (2010). A design framework for an online English writing course. In J. M. Spector, D. Ifenthaler, P. Isaías, Kinshuk, & D. Sampson (Eds.), *Learning and instruction in the digital age* (pp. 345–360). NY: Springer.
Klassen, & Milton. (1999). Enhancing English language skills using multimedia: Tried and tested. *Computer Assisted Language Learning, 12*(4), 281–294.
Klimova. (2011). Making academic writing real with ICT. *Procedia Computer Science, 3*(2011), 133–137.
Koblitz. (2011). Interview with Professor Ngô Bảo Châu. *Mathematical Intelligencer, 33*(1), 46–50.
Kondo, Ishikawa, Smith, Sakamoto, Shimomura, & Wada. (2012). Mobile assisted language learning in university EFL courses in Japan: Developing attitudes and skills for self-regulated learning. *ReCALL, 24*(2), 169–187.
Kopp. (1982). Designing boredom out of instruction. *Performance & Instruction, 21*(4), 23–32.
Kozan, & Richardson. (2013). Interrelationships between and among social, teaching, and cognitive presence. *The Internet and Higher Education, 21*(2014), 68–73.
Kramarski, & Gutman. (2006). How can self-regulated learning be supported in mathematical e-learning environments? *Journal of Computer Assisted Learning, 22*(1), 24–33.
Krashen. (1985). *The input hypothesis: Issues and implications*. London, UK: Longman.
Krathwohl. (2002). A revision of Bloom's taxonomy: An overview. *Theory into Practice, 41*(4), 212–218.

Krueger, & Casey. (2009). *Focus groups: A practical guide for applied research*. Thousand Oaks, CA: Sage Publications.
Kuo, Walker, Belland, & Schroder. (2013). A predictive study of student satisfaction in online education programs. *The International Review of Research in Open and Distance Learning, 14*(1), 16–39.
Kuo, Walker, Schroder, & Belland. (2013). Interaction, internet self-efficacy, and self-regulated learning as predictors of student satisfaction in online education courses. *The Internet and Higher Education, 20*(2013), 35–50.
Lai, Shum, & Tian. (2014). Enhancing learners' self-directed use of technology for language learning: The effectiveness of an online training platform. *Computer Assisted Language Learning*. doi: 10.1080/09588221.2014.889714
Lally, Lipponen, Simons, & de Laat. (2007). Investigating patterns of interaction in networked learning and computer-supported collaborative learning: A role for social network analysis. *International Journal of Computer-Supported Collaborative Learning, 2*(1), 87–103.
Lam, Boymal, & Martin. (2004). Internet diffusion in Vietnam. *Technology in Society, 26*(1), 39–50.
Lamy, & Goodfellow. (1999). Supporting language students' interactions in web-based conferencing. *Computer Assisted Language Learning, 12*(5), 457–477.
Lan. (2014, August 15). Ứng dụng CNTT trong dạy - học ngoại ngữ: Góp ý từ chuyên gia (Application of ICT in teaching and learning foreign languages: Expert opinion). *Giaoduc&Thoidai (Education&Times)*. Retrieved from http://giaoducthoidai.vn/giao-duc/ung-dung-cntt-trong-day-hoc-ngoai-ngu-gop-y-tu-chuyen-gia-218066-v.html
Lan, Sung, & Chang. (2007). A mobile-device-supported peer-assisted learning system for collaborative early EFL reading. *Language Learning & Technology, 11*(3), 130–151.
LaPointe, & Gunawardena. (2004). Developing, testing and refining of a model to understand the relationship between peer interaction and learning outcomes in computer-mediated conferencing. *Distance Education, 25*(1), 83–106.
Lawrence. (2007). The ethics of educational research. *Journal of Manipulative & Physiological Therapeutics, 30*(4), 326–330.
Le. (2011). *Teaching English in Vietnam: Improving the provision in the private sector.* (Doctoral dissertation, Victoria University, Melbourne, Australia). Retrieved from http://library.vu.edu.au/record=b2237480
Le. (2013). *Fostering learner autonomy in language learning in tertiary education: an intervention study of university students in Hochiminh City, Vietnam.* (Doctoral thesis, University of Nottingham, UK). Retrieved from http://eprints.nottingham.ac.uk/13405
Lee. (2006). An empirical investigation into factors influencing the adoption of an e-learning system. *Online Information Review, 30*(5), 517–541.
Lee. (2007). Improving English reading and listening by integrating a web-based CALL system into classroom instruction. *Journal of Instruction Delivery Systems, 21*(3), 21–29.
Lee. (2009). *The effect of computer-mediated communication (CMC) interaction on L2 vocabulary acquisition: A comparison study of CMC interaction and face-to-face interaction.* (Master thesis, Iowa State University). Retrieved from http://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1802&context=etd
Lee. (2010a). Exploring wiki-mediated collaborative writing: A case study in an elementary Spanish course. *CALICO Journal, 27*(2), 260–272.
Lee. (2010b). Fostering reflective writing and interactive exchange through blogging in an advanced language course. *ReCALL, 22*(2), 212–227.
Lee. (2012). Patterns of interaction and participation in a large online course: Strategies for fostering sustainable discussion. *Educational Technology & Society, 15*(1), 260–272.

Lee, Srinivasan, Trail, Lewis, & Lopez. (2011). Examining the relationship among student perception of support, course satisfaction, and learning outcomes in online learning. *The Internet and Higher Education, 14*(3), 158–163.
Lee, & Wang. (2013). Discussing the factors contributing to students' involvement in an EFL collaborative wiki project. *ReCALL, 25*(2), 233–249.
Lehman, & Conceição-Runlee. (2010). *Creating a sense of presence in online teaching: How to "be there" for distance learners*. San Francisco, CA: Jossey Bass.
Lehmann. (2004). *How to be a great online teacher*. Lanham, MD: ScarecrowEducation.
Levelt. (1993). *Speaking: From intention to articulation*. MA: MIT press.
Levy. (2006). Effective use of CALL technologies: Finding the right balance. In R. P. Donaldson & M. A. Haggstrom (Eds.), *Changing language education through CALL*. UK: Routledge.
Levy, & Stockwell. (2013). *CALL dimensions: Options and issues in computer-assisted language learning*. Hoboken, NY: Taylor and Francis.
Liang, & Wu. (2010). Nurses' motivations for web-based learning and the role of internet self-efficacy. *Innovations in Education and Teaching International, 47*(1), 25–37.
Liaw, & Huang. (2013). Perceived satisfaction, perceived usefulness and interactive learning environments as predictors to self-regulation in e-learning environments. *Computers & Education, 60*(1), 14–24.
Liaw, Huang, & Chen. (2007). Surveying instructor and learner attitudes toward e-learning. *Computers & Education, 49*(4), 1066–1080.
Likert. (1932). A technique for the measurement of attitudes. *Archives of psychology, 22 140*, 55–55.
Lim, Lee, & Nam. (2007). Validating e-learning factors affecting training effectiveness. *International Journal of Information Management, 27*(1), 22–35.
Lipponen, Rahikainen, Lallimo, & Hakkarainen. (2003). Patterns of participation and discourse in elementary students' computer-supported collaborative learning. *Learning and instruction, 13*(5), 487–509.
Lisa. (2011). Content analysis coding schemes for online asynchronous discussion. *Campus-Wide Information Systems, 28*(1), 56–74.
Litosseliti. (2003). *Using focus groups in research*. London, UK: Continuum.
Liu, & Chen. (2007). A taxonomy of internet-based technologies integrated in language curricula. *British Journal of Educational Technology, 38*(5), 934–938.
Liu, & Jernigan. (2013). Ecological analysis of EFL learners' online communication. *Dil ve Edebiyat Eğitimi Dergisi (Journal of Language and Literature Education), 8*(2013), 9–22. Retrieved from http://deedergisi.org/sayilar/8/2.pdf
Loewen, & Erlam. (2006). Corrective feedback in the chatroom: An experimental study. *Computer Assisted Language Learning, 19*(1), 1–14.
Long. (2006). Input, interaction, and second language acquisition. *Annals of the New York Academy of Sciences, 379*(1), 259–278. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1749-6632.1981.tb42014.x/pdf
Lu, Case, Lustria, Kwon, Andrews, Cavendish, & Floyd. (2007). Predictors of online information seeking by international students when disaster strikes their countries. *CyberPsychology & Behavior, 10*(5), 709–712.
Manca, & Ranieri. (2013). Is it a tool suitable for learning? A critical review of the literature on Facebook as a technology-enhanced learning environment. *Journal of Computer Assisted Learning, 29*(6), 487–504.
Marambe, Vermunt, & Boshuizen. (2012). A cross-cultural comparison of student learning patterns in higher education. *Higher Education, 64*(3), 299–316.
Marden, & Herrington. (2011). *Supporting interaction and collaboration in the language classroom through computer mediated communication*. Paper presented at the World

Conference on Educational Multimedia, Hypermedia and Telecommunications, Lisbon, Portugal. Retrieved from http://researchrepository.murdoch.edu.au/6974/

Marzban. (2011). Improvement of reading comprehension through computer-assisted language learning in Iranian intermediate EFL students. *Procedia Computer Science, 3*(2011), 3–10.

Mayes. (2001). Learning technology and learning relationships. In J. Stephenson (Ed.), *Teaching & learning online: Pedagogies for new technologies* (pp. 3–15). London, UK: Kogan Page.

Mazzolini, & Maddison. (2003). Sage, guide or ghost? The effect of instructor intervention on student participation in online discussion forums. *Computers & Education, 40*(3), 237–253.

Mazzolini, & Maddison. (2007). When to jump in: The role of the instructor in online discussion forums. *Computers & Education, 49*(2), 193–213.

McAuley, Stewart, Siemens, & Cormier. (2010). The MOOC model for digital practice. 1–63. http://www.davecormier.com/edblog/wp-content/uploads/MOOC_Final.pdf

McCrindle. (2006). *New generations at work: Attracting, recruiting, retaining and training generation Y*. Baulkham Hills, NSW: McCindle Research.

McSporran, & Young. (2001). Does gender matter in online learning? *Research in Learning Technology, 9*(2), 3–14.

Meskill, & Quah. (2013). Researching language learning in the age of social media. In M. Thomas, H. Reinders, & M. Warschauer (Eds.), *Contemporary computer assisted language learning* (pp. 39–54). London, UK: Bloombury.

Miles, & Huberman. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage Publications.

Mishra, & Dinh. (2013). *Taking stock: An update on Vietnam's recent economic developments*. Retrieved from http://documents.worldbank.org/curated/en/2013/07/18042915/taking-stock-update-vietnams-recent-economic-developments.

MOET. (2008). *QUYẾT ĐỊNH Về việc Phê duyệt Đề án "Dạy và học ngoại ngữ trong hệ thống giáo dục quốc dân giai đoạn 2008 - 2020" (Decision to approve plan on "teaching and learning foreign languages in the national educational system for period 2008–2020")*. Hanoi, Viet Nam: Retrieved from http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&_page=1&mode=detail&org_group_id=0&org_id=0&type_group_id=0&category_id=10&type_id=0&filters=&document_id=78437.

Moore. (1989). Three types of interaction. *Distance education: New perspectives*, 19.

Mowrer. (1996). A content analysis of student/instructor communication via computer conferencing. *Higher Education, 32*(2), 217–241.

Muilenburg, & Berge. (2005). Student barriers to online learning: A factor analytic study. *Distance Education, 26*(1), 29–48.

Murphy. (2010). Web-based collaborative reading exercises for learners in remote locations: The effects of computer-mediated feedback and interaction via computer-mediated communication. *ReCALL, 22*(2), 112–134.

Murray, Pérez, Geist, Hedrick, & Steinbach. (2012). Student interaction with online course content: Build it and they might come. *Journal of Information Technology Education, 11*(2012), 125–140.

Nelson. (2008). *Teaching in the digital age: Using the Internet to increase student engagement and understanding*. Thousand Oaks, CA: Corwin Press.

Ng, & Murphy. (2005). Evaluating interactivity and learning in computer conferencing using content analysis techniques. *Distance Education, 26*(1), 89–109.

Ng, Yeung, & Hon. (2006). Does online language learning diminish interaction between student and teacher? *Educational Media International, 43*(3), 219–232.

Ngo. (2015). *An investigation into students' motivation to learn English in higher education in Vietnam.* (Unpublished doctoral thesis), Queensland University of Technology, Queensland, Australia.

Nguyen. (2004). English language teaching in Vietnam today: Policy, practice and constraints. In W. K. Ho, A. L. Y. Wong, H. W. Kam, & R. Wong (Eds.), *English Language Teaching in East Asia Today: Changing Policies and Practices* (2nd ed., pp. 447-454): Cavendish Square Publishing.

Nguyen. (2007). *CALL implementation at HANU and beyond: Successes and future challenges*. Paper presented at the GloCALL 2007 Conference, Hanoi, Vietnam. Retrieved from http://glocall.org/course/view.php?id=23

Nguyen. (2009). *Teacher–learner interactions in online learning at the Center for Online and Distance Training, Travinh Univerisity, Vietnam*. Paper presented at the 14th Annual Technology, Colleges, and Community Worldwide Online Conference, Hawai'i, USA. Retrieved from http://scholarspace.manoa.hawaii.edu/handle/10125/7968

Nguyen, & Le. (2011). English as a powerful language in Vietnam. In T. Le & Q. Le (Eds.), *Linguistic diversity and cultural identity: A global perspective* (pp. 289–300). NY: Nova science.

Nisbet. (2004). Measuring the quantity and quality of online discussion group interaction. *Journal of eLiteracy, 1*(2), 122–139.

Onwuegbuzie, & Combs. (2011). Data analysis in mixed research: A primer. *International Journal of Education, 3*(1), 1–25.

Oztok, Zingaro, Brett, & Hewitt. (2012). Exploring asynchronous and synchronous tool use in online courses. *Computers & Education, 60*(1), 87–94.

Pacheco. (2005). Web-based learning (WBL): A challenge for foreign language teachers. *Revista Electrónica Actualidades Investigativas en Educación, 5*(2), 1–25.

Pallant. (2011). *SPSS survival manual: A step by step guide to data analysis using SPSS*. Crows Nest, NSW: Allen & Unwin.

Palloff, & Pratt. (2007). *Building online learning communities: Effective strategies for the virtual classroom*. San Francisco, CA: Jossey-Bass.

Palloff, & Pratt. (2011). *The excellent online instructor: Strategies for professional development*. San Francisco, CA: Jossey-Bass.

Pan, & Sullivan. (2005). Promoting synchronous interaction in an e-learning environment. *The Journal, 33*(2), 27–30.

Park, Barash, Fink, & Cha. (2013). *Emoticon Style: Interpreting Differences in Emoticons Across Cultures.* Paper presented at the International AAAI Conference on Weblogs and Social Media, MA, USA.

Park, & Son. (2009). Implementing computer-assisted language learning in the EFL classroom: Teachers' perceptions and perspectives. *International Journal of Pedagogies and Learning, 5*(2), 80–101.

Parsazadeh, Zainuddin, Ali, & Hematian. (2013). *A review on the success factors of e-learning.* Paper presented at the Second International Conference on e-Technologies and Networks for Development, Malaysia.

Pawan, Paulus, Yalcin, & Chang. (2003). Online learning: Patterns of engagement and interaction among in-service teachers. *Language Learning & Technology, 7*(3), 119–140.

Payne, & Ross. (2005). Synchronous CMC, working memory, and L2 oral proficiency development. *Language Learning & Technology, 9*(3), 35–54.

Peeraer, & Van Petegem. (2011). ICT in teacher education in an emerging developing country: Vietnam's baseline situation at the start of 'The Year of ICT'. *Computers & Education, 56*(4), 974–982.

Peeraer, & Van Petegem. (2012). Information and communication technology in teacher education in Vietnam: From policy to practice. *Educational Research for Policy and Practice, 11*(2), 89–103.

Pena-Shaff, & Nicholls. (2004). Analyzing student interactions and meaning construction in computer bulletin board discussions. *Computers & Education, 42*(3), 243–265.

Peng, Tsai, & Wu. (2006). University students' self-efficacy and their attitudes toward the Internet: The role of students' perceptions of the Internet. *Educational studies, 32*(1), 73–86.

Pham. (2014). Foreign language policy. In L. Tran, S. Marginson, H. Do, Q. Do, T. Le, N. Nguyen, T. Vu, T. Pham, & H. Nguyen (Eds.), *Higher education in Vietnam: Flexibility, mobility and practicality in the global knowledge economy* (pp. 169–186). UK: Palgrave Macmillan.

Pham, Thalathoti, & Dakich. (2014). Frequency and pattern of learner-instructor interaction in an online English language learning environment in Vietnam. *Australasian Journal of Educational Technology, 30*(6), 686–698.

Pham, Thalathoti, Dakich, & Dang. (2013). *English Discoveries Online (EDO): Examining learner–instructor interaction: A case study at Hanoi University, Vietnam*. Paper presented at the Teleconference on Information and Communication Technology in English Language Teaching in Vietnam., Hanoi, Vietnam. Retrieved from http://etesol.edu.vn/index.php/teleconference

Phan. (2009). Impact of Vietnam's social context on learner's attitudes towards foreign languages and English language learning: Implications for teaching and learning. *Asian EFL Journal, 11*(4), 169-188.

Phan. (2011). *Factors affecting the motivation of Vietnamese technical English majors in their English studies.* University of Otago.

Picciano. (2002). Beyond student perceptions: Issues of interaction, presence, and performance in an online course. *Journal of Asynchronous learning networks, 6*(1), 21–40.

Pituch, & Lee. (2006). The influence of system characteristics on e-learning use. *Computers & Education, 47*(2), 222–244.

Poley. (2010). Globalization in online learning. In K. E. Rudestam & H. Schoenholtz-Read (Eds.), *Handbook of Online Learning* (pp. 173–196). Thousand Oaks, CA: Sage Publications.

Poole. (2001). Student participation in a discussion-oriented online course: A case study. *Journal of Research on Computing in Education, 33*(2), 162–177.

Pregitzer, & Clements. (2013). Bored with the core: Stimulating student interest in online general education. *Educational Media International, 50*(3), 162–176.

Raith. (2009). The use of weblogs in language education. In T. Michael (Ed.), *Handbook of research on Web 2.0 and second language learning* (pp. 274-291). Hershey, PA: IGI Global.

Richter, & McPherson. (2012). Open educational resources: Education for the world? *Distance Education, 33*(2), 201–219.

Roblyer, & Wiencke. (2003). Design and use of a rubric to assess and encourage interactive qualities in distance courses. *The American Journal of Distance Education, 17*(2), 77–98.

Rod, & Guerrero. (2013). *Using online Facebook study groups as a pedagogical tool for political science courses*. Paper presented at the APSA Teaching and Learning Conference, USA. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2204704

Roper. (2007). How students develop online learning skills. *Educause Quarterly, 30*(1), 62–65.
Rourke, Anderson, Garrison, & Archer. (2007). Assessing social presence in asynchronous text-based computer conferencing. *The Journal of Distance Education, 14*(2), 50–71.
Rourke, & Kanuka. (2009). Learning in communities of inquiry: A review of the literature. *The Journal of Distance Education, 23*(1), 19–48.
Roussel. (2011). A computer assisted method to track listening strategies in second language learning. *ReCALL, 23*(2), 98–116.
Rudestam, & Schoenholtz-Read. (2010). *Handbook of online learning*. Thousand Oaks, CA: Sage Publications.
Ryman, Burrell, & Richardson. (2010). Creating and sustaining online learning communities: Designing environments for transformative learning. *International Journal of Pedagogies & Learning, 5*(3), 32–45.
Ryman, Hardham, Richardson, & Joss. (2009). Creating and sustaining online learning communities: Designing for transformative learning. *International Journal of Pedagogies & Learning, 5*(3), 32–45.
Salaberry. (2000). Pedagogical design of computer mediated communication tasks: Learning objectives and technological capabilities. *The Modern Language Journal, 84*(1), 28–37.
Salmon. (2003). *E-moderating: The key to teaching and learning online*. London, UK: RoutledgeFalmer.
Salmon. (2011). *E-moderating: The key to online teaching and learning* (3rd ed.). Hoboken, NY: Taylor and Francis.
Salmon. (2013). *E-tivities: The key to active online learning*: Routledge.
Satar, & Özdener. (2008). The effects of synchronous CMC on speaking proficiency and anxiety: Text versus voice chat. *The Modern Language Journal, 92*(4), 595–613.
Schellens, & Valcke. (2005). Collaborative learning in asynchronous discussion groups: What about the impact on cognitive processing? *Computers in Human Behavior, 21*(6), 957–975.
Schrire. (2004). Interaction and cognition in asynchronous computer conferencing. *Instructional Science, 32*(6), 475–502.
Schwienhorst. (2012). *Learner autonomy and CALL environments*: Routledge.
Schwier, & Balbar. (2002). The interplay of content and community in synchronous and asynchronous communication: Virtual communication in a graduate seminar. *Canadian Journal of Learning and Technology, 28*(2), 21–30.
Segler. (2007). *Investigating the selection of example sentences for unknown target words in ICALL reading texts for L2 German.* (Doctoral dissertation, the University of Edinburgh, UK). Retrieved from http://hdl.handle.net/1842/1750
Selim. (2007). Critical success factors for e-learning acceptance: Confirmatory factor models. *Computers & Education, 49*(2), 396–413.
Senior. (2010). Connectivity: A framework for understanding effective language teaching in face-to-face and online learning communities. *RELC Journal, 41*(2), 137–147.
Shaalan. (2005). An intelligent computer assisted language learning system for Arabic learners. *Computer Assisted Language Learning, 18*(1-2), 81–109.
Shackelford, Maxwell, Yerrick, Johnson, Gautreau, Glaeser, . . . Carter-Wells. (2012). Contribution of learner–instructor interaction to sense of community in graduate online education. *MERLOT Journal of Online Learning and Teaching, 8*(4), 248–260.
Shamsudin, & Nesi. (2006). Computer-mediated communication in English for specific purposes: A case study with computer science students at Universiti Teknologi Malaysia. *Computer Assisted Language Learning, 19*(4-5), 317–339.
Sharma. (2010). Blended learning. *ELT journal, 64*(4), 456–458.

Sharma, Dick, Chin, & Land. (2007). *Self-regulation and e-Learning*. Paper presented at the European Conference on Information Systems, Switzerland. Retrieved from http://sdaw.info/asp/aspecis/20070157.pdf

Sharples. (2013). Mobile learning: Research, practice and challenges. *Distance Education in China, 3*(5), 5–11.

Shawback, & Terhune. (2002). Online interactive courseware: Using movies to promote cultural understanding in a CALL environment. *ReCALL, 14*(1), 85–95.

Shea, & Bidjerano. (2009a). Cognitive presence and online learner engagement: A cluster analysis of the community of inquiry framework. *Journal of Computing in Higher Education, 21*(3), 199–217.

Shea, & Bidjerano. (2009b). Community of inquiry as a theoretical framework to foster "epistemic engagement" and "cognitive presence" in online education. *Computers & Education, 52*(3), 543–553.

Shea, & Bidjerano. (2010). Learning presence: Towards a theory of self-efficacy, self-regulation, and the development of a communities of inquiry in online and blended learning environments. *Computers & Education, 55*(4), 1721–1731.

Shea, Hayes, Vickers, Gozza-Cohen, Uzuner, Mehta, . . . Rangan. (2010). A re-examination of the community of inquiry framework: Social network and content analysis. *The Internet and Higher Education, 13*(1), 10–21.

Shee, & Wang. (2008). Multi-criteria evaluation of the web-based e-learning system: A methodology based on learner satisfaction and its applications. *Computers & Education, 50*(3), 894–905.

Sher. (2009). Assessing the relationship of student-instructor and student-student interaction to student learning and satisfaction in web-based online learning environment. *Journal of Interactive Online Learning, 8*(2), 102–120.

Sheridan, & Kelly. (2010). The indicators of instructor presence that are important to students in online courses. *MERLOT Journal of Online Learning and Teaching, 6*(4), 767–779.

Sing, & Khine. (2006). An analysis of interaction and participation patterns in online community. *Journal of Educational Technology & Society, 9*(1), 250–261.

Sinha, Khreisat, & Sharma. (2009). Learner–interface interaction for technology-enhanced active learning. *Innovate: Journal of Online Education, 5*(3), 1–7.

Sit. (2013). Characteristics of Chinese students' learning styles. *International Proceedings of Economics Development & Research, 62*(8), 36–39.

Slaouti, & Motteram. (2006). Reconstructing practice: Language teacher education and ICT. In P. Hubbard & M. Levy (Eds.), *Teacher education in CALL* (pp. 81–97). Philadelphia,PA: John Benjamins

Smyth. (2011). Enhancing learner–learner interaction using video communications in higher education: Implications from theorising about a new model. *British Journal of Educational Technology, 42*(1), 113–127.

Snodin. (2013). The effects of blended learning with a CMS on the development of autonomous learning: A case study of different degrees of autonomy achieved by individual learners. *Computers & Education, 61*(2013), 209–216.

So, & Brush. (2008). Student perceptions of collaborative learning, social presence and satisfaction in a blended learning environment: Relationships and critical factors. *Computers & Education, 51*(1), 318–336.

Son. (2006). Using online discussion groups in a call teacher training course. *Regional Language Centre Journal, 37*(1), 123–135.

Son. (2007). Learner experiences in web-based language learning. *Computer Assisted Language Learning, 20*(1), 21–36.

Song, Singleton, Hill, & Koh. (2004). Improving online learning: Student perceptions of useful and challenging characteristics. *Internet & Higher Education, 7*(1), 59–70.
Stein, Wanstreet, Glazer, Engle, Harris, Johnston, . . . Trinko. (2007). Creating shared understanding through chats in a community of inquiry. *The Internet and Higher Education, 10*(2), 103–115.
Stepich, & Ertmer. (2003). Building community as a critical element of online course design. *Educational Technology, 43*(5), 33–43.
Stevens-Long, & Crowell. (2009). Revisiting design and delivery of an interactive online graduate program. In K. E. Rudestam & J. Schoenholtz-Read (Eds.), *Handbook of Online Learning* (pp. 252–266). Thousand Oaks, CA: Sage Publications.
Stockwell. (2012). *Computer-assisted language learning: Diversity in research and practice*. Cambridge, UK: Cambridge University Press.
Stodel, Thompson, & MacDonald. (2006). Learners' perspectives on what is missing from online learning: Interpretations through the community of inquiry framework. *International Review of Research in Open & Distance Learning, 7*(3), 1–24.
Stutchbury, & Fox. (2009). Ethics in educational research: Introducing a methodological tool for effective ethical analysis. *Cambridge Journal of Education, 39*(4), 489–504.
Su, & Beaumont. (2010). Evaluating the use of a wiki for collaborative learning. *Innovations in Education & Teaching International, 47*(4), 417–431.
Sun. (2011). Online language teaching: The pedagogical challenges. *Knowledge Management & E-Learning: An International Journal, 3*(3), 428–447.
Sun, & Hsu. (2013). Effect of interactivity on learner perceptions in web-based instruction. *Computers in Human Behavior, 29*(1), 171–184.
Sun, Tsai, Finger, Chen, & Yeh. (2008). What drives a successful e-learning? An empirical investigation of the critical factors influencing learner satisfaction. *Computers & Education, 50*(4), 1183–1202.
Swain, Brooks, & Tocalli-Beller. (2002). Peer–peer dialogue as a means of second language learning. *Annual Review of Applied Linguistics, 22*(1), 171–185.
Swan. (2001). Virtual interaction: Design factors affecting student satisfaction and perceived learning in asynchronous online courses. *Distance Education, 22*(2), 306–331.
Swan. (2002). Building learning communities in online courses: The importance of interaction. *Education, Communication & Information, 2*(1), 23–49.
Swan, & Shih. (2005). On the nature and development of social presence in online course discussions. *Journal of Asynchronous learning networks, 9*(3), 115–136.
Swanborn. (2010). *Case study research: What, why and how?* London, UK: Sage Publications.
Taki, & Fardafshari. (2012). Weblog-based collaborative learning: Iranian EFL learners' writing skill and motivation. *International Journal of Linguistics, 4*(2), 412–429.
Tanner, & Landon. (2009). The effects of computer-assisted pronunciation readings on ESL learners' use of pausing, stress, intonation, and overall comprehensibility. *Language Learning & Technology, 13*(3), 51–65.
Taylor. (2009). CALL-based versus paper-based glosses: Is there a difference in reading comprehension? *CALICO Journal, 27*(1), 147–160.
Taylor, & Gitsaki. (2004). Teaching WELL and loving IT. In S. Fotos & C. M. Browne (Eds.), *New perspectives on CALL for second language classrooms* (pp. 131–147). Mahwah, NJ: Lawrence Erlbaum Associates
Teddlie, & Tashakkori. (2009a). *Foundations of mixed methods research: Integrating quantitative and qualitative techniques in the social and behavioral sciences*. Thousand Oaks, CA: Sage Publications.

Teddlie, & Tashakkori. (2009b). Overview of contemporary issues in mixed methods research. In C. Teddlie & A. Tashakkori (Eds.), *Handbook of mixed methods in social & behavioral research* (pp. 1–41). Thousand Oaks, CA: Sage Publications.
Thanh. (2011). An investigation of perceptions of Vietnamese teachers and students toward cooperative learning (CL). *International Education Studies, 4*(1), 3–12.
Thomas. (1996). Telecommunication, student teaching, and methods instruction: An exploratory investigation. *Journal of Teacher Education, 47*(3), 165–174.
Thomas. (2006). A general inductive approach for analyzing qualitative evaluation data. *The American Journal of Evaluation, 27*(2), 237–246.
Thurmond, & Wambach. (2004). Understanding interactions in distance education: A review of the literature. *Instructional technology, 1*(1), 9–26.
Toetenel. (2013). Social networking: A collaborative open educational resource. *Computer Assisted Language Learning, 27*(2), 149–162.
Tran. (2013). Is the learning approach of students from the Confucian heritage culture problematic? *Educational Research for Policy and Practice, 12*(1), 57–65.
Tran, & Baldauf Jr. (2007). Demotivation: Understanding resistance to English language learning-the case of Vietnamese students. *The Journal of Asia TEFL, 4*(1), 79-105.
Trinidad, & Pearson. (2008). Using the online learning environment survey to design and implement effective e-learning environments. In N. Yelland, G. A. Neal, & E. Dakich (Eds.), *Rethinking education with ICT: New directions for effective practices* (pp. 45–56). Rotterdam, Netherlands: Sense Publishers.
Truong. (2013). *Confucian values and school leadership in Vietnam.* (Doctoral thesis, Victoria University of Wellington, New Zealand). Retrieved from http://hdl.handle.net/10063/2774
Tsai, Chuang, Liang, & Tsai. (2011). Self-efficacy in internet-based learning environments: A literature review. *Educational Technology & Society, 14*(4), 222–240.
Tsai, & Tsai. (2003). Information searching strategies in web-based science learning: The role of internet self-efficacy. *Innovations in Education and Teaching International, 40*(1), 43–50.
Tseng, Tsai, & Chao. (2013). Enhancing L2 interaction in avatar-based virtual worlds: Student teachers' perceptions. *Australasian Journal of Educational Technology, 29*(3), 357–371.
Tu, & Corry. (2003). Design, management tatics, and strategies in asynchronous learning discussions. *Quarterly Review of Distance Education, 4*(3), 303–315.
Tu, & McIsaac. (2002). The relationship of social presence and interaction in online classes. *The American Journal of Distance Education, 16*(3), 131–150.
Tuzi. (2004). The impact of e-feedback on the revisions of L2 writers in an academic writing course. *Computers and Composition, 21*(2), 217–235.
Valentine. (2002). Distance learning: Promises, problems, and possibilities. *Online Journal of Distance Learning Administration, 5*(3). Retrieved from http://distance.westga.edu/~distance/ojdla/fall53/valentine53.html
Van Van. (2011). The current situation and issues of the teaching of English in Vietnam. *立命館言語文化研究 (Japanese Institutional Repositories Online), 22*(1). Retrieved from http://jairo.nii.ac.jp/0026/00003881/en
VNNIC. (2013). *Report on internet statistics of Vietnam*. Retrieved from http://www.thongkeinternet.vn/.
Volery. (2001). Online education: An exploratory study into success factors. *Journal of Educational Computing Research, 24*(1), 77–92.

Vonderwell. (2003). An examination of asynchronous communication experiences and perspectives of students in an online course: A case study. *The Internet and Higher Education, 6*(1), 77–90.

Vrasidas, & McIsaac. (1999). Factors influencing interaction in an online course. *The American Journal of Distance Education, 13*(3), 22–36.

Vygotskiĭ. (1978). *Mind in society: The development of higher psychological processes*. USA: Harvard University Press.

Wach. (2012). Computer-mediated communication as an autonomy-enhancement tool for advanced learners of English. *Studies in Second Language Learning and Teaching,* (3), 367–389. Retrieved from http://www.ceeol.com/aspx/getdocument.aspx?logid=5&id=747a4399e4f9447a940d82b5d7a82ab0

Wagner. (1994). In support of a functional definition of interaction. *The American Journal of Distance Education, 8*(2), 6–29.

Wallace. (2003). Online learning in higher education: A review of research on interactions among teachers and students. *Education, Communication & Information, 3*(2), 241–280.

Walther. (1992). Interpersonal effects in computer-mediated interaction a relational perspective. *Communication Research, 19*(1), 52–90.

Wang. (2004). Distance language learning: Interactivity and fourth-generation internet-based videoconferencing. *CALICO Journal, 21*(2), 373–395.

Wang, & Reeves. (2007). Synchronous online learning experiences: The perspectives of international students from Taiwan. *Educational Media International, 44*(4), 339–356.

Wang, & Vasquez. (2012). Web 2.0 and second language learning: What does the research tell us? *CALICO Journal, 29*(3), 412–430.

Wang, & Wu. (2008). The role of feedback and self-efficacy on web-based learning: The social cognitive perspective. *Computers & Education, 51*(4), 1589–1598.

Warnock. (2009). *Teaching writing online: How and why*. IL: National Council of Teachers of English.

Warschauer, & Kern. (2000). *Network-based language teaching: Concepts and practice*. Cambridge, UK: Cambridge University Press.

White, & Reinders. (2011). Learner autonomy and new learning environments. *Language learning and teaching, 15*(13), 1-3. Retrieved from http://llt.msu.edu/issues/october2011/commentary.pdf

Wildflower. (2009). Teaching professionals to be effective online facilittors and instructors: Lessons from hard-won experience In R. K. Erick & S.-R. Judith (Eds.), *Handbook of Online Learning* (pp. 387–402). Thousand Oaks, CA: Sage Publications.

Williams, Brown, & Onsman. (2012). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine, 8*(3), 1–13.

Wise, Chang, Duffy, & Valle. (2004). The effects of teacher social presence on student satisfaction, engagement, and learning. *Journal of Educational Computing Research, 31*(3), 247–271.

Wong, & Kamariah. (2009). Qualitative findings of students' perception on practice of self-regulated strategies in online community discussion. *Computers & Education, 53*(1), 94–103.

Woo, & Reeves. (2007). Meaningful interaction in web-based learning: A social constructivist interpretation. *Internet & Higher Education, 10*(1), 15–25.

Wu, & Liu. (2012). *A Social and cultural analysis of computer-mediated communication dialogue in Asian context*. Paper presented at the 20th International Conference on

Computers in Education, Singapore. Retrieved from http://ir.lib.ctu.edu.tw/handle/310909700/6402
Wu, & Marek. (2013). Helping second language literature learners overcome e-learning difficulties: Let-Net team teaching with online peer interaction. *Journal of Education and Learning, 2*(4), 87–101.
Wu, & Tsai. (2006). University students' internet attitudes and internet self-efficacy: A study at three universities in Taiwan. *Cyber Psychology Behavior, 9*(4), 441–450.
Wu, Yen, & Marek. (2011). Using online EFL interaction to increase confidence, motivation, and ability. *Journal of Educational Technology & Society, 14*(3), 118–129.
Yamada. (2009). The role of social presence in learner-centered communicative language learning using synchronous computer-mediated communication: Experimental study. *Computers & Education, 52*(4), 820–833.
Yamada, & Akahori. (2007). Social presence in synchronous CMC-based language learning: How does it affect the productive performance and consciousness of learning objectives? *Computer Assisted Language Learning, 20*(1), 37–65.
Yang. (2011). Engaging students in an online situated language learning environment. *Computer Assisted Language Learning, 24*(2), 181–198.
Yang, Badger, & Yu. (2006). A comparative study of peer and teacher feedback in a Chinese EFL writing class. *Journal of Second Language Writing, 15*(3), 179–200.
Yang, & Cornelious. (2005). Preparing instructors for quality online instruction. *Online Journal of Distance Learning Administration, 8*(1). Retrieved from http://www.westga.edu/~distance/ojdla/spring81/yang81.htm
Yang, Lay, Tsao, Liou, & Lin. (2006). Impact of language anxiety and self-efficacy on accessing internet sites. *CyberPsychology & Behavior, 10*(2), 226–233.
Yang, & Wu. (2011). A collective case study of online interaction patterns in text revisions. *Educational Technology & Society, 14*(2), 1–15.
Yanguas. (2010). Oral computer-mediated interaction between L2 learners: It's about time. *Language Learning & Technology, 14*(3), 72–93.
Yildiz. (2009). Social presence in the web-based classroom: Implications for intercultural communication. *Journal of Studies in International Education, 13*(1), 46–65.
Yin. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage Publications.
Yoon. (2008). More than a linguistic reference: The influence of corpus technology on L2 academic writing. *Language Learning & Technology, 12*(2), 31–48.
Yoon, Laffey, & Oh. (2008). Understanding usability and user experience of web-based 3D graphics technology. *Intl. Journal of Human–Computer Interaction, 24*(3), 288–306.
York, & Richardson. (2012). Interpersonal interaction in online learning: Experienced online instructors' perceptions of influencing factors. *Journal of Asynchronous learning networks, 16*(4), 83−98.
Yukselturk. (2010). An investigation of factors affecting student participation level in an online discussion forum. *Turkish Online Journal of Educational Technology, 9*(2), 24–32. Retrieved from http://eric.ed.gov/?id=EJ897999
Yukselturk, & Bulut. (2007). Predictors for student success in an online course. *Journal of Educational Technology & Society, 10*(2), 71–83.
Zeng, & Takatsuka. (2009). Text-based peer–peer collaborative dialogue in a computer-mediated learning environment in the EFL context. *System, 37*(3), 434–446.
Zhu. (2006). Interaction and cognitive engagement: An analysis of four asynchronous online discussions. *Instructional Science, 34*(6), 451–480.

Zimmerman. (2012). Exploring learner to content interaction as a success factor in online courses. *International Review of Research in Open & Distance Learning, 13*(4), 152–165.

Zingaro, & Oztok. (2012). Interaction in an asynchronous online course: A synthesis of quantitative predictors. *Journal of Asynchronous learning networks, 16*(4), 71−82.

APPENDICES

Appendix 1: Survey questionnaire

Dear Participant,
This survey is part of a doctoral research project on the topic: ***Interpersonal interaction: A case study of an online English language learning environment at a Vietnamese university****. Your responses to the questions are highly appreciated. Information in the survey will be kept confidential and used for this research only. The survey will take about 15 minutes to complete, and you will not be asked to provide your name. Thank you very much for your support.*

Part A: Demographic information

1. *Where are you from (province/city)?* _____
2. *What is your age*? _____
3. *What is your gender?*

Male	Female

Part B: Accessing the internet and online course

4. Where do you use the internet most often? Please tick (☑) appropriate box or write in the space provided.

University library	Home	Internet café	Computer labs	Boarding house

Others *(please specify)*_____

5. Where do you learn with EDO most often? Please tick (☑) appropriate box or write in the space provided.

University library	Home	Internet café	Computer labs	Boarding house

Others *(please specify)*_____

6. How confident are you in using the internet? Please tick (☑) the appropriate box.

Very confident	Confident	Normal	Not very confident	Not confident at all

7. How long have you studied with English Discoveries Online (EDO)? Please tick (☑) the appropriate box.

< 3 months	3–6 months	7–9 months	10–12 months	Longer

Part C: Interaction tools, frequency and modes

*8. Which communication tools do you use most often to interact with **other learners**? Please tick appropriate box or write in the space provided.*

Landline phone	Mobile phone	Email	Social network (Facebook, etc.)

Others *(Please specify)*_____

*9. Which communication tools do you use most often to interact with the **instructors**? Please tick appropriate box or write in the space provided.*

Landline phone	Mobile phone	Email	Social network (Facebook, etc.)

Others *(Please specify)*_____

10. Which communication tools do you use most often in EDO? Please tick appropriate box(es).

a. General forum *(to interact with all other learners)*	
b. Class forum *(to interact with classmates)*	
c. You!Who? *(to chat instantly with other learners)*	
d. WebPal *(to make friends with other learners)*	
e. Support *(to interact with instructors)*	

*11. How often do you interact with **the instructors** using EDO's communication tools? Please tick appropriate box(es) or write in the space provided.*

	General forum	*Class forum*	*You!Who?*	*WebPal*	*Support*
a. Daily					
b. Weekly (once/week)					
c. Monthly (one/month)					

Other frequency *(please specify)*_____

*12. How often do you interact with **other learners** using EDO's communication tools? Please tick appropriate box(es) or write in the space provided.*

	General forum	*Class forum*	*You! Who?*	*WebPal*
a. Daily				
b. Weekly (once/week)				
c. Monthly (once/week)				

Other frequency *(please specify)* _____

13. When you want to learn English, whom do you prefer to interact online with? Please tick appropriate box or write in the space provided.

a. Instructors	
b. Other learners	

Other people *(please specify)* _____

14. Which online interaction mode do you prefer? Please tick the appropriate box.

a. Synchronous *(at the same time)*	
b. Asynchronous *(not at the same time)*	

Part D: Interaction purposes

*15. What are your main purposes of interacting online with **the instructors**? Please tick appropriate box(es) or write in the space provided.*

	Please tick
a. Test to see if/how the system works	
b. Report technical problems	
c. Ask for technical support	
d. Get to know more about him/her	
e. Acknowledge support	
f. Read feedback	
g. Respond to the instructor's questions and comments	
h. Submit homework	
i. Ask questions about English language learning	
j. I have never interacted online with the instructor	

Other purpose(s) *(please specify)* _____

*16. What are your main purposes of interacting online with **other learners**? Please tick appropriate box(es) or write in the space provided.*

	Please tick
a. Test to see if/how the system works	
b. Ask for technical support	
c. Provide technical support	
d. Get to know more about him/her	
e. Acknowledge their support	
f. Comment on their posts	
g. Ask questions about English language learning	
h. Respond to a question/comment	
i. Share additional learning resource(s)	
j. Interact with learners from other countries	
k. I have never interacted online with other learners	

Other purpose(s) *(please specify)* _____

Part E: Interaction-related factors

17. How important is each of the following factors in facilitating online interactions between learners and instructors as well as amongst learners? Please tick appropriate box or write in the space provided.

	Extremely important	*Very important*	*Important*	*Not important*	*No opinion*
a. Ability to communicate in English					
b. Content of the online course					
c. Learners' availability of time					
d. Sense of belonging to a virtual group					
e. Linkage between interaction and learning goals					
f. Interaction preferences: face-to-face vs online					
g. Technical support					
h. Regulations about online interaction					
i. Level of confidence in using the internet					
j. Typing skills					

	Extremely important	*Very important*	*Important*	*Not important*	*No opinion*
k. User-friendliness of communication tools					
l. Cost of the online course					
m. Internet speed					
n. Regularity of online presence by instructors					
o. Usefulness of feedback from instructors					
p. Timeliness of feedback from instructors					
q. Joy of interaction with the instructors					
r. Regularity of online presence by other learners					
s. Usefulness of feedback from other learners					
t. Timeliness of feedback from other learners					
u. Joy of interaction with other learners					

Other factor(s) *(please specify)* _____

*18. How useful is your online interaction with **the instructors** to your learning of English? Please tick the appropriate box.*

Extremely useful	Very useful	Useful	Not very useful	Not useful at all

*19. How useful is your online interaction with **other learners** to your learning of English? Please tick the appropriate box.*

Extremely useful	Very useful	Useful	Not very useful	Not useful at all

20. Please tick appropriate response to express your opinions about the following statements about using EDO.

	Strongly agree	*Agree*	*Dis-agree*	*Strongly disagree*	*No opinion*
My instructor provides clear instructions on how to use the course					
My instructor helps me learn					
My instructor keeps me engaged and participating					
My instructor establishes a sense of course community among students					
Getting to know others gives me a sense of belonging to the course					
I feel comfortable interacting with others					
I feel comfortable disagreeing with others					
Online discussions help me develop a sense of collaboration					
I use a variety of sources to explore problems in this course					
Online discussions helps me appreciate different opinions					
Learning activities helps me find solutions to my problems					
I can apply the knowledge in this course to other activities					

21. In your opinion, how can online interaction with the instructors and other learners contribute to the learning of English? Please tick or write in the space provided.

	Please tick
a. It helps to explain my mistakes	
b. It presents me with examples of grammatically correct language	
c. It helps me understand grammatical points	
d. It reminds me of the assignment that I have to do	
e. It helps to improve my writing skills	
f. It helps to improve my reading comprehension skills	
g. It makes me think in English	

Others *(please specify)* _____

22. Are there any other comments or suggestions that you would like to share? (*You can write in English or Vietnamese*).

THANK YOU VERY MUCH FOR TAKING PART IN THE SURVEY!

Appendix 2: Semi-structured interview protocols

A. Giảng viên (Tiếng Việt)

1. Bạn đã dạy tiếng Anh bao lâu rồi?
2. Kinh nghiệm của bạn trong việc theo dõi sinh viên học chương trình trực tuyến EDO là gì?
3. Bạn đã có /cần có hỗ trợ kỹ thuật gì để sử dụng chương trình học trực tuyến này?
4. Bạn thường liên lạc trực tuyến với sinh viên bằng những cách chính nào?
5. Mục đính chính của việc bạn liên lạc trực tuyến với sinh viên là gì?
6. Theo bạn thì cần phải làm gì nữa để khuyến khích sinh viên tương tác với bạn và các học viên khác?
7. Theo bạn thì làm thế nào để giáo viên hướng dẫn có thể duy trì sự trao đổi thông tin tích cực giữa các học viên với nhau?
8. Theo bạn thì vai trò chính của giáo viên hướng dẫn là gì trong quy trình tương tác trực tuyến?
9. Bạn có gợi ý gì để tăng cường sự tương tác giữa các học viên với nhau?
10. Theo bạn thì sự tương tác trực tuyến giúp sinh viên học tiếng Anh như thế nào?

With instructor (English)

1. How long have you been teaching English?
2. What are you experiences with supervising students online in the online course English Discoveries Online (EDO)?
3. What kind of technical support do you have/need to use the course?
4. What are your main ways of interacting with the students online?
5. What are your main purposes of interacting with the students online?
6. In your opinion, what else should be done to motivate the students to interact with you and other learners?
7. In your view, how can the instructors maintain active exchange of information among learners?
8. What do you think are the main roles of the instructor in the interaction process?
9. What suggestions do you have to enhance interaction amongst the learners?
10. In your opinion, how could online interaction contribute to students' learning of English?

B. Sinh viên (Tiếng Việt)

1. Bạn đã học tiếng Anh bao lâu rồi?
2. Bạn có những kinh nghiệm gì trong việc học tiếng Anh trực tuyến và với chương trình EDO?
3. Bạn đã có / cần có sự hỗ trợ kỹ thuật gì để sử dụng chương trình EDO có hiệu quả
4. Bạn cần hỗ trợ kỹ thuật gì để tương tác với giáo viên hướng dẫn và các học viên khác?
5. Bạn thường liên lạc trực tuyến với bạn học khác bằng cách nào?
6. Bạn thích hình thức tương tác nào hơn: đồng thời hay không đồng thời và tại sao?
7. Theo bạn thì cần phải làm gì nữa để khuyến khích bạn tương tác trực tuyến với giáo viên hướng dẫn và học viên khác?
8. Theo bạn thì giáo viên hướng dẫn cần phải làm gì để duy trì sự trao đổi thông tin tích cực giữa các học viên với nhau?
9. Bạn có gợi ý gì giúp tăng cường sự tương tác giữa giáo viên hướng dẫn với học viên và giữa các học viên với nhau?
10. Theo bạn thì sự tương tác trực tuyến giúp sinh viên học tiếng Anh như thế nào?

With students (English)

1. How long have you been studying English?
2. What experiences do you have with learning English online and with the English Discoveries Online (EDO)?
3. What kind of technical support do you have/need to use the online course English Discoveries Online (EDO) effectively?
4. What sort of technical support do you need to interact with the instructors and other learners?
5. What are your main ways of interacting with the students online?
6. Which mode (synchronous or asynchronous) of interaction do you prefer and why?
7. In your opinion, what else would motivate you to interact with other learners and instructors?
8. In your personal view, what should the instructors do to maintain active exchange of information among learners?
9. What suggestions do you have to enhance interaction between the learners and instructors as well as among learners?
10. How do you think online interaction can contribute to your learning of English?

Appendix 3: Focus group discussion protocols

C. Giảng viên (Tiếng Việt)

Sử dụng bảng lật và tài liệu

1. Kết quả khảo sát và phỏng vấn cho thấy là tương tác trực tuyến có thể giúp học viên học tiếng Anh bằng các cách a, b, c, d vv. Theo quan điểm của bạn thì những điểm trên có thể giúp sinh viên học tiếng Anh như thế nào?

Trao đổi _____

2. Sinh viên đã lựa chọn các yếu tố sau là những yếu tố quan trọng nhất tác động đến quá trình tương tác trực tuyến. Hãy sắp xếp các yếu tố này theo thứ tự quan trọng: số 1 quan trọng nhất, số 2 quan trọng thứ hai, vv

Trao đổi _____

3. Chúng ta đã chọn ra 3/4/5/6 yếu tố quan trọng nhất giúp tăng cường sự tương tác giữa sinh viên với giáo viên hướng dẫn cũng như giữa các sinh viên với nhau. Chúng ta cùng bàn luận chi tiết về các yếu tố này.

Trao đổi _____

4. Kết quả khảo sát cho thấy là sinh viên thích hình thức tương tác đồng thời/không đồng thời hơn. Chúng ta cùng trao đổi tính ưu việt và những điểm bất lợi của hình thức tương tác này.

Trao đổi _____

5. Xin hãy liệt kê 5 thứ cần làm để tăng cường sự hiện diện của giáo viên hướng dẫn trong một chương trình học trực tuyến. Hãy sắp xếp chúng theo thứ tự quan trọng.

Trao đổi _____

Lecturers (English)

Use of flip chart and hand-out

1. From the survey and interviews, it seems that online interaction can help students learn English by ... a, b, c, d etc. In your opinion, how could a, b, c, d, etc., help students learn English?

Discussion _____

2. The following factors have been selected by the participants as the most important ones to facilitate the interaction. Please put them in the order of importance with number 1 being the most important factor, number 2 the second most important factor, so on and so forth.

Discussion _____

3. Now we have selected 3/4/5/6 most important factors that could facilitate the interaction between the learners and instructors as well as among learners. Let's discuss those factors in detail.

Discussion _____

4. From the survey, the synchronous/asynchronous interaction has been the mode of choice for participants. Let's talk about the advantages and disadvantages of the mode.

Discussion _____

5. Please list about 5 things that could be done to increase an instructor's presence in an online course. Put them in the order of importance.

Discussion _____

D. Sinh viên (tiếng Việt)

Sử dụng bảng lật và tài liệu

1. Kết quả khảo sát và phỏng vấn cho thấy là tương tác trực tuyến có thể giúp học viên học tiếng Anh bằng các cách a, b, c, d vv. Theo quan điểm của bạn thì những điểm trên có thể giúp sinh viên học tiếng Anh như thế nào?

Trao đổi _____

2. Sinh viên đã lựa chọn các yếu tố sau là những yếu tố quan trọng nhất tác động đến quá trình tương tác trực tuyến. Hãy sắp xếp các yếu tố này theo thứ tự quan trọng: số 1 quan trọng nhất, số 2 quan trọng thứ hai, vv

Trao đổi _____

3. Chúng ta đã chọn ra 3/4/5/6 yếu tố quan trọng nhất giúp tăng cường sự tương tác giữa sinh viên với giáo viên hướng dẫn cũng như giữa các sinh viên với nhau. Chúng ta cùng bàn luận chi tiết về các yếu tố này.

Trao đổi _____

4. Kết quả khảo sát cho thấy là sinh viên thích hình thức tương tác đồng thời/không đồng thời hơn. Chúng ta cùng trao đổi tính ưu việt và những điểm bất lợi của hình thức tương tác này.

Trao đổi _____

5. Kết quả khảo sát cho thấy là sinh viên thích tương tác với giáo viên hướng dẫn/học viên hơn. Theo bạn thì tại sao lại như vậy?

Trao đổi _____

6. Xin hãy liệt kê 5 thứ cần làm để tăng cường sự hiện diện của học viên trong một chương trình học trực tuyến. Hãy sắp xếp chúng theo thứ tự quan trọng.

Trao đổi _____

Student (English)

Use of flip chart and hand-out

1. From the survey and interviews, it seems that online interaction can help students learn English by ... a, b, c, d, etc. In your opinion, how could a, b, c, d etc., help students learn English?

Discussion _____

2. The following factors have been selected by the participants as the most important ones to facilitate the interaction. Please put them in the order of importance with number 1 being the most important factor, number 2 the second most important factor, so on and so forth.

Discussion _____

3. Now we have selected 3/4/5/6 most important factors that could facilitate the interaction between the learners and instructors as well as among learners. Let's discuss those factors in detail.

Discussion _____

4. From the survey, the synchronous/asynchronous interaction has been the mode of choice for participants. Let's talk about the advantages and disadvantages of the mode.

Discussion _____

5. From the survey, students prefer to interact with instructors/other students in order to learn English. In your opinion, why is this?

Discussion _____

6. Please list about 5 things that could be done to increase students' presence in an online course. Put them in the order of importance.

Discussion _____

Appendix 4: Letter of consent

Hà Nội ngày 20 tháng 12 năm 2011

GỬI CÁC BÊN HỮU QUAN

Với tư cách là Hiệu trưởng trường Đại học Hà Nội (HANU), tôi đồng ý cho ông Phạm Ngọc Thạch được tiếp cận với giảng viên, sinh viên và trang web http://edo.hanu.vn của Trường Đại học Hà Nội để thu thập dữ liệu cho đề tài tiến sỹ: "*Tương tác sinh viên - giảng viên trong môi trường học tiếng Anh trực tuyến: Trường hợp của một trường Đại học ở Việt Nam*". Công tác thu thập dữ liệu sẽ được tiến hành trong năm 2012.

Ông Phạm Ngọc Thạch là giảng viên của Trường Đại học Hà Nội và hiện đang làm nghiên cứu sinh tại trường Đại học Victoria, Melbourne, Australia. Tôi xin chúc ông Thạch thành công trong các hoạt động hiện tại và tương lai trong lĩnh vực học tiếng Anh trực tuyến.

Phó Giáo sư, Tiến sỹ Nguyễn Đình Luận
Hiệu trưởng trường Đại học Hà Nội

ĐẠI HỌC HÀ NỘI

(Translation version)

Hanoi 20th December, 2011

TO WHOM IT MAY CONCERN

As the President of Hanoi University (HANU), I hereby approve Pham Ngoc Thach's request to have access to HANU's lecturers, students and the website http://edo.hanu.vn in connection with his data collection for his doctoral research project entitled "*Learner-Instructor Interaction in an Online English Language Learning Environment: A Case Study of a Vietnamese University*". The data collection will be administered in 2012.

Mr. Pham Ngoc Thach is a lecturer of Hanoi University and is currently doing his doctoral study at Victoria University, Melbourne, Australia. I wish him successful in his present and future work in the area of online English language learning.

Associate Prof., Dr. Nguyen Dinh Luan
President - Hanoi University

ĐẠI HỌC HÀ NỘI

NATIONAL ACCREDITATION AUTHORITY FOR TRANSLATORS AND INTERPRETERS
NAATI No. 34305
MINH HOANG DO
PROFESSIONAL TRANSLATOR
VIETNAMESE <-> ENGLISH

Translator's certification
This is a true translation to the best of my ability of the above Vietnamese text.
Date: 22/12/2011

Appendix 5: Ethic documents

A. CONSENT FORM FOR PARTICIPANTS INVOLVED IN RESEARCH

INFORMATION TO PARTICIPANTS

We would like to invite you to be a part of a study into learner–instructor interaction in an online English language learning environment. The aim of the study is to explore how online interaction between the learners and instructors contributes to English language learning. You are invited to fill in a survey questionnaire (in English language).

CERTIFICATION BY PARTICIPANT

I, _____ ,

of _____ Department, Hanoi University – Viet Nam

certify that I am at least 18 years old and that I am voluntarily giving my consent to participate in the study entitled "Learner–instructor Interaction in an Online English Language Learning Environment: A Case Study of a Vietnamese University" being conducted at Victoria University by Dr Vijay Thalathoti.

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by the Student Researcher, Mr Pham Ngoc Thach and that I freely consent to participation involving the below mentioned procedure(s):

- accessing data about online learning in the English Discoveries Online (EDO) course: ☐
- filling in survey questionnaire: ☐
- taking part in interview: ☐
- participating in focus group discussion: ☐

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this study at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that the information I provide will be kept confidential.

Signed: _____

Date: _____

Any queries about your participation in this project may be directed to the principal researcher:

Dr Vijay Thalathoti

Senior Lecturer, Victoria University

Phone : +61 3 9919 4726

Email: vijay.thalathoti@vu.edu.au

If you have any queries or complaints about the way you have been treated, you may contact the Research Ethics and Biosafety Manager, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 or phone (03) 9919 4148.

[*please note: Where the participant/s are aged under 18, separate parental consent is required; where the participant/s are unable to answer for themselves due to mental illness or disability, parental or guardian consent may be required.]

BẢN CHẤP THUẬN THAM GIA NGHIÊN CỨU

THÔNG TIN CHO NGƯỜI THAM GIA

Xin mời bạn tham gia vào một nghiên cứu về sự tương tác giữa học viên và người hướng dẫn trong môi trường học tiếng Anh trực tuyến.

Mục đích của nghiên cứu này là tìm hiểu xem tương tác trực tuyến giữa học viên và người hướng dẫn có thể giúp việc học tiếng Anh như thế nào.

XÁC NHẬN CỦA NGƯỜI THAM GIA

Tôi, _____ ,

là sinh viên Khoa _____ Trường Đại học Hà Nội, Việt Nam

xác nhận là tôi đã ít nhất 18 tuổi và tự nguyện đồng ý tham gia vào nghiên cứu mang tên "Tương tác học viên-người hướng dẫn trong môi trường học tiếng Anh: Nghiên cứu điển hình của một trường Đại học của Việt Nam" do Tiến sỹ Vijay Thalathoti của trường Đại học Victoria – Australia thực hiện.

Tôi xác nhận rằng mục tiêu của nghiên cứu này, cùng với các rủi ro và biện pháp đảm bảo an toàn theo quy trình ghi trong nghiên cứu này đã được nghiên cứu sinh Phạm Ngọc Thạch giải thích rõ ràng cho tôi biết và tôi tự nguyện đồng ý tham gia và cho phép nghiên cứu thực hiện (các) hoạt động sau:

- tiếp cận số liệu về học trực tuyến trong chương trình EDO: ☐
- tham gia điền phiếu khảo sát: ☐
- tham gia phỏng vấn: ☐
- tham gia thảo luận nhóm tập trung: ☐

Tôi xác nhận là tôi đã có cơ hội đặt câu hỏi và được trả lời đầy đủ, và hiểu rằng tôi có thể rút không tham gia vào nghiên cứu vào bất kỳ thời điểm nào, và việc rút không tham gia sẽ không ảnh hưởng tới tôi dưới bất kỳ hình thức nào. Tôi cũng được thông báo là những thông tin tôi cung cấp sẽ được giữ bí mật.

Ký tên: _____

Ngày: _____

Bạn có thể gửi bất kỳ thắc mắc nào liên quan đến việc tham gia vào nghiên cứu này cho nghiên cứu viên chính:

Tiến sỹ Vijay Thalathoti

Giảng viên chính, trường Đại học Victoria

Phone : +61 3 9919 4726

Email: vijay.thalathoti@vu.edu.au

Nếu bạn có bất kỳ thắc mắc hoặc khiếu nại nào về cách thức bạn bị đối xử trong quá trình tham gia vào nghiên cứu, bạn có thể liên hệ với thư ký, Ban Đạo đức trong Nghiên cứu Con người của trường Đại học Victoria, Australia. Hòm thư: PO Box 14428, Melbourne, VIC, 8001 hoặc điện thoại cho số + 61 3 9919 4781.

[*Ghi chú: Nếu người tham gia dưới 18 tuổi, cần phải có giấy cho phép riêng của bố mẹ. Nếu người tham gia không thể tự tham gia vì lý do tâm thần hoặc bị khuyết tật, cần phải có giấy cho phép của bố mẹ hoặc người bảo trợ]

B. INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH – SURVEY

You are invited to participate

You are invited to participate in a research project entitled "Learner–Instructor Interaction in an Online English Language Learning Environment: A Case Study of a Vietnamese University".

This project is being conducted by a student researcher, Mr Pham Ngoc Thach, as part of a PhD study at Victoria University Melbourne, Australia under the supervision of Dr Vijay Thalathoti and Dr Eva Dakich from School of Education the Faculty of Arts, Education and Human Development.

Project explanation

The focus of the research is to explore how interaction between learners and instructors as well as among learners in an online English learning environment helps learners to study English better. The study will be conducted in a Vietnamese higher education context.

As a case study, this research will collect quantitative and qualitative data from both learners and instructors to get their opinions about the patterns of interaction, the factors that facilitate and/or limit the interaction, and the best practices to enhance the interaction.

What will I be asked to do?

You are asked to participate in a survey (in English language) to provide useful information for the above research. The survey will be conducted in April 2012 and it will take approximately 15 minutes of your time. Participation in the survey is on the voluntary basis and you are free to withdraw at any time without prejudice.

What will I gain from participating?

By participating in this research you will be able to offer valuable insights about your personal experiences in studying English online. This information will assist your university, and other universities, to improve the quality of online English language learning for you and future groups of lecturers and learners.

How will the information I give be used?

Information that you provide will be used in the research thesis prepared by the student researcher, Mr Pham Ngoc Thach. All survey results, including comments, will be coded to ensure anonymity. Access to the data is restricted to researchers directly involved in the project and subject to rules for information storage according to requirements of Victoria University (Australia).

What are the potential risks of participating in this project?

There might be some social and psychological risks when taking part in the interviews and focus group sessions. The research team will provide necessary measures to minimise any potential risks, which are in accordance with the principles of human research ethics of Victoria University – Melbourne, Australia, and National Guidelines on human research ethics as well as the protocols of the Vietnamese university where the research

takes place. There will be almost no potential risks participating in filling in the questionnaire because it is anonymous.

How will this project be conducted?

The project will gather quantitative data about learners' frequency of interaction with their instructors in an online English language course (*English Discoveries Online*) using its teacher management system. A survey questionnaire will also be used to gather data on other aspects of online interaction such as modes, purposes of online interaction. Selected interviews will then be conducted with some selected lecturers and learners to get qualitative data on the same issues. Two focus group sessions will be organised with some selected lecturers and learners to consolidate the data for the research project.

Who is conducting the research?

- Dr Vijay Thalathoti (Chief Investigator)

  Email: vijay.thalathoti@vu.edu.au)
- Dr Eva Dakich (Co-Investigator)

  Email: eva.dakich@vu.edu.au
- Mr Pham Ngoc Thach (Student Researcher)

  Email: thach.pham@live.vu.edu.au

  Mob: +84913231773 (Viet Nam) +61430915558 (Australia)

Any queries about your participation in this project may be directed to the Student Researcher listed above.

If you have any queries or complaints about the way you have been treated, you may contact the Secretary, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 phone + 61 3 9919 4781.

THÔNG TIN CHO NGƯỜI THAM GIA NGHIÊN CỨU – KHẢO SÁT

Mời tham gia nghiên cứu

Mời ban tham gia vào đề tài nghiên cứu mang tên "Sự tương tác giữa học viên-người hướng dẫn trong môi trường học tiếng Anh trực tuyến: Nghiên cứu điển hình ở một trường đại học của Việt Nam".

Đây là đề tài nghiên cứu của nghiên cứu sinh Phạm Ngọc Thạch, hiện đang học tiến sỹ tại trường Đại học Victoria, thành phố Melbourne, Australia dưới sự hướng dẫn của Tiến sỹ Vijay Thalathoti và Tiến sỹ Eva Dakich, thuộc Bộ môn Giáo dục, Khoa Nghệ thuật, Giáo dục và Phát triển Con người.

Giải thích đề tài nghiên cứu

Trọng tâm của đề tài nghiên cứu này là tìm hiểu xem sự tương tác giữa học viên với người hướng dẫn, và giữa học viên với nhau trong môi trường học tiếng Anh trực tuyến có thể giúp học viên học tiếng Anh như thế nào. Nghiên cứu này sẽ được tiến hành trong bối cảnh giáo dục đại học ở Việt Nam.

Đây là nghiên cứu điển hình thu thập số liệu định lượng và định tính từ cả học viên và người hướng dẫn nhằm nắm bắt quan điểm của cả hai đối tượng trên về mô hình tương tác, các yếu tố thúc đẩy và/hoặc cản trở sự tương tác cũng như các biện pháp tốt nhất tăng cường sự tương tác.

Tôi sẽ được yêu cầu làm gì?

Bạn sẽ được yêu cầu tham gia khảo sát (bằng tiếng Anh) để cung cấp thông tin hữu ích cho nghiên cứu trên. Khảo sát sẽ được thực hiện vào tháng 4 năm 2012 và sẽ kéo dài khoảng 15 phút. Việc tham gia khảo sát mang tính tự nguyện và bạn có quyền từ chối không tham gia vào bất kỳ lúc nào mà không bị định kiến.

Tôi được gì khi tham gia?

Bằng việc tham gia và nghiên cứu này, bạn có thể cung cấp thông tin có giá trị về trải nghiệm của bạn trong việc học tiếng Anh trực tuyến. Thông tin này sẽ giúp cho trường của bạn và các trường đại học khác nâng cao chất lượng việc học tiếng Anh trực tuyến cho chính bạn và các nhóm giảng viên và học viên trong tương lai.

Thông tin tôi cung cấp sẽ được sử dụng như thế nào?

Thông tin bạn cung cấp sẽ được sử dụng trong luận án tiến sỹ của nghiên cứu sinh Phạm Ngọc Thạch. Kết quả khảo sát, bao gồm cả các ý kiến bình luận, sẽ được mã hóa nhằm đảm bảo tính khuyết danh. Chỉ những người tham gia nghiên cứu mới được tiếp cận với thông tin bạn cung cấp và phải tuân theo quy định và lưu trữ thông tin theo yêu cầu của trường Đại học Victoria (Australia)

Các rủi ro tiềm ẩn khi tham gia nghiên cứu này là gì?

Có thể có một số rủi ro mang tính xã hội và tâm lý khi tham gia phỏng vấn và thảo luận nhóm tập trung. Nhóm nghiên cứu sẽ cung cấp các biện pháp cần thiết nhằm giảm thiểu rủi ro có thể phát sinh, theo nguyên tắc đạo đức khi tiến hành nghiên cứu con người của Trường Đại học Victoria – Melbourne, Australia và hướng dẫn quốc gia về đạo đức nghiên cứu con người cũng như các thông lệ của trường đại học Việt Nam nơi nghiên cứu này được tiến hành. Hầu như không có rủi ro nào khi tham điền phiếu khảo sát vì việc khảo sát mang tính khuyết danh.

Nghiên cứu này được tiến hành như thế nào?

Nghiên cứu sẽ thu thập các thông tin định lượng về tần xuất tương tác trực tuyến giữa học viên với người hướng dẫn trong môi trường học tiếng Anh trực tuyến (chương trình *English Discoveries Online),* sử dụng hệ thống quản lý thông tin giáo viên. Nghiên cứu sẽ tiến hành khảo sát nhằm thu thập số liệu về các khía cạnh khác nhau của sự tương tác trực tuyến như hình thức, mục đích tương tác. Một số giảng viên và sinh viên sẽ được mời tham gia phỏng vấn nhằm cung cấp các thông tin định tính về các vấn đề tương tự. Sẽ có hai cuộc thảo luận nhóm tập trung với một số giảng viên và sinh viên để thu thập thông tin bổ sung cho đề tài nghiên cứu.

Ai sẽ tiến hành nghiên cứu?

- TS Vijay Thalathoti (Nghiên cứu viên chính)
  Email: vijay.thalathoti@vu.edu.au)
- TS Eva Dakich (Đồng nghiên cứu viên)

  Email: eva.dakich@vu.edu.au
- Ông Pham Ngoc Thach (Nghiên cứu sinh)

  Email: thach.pham@live.vu.edu.au

  Mob: +84913231773 (Viet Nam) +61430915558 (Australia)

Bạn có thể trực tiếp gửi thắc mắc về đề tài nghiên cứu này tới nghiên cứu sinh có tên ở trên. Nếu bạn có bất kỳ thắc mắc hoặc khiếu nại nào về cách thức bạn bị đối xử trong quá trình tham gia vào nghiên cứu, bạn có thể liên hệ với thư ký, Ban Đạo đức trong Nghiên cứu Con người của trường Đại học Victoria, Australia. Hòm thư: PO Box 14428, Melbourne, VIC, 8001 điện thoại (03) 9919 4781.

C. INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH – INTERVIEW

You are invited to participate

You are invited to participate in a research project entitled "Learner–Instructor Interaction in an Online English Language Learning Environment: A Case Study of a Vietnamese University".

This project is being conducted by a student researcher Pham Ngoc Thach as part of a PhD study at Victoria University Melbourne, Australia under the supervision of Dr Vijay Thalathoti and Dr Eva Dakich from School of Education the Faculty of Arts, Education and Human Development.

Project explanation

The focus of the research is to explore how interaction between learners and instructors as well as among learners in an online English learning environment helps learners to study English better. The study will be conducted in a Vietnamese higher education context.

As a case study, this research will collect quantitative and qualitative data from both learners and instructors to get their opinions about the patterns of interaction, the factors that facilitate and/or limit the interaction, and the best practices to enhance the interaction.

What will I be asked to do?

You are asked to participate in an interview (in Vietnamese language) to provide useful information for the above research. The interview will take about 30 minutes of your time, and will take place in the months of April and May 2012. The student researcher will contact you for the exact date and location of the interview. Participation in the interview is on the voluntary basis and you are free to withdraw at any time without prejudice.

What will I gain from participating?

By participating in this research you will be able to offer valuable insights about your personal experiences in studying English online. This information will assist your university, and other universities, to improve the quality of online English language learning for you and future groups of lecturers and learners.

How will the information I give be used?

Information that you provide will be used in the research thesis prepared by the student researcher, Mr Pham Ngoc Thach. All survey results, including comments, will be coded to ensure anonymity. Access to the data is restricted to researchers directly involved in the project and subject to rules for information storage according to requirements of Victoria University (Australia).

What are the potential risks of participating in this project?

There might be some social and psychological risks when taking part in the interviews and focus group sessions. The research team will provide necessary measures to minimise any potential risks, which are in accordance with the principles of human research ethics of Victoria University – Melbourne, Australia, and National Guidelines on human

research ethics as well as the protocols of the Vietnamese university where the research takes place. There will be almost no potential risks participating in filling in the questionnaire because it is anonymous.

How will this project be conducted?

The project will gather quantitative data about learners' frequency of interaction with their instructors in an online English language course (*English Discoveries Online*) using its teacher management system. A survey questionnaire will also be used to gather data on other aspects of online interaction such as modes, purposes of online interaction. Selected interviews will then be conducted with some selected lecturers and learners to get qualitative data on the same issues. Two focus group sessions will be organised with some selected lecturers and learners to consolidate the data for the research project.

Who is conducting the research?

- Dr Vijay Thalathoti (Chief Investigator)

  Email: vijay.thalathoti@vu.edu.au)
- Dr Eva Dakich (Co-Investigator)

  Email: eva.dakich@vu.edu.au
- Mr Pham Ngoc Thach (Student Researcher)

  Email: thach.pham@live.vu.edu.au

  Mob: +84913231773 (Viet Nam) +61430915558 (Australia)

Any queries about your participation in this project may be directed to the Student Researcher listed above. If you have any queries or complaints about the way you have been treated, you may contact the Secretary, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 phone + 61 3 9919 4781.

THÔNG TIN CHO NGƯỜI THAM GIA NGHIÊN CỨU – PHỎNG VẤN

Mời tham gia nghiên cứu

Mời ban tham gia vào đề tài nghiên cứu mang tên "Sự tương tác giữa học viên-người hướng dẫn trong môi trường học tiếng Anh trực tuyến: Nghiên cứu điển hình ở một trường đại học của Việt Nam".

Đây là đề tài nghiên cứu của nghiên cứu sinh Phạm Ngọc Thạch, hiện đang học tiến sỹ tại trường Đại học Victoria, thành phố Melbourne, Australia dưới sự hướng dẫn của Tiến sỹ Vijay Thalathoti và Tiến sỹ Eva Dakich, thuộc Bộ môn Giáo dục, Khoa Nghệ thuật, Giáo dục và Phát triển Con người.

Giải thích đề tài nghiên cứu

Trọng tâm của đề tài nghiên cứu này là tìm hiểu xem sự tương tác giữa học viên với người hướng dẫn, và giữa học viên với nhau trong môi trường học tiếng Anh trực tuyến có thể giúp học viên học tiếng Anh như thế nào. Nghiên cứu này sẽ được tiến hành trong bối cảnh giáo dục đại học ở Việt Nam.

Đây là nghiên cứu điển hình thu thập số liệu định lượng và định tính từ cả học viên và người hướng dẫn nhằm nắm bắt quan điểm của cả hai đối tượng trên về mô hình tương tác, các yếu tố thúc đẩy và/hoặc cản trở sự tương tác cũng như các biện pháp tốt nhất tăng cường sự tương tác.

Tôi sẽ được yêu cầu làm gì?

Bạn sẽ được yêu cầu tham gia phỏng vấn (bằng tiếng Việt) để cung cấp thông tin hữu ích cho nghiên cứu trên. Cuộc phỏng vấn sẽ được thực hiện vào tháng 4 và tháng 5 năm 2012 và sẽ kéo dài khoảng 30 phút. Nghiên cứu sinh sẽ liên hệ với bạn về thời gian và địa điểm chính xác của cuộc phỏng vấn. Việc tham gia phỏng vấn mang tính tự nguyện và bạn có quyền từ chối không tham gia vào bất kỳ lúc nào mà không bị định kiến.

Tôi được gì khi tham gia?

Bằng việc tham gia và nghiên cứu này, bạn có thể cung cấp thông tin có giá trị về trải nghiệm của bạn trong việc học tiếng Anh trực tuyến. Thông tin này sẽ giúp cho trường của bạn và các trường đại học khác nâng cao chất lượng việc học tiếng Anh trực tuyến cho chính bạn và các nhóm giảng viên và học viên trong tương lai.

Thông tin tôi cung cấp sẽ được sử dụng như thế nào?

Thông tin bạn cung cấp sẽ được sử dụng trong luận án tiến sỹ của nghiên cứu sinh Phạm Ngọc Thạch. Kết quả khảo sát, bao gồm cả các ý kiến bình luận, sẽ được mã hóa nhằm đảm bảo tính khuyết danh. Chỉ những người tham gia nghiên cứu mới được tiếp cận với thông tin bạn cung cấp và phải tuân theo quy định và lưu trữ thông tin theo yêu cầu của trường Đại học Victoria (Australia)

Các rủi ro tiềm ẩn khi tham gia nghiên cứu này là gì?

Có thể có một số rủi ro mang tính xã hội và tâm lý khi tham gia phỏng vấn và thảo luận nhóm tập trung. Nhóm nghiên cứu sẽ cung cấp các biện pháp cần thiết nhằm giảm thiểu rủi ro có thể phát sinh, theo nguyên tắc đạo đức khi tiến hành nghiên cứu con người của Trường Đại học Victoria – Melbourne, Australia và hướng dẫn quốc gia về đạo đức nghiên cứu con người cũng như các thông lệ của trường đại học Việt Nam nơi nghiên cứu này được tiến hành. Hầu như không có rủi ro nào khi tham điền phiếu khảo sát vì việc khảo sát mang tính khuyết danh.

Nghiên cứu này được tiến hành như thế nào?

Nghiên cứu sẽ thu thập các thông tin định lượng về tần xuất tương tác trực tuyến giữa học viên với người hướng dẫn trong môi trường học tiếng Anh trực tuyến (chương trình *English Discoveries Online),* sử dụng hệ thống quản lý thông tin giáo viên. Nghiên cứu sẽ tiến hành khảo sát nhằm thu thập số liệu về các khía cạnh khác nhau của sự tương tác trực tuyến như hình thức, mục đích tương tác. Một số giảng viên và sinh viên sẽ được mời tham gia phỏng vấn nhằm cung cấp các thông tin định tính về các vấn đề tương tự. Sẽ có

hai cuộc thảo luận nhóm tập trung với một số giảng viên và sinh viên để thu thập thông tin bổ sung cho đề tài nghiên cứu.

Ai sẽ tiến hành nghiên cứu?

- TS Vijay Thalathoti (Nghiên cứu viên chính)

  Email: vijay.thalathoti@vu.edu.au)
- TS Eva Dakich (Đồng nghiên cứu viên)

  Email: eva.dakich@vu.edu.au
- Ông Pham Ngoc Thach (Nghiên cứu sinh)

  Email: thach.pham@live.vu.edu.au

  Mob: +84913231773 (Viet Nam) +61430915558 (Australia)

Bạn có thể trực tiếp gửi thắc mắc về đề tài nghiên cứu này tới nghiên cứu sinh có tên ở trên. Nếu bạn có bất kỳ thắc mắc hoặc khiếu nại nào về cách thức bạn bị đối xử trong quá trình tham gia vào nghiên cứu, bạn có thể liên hệ với thư ký, Ban Đạo đức trong Nghiên cứu Con người của trường Đại học Victoria, Australia. Hòm thư: PO Box 14428, Melbourne, VIC, 8001 điện thoại (03) 9919 4781.

D. INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH – FOCUS GROUP

You are invited to participate

You are invited to participate in a research project entitled "Learner–Instructor Interaction in an Online English Language Learning Environment: A Case Study of a Vietnamese University".

This project is being conducted by a student researcher Pham Ngoc Thach as part of a PhD study at Victoria University Melbourne, Australia under the supervision of Dr Vijay Thalathoti and Dr Eva Dakich from School of Education the Faculty of Arts, Education and Human Development.

Project explanation

The focus of the research is to explore how interaction between learners and instructors as well as among learners in an online English learning environment helps learners to study English better. The study will be conducted in a Vietnamese higher education context.

As a case study, this research will collect quantitative and qualitative data from both learners and instructors to get their opinions about the patterns of interaction, the factors that facilitate and/or limit the interaction, and the best practices to enhance the interaction.

What will I be asked to do?

You are asked to participate in a focus group discussion (in Vietnamese language) to provide useful information for the above research. The discussion will be conducted in May 2012 and it will take approximately two hours. The student researcher will contact you for the exact date and location of the discussion. Participation in the discussion is voluntary and you are free to withdraw at any time without prejudice.

What will I gain from participating?

By participating in this research you will be able to offer valuable insights about your personal experiences in studying English online. This information will assist your university, and other universities, to improve the quality of online English language learning for you and future groups of lecturers and learners.

How will the information I give be used?

Information that you provide will be used in the research thesis prepared by the student researcher, Mr Pham Ngoc Thach. All survey results, including comments, will be coded to ensure anonymity. Access to the data is restricted to researchers directly involved in the project and subject to rules for information storage according to requirements of Victoria University (Australia).

What are the potential risks of participating in this project?

There might be some social and psychological risks when taking part in the interviews and focus group sessions. The research team will provide necessary measures to minimise any potential risks, which are in accordance with the principles of human research ethics of Victoria University – Melbourne, Australia, and National Guidelines on human

research ethics as well as the protocols of the Vietnamese university where the research takes place. There will be almost no potential risks participating in filling in the questionnaire because it is anonymous.

How will this project be conducted?

The project will gather quantitative data about learners' frequency of interaction with their instructors in an online English language course (*English Discoveries Online*) using its teacher management system. A survey questionnaire will also be used to gather data on other aspects of online interaction such as modes, purposes of online interaction. Selected interviews will then be conducted with some selected lecturers and learners to get qualitative data on the same issues. Two focus group sessions will be organised with some selected lecturers and learners to consolidate the data for the research project.

Who is conducting the research?

- Dr Vijay Thalathoti (Chief Investigator)

  Email: vijay.thalathoti@vu.edu.au)
- Dr Eva Dakich (Co-Investigator)

  Email: eva.dakich@vu.edu.au
- Mr Pham Ngoc Thach (Student Researcher)

  Email: thach.pham@live.vu.edu.au

  Mob: +84913231773 (Viet Nam) +61430915558 (Australia)

Any queries about your participation in this project may be directed to the Student Researcher listed above. If you have any queries or complaints about the way you have been treated, you may contact the Secretary, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 phone + 61 3 9919 4781.

THÔNG TIN CHO NGƯỜI THAM GIA NGHIÊN CỨU – THẢO LUẬN NHÓM TẬP TRUNG

Mời tham gia nghiên cứu

Mời ban tham gia vào đề tài nghiên cứu mang tên "Sự tương tác giữa học viên-người hướng dẫn trong môi trường học tiếng Anh trực tuyến: Nghiên cứu điển hình ở một trường đại học của Việt Nam".

Đây là đề tài nghiên cứu của nghiên cứu sinh Phạm Ngọc Thạch, hiện đang học tiến sỹ tại trường Đại học Victoria, thành phố Melbourne, Australia dưới sự hướng dẫn của Tiến sỹ Vijay Thalathoti và Tiến sỹ Eva Dakich, thuộc Bộ môn Giáo dục, Khoa Nghệ thuật, Giáo dục và Phát triển Con người.

Giải thích đề tài nghiên cứu

Trọng tâm của đề tài nghiên cứu này là tìm hiểu xem sự tương tác giữa học viên với người hướng dẫn, và giữa học viên với nhau trong môi trường học tiếng Anh trực tuyến có thể giúp học viên học tiếng Anh như thế nào. Nghiên cứu này sẽ được tiến hành trong bối cảnh giáo dục đại học ở Việt Nam.

Đây là nghiên cứu điển hình thu thập số liệu định lượng và định tính từ cả học viên và người hướng dẫn nhằm nắm bắt quan điểm của cả hai đối tượng trên về mô hình tương tác, các yếu tố thúc đẩy và/hoặc cản trở sự tương tác cũng như các biện pháp tốt nhất tăng cường sự tương tác.

Tôi sẽ được yêu cầu làm gì?

Bạn sẽ được yêu cầu tham gia thảo luận nhóm tập trung (bằng tiếng Việt) để cung cấp thông tin hữu ích cho nghiên cứu trên. Cuộc thảo luận sẽ được thực hiện vào tháng 5 năm 2012 và sẽ kéo dài khoảng hai tiếng. Nghiên cứu sinh sẽ liên hệ với bạn về thời gian và địa điểm chính xác của cuộc thảo luận. Việc tham gia thảo luận mang tính tự nguyện và bạn có quyền từ chối không tham gia vào bất kỳ lúc nào mà không bị định kiến.

Tôi được gì khi tham gia?

Bằng việc tham gia và nghiên cứu này, bạn có thể cung cấp thông tin có giá trị về trải nghiệm của bạn trong việc học tiếng Anh trực tuyến. Thông tin này sẽ giúp cho trường của bạn và các trường đại học khác nâng cao chất lượng việc học tiếng Anh trực tuyến cho chính bạn và các nhóm giảng viên và học viên trong tương lai.

Thông tin tôi cung cấp sẽ được sử dụng như thế nào?

Thông tin bạn cung cấp sẽ được sử dụng trong luận án tiến sỹ của nghiên cứu sinh Phạm Ngọc Thạch. Kết quả khảo sát, bao gồm cả các ý kiến bình luận, sẽ được mã hóa nhằm đảm bảo tính khuyết danh. Chỉ những người tham gia nghiên cứu mới được tiếp cận với thông tin bạn cung cấp và phải tuân theo quy định và lưu trữ thông tin theo yêu cầu của trường Đại học Victoria (Australia)

Các rủi ro tiềm ẩn khi tham gia nghiên cứu này là gì?

Có thể có một số rủi ro mang tính xã hội và tâm lý khi tham gia phỏng vấn và thảo luận nhóm tập trung. Nhóm nghiên cứu sẽ cung cấp các biện pháp cần thiết nhằm giảm thiểu rủi ro có thể phát sinh, theo nguyên tắc đạo đức khi tiến hành nghiên cứu con người của Trường Đại học Victoria – Melbourne, Australia và hướng dẫn quốc gia về đạo đức nghiên cứu con người cũng như các thông lệ của trường đại học Việt Nam nơi nghiên cứu này được tiến hành. Hầu như không có rủi ro nào khi tham điền phiếu khảo sát vì việc khảo sát mang tính khuyết danh.

Nghiên cứu này được tiến hành như thế nào?

Nghiên cứu sẽ thu thập các thông tin định lượng về tần xuất tương tác trực tuyến giữa học viên với người hướng dẫn trong môi trường học tiếng Anh trực tuyến (chương trình *English Discoveries Online),* sử dụng hệ thống quản lý thông tin giáo viên. Nghiên cứu sẽ tiến hành khảo sát nhằm thu thập số liệu về các khía cạnh khác nhau của sự tương tác trực tuyến như hình thức, mục đích tương tác. Một số giảng viên và sinh viên sẽ được mời tham gia phỏng vấn nhằm cung cấp các thông tin định tính về các vấn đề tương tự. Sẽ có

hai cuộc thảo luận nhóm tập trung với một số giảng viên và sinh viên để thu thập thông tin bổ sung cho đề tài nghiên cứu.

Ai sẽ tiến hành nghiên cứu?

- TS Vijay Thalathoti (Nghiên cứu viên chính)

  Email: vijay.thalathoti@vu.edu.au)
- TS Eva Dakich (Đồng nghiên cứu viên)

  Email: eva.dakich@vu.edu.au
- Ông Pham Ngoc Thach (Nghiên cứu sinh)

  Email: thach.pham@live.vu.edu.au

  Mob: +84913231773 (Viet Nam) +61430915558 (Australia)

Bạn có thể trực tiếp gửi thắc mắc về đề tài nghiên cứu này tới nghiên cứu sinh có tên ở trên. Nếu bạn có bất kỳ thắc mắc hoặc khiếu nại nào về cách thức bạn bị đối xử trong quá trình tham gia vào nghiên cứu, bạn có thể liên hệ với thư ký, Ban Đạo đức trong Nghiên cứu Con người của trường Đại học Victoria, Australia. Hòm thư: PO Box 14428, Melbourne, VIC, 8001 điện thoại (03) 9919 4781.

Appendix 6: Statement of audit trail

UNIVERSITY OF LANGUAGES & INTERNATIONAL STUDIES

VIETNAM NATIONAL UNIVERSITY (VNU)
Pham Van Dong Road, Cau Giay District, Hanoi, Vietnam
Telephone: (84-4) 3754 7269; Fax: (84-4) 37548057
Website: http://ulis.vnu.edu.vn/english/

Melbourne, 11 January, 2013
I have had the chance to read parts of the study by Thach Ngoc Pham and certify that:

1. I have randomly sampled 06 interviews in Vietnamese (3 with teachers and 3 with students) and found that the transcripts accurately match what is said in respective audio interview files.
2. The selection interview transcription to be used in chapters regarding results of data analysis and discussion is a fair representation of the respective interviews.
3. The English translation of interview and focus group discussion scripts reflects accurately their meanings.
4. The open-ended materials in the questionnaire are fairly coded.
5. I have also checked the English – Vietnamese versions of the study documents (i.e. the questionnaire, information sheet, consent form) and found that the meanings of the two versions are the same.

Appendix 7: Codebook for survey questionnaire

No.	Full variable name	SPSS variable name	Coding instruction (values)	Note
1.	Identification number	ID	1–207	
2.	Where from	Origin	1 = Hanoi, 2 = Bacgiang, 3 = Bacninh, 4 = Haiduong, 5 = Haiphong, 6 = Hatinh, 7 = Hungyen, 8 = Langson, 9 = Namdinh, 10 = Ninhbinh, 11 = Phutho, 12 = Quangninh, 13 = Sonla, 14 = Thaibinh, 15 = Thainguyen, 16 = Thanhhoa, 17 = Vinhphuc, 18 = Yenbai, 99 = missing	
3.	Year of birth	Age	18, 19, 20, 21, 22	
4.	Sex	Sex	1 = female 2 = male	
5.	Where to use internet	Wherein	1 = lib 2 = home 3 = cafe 4 = labs 5 = boarding 6 = others	
6.	Where to use EDO	Whereedo	1 = lib 2 = home 3 = cafe 4 = labs 5 = boarding 6 = others	
7.	How confident to use internet	Confiin	5 = very confident 4 = confident 3 = normal 2 = not very confident 1 = not at all	
8.	How long to use EDO	Longed	1 = <3 months 2 = 3–6 months 3 = 7–9 months 4 = 10–12 months 5 = longer	
9.	Communication tool with other learners	Toollearner	1 = landline phones 2 = mobile phone 3 = email 4 = social network 5 = others	
10.	Communication tool with instructors	Toolinstructor	1 = landline phones 2 = mobile phone 3 = email 4 = social network 5 = others	

No.	Full variable name	SPSS variable name	Coding instruction (values)	Note
11.	Communication tool with EDO	Tooledo	1 = community discussion 2 = class discussion 3 = youwho 4 = webpal 5 = support	
12.	Frequency of interaction with instructors: 11.1 daily 11.2 weekly 11.3 monthly	Freqins	1 = community discussion 2 = class discussion 3 = youwho 4 = webpal 5 = support 6 = others	
13.	Frequency of interaction with other learners: 11.1 daily 11.2 weekly 11.3 monthly	Freql	1 = community discussion 2 = class discussion 3 = youwho 4 = webpal 5 = others	
14.	Whom to interact	Whom	1 = instructors 2 = other learners	
15.	Mode of interaction	Mode	1 = synchronous 2 = asynchronous	
16.	Purpose of interaction with instructors	Purposeinstructor	1 = test to see if/how the system works 2 = report technical problems 3 = ask for technical support 4 = get to know more about him/her 5 = acknowledge support 6 = read feedback 7 = respond to the instructor's questions and comments 8 = submit homework 9 = ask questions about English language learning 10 = I have never interacted online with the instructor 11 = other purposes	11 sub-cases

No.	Full variable name	SPSS variable name	Coding instruction (values)	Note
17.	Purpose of interaction with other learners	Purposelearner	1 = test to see if/how the system works 2 = ask for technical support 3 = provide technical support 4 = get to know more about him/her 5 = acknowledge their support 6 = comment on their posts 7 = ask questions about English language learning 8 = respond to a question/comment 9 = share additional learning resource(s) 10 = interact with learners from other countries 11 = I have never interacted online with other learners 12 = other purposes	12 sub-cases
18.	17.1 Ability to communicate in English 17.2, 17.3, ... 17.21 Joy of interaction with other learners	Factor1 to Factor21	5 = extremely important 4 = very important 3 = important 2 = no opinion 1 = not important 88 = error (tick more than one sub-item) 99 = missing	21 sub-cases
19.	Usefulness of interaction with instructors	Usefullnessinstructor	5 = extremely useful 4 = very useful 3 = useful 2 = not very useful 1 = not useful at all	
20.	Usefulness of interaction with other learners	Usefullnesslearner	5 = extremely useful 4 = very useful 3 = useful 2 = not very useful 1 = not useful at all	
21.	20.1 My instructor provides clear instructions on how to use the course 20.2, 20.3, ... 20.12 I can apply the knowledge in this course to other activities	Opinion1 to Opinion12	5 = strongly agree 4 = agree 3 = no opinion 2 = disagree 1 = strongly disagree	12 sub-cases

No.	Full variable name	SPSS variable name	Coding instruction (values)	Note
22.	How interaction helps to learn English?	Contribute1 to Contribute7	1 = it helps to explain my mistakes 2 = it presents me with examples of grammatically correct language 3 = it helps me understand grammatical points 4 = it reminds me of the assignment that i have to do 5 = it helps to improve my writing skills 6 = it helps to improve my reading comprehension skills 7 = it makes me think in English 8 = others	7 sub-cases
23.	Further opinions	Moreop	1 = technical problems 2 = compatibility with other browsers 3 = etc. 4 = 5 =	