

**Using Telecollaboration in ICC Education: EFL Teachers' Telecollaborative Competence
and Perception of Intercultural Competence in Chinese Universities**

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Legend

- ACMC (asynchronous computer-mediated communication): Communication that takes place between human beings via asynchronous communication tools of computers
- CALL (computer-assisted language learning): A research field in second language education, studying the application of the computer in language teaching and learning.
- CEFR (Common European Framework of Reference for Languages: Learning, Teaching, Assessment): A guideline to describe language ability published by the Council of Europe in 2001
- CET 4 (College English Test 4): A national English proficiency test in China.
- CMC (computer-mediated communication): Communication that takes place between human beings via the instrumentality of computers.
- CPD (continuing professional development)
- EFL (English as a foreign language)
- FL (foreign language)
- IC (intercultural competence): The ability to manage effectively and appropriately interaction between people who, to some degree or another, represent different or divergent affective, cognitive, and behavioral orientations to the world.
- ICC (intercultural communicative competence): Complex abilities that are required to perform effectively and appropriately when interacting with others who are linguistically and culturally different from oneself
- ICT (information and communication technology)
- L2 (second language)
- SCMC (synchronous computer-mediated communication): Communication that takes place between human beings via synchronous communication tools of computers
- TPACK (technological pedagogical and content knowledge): Competences to choose, operate and use particular technologies in teaching as teachers defined by Mishra and Koehler (2006)

Abstract

As the inseparable relationship between culture and language is progressively accepted, the field of second/foreign language teaching has undergone an objective shift to intercultural competence since 1990s. This intercultural turn is accompanied and facilitated by the rapid advance in networkable communication technology. More recently, telecollaboration has been utilized in IC teaching and attested very conducive to learners' linguistic and IC development, more if practiced by competent teachers. However, despite the official recognition of IC and the universal access to online communication tools and the Internet, IC teaching in Chinese universities remains dominated by cultural knowledge indoctrination, with few telecollaboration projects established and telecollaborative competence of the teacher unexamined. To bridge this gap, the present study investigated the status quo of EFL teachers' IC understanding and telecollaborative competence in Chinese universities and explored effective approaches to improve them through a quantitative survey and follow-up interviews. The quantitative analysis of data collected by a web-based survey revealed that participants were familiar with the IC concept but had a vague understanding of what it is and were competent at telecollaboration overall but had less self-confidence in pedagogical competences and organizational competences. Further analysis identified three determinants of their understanding and competence, namely the duration of overseas experiences, IC training and telecollaboration experiences. The qualitative analysis of data from the follow-up interviewing echoed the quantitative findings and indicated that longer stay abroad offered full immersion in another culture with opportunities for social contacts and various activities; IC training provided theoretical updates and practical teaching approaches; telecollaboration experiences exposed the problems in real online exchanges and improved teachers' problem-solving ability. Based on the qualitative findings, this study proposed suggestions on the three determinants. This exploratory study seeks to provide empirical data for future research on EFL teacher professional development in China and to promote intercultural telecollaboration teaching worldwide.

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Chapter 1

Introduction

The development of communication and transportation technology contributes to the closer connection of different parts of the world and the increasing online and/or face-to-face communication among people from diverse cultures (Chen & Starosta, 2012). However, many people still encounter confusion, misunderstanding, and even conflicts during intercultural contact. Thus, there arises an urgent need to develop mutual understanding and to communicate effectively and appropriately with people from different cultures. According to Bok (2009), in the future cosmopolitan world younger generations are bound to interaction with foreign nationals and different ethnic groups and feel the influence of different values and cultures, and educational institutions must play a central role in helping prepare them for these trends (p. x).

Scholars such as Byrnes (2002) or Chun and Barbara (2011), maintain that culture is inextricably bound together with language. Intercultural communication does not necessarily involve foreign languages. However, people speaking different languages are more likely to confront cultural differences in exchanges. Thus, culture plays an intrinsic role in the field of second language (L2) education. This has been acknowledged by language teaching policies in some countries and areas, such as the USA and Europe. The *National Standards for Foreign Language Learning* (ACTFL, 2006) in the USA underlined that “language use must be seen as embedded in diverse social activities in the lives of people and peoples around the globe” (p. 316). The *Common European Framework of References for Languages* (CEFR) stated that “in any communicative situation, general competences (e.g., knowledge of the world, socio-cultural competence, intercultural competence, professional experience...) are always combined with communicative language competences (linguistic, sociolinguistic and pragmatic competences...), and strategies (...) in order to complete a task” (Council of Europe, 2018, p. 29). *China’s Guidance to College English Teaching* has also shown the recognition of the inseparable connection between culture and language and included intercultural education as one of its three fundamental goals, together with communicative competence and autonomous learning ability (MOE Advisory Board for Foreign Language Teaching, 2020). It suggested that college students needed to “understand foreign societies and cultures, and enhance their perception of different cultures, awareness of the similarities and differences between Chinese and foreign cultures, and intercultural communicative competence” (p. 4).

With the gradual promotion of the *Guidance*, college English teachers have become increasingly aware of the importance of culture and applied this awareness to their teaching practice. However, the English learning and teaching environment has not fundamentally improved, which means the overwhelming majority of the learners still have few opportunities to interact with English speakers. In response to this unchanged environment and the recommendations in the *Guidance*, the intercultural teaching in China has remained at the phase in which foreign cultural knowledge is introduced and compared with Chinese culture in college English classes. For learners who have been mainly engaged with drills and written papers on basic linguistic skills for around 10 years, stories of cultural knowledge are undoubtedly more compelling and entertaining. Nevertheless, teaching the cultural knowledge makes teachers the only authority in class. This either adds to the workload of language teachers or increases the risk of teaching stereotypes. Furthermore, to a limited degree the acquisition of cultural knowledge enhances students' intercultural communicative competence (ICC). Listening to cultural facts told by teachers may potentially promote learners' cultural awareness but may not effectively enhance their intercultural skills and critical cultural awareness. This study maintains that endeavors are needed to improve the environment of English learning and teaching in China so as to promote students' active learning.

There are different ways to provide college English learners adequate opportunities for intercultural communication, such as studying abroad or connecting students with people from other cultures who are living in China such as international students. In view of the ubiquitous use of the Internet and rapid development of technology, I decided to explore the use of technology-assisted communication, to be specific telecollaboration in intercultural teaching. In the field of language education, *telecollaboration*, also known as online intercultural exchange, can be framed as “an embedded, dialogic process that supports geographically distanced collaborative work through social interaction, involving a/synchronous communication technology so that participants co-produce mutual objective(s) and share knowledge-building” (Sadler & Dooly, 2016, p. 402). Teachers' qualification has a decisive effect on the success of online intercultural exchanges as they may participate in every step of a project. The tremendous difference between telecollaboration and traditional foreign language (FL) teaching poses great challenges to teachers. As their role changes, I argue that college English teachers need to develop new competences to use telecollaboration to effectively promote students' ICC. Thus, as

I will elaborate on below, the purpose of my study is to explore how to improve English as a Foreign Language (EFL) teachers' telecollaborative competence in Chinese universities and ultimately better develop students' ICC.

Subject Position of the Researcher

To help readers better understand me as an investigator of this study, I state my personal subject position in this section, which includes a description of my personal experiences as an English learner and teacher, which provoked my motivation for conducting this study and an introduction of my episteme that determined the methods of this study.

Personal Experiences as an English Learner

Foreign language learning is required in compulsory school education in most Chinese places except for the remote mountain areas where teachers are unavailable. Apart from the northeast areas that had been colonized by Japan, English is the foreign language with the largest number of learners now. English has been included in the college entrance examination since 1977. At that time, the keen desire to learn from developed English-speaking countries inspired an increasing number of Chinese to learn the language although there was lack of occasions on which English can be used in daily life. The desire has further developed with the issue of the opening-up policy. As a Chinese woman, I started learning English in the fifth grade, mainly focusing on vocabulary and grammar. This focus on linguistic competence continued in my secondary education, where linguistic skills, such as listening, reading, and writing, were given priority in the context of preparing students for college entrance examinations. As a woman, I like communicating with others. However, like most English learners in China, I hardly had the chance to use the language in real communication. This situation was improved to a limited extent after I enrolled in an English program at university where I had more opportunities to communicate with English native speakers, including foreign teachers and a group of American tourists. I realized that real exchange with visitors from English-speaking countries was different from what I had learned from textbooks. Although I could not completely understand them as they spoke, I found the experience very interesting and stimulating for my English learning.

Personal Experiences as an English Teacher

After graduation from the university in 2001, I embarked on my teaching career as an EFL teacher working with learners from non-English majors in a non-key university in Jiangsu province, China. English learning remained compulsory in the university. My teaching

experience allowed me to recognize that test-oriented English teaching and learning failed to fully fulfill its essential communicative function and undermined students' motivation. The opportunity for learners to speak English remained rare. As required by the university, non-English majors had to pass an English proficiency test for graduation, which became their top priority of English learning. According to my learning experiences as an English major student, I believe that language should not be learned for test paper writing. Unlike English majors who will probably earn their living through the language, I think that non-English majors are able to know more about this world, make more friends and broaden their horizon through learning the language. Thus, I always encourage my students to use authentic resources in English on topics that they are interested in for learning rather than memorize grammar rules and English words in textbooks by rote.

As a college English teacher, I have also witnessed the significant changes in the use of technology in English teaching in China. In my own teaching, I have used information and communication technology (ICT) to share teaching resources, organize learning activities, collect assignments, and communicate with students, such as course management systems like *Mosoteach* and social networking applications like *QQ*. With the development of technology, these tools have become increasingly user-friendly. They help improve teaching efficiency, connect students and teachers after class, and record students' performance in and out of class. I have a positive attitude toward the deep integration of technology in college English teaching. However, I found that they are not panaceas. The use of ICT alone does not seem to be effective in improving student motivation, learning autonomy, or critical thinking abilities. Moreover, the emerging network applications increase teachers' workload, particularly for those senior staff who found it confusing to learn new software.

My Episteme

I believe that knowledge construction equally relies on environment and the internalization of knowledge. My English speaking improved dramatically when I accompanied a group of Americans as a tourist guide for seven days. However, my progress was not as noticeable when I had speaking classes with native speaker teachers. Different environment provided me with varied opportunities to use the language. The one-to-one interpretation task naturally created more opportunities and greatly increased my willingness to participate. As a teacher I found that students in the same class achieved different learning results. Although they

had the same instruction to follow and the same tasks to complete, they had varied cognitive abilities, comprehension abilities and autonomous abilities. The personal abilities led to different levels of knowledge internalization.

In the context of FL learning, learners are exposed to very limited opportunities for real communication with the language speaker. They, instead, develop their target language competence through reading textbooks, doing drills and joining in artificial interactions. This diminishes their learning effectiveness and also damages their learning motivation. Thus, I attach more importance to the external environment, particularly social communication than personal abilities in this context. Language and culture are the products of social interaction. I believe that the proper use of the target language needs to be constructed in the process of communication. This is also true with culture construction.

It needs to be noted that socially constructed knowledge is confined to the builders' cognitive ability and their previous experiences. The knowledge, thus, needs to be critically scrutinized and be continually revised. Stereotypes, prejudices and bias are good examples in this case. I found there were biased opinions about foreigners. For example, people from economically developed countries were more likely to be considered as wealthy, well-educated and respectable. It needs to be noted, though sex discrimination can be detected in China, I cannot recall any differential treatments myself as a Chinese woman.

Outline of the Dissertation

The rest of this thesis consists of nine chapters.

In Chapter 2, *Context*, I describe the context of this study from two aspects, EFL learning and teaching in China and the use of technology in FL teaching in China. First, I describe the status quo of EFL learning and teaching and the intercultural turn of FL teaching in China. Second, I describe the Internet and technology use in China to show the technological feasibility of telecollaboration in Chinese universities. After providing the background, I explicitly point out the problems in FL teaching practice in China are insufficient integration of IC in FL teaching in practice and wasted potential of technology for more opportunities of authentic communication. These two problems in practice are prime motives for this present study.

In Chapter 3, *Literature Review*, I scrutinize the relevant literature to determine the theoretical framework for this study, justify the choice of computer-mediated communication (CMC) for ICC development and identify the gap in existing research. First, I outline changing

patterns in the focus of language teaching to show how ICC gained its weight. Then I overview the widely accepted definitions of ICC and propose my own construction of this concept. Changes in the interpretation of culture and the distinction between IC and ICC are then discussed for readers' better understanding of ICC. After this, I assess ICC models formulated by foreign and domestic researchers and provide the rationale for selecting Byram's (1997) ICC model as one theoretical framework for this study. Subsequently, I briefly overview varied technologies that has been used in L2 teaching to identify an appropriate tool for ICC development. I review the existing research on ICC development and pinpoint an effective and a practical approach, CMC. After this, I examine the results of research on ICC development via CMC, which helps narrow down the focus of this study to a critical factor that is considered responsible for the success of telecollaboration, namely the teacher. Informed by literature, I define the role of the teacher in telecollaboration, the competences they need to have and provide the rationale for selecting O'Dowd's (2015) model of telecollaborative competence for teachers as the other underpinning theory for this study. I finalize this chapter by stating the gap in extant literature on relevant topics in the Chinese context.

In Chapter 4, *Theoretical Framework*, I provide a detailed introduction of underpinning theories. Because the rationale has been discussed in Chapter 3, this chapter begins with a detailed and critical examination of Byram's ICC model, which gives me a deep insight into it and lays a solid foundation for the analysis of participants' IC understanding. After this, O'Dowd's model is introduced in detail, including the specific procedures that the researcher followed to complete his study and the list of 41 indicators that he ultimately achieved to construct the competence.

In Chapter 5, *Research Methodology*, I discuss the methodology that I employ for the present study from its epistemological position to the precise actions taken in this process and the ethical concerns. First, I clarify the concepts of epistemology, methodology and methods and discuss the connection between them in case different interpretations existed among readers. Then I explain the epistemological position of this study and the particular methods employed accordingly. The section of methods starts from a detailed description of the ethical considerations concerning participant recruitment, anonymity, confidentiality, privacy, and local policies. After this, I specify the methodological procedures of how this study was carried out, from recruitment and participants, the design of the data collection instruments, the data

collection procedures to the preparations for data analysis and the rationale for the analysis method. I also provide contextual information about the universities where EFL teachers worked, the overall descriptive data of participants and a brief biography of each participating teacher.

In Chapter 6, *Findings of the Web-Based Survey*, I present the results in the order of research questions, status quo of telecollaborative competence and understandings of IC and associated factors with them. For the status quo, I first present the mean of each construct and conduct content analysis of the text data by coding them according to Byram's construction of ICC. After this, I use t-test to identify the associated variables of the overall telecollaborative competence, its four components and IC understanding. Subsequently, I examine the interplay of the independent variables to refine the determinants. I also use Mann-Whitney test to measure the correlations between the independent variables and individual items with the intention of deriving more from the quantitative data. The findings of this chapter address the first three research questions on teachers' current IC understanding and telecollaborative competence and also successfully pinpoint three focuses for the follow-up interview.

In Chapter 7, *Findings of the Follow-Up Interview*, I report the results of content analysis and critical analysis in one subsection of IC and the other subsection of telecollaborative competence. The former subsection includes the findings of teachers' IC understanding, their attitudes toward integrating IC teaching with FL teaching, IC teaching that they had already done, and the IC training that they had received. The findings in relation to teachers' telecollaborative competence are reported in four aspects, teachers' understanding of telecollaboration, their attitudes towards using it in IC teaching, their experiences with telecollaboration projects and their overseas experiences that had been recognized as a contributing factor for attitudes and pedagogical competence. The findings in this chapter support those in Chapter 5 and, more importantly, provide rich data for the last research question regarding the development of teachers' understanding and competence.

In Chapter 8, *Discussion*, I articulate my understanding of all the findings and propose suggestions that I believe will effectively enhance teachers' IC understanding and telecollaborative competence. The discussion is unfolded from IC understanding, telecollaborative competence and improvement of teachers' IC understanding and telecollaborative competence. Problems that have been diagnosed in the analysis are carefully examined in this chapter through exploring the reasons and analyzing the impact. Then informed

suggestions are offered concerning the three determinants, namely overseas experiences, professional education and telecollaboration projects. In the end, as a novice researcher, I reflect on the use of both quantitative and qualitative methods to inform my future research.

In Chapter 9, *Conclusion*, I summarize the major findings of this research, both quantitative and qualitative. I also reflect upon the limitations of the study and stress the major implications of this study to further research.

Significance of the Research

Byram and Wagner (2018) argued that language education needed to play a leading role in the development of students' ICC. This posed a big challenge to language educators. This study helped to interpret how ready EFL teachers were to face this challenge in the Chinese context by exploring their understanding of IC and their telecollaborative competence. The results from the questionnaire revealed teachers' familiarity of IC or ICC and their report of IC components. It may help to identify the problems in terms of EFL teachers' cognition. The questionnaire survey also depicted a whole picture of teachers' telecollaborative competence to examine whether they were capable of enhancing students' IC/ICC through telecollaboration. The problems of teachers' telecollaborative competence and IC understanding found in this study will inform future research in this field of what to start with. In this case, this study informs future teaching professional development and helps them adjust to their professional identity change. As this has yet been scrutinized in China, this study offers valuable enrichment for intercultural language education in China and potential implication for teachers in other similar non-English speaking contexts.

Furthermore, this study made an exploration of an under-examined approach to EFL teaching in the Chinese context. The lack of opportunity for using the target language has always been an obstacle for English learners in China. It not only consolidated the purpose of English learning to be examinations but also reduced the motivation for learning. Teaching practice to improve the language ability or intercultural competence in this environment achieved limited outcomes. Telecollaboration, the focus of this study, is a practical option to change this situation. The promotion of online intercultural exchanges will bring a revolutionary impact on FL education in China.

The questionnaire adapted by this study may serve as an instrument to measure EFL teachers' related competence and understanding in the context of Chinese FL education. This

study adapted O'Dowd's telecollaborative competence for teachers to be a scale and extended it by adding seven closed-ended questions about the familiarity of ICC and IC and one open-ended question about the components of IC. The combination of telecollaborative competence and IC understanding enhanced the intercultural orientation of the competence. The model was formulated with perspectives from FL experts and experienced practitioners in Europe, North and South America and Australasia. The Chinese version of the model, which was translated by the investigator in this study, also achieved satisfactory validity and reliability.

In view of the universal acknowledgement of IC education and the vague perception of IC and telecollaboration among participants of this study, this study contributes to wider recognition of intercultural online exchanges as an effective approach for IC education. Some interviewees in this study expressed their positive anticipation in the effectiveness of telecollaboration after having been told what it is. More recognition of the affordance of telecollaboration for IC education may hopefully inspire more teaching practice.

The study also contributed to the theoretical development of teacher telecollaborative competence. O'Dowd's model of teachers' telecollaborative competence was formulated on the comments of experts and experienced practitioners of telecollaboration located all over the globe. However, its reliability for survey has yet been tested in the Chinese context. This study provides evidence for its consistency in a different context and empirical data if it needs further development.

Chapter 2

Context

Driven by the need for domestic economic development, China officially launched the policy of reform and opening-up in 1978. As a result, it has been establishing stronger connections with other countries all over the world. Rather than remain in economic cooperation, such connections expand into various fields, such as culture, scientific research, technological advance, environmental protection, and climate collaboration. In return, the development of communication and transportation technology facilitates the link between China and different parts of the world. Thus, an increasing number of Chinese people can have online and/or face-to-face communication with people from other cultures. According to the central government, China will adhere to the state policy of opening-up and bring it to an even higher level. It means the opportunity for intercultural communication and collaboration will not be closed from China's side.

As a country with a civilization older than 5,000 years, China has its unique worldview, values and culture. Thanks to the unique language that Chinese use, they is well preserved. The differences will make themselves evidence when Chinese people interact with people from other cultures and sometimes lead to confusion, misunderstanding, and even conflicts. Thus, Chinese people need to understand other cultures and to communicate effectively and appropriately with people from different cultures. This study agrees with Bok (2009) in that educational institutions play a crucial role in preparing people for intercultural communication. To further clarify this stance, the investigator believes that FL teaching in China, particularly university FL teaching, should undertake this responsibility due to the innate relationship between language and culture.

As the title implies, this study involves the incorporation of two major elements, intercultural communicative competence and computer-assisted communication. Thus, the context of this study is described from EFL learning and teaching and computer-assisted language learning (CALL) in China.

EFL Learning and Teaching in China

English is a required subject in China's schooling education. Statistics showed that over 400 million of Chinese are learning English, accounting for one third of the total population in China. Such a large population of English learners adds to the difficulty in having authentic communication with English speakers from other cultures. What they learn about the language is

grammar, vocabulary and basic linguistic skills such as listening, speaking, reading, and writing and is mostly from the textbook and the teacher. What they learn about culture is of English-speaking countries and is also from the textbook and the teacher. In most learners' eyes, the purpose of English learning is merely to pass tests. Among them, the college entrance examination is the most important source of motivation.

After students have passed the examination, the environment for English learning in universities remains the same except that the pressure from the examination is greatly relieved. However, the reality that there are few opportunities to use the language seems difficult to change. Compared to those from the English major, learners who are enrolled in majors other than English in universities have even fewer opportunities to communicate with English speakers. For these students, the purpose of English learning is to pass a national English proficiency test, *College English Test Band 4 (CET4)*. Passing this test is one of the requirements for graduation at many Chinese universities. Some of these students also wish to pass the postgraduate entrance exam. They focus on the accuracy of language mechanics via memorizing vocabulary, analyzing grammar and doing written exercises rather than on the intelligibility of the discourse in a situated cultural context. Consequently, they feel uneasy when given the rare opportunity to speak the language. Meanwhile, they also have impartial understandings of other cultures in addition to their own one. In some cases, this leads to either blind admiration or radical criticism of other cultures. According to a survey conducted by Zhang et al. (2017), Chinese university students were aware of the importance of English communicative competence and complained about test-oriented course design and rare opportunities to use English in non-artificial context.

Since being introduced to China in the early 1980s, intercultural communication has been closely combined with FL teaching (Shi & Zhu, 2015). In the late 1990s, Chinese researchers in this field began to transfer their focus from communicative competence to ICC. The search for keywords "IC" or "ICC", among core journals and Chinese Social Sciences Citation Index (CSSCI) source journals (including extended versions) in the China National Knowledge Infrastructure (CNKI) database until December 2019, resulted in 523 articles. The keyword analysis of the articles revealed that from 1996 to 2005 *English teaching*, *foreign language teaching* and *cultural knowledge* were the most frequent words. From 2006 to 2017, *English teaching* and *foreign language teaching* remained the research hotspots, with a few new frequent

keywords emerging, such as *college English teaching* and *intercultural awareness*. From 2018 to 2019, *business English major* and *target language culture* became the new focus in this field, together with *foreign language teaching*, *college English teaching* and *One Belt One Road*.

Among the 523 articles, 462 studies were concerning the intercultural competence or ICC development in the Chinese context, accounting for 89.36% of the total research in this field. Literature showed that many relevant researchers were university EFL teachers and participants in most of empirical studies were university students. This study interpreted this phenomenon as follows. Going to a good university is considered to be a once-in-a-lifetime opportunity for respectable life and bright future by many Chinese students and their families. The college entrance examinations remain the main path to go to university. As a result, high school students do their utmost to achieve higher marks in the examinations. This means high school learning is paper writing and model tests taking and teaching is test paper analysis. Given the fact that the college entrance English examination mainly tests basic linguistic skills, there is no room for IC teaching before it. After learners have entered the university, the huge pressure from examination is relieved. In quality-based university teaching, students and teachers have chances to focus on the actual function of language for intercultural communication. This entitles universities more potential to prepare students for intercultural communication than other educational institutions in China.

After decades of practice, intercultural education has been included as one of the fundamental goals in *China's Guidance to College English Teaching* in addition to communicative competence and autonomous learning ability (MOE Advisory Board for Foreign Language Teaching, 2020). It is stated in the *Guidance* that:

Language is the carrier and an integral part of culture. Learning and mastering English mean that students not only need to learn and exchange advanced science and technology or professional information, but also need to understand foreign societies and cultures, and enhance their perception of different cultures, awareness of the similarities and differences between Chinese and foreign cultures, and intercultural communicative competence (p. 4).

CALL in China

The use of computers in China's FL education can be traced back to the late 1990s. At that time computers were used to enhance the teacher-centered pedagogy (Hu & Hu, 2020). Before the wide use of computers, EFL teachers in China employed projectors to present text-based language points in classroom teaching and the tape recorder to teach English listening. The use of computers diversified the presentation of teaching content. Images, different colors, and short videos were often employed for multimedia English teaching. The Internet was not widely employed in FL education in China until 2010. Chinese universities then established large-scale autonomous foreign language learning centers based on campus networks, transferring to Web- and multimedia-based teaching mode. These devices, hardware and software enabled learners to take more initiative in learning. The ubiquitous application of the Internet has greatly accelerated the informatization of English teaching in China. According to *Ten-Year Development Plan for Education Informatization (2011-2020)* (Ministry of Education of the People's Republic of China, 2012), ICT was given high priority by the government due to its revolutionary impact on the improvement of education equity and quality, and on the cultivation of international talents. According to *the Plan*, schools in all regions needed to have full access to broadband networks by 2020, including primary schools, middle schools, high schools, vocational schools, colleges and universities, and schools of continuing education. Such full accessibility to the Internet facilitated the ubiquitous use of networked ICT, making rich resources and convenient communication available to Chinese EFL learners (Hu & Hu, 2020).

Peer-reviewed studies indicated that the technologies used in China mainly included, but not limited to, corpus (see, e.g., Liu et al., 2020; Peng & Davies, 2020), course management systems, like *Blackboard* (see, e.g., Zhang, 2019), and *Mosoteach* (see, e.g., Cheng & Yang, 2017; Wang & Zhang, 2020), virtual reality technology (see, e.g., Li & Cao, 2017; Wang & Chen, 2011), games (see, e.g., Ling et al., 2019; Su & Su, 2015) and social media (see, e.g., Jia et al., 2016; Ruan, 2014; Yang et al., 2014). These technologies allowed more interactive use of CALL in environments where the student was the creator of digital texts and media and (co-)constructor of knowledge (Otto, 2017).

The Statement of Problem

Although the Chinese government has recognized the importance of intercultural education, specific pedagogies remain open. There is a huge gap between what has been

suggested in *the Guidance* and teaching reality. In Chinese universities, noticeable changes remain to be seen in English teaching. Students do not have more access to authentic communication. English courses in Chinese universities still focus on linguistic knowledge, and do not necessarily generate a full understanding of people from different cultural backgrounds. Oversimplification and misunderstanding caused by the overlook of culture and the lack of critical thinking are commonly seen among students. Unable to use the language, students have to resort to more examinations to motivate their English learning. In a dilemma between intercultural teaching and test-oriented teaching, English courses are considered ineffective and confronted with the crisis of cutting down class hours.

On the other hand, despite the ubiquitous use of communication technology and easy access to the Internet in China their potential for English teaching and learning remains largely unrealized. In today's Chinese university classroom, computers are mostly used for teaching content presenting and for course management. Even where teachers use them in instruction, traditional teaching techniques prevail. They are seldom employed to address the core problems, like lack of opportunities for real communication. Thus, the researcher found it imperative to exploit communication technology to integrate IC in FL teaching and learning in the Chinese context.

Chapter 3

Literature Review

As stated in the introduction, this study aimed to explore how to improve EFL teachers' understanding of IC and telecollaborative competence in Chinese universities, which will contribute to the better development of students' ICC. Thus, this section reviews the literature concerning ICC, CMC and the teacher to examine the conceptualization of ICC, the use of digital technology in L2 education, ICC development via CMC and the teacher role in this process. The conceptualization of ICC describes the history in which this concept developed from and identifies an operational definition of ICC and the construction of its components. The use of digital technology in L2 education situates CMC in a larger range to show the rationality for its combination with ICC development. The literature review of ICC development via CMC provides evidence for the effectiveness of using CMC in intercultural education and the problems identified in relevant literature. The last subsection defines the teacher's role in CMC-facilitated intercultural exchanges and the factors that have an effect on the teacher's role. This review is intended to determine the theoretical framework for the present study and identify gaps in existing research.

Conceptualization of ICC

This section first briefly overviews the origin of ICC in the L2 education field. This helps the reader understand why this study focuses on ICC. After that how this concept was defined and how its components were constructed in the literature are scrutinized. According to social constructivism, the theoretical constructions from other researchers deepen my insights into this concept. Thus, after having a careful analysis of existing ICC conceptualization, I propose a working definition and determine a theoretical model for the present study.

Origin of ICC

According to Stern (1983), one of the main questions that language teaching has faced is “to what extent should the teaching of a second language mainly concentrate on the language as a formal system or adopt a broader view and take into account social context and language use by hearers and speakers?” (p. 135). The concerns of the emerging schools of thought have changed from phonology, lexicology and grammar to semantic and social orientations: American structuralism (Bloomfield, 1933), transformational generative grammar (Chomsky, 1957), neo-Firthian theory (Halliday, 1961) and communicative competence (Hymes, 1972). The first two

theories are confined to the language itself. The criticism of the transformational generative grammar for its exclusive attention to purely formal linguistic elements has advanced a shift of emphasis to semantics since 1967 and subsequent developments in linguistics (Stern, 1983). Many linguists argued that language could not be studied in isolation from the user's intentions and perceptions and the social and situational contexts and began to connect the study of language with the language user, the context and the topic (Stern, 1983). New approaches, such as sociolinguistics and pragmatics emerged under this circumstance. Pragmatics, for example, refers to sending and receiving meaning in real language use. It reflects the strong connection between linguistic forms and the context in which speakers are. The pragmatic ability involves one's decision on what and how to communicate with another speaker in a given context. It is particularly important in intercultural contexts and could be found in numerous models concerning intercultural communication.

Communicative competence. Hymes (1972) coined a more socially-oriented concept, communicative competence. It was a competence exemplified by the native speaker "to use and interpret language appropriately in the process of interaction and in relation to social context" (Stern, 1983, p. 229). Different from Chomsky's linguistic competence which was confined to the internalization of rules of syntax and abstracts from the social rules of language use, communicative competence referred to the intuitive grasp of social and cultural rules and meanings that are carried by any utterance (Stern, 1983). It became a fundamental concept in the development of communicative language teaching.

Besides linguistic and sociolinguistic competence, Canale and Swain (1980) introduced strategic competence as another component, which meant the appropriate use of communication strategies especially when communication failed and referred to linguistic competence as grammatical competence. Canale (1983) also introduced discourse competence which was concerned with the cohesion and coherence of utterances in a discourse to communicative competence. However, according to Bachman (1990), these frameworks "are limited in that they do not describe the mechanisms by which strategic competence operates" (p. 96).

With an emphasis on both the promotion of communication skills and the personal and social development of the learner as an individual, van Ek (1986) incorporated two more dimensions into communicative competence, which are socio-cultural competence and social

competence. The former took values and beliefs into account with the latter including attitudes and behaviors.

Echoing the notion that communicative competence involved both the knowledge of and the competence in the language, and the capacity for implementing this competence, Bachman (1990) proposed a framework of *communicative language ability*, which included language competence, strategic competence and psychophysiological mechanisms. Bachman further classified language competence into organizational competence, which consisted of grammatical and textual competence, and pragmatic competence, which consisted of illocutionary and sociolinguistic competence. Bachman (1990) defined strategic competence as “the capacity that relates language competence, or knowledge of language, to the language user’s knowledge structures and the features of the context in which communication takes place” (p. 103), which included assessment, planning and execution. Although he limited this framework to the appropriate use of language itself, Bachman still extended earlier models by addressing how the components interacted with each other and with the context in which language was used. According to Bachman, a language user needs the strategic competence to relate his/her language competence to knowledge structures and the features of the context in which the language is used to determine the most effective means of achieving a communicative goal.

ICC. According to Borghetti (2013), since 1990s, the “intercultural turn” in second/foreign language teaching occurred when the discipline recognized the importance of intercultural competence (IC). The introduction of IC to this discipline has further refined the notion of being competent for communication with speakers of different languages or a lingua franca (Byram et al., 2013). ICC became “perhaps, one of the best-known constructs used to describe where and how language and culture meet and, from the perspective of some, where they are inherently inseparable” (Sykes, 2017, p. 119).

Definition of ICC

There is a lack of consensus regarding the conceptualization of ICC presumably due to the complex and contested concepts of culture. In the academic literature, culture was defined from a wide range of perspectives: anthropological, behavioral, cognitive, sociological, and phenomenological. Hall (1976) proposed an *iceberg analogy of culture*. The model indicated that the external and visible parts of culture are merely tips of icebergs, like behaviors and some

beliefs. The internal and subconscious parts that underlie behavior constitutes a large portion of culture, including some beliefs, values and thoughts and patterns.

After Hall, many researchers constructed their own interpretations of culture. This section lists some definitions in chronological order to demonstrate the shift in their focuses. Loveday (1981) argued that culture, not necessarily related to nationalities, involved the implicit norms and conventions of a society and its methods of doing things. Courchene (1996) emphasized that culture was learned, ever changing, a universal fact of human life, a network of relationships and values, transmitted through language and a filtering device. Kramsch (1998) described culture as “membership in a discourse community that shares a common social space and history, and common imaginings” (p.10). Liddicoat et al. (2003) defined culture as “a complex system of concepts, attitudes, values, beliefs, conventions, behaviors, practices, rituals and lifestyles of the people who make up a cultural group, as well as the artifacts they produce and the institutions they create” (p. 45). Spitzberg and Changnon (2009) considered culture as “enduring yet evolving intergenerational attitudes, values, beliefs, rituals/customs, and behavioral patterns into which people are born but that is *structurally* created and maintained by people’s ongoing actions” (p. 6).

In these definitions, culture was firstly defined in a positivist and modernist paradigm as solid, fixed, and separate geographical blocks confining the behavior of the people who lived within them but was later recognized in a postmodern paradigm as a fluid and socially constructed entity (Crane, 1994). Along with the rise of postmodernist thinking, Halualani et al. (2009) called for attention to the structures of power that attend the constitution of culture. From critical intercultural perspective, they suggested a theoretical move from understanding culture as a neutral, innocent place to one always and already implicated in power relations where differently positioned subjects and social entities competed for advantage and control of the process of meaning production.

As shown in these definitions, culture has been viewed in terms of thoughts, languages and behaviors and is variable within different ethnic groups, genders, generations, and geographic environments. It is more considerably intangible and difficult to document than language (Fantini, 1995). Although it is acknowledged that culture is learned, the learning process usually occurs in an unconscious way when one is immersed within a culture. This phenomenon is referred to as “*language-culture unawareness*” (Fantini, 2018, p. 29). It thus

makes it more complicated if one intends to learn a different culture when one has rare access to it. Thus, this study maintains that learning a different culture is similar to learning a foreign language but much more difficult.

Despite the complex conceptualization of culture, great efforts have been made to define ICC by researchers such as Bennett and Bennett (2004) and Byram (1997), which has resulted in various ICC constructs. Because intercultural communication draws heavily on psychology, sociology and linguistics, the competence needed has been examined from multiple disciplines with different focuses. To determine an agreed-upon definition of ICC, Deardorff (2006) investigated the views of internationally known intercultural scholars and higher education administrators and found that Byram's (1997) work was highly accepted by the higher education administrators. Although Byram (1997) described what speakers need to possess to become interculturally communicative competent, I identified no clear definition of the concept, ICC, in his book. According to Deardorff (2006), the most common definition among scholars was "the ability to communicate effectively and appropriately in intercultural situations based on one's intercultural knowledge, skills, and attitudes" (pp. 247-248).

After Deardorff's (2006) work, researchers in this field continued to define ICC, such as Barrett et al. (2013), Chen and Starosta (2012), Fantini (2009), and Perry and Southwell (2011). These definitions developed from communicative competence, thus maintaining the special emphasis on effective and appropriate interaction. The intercultural nature of this concept in these definitions could be identified in their recognition of the context where the communication takes place. According to Fantini (2009), ICC was "complex abilities that are required to perform effectively and appropriately when interacting with others who are linguistically and culturally different from oneself" (p. 458). Echoing Deardorff's version, this definition also retained the two features of communicative competence, effectiveness and appropriateness. The emphasis on language in this definition makes it more compatible with the FL education context of the present study.

It needs to be noted, IC was the most commonly used label in the published literature (Fantini, 2018). But it was often used interchangeably with ICC. I found that it was necessary to distinguish these two competences from each other because they were used in different meanings in this study. The fundamental distinction that has been defined between them was that ICC required communication and relationship building by using the target language (Moeller &

Osborn, 2014) but IC referred to an ability to function effectively across cultures (Leung et al., 2014). In other words, ICC referred to encounters where both culture and language were noticed, but IC referred to encounters where culture was noticed but language was not (Byram, 2015). In the field of L2/FL education where this study was situated, language needed to be recognized as important as culture.

Accordingly, for the purpose of this study, ICC is defined as the ability to effectively and appropriately communicate with people who speak different languages and to achieve a better or deeper understanding of foreign cultures and one's own culture.

Components of ICC

A general definition is far from enough for an operational use of the concept so numerous theoretical models and frameworks have been formulated, wherein hundreds of components have been constructed. In a major review, Spitzberg and Changnon (2009) classified the existing models into five categories: compositional, co-orientational, developmental, adaptational, and causal process, based on commonalities they share.

Compositional models identify the hypothesized components of the competence. In such models, the basic scope and the specific indicators for each component that researchers find essential to successful intercultural communication are represented in a list without explanations on the relations among them. These models also leave undefined the operational criteria to assess the competence. Compositional models include facework-based model of intercultural competence (Ting-Toomey & Kurogi, 1998) and the pyramid model of intercultural competence (Deardorff, 2006).

Co-orientational models are constructed on the idea that the two sides in intercultural communication should achieve common reference through interaction. People from divergent cultures expect to promote mutual understanding through communication. These models show particular focus on the criteria of communicative mutuality and shared meanings, Co-orientational models are the intercultural interlocutor competence model (Fantini, 1995), intercultural competence model (Byram, 1997) and coherence-cohesion model of intercultural competence (Rathje, 2007).

Developmental models maintain that ongoing interaction produces greater co-orientation, learning, and incorporation of respective cultural perspectives. These models emphasize the process of progression over time, specifying stages of progression or maturity through which

competence is hypothesized to evolve. Developmental models include the developmental model of intercultural sensitivity (Bennett, 1986) and the intercultural maturity model (King & Baxter Magolda, 2005).

Adaptational models define intercultural competence as adaptability. I found that some of these models focus on the tension between adapting to another culture and maintaining one's own culture and emphasize the adaption of the immigrant to the host culture, such as the attitude acculturation model (Berry et al., 1989). Some of these models underscore the interdependence of multiple interactants by modeling the process of mutual adjustment, such as the intercultural communicative accommodation model (Gallois et al., 1988) and the relative acculturation extended model (Navas et al., 2005).

Causal process models, the last type sorted out by Spitzberg and Changnon (2009), conceive intercultural competence as a linear system and reflect specified interrelationships among components. These make them easy to be formalized or translated from or into testable propositions. Causal process models are the relational model of intercultural competence (Imahori & Lanigan, 1989), model of intercultural communication model of relationship quality (Griffith & Harvey, 2000), and model of intercultural communication competence (Arasaratnam, 2006).

In the recent decade, a few ICC models were developed, such as Arasaratnam et al.'s (2010) integrated model of intercultural communication competence (IMICC) and Nadeem et al.'s (2017) culture general model of ICC. Developing from a line of research involving the use of an emic approach, IMICC defines five components, namely empathy, experience, motivation, positive attitude toward people from other cultures, and the ability to be an engaged listener. Nadeem et al.'s (2017) model was built on IMICC and paid special attention to religiosity due to its importance in the local context. I think these two models overlook the role of language in intercultural communication as the researchers attempted to construct culture general systems. As an EFL teacher, I believe that verbal communication is a dominant approach for humankind although non-verbal communication such as facial expressions or body gestures also conveys meanings. I thus attach particular importance to the role of language in intercultural communication. However, the focus on culture leaves the role of language in intercultural communication unexamined in these models.

ICC models in China. The earliest research on the ICC model in the Chinese context explored it in three facets: the system of communication competence basics, the episodic competence communication system and the relational competence system (Pan, 1996). This model was further developed by including a new component: the strategic competence system by Xu and Huang (1998). Other ICC frameworks were formulated in multiple contexts, such as foreign language teaching (Gao, 2014; Yang & Zhuang, 2007; Zhang & Yang, 2012), international business (Xiao & Zhang, 2012), and school education (Yang, 2017).

The development of ICC models in the Chinese context was informed by the studies conducted abroad. Chinese researchers introduced relevant perspectives, such as Gudykunst's Anxiety/Uncertainty Management Theory (Xu, 2016), Kramsch's notion of *The Third Place* (Yeh & Wang, 2016), and Byram's ICC model (Liu, 2015). Some Chinese researchers critically examined these foreign constructions. For example, Xu (2011) problematized some prevailing tendencies indicated by western intercultural communication studies, such as reductionism and fragmentation, the preoccupation with effectiveness, and orientations that are not cross-cultural.

Some researchers have proposed conceptual frameworks based on the Chinese context, such as Gao's (1998) Tao and Qi model, Gao's (2014) Knowing and Doing model, and Zhang and Yang's (2012) ICC model. Although some of these models drew on traditional Chinese culture, the elements encompassed in them showed little fundamental difference from those in models abroad. They mostly focused on the theoretical conceptualization, identifying the hypothesized components of IC or ICC with no considerations given to language and no elaboration on how these models could be applied to IC/ICC teaching or assessment.

Comparison of language-included ICC models. As discussed above, there are numerous models of ICC, formulated through various theoretical lenses and with different foci. Given the context of foreign language education in China in which this study is situated and my identity as an EFL teacher, this study selected from the models, which encompass linguistic competence as a component of ICC. There are four such models, including the relational model of intercultural competence (Imahori & Lanigan, 1989), the intercultural interlocutor competence model (Fantini, 1995), the intercultural competence model (Byram, 1997), and the pyramid model of intercultural competence (Deardorff, 2006). I compared the four models in this section to determine one to be one of the operational frameworks for this study.

Among these four models, Fantini's (1995) is the only one that scrutinizes interaction from the linguistic perspective. This language-culture paradigm focuses on linguistic elements to explain how language exteriorizes one's perceptions of the world in communication. He proposed that in any interaction, systems of selective perception become translated into concepts and thoughts, which are translated into semantic clusters, which are then transformed into specific expression-based units (morphology and syntax) and overt expressed actions (phonology, graphemes, signs, etc.). Through effective interaction, interlocutors will achieve increasing amounts of correspondence in languages, denotative and connotative meanings, and usage norms, thus increasingly displaying co-orientation in their perspectives, or worldviews. Indeed, Fantini did not contextualize his model particularly in intercultural communication but generally in any interpersonal communication. As a result, the model depicts how interlocutors exchange information with the external world and each other through language and presents no specific cultural constructs. I find this model enlightening in understanding the interconnection between language and culture but barely useful in providing practical criteria to assess ICC in intercultural teaching. Thus, the comparison was conducted among the other three models.

Table 1

A Comparison of Three Linguistic-Related ICC models

	The relational model of intercultural competence (Imahori & Lanigan, 1989)	The pyramid model of intercultural competence (Deardorff, 2006)	The intercultural competence model (Byram, 1997)
IC components	Knowledge, motivation and skills	Attitudes, knowledge and comprehension, and skills	Attitudes, knowledge, skills and critical cultural awareness
Other variables	Goal, experiences and relational outcomes	Internal outcome, external outcome	language competence, locations of learning
Level	Sojourner and host	Individual	Individual

The relational model of intercultural competence proposed by Imahori and Lanigan (1989) is a causal pass model (Spitzberg & Changnon, 2009). It defines IC as three interdependent components: motivation/attitude (e.g., positive attitudes toward other cultures and the partner), knowledge/comprehension (e.g., language, interaction rules, and culture), and skills (e.g., display respect, interaction posture, knowledge acquisition, empathy, role flexibility, interaction management, ambiguity tolerance, linguistic skills, speech accommodation, and

affinity seeking). There are two more elements within the sojourner and the host-nationals: goals and experiences (see Table 1). According to Imahori and Lanigan (1989), the interactants' motivation, knowledge, and skills interact with their goals and experiences and index the outcomes of intercultural interaction. Imahori and Lanigan's model focuses on interaction itself, thus considering both sides involved in an interaction and the goals and outcomes of an interaction. The relational and interactive perspective of ICC helps to present the dynamic nature of interaction but is unnecessary for intercultural teaching in which an individual learner's competence is developed and assessed.

However, although I accept their characterization of how ICC is constructed in terms of motivation, knowledge and skills, I do not entirely agree with them in terms of skills. For example, I consider that *tolerance of ambiguity* (Ellis, 1994) constitutes an affective factor in motivation/attitude rather than a cognitive factor in skills. Last but not the least, though this model values the contribution of dyadic members in intercultural communication, it does not distinguish the competence needed by the sojourner from that needed by host nationals with a mirror image diagram. If the host is a native speaker and the sojourner is a language learner, the host's linguistic skills can relate to speech accommodation or alignment, preventives and repairs necessary to assist the sojourner in enhancing his or her linguistic skills.

The pyramid model of intercultural competence created by Deardorff (2006) is a compositional model (Spitzberg & Changnon, 2009). Similar to many cognitive approaches, the pyramid model represents motivational (attitudes), cognitive (knowledge and comprehension), and skills elements. Attitudes are in the bottom of the pyramid and considered to be requisite to the development of knowledge and comprehension, and skills. These three components collectively result in desired internal outcomes like adaptability, flexibility, a relativistic view of ethnicity and empathy and/or external outcomes that one will behave and communicate effectively and appropriately to achieve one's goals to some degree. Unlike Imahori and Lanigan's (1989) model, ambiguity tolerance and respect are indicators of attitudes in Deardorff's model. Identified skills are in the same range, which are listen, observe, interpret, analyze, evaluate and relate. A careful examination of this model reveals that sociolinguistic awareness is the only language-related indicator included in knowledge and comprehension component. It is not difficult to tell that language plays a minor role in this model. Furthermore, I cannot agree with the emphasis that Deardorff put on one's adaptability and adjustment in

intercultural communication. In the vast majority of intercultural encounters, some degree of mutual adaptation is typically considered a necessary condition of competence (Spitzberg & Changnon, 2009). It does not mean the higher degree of adaptation is more desirable because the adaptation to a new culture usually brings about the loss of one's native culture. Thus, I think that adaptation in and of itself is a questionable criterion of individual ICC competence.

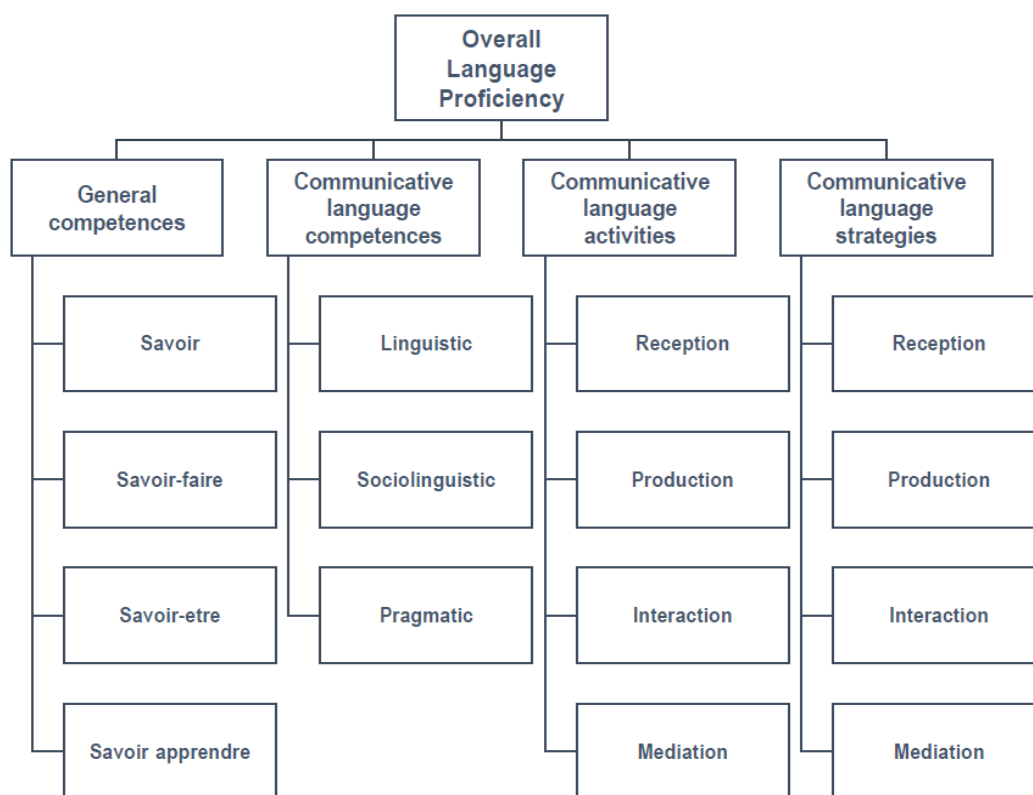
Firmly rooted in FL teaching, Byram's (1997) model attaches more balanced importance to language and culture by separating them into two major parts with their own indicators. For language competence, there are three interconnected components: linguistic competence, sociolinguistic competence and discourse competence. For intercultural competence, there are attitudes, knowledge, skills and critical cultural awareness. According to Byram, critical intercultural awareness/political education contributes to individual understanding of other countries, cultures and societies, and allows individuals to respect the norms of other societies and evaluate them in an unprejudiced way through reflection. It includes a critique of both one's own community or society and that of other countries. Thus, he centered IC on political education/critical cultural awareness. Though the purpose of intercultural communication in Byram's model is also relationship building, he focused on the sojourner's role in the interactive process by elaborating on his/her ICC, which is instructive for teaching practice. Specific objectives for each IC component and the close specification of these objectives were proposed to help FL teachers without relevant experiences to plan an integrated pedagogy of intercultural linguistic competences (Byram, 2009). He formulated 5 objectives for attitudes, 11 for knowledge, 3 for the skills of interpreting and relating, 7 for the skills of discovery and interaction, and 3 for critical cultural awareness/political education (see Appendix A). In addition, to add to the education nature of the model, Byram also included three learning contexts where ICC can be developed: classroom, fieldwork and the wild.

This model also informs CEFR. The descriptive scheme (Council of Europe, 2018) shows that CEFR develops from Byram's ICC model (see Figure 1). Apart from ICC components borrowed from Byram's model, CEFR also includes communicative language activities and strategies. They replace the traditional model of the four skills (listening, speaking, reading, and writing) as these activities and strategies can better reflect the complex reality of communication. After careful comparison between Byram's model and CEFR descriptive scheme, I identify two distinctions in structure. One is CEFR develops the discourse competence in Byram's model into

pragmatic competence by adding functional competence and design competence. The other difference is CEFR removes critical cultural awareness as an independent component. The trace of critical cultural awareness can only be detected in the description of critical reading comprehension and report and essay writing at the C2 level. Although CEFR breaks down learners' competences into more intricate indicators, which facilitates assessment, it undermines the role of critical cultural awareness, which I consider urgently needed for Chinese EFL learners. This makes CEFR an unsuitable option for this study.

Figure 1

The Structure of the CEFR Descriptive Scheme



In a nutshell, Byram's model conceives ICC in a broad context by connecting language with IC and attaches balanced importance to them. Furthermore, Byram elaborates how language and IC are connected and how they contribute to successful intercultural communication. The categories and indicators for each component are well organized and clearly explicated. I agree with his emphasis on critical awareness. I believe that critical (cultural) awareness, which starts from culture discussed in this model and can be applicable to other fields, is an absolute necessity in this era when rapid technology development allows people to acquire increasing

information. Although two decades have been passed, Byram's model still has great theoretical and pedagogical significance for intercultural education. This study therefore selects this model as one of the theoretical frameworks. It will be introduced in detail in the chapter of theoretical framework.

Development of ICC

Intercultural communication competence has been one of the prominent subjects in intercultural communication research (Arasaratnam & Doerfel, 2005). It can be promoted in and out of formal education. With an increasing acceptance of ICC as an important objective of L2/FL education, an extensive body of literature (see, e.g., Chen & Yang, 2016; Trilokekar & Rasmi, 2011; Yue, 2019) has addressed how to achieve ICC development. Study abroad, classroom teaching and online communication have been three major contexts where ICC development was examined in the existing literature. Studying abroad is ideal for ICC development as it has proven to be one of the best forms of cultural immersion in theory (Kohli Bagwe & Haskollar, 2020). It affords rich opportunities for advancing language proficiency and intercultural competence in the form of homestays, cultural and language training, interaction with locals, participation in local activities and learning from teachers who bring in local knowledge.

However, many FL learners like Chinese English learners literally lack motivation, initiative, or financial support for studying or living abroad. They learn the target language in school. According to Byram (1997), classroom teaching had clear advantages for ICC promotion in providing systematic and structured presentation of knowledge, professional guidance from the educator, as well as reflection and guided discussions. In this sense, the teacher plays a critical role as he/she designs, organizes, guides and participates in the whole process. Despite the support from the educator, teaching ICC in classroom allows learners rare chance to communicate with people from diverse cultural backgrounds (Çiftçi & Savaş, 2018). It can hardly fulfill the potential of intercultural communication which has been underscored for the experiential development of ICC.

Instructed online exchange provides learners with more access to the language and different cultures. In the meantime, the teacher is available to identify prejudices, stimulate reflection and facilitate communication so as to promote ICC. This study maintains that it is a compromise between studying abroad and classroom teaching.

The rest of this section focuses on ICC development through online exchange. It includes a brief review of technology-enhanced language teaching to justify the combination of CMC with ICC development in this study, a detailed review of ICC development via CMC worldwide and particularly in the Chinese context, and finally problems in telecollaboration.

Computer-Assisted Language Learning and Teaching

According to Stockwell (2022), despite the broad scope that technology covers, technology in L2 acquisition focuses on computers. With the advent of technology in the 21st century, people began to employ mobile devices such as laptops, tablets, and smart phones more than desktop computers to engage in language learning. The term, CALL, however, is still used in this study to show the important role that the computer has played in the field of L2/FL teaching. It needs to be noted that this study literally includes the programs that have been developed to use in other emerging devices besides computers.

Using the computer in language learning and teaching can be traced back to the early 1960s when it was confined mainly to universities with computer science departments (Davies et al., 2012). However, with the emergence of networkable multimedia minicomputers in 1990s, “the Web began to profoundly revolutionize the world of information and communication, opening up compelling new horizons in technology-based language learning and teaching” (Otto, 2017, p. 17). Consequently, a number of CALL programs have been developed and integrated in language instruction, such as Intelligent Language Tutoring Systems for grammar teaching and learning, concordance tools and visual reality for vocabulary learning and teaching, commercial courseware for L2 reading, multimedia for listening, corpora for writing, digital storyboard applications for speaking, and digital games to provide simulated immersion environments. In the 21st century, technology and the Internet continued to figure prominently in language learning and teaching. Emerging technologies include, but not limited to, artificial intelligence, streaming audio and video, big data, virtual worlds, virtual reality and augmented reality. Naturally, CALL programs become increasingly assisted by the Internet. What this study is intended to explore is also network-based language teaching.

To provide a whole picture of CALL tools rather than one form of it, like network-based language teaching, this subsection discusses the use of different technologies in L2 teaching based on a dichotomy between tutorial CALL and tool CALL proposed by Levy (1997) to help the reader to contextualize communication technology with other digital tools used in language

education. This classification is based on the role that computers and computer-like mobile devices play in language learning and is considered to be easier to be understood by readers. The division of technology into behavioristic, communicative and integrative CALL by Warschauer and Healey (1998) is also used to show the connection of technology and pedagogical approaches in this subsection.

Tutorial CALL. *Tutorial CALL* refers to “programs that substitute for the teacher in delivering language instruction, practice, and evaluation with the assistance of digital devices and applications” (Otto, 2017, p. 19). It evolved from providing repeated use and immediate feedback (Heift & Vyatkina, 2017) to facilitating individualization of learning experience with the particular focus on branching (Heift & Schulze, 2015). The early tutorial CALL, also defined as behavioristic CALL by Warschauer and Healey (1998), included grammar and vocabulary tutorials, drill and practice programs and language testing instruments, behind which running the structural perspective that repeated drilling on the same material was beneficial or even essential to learning (Kern & Warschauer, 2000). Other tutorial CALL include automatic speech recognition (Dai & Wu, 2023), games (Enayat & Haghightpasand, 2019) and purpose-built video (Merlo & Gruba, 2015), to name a few.

Empirical studies addressing the use of tutorial CALL in L2 teaching revealed that tutoring systems had positive influence on vocabulary learning (Yoshii & Milne, 2013; Yue, 2017). The two studies of grammar learning identified a significant and lasting improvement through targeting specific errors (Cowan et al., 2014) or using the video treatment in a step-based tutor (Merlo & Gruba, 2015) in courseware.

Tool CALL. *Tool CALL* refers to “the use of generic productivity, e-learning, and digital media creation applications for teaching” (Otto, 2017, p. 19). It has been more widely incorporated into L2 teaching than tutorial CALL. “In the tool role, (...) the computer increases the efficiency or effectiveness of actions related to learning and may involve the teacher and learner both” (Hubbard & Siskin, 2004, p. 449). Word processors, email programs, Web conferencing tools, streaming media resources, animation and digital storytelling apps, social networking and course management systems (CMSs) are the examples of computers operating in tool roles.

Among the tool CALL, computer-mediated communication (CMC) is an approach to interaction between users. It brings about the shift of CALL from human-to-machine interaction

to human-to-human communication (Warschauer & Healey, 1998). *CMC* is an umbrella term that encompasses various forms of human communication through networked computers, synchronous (SCMC) or asynchronous (ACMC), involving one-to-one, one-to-many, or many-to-many exchanges of text, audio, and/or video messages (Lee & Oh, 2015). It is also defined as integrative CALL by Warschauer and Healey (1998). The CMC tools that have been often examined in literature included email, discussion forums, instant messaging, and audio- and video-conferencing.

CMC was first employed for language teaching purposes in the 1990s. In the early studies CMC was used to produce opportunities to negotiate meanings and generate feedback in the way similar to face-to-face interaction (Blake, 2017). The literature showed that CMC was employed for instruction delivery (Biria & Momenzadeh, 2015), or for interaction among learners without involving intercultural communication (Tang, 2019). Biria and Momenzadeh (2015) compared the traditional teaching approach, CMC and a combination. The findings were that the students who received treatment by CMC had significantly improved their translation proficiency, which was better than students learning in the traditional method. It indicated that CMC evoked such changes by linking the classroom context to the outside world. These researchers underscored the need for the teachers to master the tools and acquire the skills for communicating with students online. Tang (2019) compared the CMC and face-to-face (FTF) tasks to see their effect on the pragmatics learning of Chinese modal verbs. The results showed that CMC was less beneficial for task-based pragmatics learning because the FTF group produced modal verbs more frequently during the tasks and outperformed the CMC group at the immediate and delayed post-test.

After the rapid advance of technology and ubiquitous use of Internet connections, today's CMC tools seamlessly combine both asynchronous and synchronous channels and different modalities of information, such as text, image, audio, and video. They allow learners economical and accessible means of contact and collaboration with speakers of other languages from around the world (Dooly, 2017). According to Chun (2016), CMC has become one of the most widely researched uses of technology in L2 teaching. Abundant research on CMC showed its shift of the pedagogical orientation from language per se to both linguistic and pragmatic development and cultural awareness of both one's home culture(s) and those of the interlocutors (Thorne & Payne, 2005). Unlike social communication tools used in connectivism (Siemens, 2004) to connect

knowledge nodes and to facilitate knowledge development through collaboration and sharing, CMC was used in telecollaborative exchanges to develop intercultural awareness and intercultural communication skills (e.g., Angelova & Zhao, 2016; Chun, 1994; Kern, 1995; Li et al., 2017). These empirical studies drew on theories that emphasized interpersonal communication, such as the interactionist theory and the sociocultural theory.

Unlike streaming audio and video such as *TikTok* and *YouTube*, which provides a space for users to express themselves through what they create, CMC is an umbrella word of tools that connect users for mutual communication. This nature of CMC makes it a better approach to intercultural FL teaching. Although the researcher of this study agrees with the need to teach language for learners' effective use of technology (Shetzer & Warschauer, 2000) this study still focuses on the use of technology for English teaching because the biggest challenge that EFL learners are confronted with in China is the lack of occasions on which the language can be used. The following review, thus, showed how CMC, as a tool, has been used for ICC development.

ICC Development via CMC

Telecollaborative projects can be carried out in different settings. However, they are “far more abundant within fields related to language teaching and learning (L1, L2, foreign, ESL, ESP, etc.) and intercultural education or intercultural competences than they are for teaching in other disciplines” (Dooley, 2017, p. 170). It has come to be seen as “one of the main pillars of the intercultural turn in foreign language education” (O’Dowd, 2012, p. 340). It continues to be a research hotspot based on the recent evidence that it was the second-most popular topic at both the 2019 CALICO and International CALL Conferences (Chun, 2019).

With this study contextualized in FL education, this section spotlights the effect of telecollaboration on language and IC development and demonstrates the affordances and constraints of CMC. The affordances justify the investigator’s positive attitude toward telecollaboration. The constraints help to further narrow down the focus of this study to one specific factor that has a critical influence on this approach, the teacher.

Linguistic development via CMC. The literature has shown that telecollaboration has great potential for university students’ FL promotion, particularly in oral skills. For example, Canto and Jauregi Ondarra (2017) randomly assigned language students to one of three research conditions: (1) an experimental group interacted with native peers through video-web communication; (2) an experimental group interacted with native peers in Second Life and (3)

the control group performed the same tasks face to face with classroom peers and had no opportunity to interact with native experts. The researchers measured their oral communicative growth by comparing oral pre- and post-tests across conditions and found the two experimental groups significantly outperformed the control group in oral proficiency. Canto and Jauregi Ondarra (2017) attributed this improvement to the value of networked interactions that it created more opportunities for spontaneous exchanges, thus increasing learning possibilities and intensifying authentic learning.

Telecollaboration has also been proved to be helpful for a better understanding of lexical and grammatical structures of target languages. For example, Rahimi and Fathi (2022) adopted a sequential explanatory mixed-methods approach to explore the impact of e-tandem on EFL learners' speaking skills, such as lexicon and grammatical range and accuracy. Tandem learning refers to the collaboration between people of different native languages to learn the target language from each other. The one-way ANCOVA of the mean scores of the EFL learners' speaking skills in e-tandem and conventional classes signified that e-tandem was more effective in improving the learners' lexicon and grammar than the conventional teaching approach. The researchers confirmed that EFL learners were actively engaged in collaborative speaking activities with native English speakers and English learners of different native languages provided by the e-tandem.

In another Spanish-American telecollaborative exchange assisted by Moodle, Lee (2011) found that American students produced a much higher rate of lexical and morphosyntactic feedback than the students from Spain, while the latter used a much greater percentage of affective feedback than their US partners and both sides applied different strategies to help their partners understand the feedback. Lee (2011) concluded that the provision of feedback in telecollaborative exchanges enabled students to look at the suggestions, which allowed them to notice the gap between L1 and L2, to discuss language choices, and further reflect on language use. Through this process, students gained a better understanding of the vocabulary and structure of the target language.

In addition, the effectiveness of instruction delivered via CMC on interlanguage pragmatics has been explored in several studies (see, e.g., Eslami-Rasekh et al., 2014; Lin, 2015; Mirzaei et al., 2016). All of these studies reported the improved pragmatic performance and attributed it to the incorporation of different CMC tools in teaching. A more recent empirical

study was conducted by Ajabshir (2019) who compared the effectiveness of each of the synchronous and asynchronous CMC modes with face-to-face instruction. The findings indicated the superiority of CMC-oriented instruction over face-to-face instruction in L2 learners' interlanguage pragmatics and sociopragmatic development though there was no significant difference between the two CMC instructional modes.

Although no participants in the above online exchanges were Chinese, what the projects offered, opportunities for spontaneous exchanges, active engagement of students, and provision of feedback, is also what EFL learners in China extremely need. If Chinese students were engaged in such projects in virtual space, the above affordances will also be achieved. On the other hand, these studies focuses on one micro aspect of linguistic competence. As a result, theoretical frameworks for overall ICC were rarely used. Only one model of ICC was adopted, which was Common European Framework of Reference for languages (CEFR). As having been discussed in *Conceptualization of ICC*, CEFR included four components of IC in Byram's model but excluded critical awareness. It can be used to assess EFL students' achievements in China, particularly their communicative competence. However, it was not chosen for this study due to its neglect of critical awareness.

IC development via CMC. The potential of telecollaboration for fostering intercultural competence has also been examined in numerous studies. According to the results from a Spanish-American intercultural exchange project organized by Lee and Markey (2014), online exchange provided learners with a superb venue for intercultural communication with native informants, through which students gained cultural knowledge, better understood cultural norms and practices, and became more aware of their own beliefs and attitudes toward their own culture.

In a German-American telecollaborative project, Schenker (2012) also found an increase in the students' self-perceived knowledge about the target culture through the analysis of pre- and post-surveys. However, in this study no increase was identified in American students' interest in learning about German culture and the value they placed on cultural learning in language classes. According to O'Dowd and Dooly (2020), such development of cultural knowledge could not be achieved by using textbooks or other traditional cultural studies resources commonly found in the classroom, including online (static) resources such as cultural websites or online news sources.

Cultural awareness is one component of IC. It helps learners increase their tolerance to others and achieve cultural empathy and sensitivity (Tomlinson & Musuhara, 2004). Literature showed that CMC also supported the development of intercultural awareness. Angelova and Zhao (2016) paired up 26 American students and 23 Chinese students both from university and assigned them collaborative work. By analyzing students' postings on the discussion board, American students' final papers, Chinese students' essays and transcribed interviews, researchers found that not only the objectives of the tasks had been achieved but also both groups gained an increased intercultural awareness. In another five-week collaborative interchange, entitled *WOWME*, Yeh and Heng (2022) grouped university students from a Taiwan university, an Australian university and a New Zealand university and assigned them to collaborate on a bilingual digital media production, such as podcast, video, or e-brochure to be shared through Google drive. This study revealed that the program exposed Chinese participants to different cultural norms, changed their initial assumptions about the others' cultures, and allowed them to gain deeper insights into the personal experiences and perspectives of natives of the other cultures than they could have access to through textbooks or lectures. As a result, their intercultural awareness was improved.

Telecollaboration can also contribute to the development of critical cultural awareness. In an eight-week telecollaboration project with participants from Turkey, Finland, Poland, and Slovenia, Eren (2023) found that telecollaboration had a significant impact on learners' critical intercultural awareness. The researcher stressed that interaction with different cultural perspectives reduced prejudices and stereotypes as evidenced by their 1) cognizance of diversity, 2) pragmatic cultural stance, 3) latent intercultural conflict, and 4) oppressed gender inequality.

Among the three studies above, in which no Chinese participants were involved, online exchange provided learners with a venue for intercultural communication with native speakers, vivid knowledge about the target culture and reduced prejudices and stereotypes. These can be learning objectives of IC education in China. Although EFL learners in China can acquire cultural knowledge by other means, such textbooks and the Internet, communicating with people from that culture enables them to acquire it in a more direct way through feeling it. This direct and vivid manner also facilitate the elimination of prejudices and stereotypes. These results are transferable to the Chinese context. On the other hand, in one study where theoretical framework

was explicitly stated, Byram's (1997) model was employed, which is also one the operational framework in this present study.

ICC Development via CMC in China

As this thesis is concentrated on challenges in the Chinese context, it is important to review how the ICC develops via CMC particularly in the context. This identifies the gap in extant literature and provides a rationale for the research questions.

In China, limited studies have been focused on ICC development via telecollaboration. A search using key words "IC" or "ICC", among core journals and Chinese Social Sciences Citation Index (CSSCI) source journals (including extended versions) in the China National Knowledge Infrastructure (CNKI) database till December 2019, resulted in 523 articles, among which 302 papers were on ICC development.

The first study (Pan, 1996) introduced intercultural communication competence as a new concept into the intercultural communication field. From 1996 to 2005, the number of the published papers on IC/ICC grew steadily. Among the identified literature on ICC development, only four studies (Liang, 2010; Mu & Lv, 2013; Wang & Xiao, 2006; Zhang & Yang, 2006) probed into promoting university students' ICC through online exchanges. To collect more data, I extended the search to all the journals in CNKI and used different combinations of "intercultural", "English/FL", "telecollaboration", "distance", "empirical study", and "computer/network/QQ/WeChat/Skype/Wiki/e-mail/micro-blog" as subject terms for search. After careful screening, 30 papers were found. Nine more papers were found through a search of journals that specialized in CALL and FL education and an examination of the references of identified literature. The final result showed that the first online exchange project that aimed at promoting students' ICC development was conducted by Pan and Rong (2000). From 2000 to 2019, 38 more studies were conducted to explore ICC development via telecollaboration. Among these, 25 studies mainly focused on the effect of telecollaboration on language proficiency; 14 studies mainly investigated IC development. These studies provided the evidence that telecollaboration between learners from different cultures contributes to linguistic and IC achievements for Chinese EFL learners.

Linguistic development via CMC in China. In China, telecollaborative exchanges have gained wide popularity among research participants. The participants described the direct intercultural contact through CMC as an innovative, exciting, and fascinating experience (Lu &

Goodale, 2015). In terms of linguistic competence, a few studies examined the effect of telecollaboration on more than one linguistic skill. Shang and Zhang (2011), for example, conducted an empirical study on the application of e-mail in English teaching and learning in local colleges. Their major findings were that e-mail-aided instruction from New Zealand students improved Chinese students' English speaking and writing.

Other studies revealed that telecollaboration contributed to a significant growth of specific linguistic skills. Speaking abilities made up one of the areas that researchers were most concerned about. Lu and Goodale (2015) used Skype to connect students from two colleges in China and the United States and found that telecollaboration with native English speakers was effective in improving Chinese EFL learners' English pronunciation and oral fluency and coherency, in addition to increasing students' motivation in learning English. Wu (2019) indicated that the intercultural exchange via *WeChat*, another online synchronous videoconference tool, provided learners with more opportunities and more stimulating environments for target language output. This research also found that compared with face-to-face classroom teaching, participants in the *WeChat* model gained significantly higher scores in the measure of temporal variables of oral fluency.

In the teaching of writing, CMC has played an important role as a tool for the social construction of meaning since the 1990s when the sociocognitive era began (Kern & Warschauer, 2000). It was mainly used to provide peer feedback for encouraging collaborative learning and improving learners' writing. Among the 39 studies collected, one-third focused on writing ability. Mou et al. (2013) conducted a quasi-experimental study among first-year non-English majors in Lanzhou Jiaotong University, in which the experimental group was engaged in intercultural email exchange with American university students while the control group was engaged in paper-pen writing. The results of this study indicated that intercultural email exchange had improved learners' English writing performance, especially their fluency and accuracy, and had also increased their motivation, especially the intrinsic motivation. Xiong (2017) conducted a similar study that investigated the effects of telecollaboration between Chinese EFL learners and American students on Chinese learners' English writing. Different from the study conducted by Mou et al. (2013), this study revealed that there were significant differences in fluency and complexity but not in accuracy between the experimental class and the

control class. Chinese EFL students in the experimental group achieved greater increase in writing fluency and complexity than those from the control group.

IC development via CMC in China. Only 14 studies were found inquiring the potential of telecollaboration for IC development. Within the existing literature, many studies focused on intercultural awareness (see, e.g., Tan, 2013; Wang, 2016). In a skype-assisted online exchange project between Chinese and American university students, Shi (2014) analyzed the data from a survey and from text-based exchanges on Skype and found that telecollaboration resulted in a better understanding of different cultures and higher target language proficiency. The results also indicated that participants became more interested in other cultures, more aware of cultural differences, and developed their critical awareness of other and their own cultures.

The results of this study echoed one conducted by Wang and Yu (2017). They designed and implemented the e-mail communication between Chinese primary students and Canadian primary students in a four-week teaching experiment. The different results between the experimental group who directly communicated with Canadian partners through e-mail and the control group who learned in a traditional way without real intercultural exchanges showed that the e-mail communication enhanced students' intercultural awareness, increased their intercultural communication knowledge, as well as improved their interest in English culture learning and their confidence in themselves. Telecollaborative exchange provided a feasible pattern and the way of training for intercultural communication literacy. Wang and Yu (2017) also emphasized that the positive effect of CMC would not necessarily be fulfilled if the teacher was not able to properly use teaching strategies. The result of this study held pedagogical implications for university EFL education.

Another focus in IC education in China was cultural sensitivity. Chen and Starosta (2000) developed an instrument, the Intercultural Sensitivity Scale (ISS) to measure intercultural sensitivity. This scale was widely used in IC research in FL education in the Chinese context. For example, Ren and Liang (2014) explored the effects of telecollaboration on English majors' ICC development with ISS and found that through providing the real intercultural communication context, telecollaboration had significant effects on students' interaction confidence and interaction enjoyment, which were the two components of intercultural sensitivity, and on their overall intercultural effectiveness. They also noticed that telecollaboration made salient misunderstanding and stereotypes. For example, Chinese students assumed that American

partners would be arrogant prior to the project and so worried about offending them and were very cautious about what to say. But the telecollaboration showed them that American students were friendly and tolerant of linguistic mistakes. Li and Wang (2014) adopted the same scale and investigated on 28 first-year graduate students in a Chinese university in a computer-mediated intercultural course jointly established with a state university of the United States. Based on the analysis of the questionnaire, students' reflective logs, and interviews, the study concluded that the telecollaboration course had positive effects on the improvement of learners' intercultural competence and that it should be more widely applied into intercultural teaching.

In a nutshell, taking the huge population of more than 400 million EFL learners in China into account, the use of telecollaboration in EFL education is very limited. Within the limited empirical studies, the quasi-experiment approach was widely applied. Researchers reached conclusions by comparing the performance of the experimental groups and control groups. Data was also collected through questionnaires and interviews among participants. Although the literature in this field in the Chinese context was not as developed as in the US and Europe, they all found positive results to support the proposition that telecollaboration has great potential for ICC development. The literature revealed that the major advantage of CMC over traditional teaching mode is that telecollaborative projects exposed FL learners to authentic interaction with people from different cultures, which presented abundant resources as input. This review also identified the improvement in linguistic proficiency, particularly speaking and writing, and demonstrated a shift to IC, mainly cultural awareness, and sensitivity in this field in the Chinese context.

Problems in ICC Development via CMC

Despite the positive effects identified in most of the studies I found, telecollaboration was not always successful. For example, Zheng (2011) hypothesized that text-based synchronous CMC was beneficial for the development of oral proficiency, but the effect was not significant. Schenker (2012) found that tensions and miscommunication were not solved satisfactorily and that there were no significant changes in the students' interests in learning the target culture after the project. Mou et al. (2013) argued that intercultural e-mail exchange showed no potential for improving the writing complexity. They suggested that teachers should make careful preparations beforehand, ensure the continuity and duration of the exchange, help students solve problems on time, and properly play their role as supervisors.

Limitations of using CMC for ICC development have also been indicated in other studies. Çiftçi (2016) synthesized studies of intercultural language teaching via CMC published between 2010 and 2015 and diagnosed the following problems: (1) Most of the studies in the literature were language-oriented with superficial results reported in terms of IC development; (2) The understanding of cultural differences was sometimes superficial and fact-based without leading to reflection on involved cultures and discussions over different viewpoints; (3) Most of the interactions happened with undergraduate students from USA or between similar Western cultures with a few exceptions from Eastern cultures, not creating a diverse environment for challenging and fruitful intercultural discussions, which might have fostered a robust development of ICC; (4) Designing a basic online intercultural telecollaborative environment might not be enough by itself to promote intercultural learning, which may necessitate a conscious guidance by interculturally competent persons.

Apart from the constraints of technology, Ho (2009) pointed out that the development of cultural awareness in English language classes could be influenced by a number of other constraints, namely the teacher's cultural knowledge, the availability of native English speakers, time allowance for culture teaching in each lesson and even the system of education itself. Chun (2015) identified other factors, such as the challenges with scheduling, differences in time zones, lengths of the exchange, differences in linguistic proficiencies among the partner classes, and the teacher's role.

The Teacher in Telecollaboration

According to Swain (2001), "collaborative tasks should not be seen as 'stand-alone' activities. Teachers' availability during collaborative activities, and their attention to the accuracy of the final product subsequent to the completion of collaborative activities, are potentially critical aspects for student learning" (p. 60). EFL teachers also play such an important role in telecollaboration. I believe that the teacher undertakes critical responsibilities for successful intercultural teaching through online exchanges as they may participate in every step of a project. They choose CMC tools, set the schedule, design the telecollaborative tasks, and help students during the whole process. Competent teachers may be able to address most of the problems, which were discussed in the previous subsection, if not all. Thus, this study zoomed in on the teacher in telecollaboration. This section reviews previous studies that inquired about this

topic to seek a theoretical foundation, learns from their approaches, summarizes their research findings, and identifies gaps.

Teachers' Role in Telecollaboration

Some researchers have interpreted the roles that competent teachers play in telecollaboration. Lee (2009) suggested a more active, key and facilitating role for instructors. The importance of tutor facilitation was also highly valued by Menard-Warwick et al. (2013) and Ware and Kramersch (2005). O'Dowd (2005) defined certain roles for teachers to adopt during projects such as organizer, intercultural partner, model and coach, and source and resource. O'Dowd also highlighted an adaptive role for teachers so that they could play a constant role in organizing and adapting their guidelines and activities according to the emerging circumstances.

Some studies examined what the teacher needed to do to play their facilitating roles. They created a safe and stimulating collaborative environment to ensure learners' participation (Angelova & Zhao, 2016; Helm et al., 2012). They had a closer eye on the progress and learning processes (Bueno-Alastuey & Kleban, 2016). They scaffolded learners to go beyond their existing levels of intercultural understanding and language use, thereby developing a decentered perspective (Ware & Kramersch, 2005) or stimulating higher order thinking and research skills (Chen & Yang, 2016). They also helped learners understand beyond the superficial cultural information when communication tensions or breakdowns occurred (Chun, 2015).

Teacher Cognition of ICC

Teacher cognition refers to the “unobservable cognitive dimension of teaching - what teachers know, believe, and think” (Borg, 2003, p.81). It includes “teachers’ beliefs, thoughts, attitudes, knowledge, and principles relating to teaching, as well as judgments and reflections on the teaching practice” (Han & Song, 2011, p. 176). It was considered to be an intrinsic factor of teaching practice. Teachers’ ability to select effective teaching techniques and resources to develop their learners’ interculturality is also dependent on their understanding of the notion of culture and ICC, apart from a number of environmental factors, such as their own educational experiences, major field of study, or teacher education (Czura, 2016).

Several research studies regarding teachers’ perception of ICC have been undertaken. Sercu and Bandura (2005) conducted a survey in seven countries, which focused specifically on FL teachers’ professional self-concepts and their teaching practices regarding the teaching of ICC. This study used a web-based questionnaire as an instrument to collect teachers’ beliefs.

According to these researchers, this approach may not yield in-depth data as qualitative research methodologies would, such as interviews and journals. However, it allowed the comparison among teachers' profiles in the different countries in a relatively straightforward manner. Their findings revealed that though a very large proportion of teachers were clearly willing to integrate intercultural competence teaching in FL education, they had yet made corresponding changes in teaching practice. The majority of teacher respondents in this survey either focused almost exclusively on communicative competence development or implemented culture teaching by enlarging students' knowledge of the foreign culture in language teaching. The findings also indicated that teachers' beliefs regarding teaching and learning affected their conceptions of specific teaching situations and, ultimately, their teaching practice. Therefore, departing from teachers' beliefs and trying to alter them seemed to hold the best promise for altering ICC teaching practice.

In China, surveys in regard to teachers' knowledge of the ICC construct have also been conducted. These studies all adopted the questionnaire approach to collect teacher participants' self-report. Han and Song (2011) recruited 30 English teachers from a northeastern Chinese university and adapted the questionnaire used by Sercu and Bandura (2005) to investigate the status of intercultural education in terms of teachers' belief, teaching content, teaching methods, and teaching materials. The results of this small-scale research showed that teachers' conceptualization of ICC was ambiguous. Some teachers showed strong doubt toward the possibility of teaching the foreign language and culture in an integrated way. Even if these teachers were willing to conduct intercultural teaching in the classroom, the intercultural dimension in their English language teaching was inadequate. Zhang (2014) designed three questionnaires from the perspective of teacher knowledge based on Byram's theoretical framework of ICC and distributed it to 201 EFL teachers at universities in Wuhan, China. Quantitative analysis of the responses revealed that EFL teachers attached greater importance to linguistic competence than intercultural competence. Eighty eight percent of the participants supported the integration of culture in language teaching and underscored that teaching Chinese culture would promote student's adaption in different cultures. Zhang also found evidence for the close relationship between teacher knowledge and ICC development.

Large-scale questionnaire surveys were also used to depict a larger picture of teachers' cognition and teaching practice in intercultural teaching in the Chinese context. In a nationwide

questionnaire survey conducted to investigate the status quo, the difficulties and the further development of cultivating college students' ICC, Han (2014) concluded that teacher participants interpreted ICC as a diverse and complicated concept and had a vague perception of ICC. Knowledge was considered as a primary component of ICC, including linguistic and cultural knowledge. The study also revealed that such perception was demonstrated in their teaching where teachers mainly imparted linguistic and cultural knowledge rather than promoted students' attitude and intercultural sensitivity. Gu (2016) investigated the opinions and attitudes of EFL teachers in China regarding assessment of ICC and gauged how and to what extent these beliefs were reflected in their classroom implementation through a nationwide survey. The survey resembled that of Sercu and Bandura (2005) in scope and methodology. Gu used a questionnaire mainly with closed questions to compare data in a larger sample, examine interrelationships between factors, and make generalization about the overall trends. Data analysis showed that, despite a willingness to assess ICC, the EFL teachers lacked a clear conception of ICC. This led to confusion about what should be assessed and how to assess it and led to deficiencies in their attempts to measure students' ICC in the classroom.

The findings of these studies indicated that EFL teachers in Chinese universities had increasingly recognized the importance of ICC. Most of the teachers supported the integration of intercultural teaching into EFL teaching. However, their vague perception of the ICC concept obstructed the implementation. The teacher participants simplified intercultural education to adding cultural knowledge to FL teaching, without touching other core components of ICC like attitudes, skills and critical cultural awareness. This also had an impact on learning assessment. They hardly knew how to assess students' ICC development, which in turn, undermined intercultural teaching.

It is noteworthy that according to Lantolf and Johnson (2007), "L2 teachers typically enter the profession with largely unarticulated, yet deeply ingrained, everyday concepts about language, language learning, and language teaching that are based on their own L2 instructional histories and lived experiences" (p. 884). Thus, teachers' experiences have an influence on their understanding of ICC. In this sense, the vague understanding of ICC can be influenced by the experiences of EFL teachers in China. By having appropriate experiences, teachers' ICC perception can be improved, which will eventually change their intercultural FL teaching practice.

Teachers' Technology-Related Competences

Differences in students' ICC development are a direct product of the ICC of the teacher, such that culturally incompetent teachers may hinder the multicultural literacy of students. Therefore, to help students with their intercultural learning, the teacher must exhibit not only willingness to interculturalize FL education (Han & Song, 2011) but also similar competencies (Vande Berg et al., 2009; Yuen, 2010). In the case of intercultural FL teaching via CMC in this study, EFL teachers also need to have the competence of using CMC technology.

From e-mails to videoconferencing and social media, different CMC tools have different advantages for L2 learning. For example, text-based SCMC tools helped learners to notice gaps in interlanguage and to make immediate self-correction as the text could be seen in the chat window (Bower & Kawaguchi, 2011). ACMC tools allowed learners more time to prepare their own interventions as well as to reflect on and respond to others' while SCMC tools offered a higher degree of immediacy and social presence (Helm, 2013). The different advantages of CMC tools mean that the competence of operating technology alone will not necessarily result in successful teaching outcomes. Even if the affordances of different CMC tools have been acknowledged, teachers still need to know how to use these technologies to present teaching content, address the problems that students face in learning, strengthen students' existing knowledge and develop new epistemologies.

Furthermore, there are many other considerations, such as the level of access to technology, learners' and teachers' familiarity with certain tools, and the type of interaction required by the task (O'Dowd, 2007). It needs to be noted that despite the astonishing growth in access to the Internet and technology, digital divides among students still exist due to demographic and socioeconomic factors, like family socioeconomic status, race and gender (Ono & Zavodny, 2007). Culture also influenced the acceptance of technology (Li & Kirkup, 2008). These become more complicated in the case of intercultural communication where different places and cultures are involved.

To address what competences a teacher needs to possess for the integration of technologies in teaching, some models of teachers' ICT competence have been constructed. They included, but not limited to, the skills pyramid for successful online FL teaching (Hampel & Stickler, 2005), TPACK (Mishra & Koehler, 2006), the international society for technology in education's (ISTE) technology standards and performance indicators for teachers (ISTE, 2008),

the ICT competency standards for teachers (UNESCO, 2008), TESOL technology standards for language teachers (TESOL International Association, 2008), and a model of professional digital competence (Starkey, 2020).

The seven-level skills pyramid constructed by Hampel and Stickler (2005) is a training framework for language teachers with basic ICT competence on the bottom building up through specific technical competence for the software, dealing with constraints and possibilities of the medium, to competencies in online socialization, facilitating communicative competence and creativity and choice, with the teacher's own style at the top. In this model, some intercultural communication related competences are included, such as socialization and communicative competence. It concerns about language teachers' ability to establish a trustworthy atmosphere to enhance meaningful communication between students. The researchers stressed that the teacher is likely to be confronted with greater challenges in the online environment than in the face-to-face classroom. These competences, with technical competences on the lower level, play an important role in telecollaboration. However, this model was not designed for it. It means some problems of telecollaboration may not be address in this model, such as find partners and deal with intercultural problems.

ISTE standards for teachers (ISTE, 2008) provides guidance for teachers to follow when they design, implement and assess students' learning experiences, and also for their own professional growth. It describes teachers' competences in five facets, to facilitate and inspire student learning and creativity, to design and develop digital age learning experiences and assessments, to model digital age work and learning, to promote and model digital citizenship and responsibility and to engage in professional growth and leadership, with four indicators for each. This is a comprehensive construct of teacher's role in digital age. Only one of the 20 indicators interprets teachers should engage with colleagues and students of other cultures via communication and collaboration tools, which aims to develop teachers' and students' culture understanding and global awareness. Other two indicators advocate collaboration between teachers and their colleague as well as students for knowledge construction and for student creativity development. As one component of this standards, intercultural telecollaboration is briefly mentioned in one indicator without explicit interpretations. Thus, for this reason, I did not consider these standards as being suitable for the present study.

TESOL technology standards for language teachers (TESOL International Association, 2008) is a set of criteria for teacher technology-related professional development, with a strong focus on pedagogy specific to English language teaching. It includes four overarching goals, each with three to five standards, for a total of 14 standards. The goals require language teachers to acquire and maintain foundational knowledge and skills in technology for professional purposes, to integrate pedagogical knowledge and skills with technology to enhance language teaching and learning, to apply technology in record-keeping, feedback and assessment, and to use technology to improve communication, collaboration, and efficiency. To present different development stages of teacher IT competence, the Standards distinguishes between “basic” and “expert” levels of technological knowledge and skills. Unlike the previous two models, the Teacher Standards was designed for both English as a L2 and FL teachers, which is consistent with the context of this study. However, though technology is applicable to different English learning settings, TESOL Standard fails to recognize the particular potential of technology in the FL context, enhancing intercultural exchanges. Thus, no goals or indicators show consideration for that. In this second sense, these standards were not suitable for the present study either.

A more recent model of professional digital competence was proposed by Starkey (2020) informed by a systematic literature review of research regarding the preparation of teachers for the digital age. The model is constructed in three aspects, teaching, managing the digital learning environment and professional work of being a teacher. According to this model, the teacher should be able to use technology for teaching, critically evaluate teaching decisions and teach students who are using digital technologies. To manage the digital learning environment, the teacher should be able to manage the use of technology in both the physical environment and the online environment. For professional work, the teacher should be able to use student management systems and data analysis tools, participate in professional learning networks and use communication tools. This model provides generic interpretations of digital competence related to teaching with no specific considerations given to FL teaching or online intercultural communication.

Among these models, TPACK has been extensively examined in the fields of professional development and technology integration.

TPACK. Mishra and Koehler (2006) defined the competences to choose, operate and use particular technologies in teaching as teachers’ technological pedagogical and content knowledge

(TPACK). Developed from the pedagogical content knowledge formulated by Shulman (1986), it features content knowledge, pedagogical knowledge and technology knowledge as three facets of teacher knowledge. According to Mishra and Koehler, content knowledge is knowledge about the actual subject matter that is to be learned or taught; pedagogical knowledge refers to knowledge involved in all issues of student learning, classroom management, lesson plan development and implementation, and student evaluation; technology knowledge is the knowledge about ever-emerging technologies, including how to install and remove peripheral devices or software programs as well as how to archive and create documents. To address the complex interplay of these kinds of knowledge, the researchers also proposed pedagogical content knowledge, technological content knowledge, technological pedagogical knowledge and technological pedagogical content knowledge. They argued that productive integration of technology in teaching required a thoughtful interweaving of these key facets.

Some researchers posited that the situated nature of teachers' thinking and the important role of context in teacher decision making were an important starting point for developing strategies to promote TPACK in teachers (Voogt et al., 2013, p. 10). The critical and informed use of technology thus has become one important component of teachers' ICT competence.

While the above models provided significant insights into what teachers needed to teach effectively online, none of them reflected what was needed particularly by the telecollaborative teacher. In fact, teachers have been encountered by a number of pedagogical issues in telecollaboration, such as designing appropriate tasks (Gruba, 2004), promoting desired social interaction (Kreijns et al., 2003), properly intervening in student' autonomous collaboration (Mangenot & Nissen, 2013), and promoting critical thinking skills among learners (Engstrom & Jewett, 2005). Furthermore, they also had difficulties in finding the appropriate partners, setting up and running exchanges, and assessing students' performance due to institutional requirements.

A model of teachers' telecollaborative competence. In 2015, O'Dowd (2015) developed a model of teachers' telecollaborative competence to define what teachers were qualified for telecollaborative projects. These competences enabled the teacher to organize the project, to design tasks and support students to attain learning and teaching objectives as well as to choose the appropriate online communication tools and instruct students to properly use them.

Furthermore, teachers needed to agree with the intrinsic role culture plays in FL education and be willing to work with partner-teachers and students in a collaborative manner.

A comparison shows that there are many traces of TPACK in this model. Firstly, O'Dowd also included content knowledge, technology knowledge and pedagogical knowledge in his model. Technology knowledge is defined as digital competence of using ICT; pedagogical knowledge is described as pedagogical competences; and content knowledge of culture and language is integrated with other components. Secondly, different kinds of knowledge are intertwined rather than described separately in a clear-cut manner. For example, the new model constructed one of the digital competences that a telecollaborative teacher needs to have "a basic working knowledge of current (e.g., Web 2.0) communication tools and their pedagogic affordances and constraints".

However, distinctive features can be easily seen in the new model. Firstly, unlike TPACK, which focuses on teacher knowledge, O'Dowd's model defines teacher qualification in a broader sense by adding attitudes and competences to knowledge. Secondly, unlike TPACK, which is situated in general teaching contexts, the new model is specifically oriented to telecollaboration in intercultural teaching. This contextualization is fulfilled by an extra component, organizational competences, which describes what a teacher needs to do to run an online intercultural exchange and promote the use of telecollaboration projects in intercultural teaching. Thirdly, in terms of technology use, the new model shows its concern about emerging web-related issues, such as users' privacy and security and its concern about critical understanding of online tools, which are not considered in TPACK.

O'Dowd's model is formulated for instructed online intercultural exchanges, which is argued by this study as an effective and practical approach of intercultural FL teaching in the Chinese context. Thus, this study employed this model as another theoretical framework. The model will be elaborated on in the following chapter.

The extant literature also includes some research on teachers' telecollaborative competence. For example, Khateeb (2018) adapted O'Dowd's model into a standardized questionnaire and investigated a group of Saudi EFL teachers to explore more insights regarding their telecollaborative competence as well as their experience and willingness to implement telecollaboration within the language learning context. Consisting of 33 statements in a 5-point Likert-scale, the questionnaire was distributed randomly to a large community of Saudi EFL

teachers via *SurveyMonkey* and received a total of 138 responses. The researcher used a chi-square test to explore the correlation of categorical variables and how they differed from one another. The findings were despite the little difference identified in overall telecollaborative competence by region and gender, there was correlation between region and gender of the EFL teachers and some elements of the competence. For example, teachers from different regions had significantly different attitudes towards the belief that the teacher is not the sole authority on the target culture and language. Female and male teachers showed significant difference in the competence to apply knowledge of the culture and language of the partner class to organize culturally and linguistically rich tasks. The study also revealed that the correlation between qualifications (i.e., diploma, bachelor and master) of the Saudi EFL teachers and some aspects of telecollaborative competence, such as the competence concerning interacting appropriately online with partner-teacher and establishing an openness to partner-teachers' alternative pedagogical beliefs and aims. Khateeb suggested that future research should take into account the qualitative aspects of assessing EFL teachers in Saudi Arabia through interview or focus group, including their experience and competence towards using telecollaboration.

Furthermore, some studies explored how teachers could be able to set up and exploit online intercultural exchanges in their teaching. These studies applied an “experiential modelling approach” (Guichon & Hauck, 2011, p. 188) by getting teacher participants engaged in online exchanges themselves to experience the tools and processes for their future teaching. For example, Antoniadou (2011) engaged student teachers in Barcelona in telecollaborative exchange with American peers using *Second Life*. Similarly, Müller-Hartmann (2012) designed a telecollaboration task to analyze and redesign textbooks for future teachers in Germany and New York.

The Gap in Existing Literature

Literature review revealed that telecollaboration holds great potential in IC education. It is particularly significant to address the long-standing problem in Chinese English teaching, lack of opportunities for authentic communication. However, limited number of empirical studies showed that in the field of IC teaching in the Chinese context, intercultural telecollaboration has not been widely practiced.

Extant studies also showed that it is the teacher who should be counted on to enhance the use of online intercultural exchanges and to fulfill its greater potential. Due to this critical role

that the teacher plays in this approach found, this study spotlighted EFL teachers in China with the intention of exploring how to better integrate telecollaboration in IC education in China. Although several surveys have been conducted to inquire teachers' knowledge of the ICC and their intercultural teaching practice, the telecollaborative competence of the teacher has yet been examined in the Chinese context. The use of telecollaboration projects may bring many challenges for teachers, which will discourage them from practicing it in teaching at all and compromise the effectiveness of the projects. Telecollaborative competence is a complicated construct more than the ability to use technological tools in teaching. It also involves teachers' proper attitudes towards ICC, their pedagogical competence to achieve IC teaching objectives, and their ability to collaborate with teacher partners and students. Thus, it is pivotal to examine EFL teachers' telecollaborative competence and find constructive ways to improve it.

It needs to be noted the use telecollaboration that this study recommends is for intercultural education. Studies on teachers' attitudes towards integrating intercultural education in FL teaching in the Chinese context has been conducted since 2011. The results of these studies showed EFL teachers embraced the idea of combining language with culture but their perception of IC was vague. The latest survey was conducted in 2016. It is worth examining how their understanding of IC developed and how such understandings are reflected in their teaching practice because this may partly explain why intercultural telecollaboration is not popular in China and inform the follow-up actions to implement the intercultural transfer of FL teaching by front-line practitioners.

Summary of Literature Review

This chapter initiated from one of the key concepts of the present study, ICC. Due to the complex conceptualization, there is no consensus on the definition and components of ICC. To highlight the role of language in intercultural communication, this study proposed a definition of the concept after a careful examination of existing ones, ICC is the ability to effectively and appropriately communicate with people who speak different languages and to achieve a better or deeper understanding of foreign cultures and one's own culture. To find out an operational framework for data analysis, this study also compared different language-related ICC models and selected Byram's (1997) model due to its higher applicability for intercultural teaching and its strong emphasis on critical cultural awareness.

With the argument for online intercultural exchanges to improve FL learners' ICC, the present study focused the rest of the review on this aspect. Relevant studies showed that telecollaboration had huge potential for ICC development, but the full fulfilment of the potential drew on the teacher. Thus, this study proceeded to review literature on teachers' role in telecollaboration and found that this new approach aroused many challenges for EFL teachers. Prior literature concerning teachers revealed a positive correlation between teacher cognition and their teaching practice. Teachers' beliefs regarding teaching and learning affected their conceptions of specific teaching situations and, ultimately, changed their teaching practice (Sercu & Bandura, 2005). Thus, teachers' understanding of ICC can be used as a predictor for their intercultural teaching practice. Furthermore, some endeavor has been made to define teachers' telecollaborative competence. As the only conceptualization of telecollaborative competence of teachers, O'Dowd's (2015) model was selected as the other theoretical framework of this study.

Although several surveys have been conducted to investigate teachers' ICC perception, I believed that another questionnaire survey is needed to reveal the changes in their perceptions or perspectives over time and to indicate EFL teachers' potential in integrating telecollaboration in teaching. Furthermore, no studies were found to inquire into the telecollaborative competence of EFL teachers in Chinese universities in previous literature. Thus, this study investigates the status quo of EFL teachers' telecollaborative competence in Chinese universities and further examines the factors that may have an influence on this competence. I hope that this exploratory study provides useful data for future research on the promotion of this competence.

Chapter 4

Theoretical Framework

According to Savin-Baden and Howell Major (2013), the theoretical framework “is a theory that works with the philosophical lens in a complementary theory way” (p. 134). It informs researcher assumptions, creates theoretical boundaries for study, and provides theoretical basis for analysis of findings. Literature review showcased the great potential that telecollaboration has for ICC development and the crucial role that the teacher plays in online intercultural exchanges. The review also identified Byram’s (1997) ICC model and O’Dowd’s (2015) telecollaborative competence model for teachers as the theories basis of this study. This chapter elaborates upon them to provide the theoretical underpinnings for this present study.

Byram’s ICC model

Literature review indicated that numerous models have been formulated to construct the components of ICC. Among the studies that have been reviewed, there are four that integrated linguistic competence into ICC. After a careful comparison, Byram’s model was selected due to its balanced combination of language and intercultural competence and its unique emphasis on critical intercultural awareness.

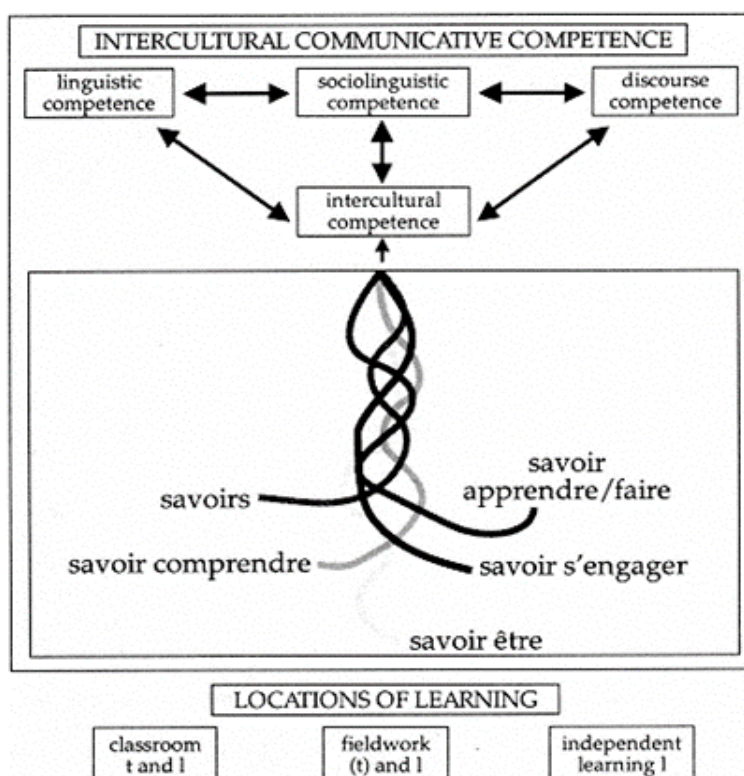
Developing from van Ek’s work on communicative ability, Byram (1997) proposes a model of ICC (see Figure 2) in the specific context of foreign language education. In this model, Byram notes that ICC should be composed of not only IC but also language. According to Borghetti (2013), this model is the only one, which presents the relationship between intercultural and communicative objectives. It is one of the most influential and commonly cited models in the study of L2/FL education. Many relevant empirical studies are theoretically based on this model, such as Chen (2017), Hsu and Beasley (2019), Kusumaningputri and Widodo (2018), Özdemir (2017), and Ryshina-Pankova (2018).

Byram adds to the cultural situatedness of communicative competence by building this model on Tajfel’s (1981) social identity theory, Gudykunst’s (1994) cross-cultural communication and Bourdieu’s (1990) theory of social and cultural capital (Byram, 2009). These theories are sociologically oriented and associated with the prominent themes of poststructuralist approach, identity and power (Davis, 2004). According to Byram (1997), the success of intercultural communication can be judged not only in terms of the effective exchange of information, but also in terms of the establishment and maintenance of human relationships. The

model is somewhat more concerned with negotiating identity in the space within and across cultures. For Byram, the intercultural speaker acts like a mediator between cultures, able to negotiate in both and combine both in performance and possessing flexible individual identity. Such philosophy is reflected in different importance that he attaches to individual ICC components and his descriptions of these components.

Figure 2

Byram's Model of ICC



Language

Byram's model is one of a few theoretical frameworks that encompass linguistic competence into ICC. Whereas interaction between native speakers of the same language is not primarily different from that between people who have different mother tongues, Byram (1997) argues that interlocutors' identities vary in these two situations and identity construction could be presented and influenced by language.

van Ek (1986) defined foreign language teaching as a contributor to learners' general education and formulated a model of "communicative ability" (p.35). In this model, communicative ability comprises six components: linguistic competence, sociolinguistic

competence, discourse competence, strategic competence, socio-cultural competence and social competence. Inspired by van Ek's model, Byram (1997) further examined these competences and rebuilt them in his model. He redefines linguistic, sociolinguistic and discourse competence from van Ek's version to reflect the importance that he attaches to discovery, interpretation and relationship building (see Table 2).

Table 2

Van Ek and Byram's Definitions of Linguistic, Sociolinguistic and Discourse Competence

	van Ek (1986)	Byram (1997)
linguistic competence	the ability to produce and interpret meaningful utterances which are formed in accordance with the rules of the language concerned and bear their <u>conventional</u> meaning . . . that meaning which <u>native speakers</u> would normally attach to an utterance when used in isolation (p.39)	the ability to apply knowledge of the rules of <u>a standard version</u> of the language to produce and interpret spoken and written language (p. 48)
Sociolinguistic competence	the awareness of ways in which the choice of language forms . . . is determined by such conditions as setting, relationship between communication partners, communicative intention, etc. . . . sociolinguistic competence covers the relation between linguistic signals and their contextual or situational meaning (p.41)	the ability to give to the language produced by an interlocutor — <u>whether native speaker or not</u> — meanings which are taken for granted by the interlocutor or which are <u>negotiated</u> and made explicit with the interlocutor (p. 48)
Discourse competence	the ability to use appropriate strategies in the construction and interpretation of texts (p.47)	the ability to use, <u>discover</u> and <u>negotiate</u> strategies for the production and interpretation of monologue or dialogue texts which follow the conventions of the

culture of an interlocutor or are negotiated as intercultural texts for particular purposes (p. 48).

Byram's interpretation reveals his opposition to the role of native speakers as model for FL learners. He replaced "conventional . . . meaning which native speakers would normally attach to an utterance when used in isolation" with "meanings which are taken for granted by the interlocutor" no matter they are native speakers or not. Such disagreement against the dominant role of native speakers in intercultural communication could also be identified by his repeated use of "negotiate". When divergence or misunderstanding arises in intercultural communication, the interlocutor negotiates to clarify meanings. When the discourse conforms to the conventions of some interlocutors or for particular purposes, interlocutors are also encouraged to negotiate with each other when there are no previous experiences to draw on and with the presence of other people. Thus, these definitions also indicate that Byram attaches importance to interlocutors' ability to discover and negotiate information they need more than acquire the knowledge in advance. Language is as an essential tool for intercultural communication. However, effective and appropriate intercultural communication requires more than linguistic competence. Intercultural speakers need to comprehend the semantics of the language produced by other interlocutors and the culture behind it and communicate correspondingly. They can still be considered interculturally competent if they do not understand at the beginning but are able to employ strategies, like negotiating, to achieve them. It needs to be noted linguistic competence is pivotal in negotiation. I agree with the decentralization of native speakers in FL teaching as well as the reduction in requirements for knowledge reserves.

IC

Apart from language competence, Byram (1997) argues that intercultural communication also requires interlocutors' knowledge of the country in question and of their own. The knowledge includes, but not limited to, geographic information, political climate, traditional culture, history and philosophy. Such knowledge allows the interlocutor to perceive different social identities and to engage in different communicative behaviors. Attitude is another precondition of intercultural communication. In the process of intercultural communication, interlocutors use various skills to achieve their purposes. Consequently, Byram (1997) constructs

the competences of IC as attitudes (*savoir être*), knowledge (*savoirs*), the skills of interpreting and relating (*savoir comprendre*), the skills of discovery and interaction (*savoir apprendre/faire*), and political/critical awareness (*savoir s'engager*).

Attitudes (*savoir être*). Attitudes in Byram's (1997) model are towards "people who are perceived as different in respect of the cultural meanings, beliefs and behaviors they exhibit" (p. 84). In other words, Byram describes the attitudes that people need to adopt towards those from other cultures in intercultural communication. To promote intercultural exchange, Byram (1997) argues that instead of simply being positive, attitudes need to be "of curiosity and openness, of readiness to suspend disbeliefs and judgement with respect to others' meanings, beliefs and behaviours" (p. 34) and also of "willingness to suspend belief in one's own meanings and behaviours, and to analyze them from the viewpoint of the others with whom one is engaging" (p. 34). Intercultural speakers need to be interested in other's experience or actively seek the other's perspectives and evaluations of phenomenon. Such attitudes help defuse prejudices or stereotypes and enhance mutual understanding.

However, Hoff (2014) contests that such attitudes with an overarching aim to overcome phases of uncertainty and ambivalence to establish a shared understanding in the intercultural encounter may result in a one-dimensional, naïve affair if considerations of the other's expectations are given to such a degree that one's own cultural outlook is ignored. He points out what seems to lack as a component in Byram's model is an attitude that serves for an elevation to a higher universality that overcomes not only our own particularity but also that of the other.

The investigator considers the concern from Hoff (2014) totally justified. Although such attitudes enable FL learners to co-orient they may lead to learners' excessive tolerance for the target language and culture. However, it needs to be noted that Byram puts primary stress on critical awareness, which refers to a critique of one's own community or society and that of other countries. I argue that the advocated attitudes and critical awareness will collectively enhance co-orientation and will not lead to the neglect of one's own language and culture.

Knowledge (*savoirs*). Byram (1997) subsumes multi-faceted knowledge, not only knowledge about social groups and the cultures in one's own and others' countries, but knowledge of the processes of interaction at individual and societal levels. He believes people consciously or unconsciously acquire the former knowledge through family socialization and formal education. Formal education mainly spreads knowledge of national culture and identity.

Byram (1997) divides the knowledge into emblematic knowledge, such as items of dress and modes of greetings and differentiating knowledge, such as history and religious belief. What people know about other countries and identities is usually relational with but differently interpreted in that of their own country and identities. Such relational nature is linked to the knowledge of the processes of interaction at individual and societal levels. Byram (1997) believes declarative knowledge of how social identities are acquired, perceived by other members of one group and how to perceive the interlocutors from other groups, and procedural knowledge of how to act in specific circumstances is fundamental to successful interaction and could not be acquired automatically. Such awareness is not sufficient and needs to be complemented by skills that people could use in real communication. The skills will be discussed in the following subsection.

However, Belz (2007) notes Byram seems to equate the concept of culture with that of nation and argues such a position may ignore “the nation-internal diversity... or the existence of ideologically or ethically bound groups that span national borders” (p. 137). According to Belz (2007), the importance of such internal diversity or the validity of cultural relativity may also be undermined by establishing an assessable threshold of IC as Byram did in the model as the notion of a threshold assumes a standard or reference point in terms of the dominant cultural values.

Byram (1997) responded to this question in his book. From the social psychological perspective, people attribute characteristics and identities to each other in a social encounter (Tajfel, 1981). He argues that one of the initial attributions in an intercultural encounter is usually that of national identity, even though this may be misleading and influence the interlocutor to impute the wrong identity. This study has discussed in the section of ICC definition that culture is a construct shared by a group of people. It implies internal diversity innately exists regardless of the scope of this concept. I believe this is why open attitude, like readiness to suspend beliefs and disbeliefs, and critical cultural awareness are included in this model.

Byram (1997) sets the threshold of IC for assessment. The ICC model is positioned in FL education, which means interventions are used to develop learners' ICC. In this context, assessment helps to indicate whether and to which degree the interventions contribute to IC teaching. I therefore believe assessment is a necessity in this situation. To create the assessment

system, Byram addresses two questions, “whether there is a threshold below which an individual cannot be deemed to have intercultural communicative competence at all” and “whether there are degrees of competence beyond the threshold, and if so whether they are measurable”. After having reviewed the previous literature, he found positive answers to them.

In addition, it is worth noting that it is impossible for an instructor to equip learners with culture knowledge in view of its diverse expressions, ever-changing characteristics and the individual differences in one cultural group. In this case, I think attitudes towards different cultures and skills for acquiring cultures instead of knowledge should be the priority of intercultural education.

Skills. According to Byram (1997), the skills that a competent intercultural speaker is expected to possess include the skills of interpreting and relating, and the skills of discovery and interaction. The skill of interpreting and relating enables individuals to understand unknown cultural phenomena, beliefs and practices by relating them to comparable existing knowledge. Thus, knowledge is the precondition in this case. As discussed in the previous subsection, knowledge acquired through formal education or informal socialization may include prejudices or stereotypes which is built on ethnocentric values. A competent intercultural speaker who is defined by Byram (1997) need to be able to interpret not only the common ground but also dysfunctions and contradictions.

When there is no or partial existing knowledge to draw on, people need to use the skill of discovery to build up specific knowledge as well as an understanding of the beliefs, meanings and behaviors which are inherent in particular phenomena (Byram, 1997). Discovery may take place when individuals are on their own through reading documents or observation. It may also be achieved by seeking help from others. The skill of interaction fits into the latter case. Discovering through social interaction requires people to manage the constraints of time, mutual perceptions, attitudes and dysfunctions to establish relationships and mediate between people with different origins and identities.

Political/critical awareness (savoir s’engager). The above four aspects of intercultural communication, attitudes, two skills and knowledge, can be acquired through experience and reflection, not necessarily in educational institutions. However, Byram (1997) argues that intervention of teachers could bring it to a broader education philosophy and focuses his model on political education and critical cultural awareness. Byram echoes Doyé’s (1993) proposition

that political education as a part of general education has a particular relationship with ICC. For example, one objective of political education to lead learners to reflection on social norms and to a capacity for political judgement corresponds to one aim of FL teaching, to lead learners to respect the norm of other societies and judge them in an unprejudiced way. He defines *savoir s'engager* as “an ability to evaluate critically and, on the basis of explicit criteria, perspectives, practices and products in one’s own and other cultures and countries” (Byram, 2013, p. 323). Adding political education and critical cultural awareness draws attention to the development of the self-encapsulated in the notion of *Bildung*, which means linking the self to the world in the most general, most animated, and most unrestrained interplay (Von Humboldt, 2000) and realizes the full potential of language teaching’s contribution to education. This study agrees that FL teaching is more than a process of developing skills and knowledge, primary importance thus be attached to political education and critical cultural awareness.

As the only model that involves the relationship between intercultural and communicative objectives (Borghetti, 2013), the connection between intercultural competence and communication in Byram’s model could be identified in three aspects. Firstly, Byram strongly argues for the inclusion of non-verbal communication in the model as well as in FL teaching. Furthermore, he encompasses the abilities to gather knowledge about another culture and the skills of empathy, management of anxiety and adaptability in attitudes and skills of discovery, interpretation and relating. Lastly, he refines some components in van Ek’s model as he refuses to use native speakers as the model for FL learners.

Byram’s interpretation of these components serves as working grammar to evaluate the participants’ responses to the questionnaire in this study.

O’Dowd’s Model of Telecollaborative Competence for Teachers

O’Dowd (2015) fully recognized the great value of telecollaboration for intercultural curriculum and found it imperative to develop a framework of telecollaborative competences. What do teachers need to know to set up and organize an online exchange? What skills will they need to cooperate with their partner-teachers and to exploit the exchange in their classrooms? What attitudes do they need to have in telecollaboration? To address these questions, O’Dowd (2015) adopted the Delphi approach, which combines the findings of the literature with the input of practitioners. O’Dowd (2015) contacted a total of 100 experts and experienced practitioners from all levels of FL education – primary, secondary, university and adult education – and were

based in Europe, North and South America and Australasia. They were consulted three times. In the first round, O’Dowd developed a first draft of 30 “can-do” statements of telecollaborative competence for FL teachers concerning organizational skills, pedagogical skills and electronic literacy skills based on the competences outlined in prior literature. Online questionnaires and virtual dialogue were used to collect participants’ comments as many of them were located all over the globe. Experts were asked to evaluate the importance and relevance of the ‘can-do’ statements on a Likert scale from 1 (not important at all) to 5 (vital), and to add comments and feedback about aspects they felt were missing or any bad formulations they had identified.

According to the result of the questionnaire, 25 statements received a mean value of greater than four and a standard deviation of less than one and were maintained. Informed by the suggestions of the respondents, the 25 statements were linguistically refined, 10 new descriptors were incorporated, and attitudes and beliefs were added to be a new component. These amendments produced the second draft of 41 statements. In the second round, experts also needed to complete the Likert scale and provide suggestions for adaptations. Consequently, 40 descriptors were maintained according to the same criterion used in the previous round. This third iteration was taken to be these 40 descriptors.

In this model, O’Dowd (2015) illustrates the skills, attitudes and knowledge a FL teacher needs to successfully establish and carry out an online intercultural exchange with their learners. This model has four sections — organizational, pedagogical and digital competences, as well as attitudes and beliefs (See Table 3-6). These competences enable the teacher to organize the project, to design tasks and support students to attain learning and teaching objectives as well as to choose the appropriate online communication tools and instruct students to properly use them. Furthermore, the teacher needs to agree with the intrinsic role culture plays in FL education and be willing to work with partner-teachers and students in a collaborative manner.

Table 3

Organisational Competences of the Telecollaborative Teacher

<i>The telecollaborative teacher ... (14 descriptors)</i>
can use online networks and his/her own professional contacts to locate possible partner-teachers in distant locations

can establish and explain clearly to possible partner-teachers his/her plans and expectations related to a possible exchange

can design the structure of an exchange (i.e., aims, minimum participation requirements, language use) which reflects the interests, L2 proficiency and level of electronic literacy of his/her own students

can negotiate effectively with the partner-teacher the structure and organizational technicalities of the exchange which take into account both institutional contexts (calendars etc.) as well as the needs and interests of both sets of participants

can employ various strategies to ‘match’ learners from the different institutions and to create effective partnerships and exchange groups

can maintain a good working relationship with the partner-teacher throughout the exchange, identifying problems as they arise

can alter the logistics of the exchange to adapt to developments and problems as they arise (e.g., low levels of participation, access to technology problems etc.)

can articulate to his/her virtual partner-teachers the learning objectives and pedagogical beliefs that lie behind his/her proposed tasks

can apply his/her experiences of previous online exchanges in order to avoid repeating mistakes and to innovate his/her practice

can apply his/her knowledge of the educational context in which the partner class is working in order to structure the exchange and avoid problems.

has knowledge of the common causes of organizational and intercultural problems in online exchanges and can apply a series of techniques and strategies to deal with these problems

is aware of action research methodology in order to evaluate the strengths and weaknesses of his/her online exchange

is aware of measures to ensure that the exchange receives appropriate academic recognition within the home institution

can successfully articulate the relevance and the added pedagogical value of telecollaborative exchanges to colleagues and superiors in order to support their use throughout the institution.

Table 4

Pedagogical Competences of the Telecollaborative Teacher

The telecollaborative teacher ... (9 descriptors)

can identify tasks for the online exchange which meet at least some of the objectives of the participating classes' curricula

can support students in discerning and reflecting upon culturally contingent patterns of interaction in follow-up classroom discussions

can apply his/her knowledge of the culture and language of the partner class to organize culturally and linguistically rich tasks for the exchange

can design tasks which are attractive and relevant for students and which serve to develop culturally and linguistically rich interaction

can design tasks which support the activities of collaborative inquiry and the construction of knowledge

can integrate appropriate assessment procedures and rubrics which accurately reflect the activities which students carried out during their exchange

can explain clearly to students what is expected from them during an exchange – deadlines, performance objectives, learning outcomes etc.

can integrate seamlessly and effectively the content and themes of the telecollaborative exchange into his/her contact classes (when they exist) before, during and after the exchange itself

can provide learning support for learners either through scaffolded guidance (in the classroom or in online tutorials) or through the provision of reflective tools, such as learning logs or journals.

Table 5

ICT/Digital Competences of the Telecollaborative Teacher

The telecollaborative teacher ... (10 descriptors)

can choose the appropriate online communication tools (e.g., email, blogs, wikis, Skype) to fit both the everyday online practices of the students as well as the project's aims.

has a basic working knowledge of current (e.g., Web 2.0) communication tools and their pedagogic affordances and constraints.

can explain the use of the chosen tools to his/her students or can provide them with online or third-party support for learning how to use them.

has a basic working knowledge of web management systems (e.g., Moodle) or exchange platforms (e.g., ePals, eTwinning) in order to locate and run his/her online exchanges.

can organize and structure real-time student interaction taking into account the particular affordances and technicalities of synchronous tools such as videoconferencing, chat etc.

can interact appropriately online with his/her partner-teacher and, if necessary, with the participating students, attending to online communication norms (e.g., responding to emails in a timely manner, using appropriate register etc.)

can organize the online exchange in a manner which protects students' safety and respects privacy issues related to students' work.

can model social presence and online identity for his/her students and help to create an online community of trust and learning.

can instruct learners on how to use online tools autonomously – tools which help them resolve language difficulties (e.g., online dictionaries, Google translator, multimedia authoring tools).

can develop in students a critical understanding of online tools – the interests they serve, the type of communication they promote etc.

Table 6

Attitudes and Beliefs of the Telecollaborative Teacher

The telecollaborative teacher displays... (7 descriptors)

a belief that culture plays an intrinsic role in FL education and online communication

an openness to partner-teachers' alternative pedagogical beliefs and aims

a willingness to look for compromise with the partner-teacher in relation to task design, exchange structure and other issues

an interest in trying out new telecollaborative tasks and new online tools which may be proposed by students or partner-teachers

a willingness to deal with new messages, texts and questions in contact classes or tutorials as they emerge during the online exchange

a willingness to accept that the teacher is not the sole authority on the target culture and language

interest in learning with students about new aspects of L2 language use and cultural products and practices from their exchange partners

A rigorous examination of Byram's model attested its root in FL teaching. Despite the criticism mentioned above, this model provides a desirable interpretation of ICC for the present study. The descriptions of language competence contribute to better understanding of the connections between FL and IC. Furthermore, its detailed explanations of IC show a clear picture of what the specific knowledge, skills, attitudes and critical cultural awareness are needed in intercultural communication. As this study focused on IC, these interpretations can serve as clear parameters to analyze IC understanding of EFL teachers in China.

O'Dowd's model, on the other hand, was also contextualized in intercultural FL education. 40 indicators of this model reflect not only its specific orientation to telecollaboration in intercultural teaching but also its careful consideration of technology-related issues such as users' privacy and security. These indicators can be adapted to be a questionnaire, with which people are able to evaluate their telecollaborative competence.

Chapter 5

Research Questions and Methodology

This chapter proposes the research questions of the present study and then focuses on the methodology which unfolds in five facets. The distinctions and connections of epistemology, methodology and methods are first discussed to provide a clear framework of the research methodology. The epistemological stance is then explicated as it justifies the choice of the research methodology and method of this study. Subsequently, the methodology of this study is defined. After that, a series of procedures are introduced in great detail, which includes recruitment and participants, instruments, data collection, and data analysis. The rationale behind the research process is also explained. Ethical considerations are finally reviewed with actions that are taken to protect participants.

Research Questions

To explore how to improve English as a Foreign Language (EFL) teachers' telecollaborative competence in Chinese universities and ultimately better develop students' ICC, this study addresses the following four questions:

1. Based on Byram's ICC construct, what is EFL teachers' current understanding of IC?
2. According to O'Dowd's model, what is EFL teachers' current telecollaborative competence?
3. What factors are associated with EFL teachers' IC understanding and telecollaborative competence?
4. How do EFL teachers understand their understanding and competence could be enhanced?

Epistemology, Methodology and Methods

Epistemology, methodology and methods are three fundamental facets of research, which provide the framework for planning, implementing, and evaluating the quality of qualitative research (Carter & Little, 2007). In existing literature, although there was much talk of research methods, methodology and epistemology were less discussed, leaving the relationships among them unclear. This might result from word length limitations in some journals. What is worse, the definitions of these concepts were sometimes inconsistent. Insufficient engagement with these important concepts leads to researchers' bewilderment and weakened quality of research. As a research beginner, I find that it is necessary to clarify these terminologies and the

differences and connections among them before the research design of the present study is discussed.

What is Epistemology?

Although philosophical worldviews remain largely silent in literature, they have an important influence on the practice of research and need to be elucidated. The word *epistemology* derives from two Greek words, *episteme* (meaning knowledge or understanding) and *logia* (meaning science or study). In a philosophical context, epistemology is “the study of the nature of knowledge and justification” (Schwandt, 2001, p. 71). It is used to describe ways of knowing, how we know what we know, and who can be a knower (Sprague, 2010). Together with ontology, epistemology provides “insight into what the researcher believes to be the nature of truth, the nature of the world, and ways of being in that world” (Berryman, 2019, p. 272).

What is Methodology?

Methodology is “a theory and analysis of how research should proceed” (Harding, 1987, p. 2). It is an overall plan for studying a research question. A methodologist is someone who describes, explains, justifies, and evaluates research methods (Berryman, 2019). Fishman (2010) draws on two terms, explanation and understanding, to differentiate two broad approaches to research in social sciences, and in educational studies in particular. These two general perspectives on research and knowledge production have been translated into quantitative and qualitative methodologies. Quantitative methodology measures degrees of variation between dependent variables resulting from variation between the independent variables while qualitative methodology is primarily oriented to cultural understanding (Riazi & Candlin, 2014). Quantitative methodologies include experimental designs, non-experimental designs and longitudinal designs. Methodologies in qualitative research include ethnography, phenomenology, narrative methodology, grounded theory and case study (Creswell & Poth, 2018). The methodology positions the researcher to study a phenomenon, in context, through the understanding of the participants. As a result, open-ended questions are used; textual analysis is often employed; the data are interpreted; themes and patterns are identified; and credibility, dependability, and confirmability are used to validate the research (Berryman, 2019).

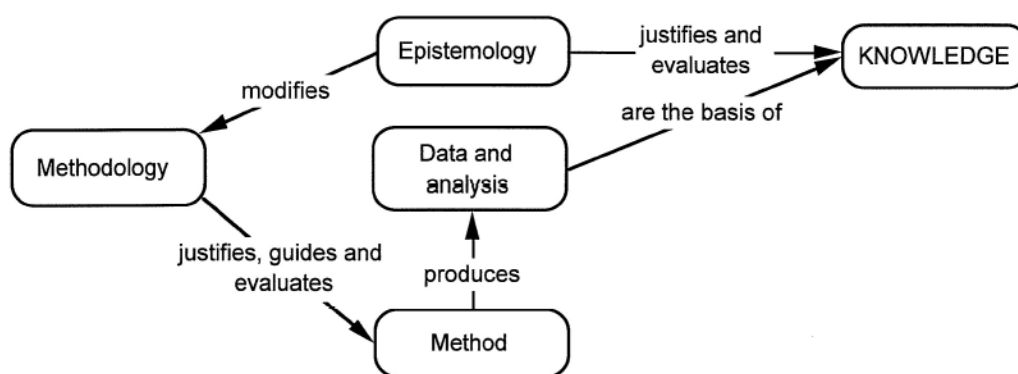
What is Method?

Methods are the specific tools or sets of instructions used to collect and analyze data to address the research question (Hathcoat et al., 2019). These practical activities include sampling,

data collection, data management, data analysis, and reporting. Since methodology influences the choice of method, methods are associated with certain methodologies. For example, ethnography, the study of a culture or group, uses participant observation, field notes, interviews and other methods that involve the interaction of the researcher with the participant, in order to learn how the participants themselves make meaning (Freebody, 2002).

Figure 3

The Simple Relationship between Epistemology, Methodology, and Method from Carter and Little (2007)



The Interrelationship among Epistemology, Methodology and Methods

Epistemology, methodology and methods are intimately and intricately connected, with each acting on one another. Carter and Little (2007) describe their relationship as “methodology justifies method, which produces data and analyses. Knowledge is created from data and analyses. Epistemology modifies methodology and justifies the knowledge produced” (p.1317). This study borrows the picture they created to illustrate it (see Figure 3).

Different epistemological positions lead to the choice of different methodologies or different variants of the same methodology. Epistemology profoundly shapes the researcher’s conceptualization of the participant in data collection and analysis. For example, a social constructivist researcher considers participants as co-creators of the study and interacts with them to collectively construct meanings. The researcher takes different contexts into account when interpreting their responses. Epistemology also influences researchers’ perspective of data quality. For example, a researcher holding social constructivist may collect data from multiple sources to enrich the data rather than to prove accuracy. As the researcher is inextricably

implicated in every step of the research process, he/she needs to make detailed records of his/her own participation, reactions, and experiences and to use these records as an important data source in analysis (Carter & Little, 2007). Additionally, the epistemological stance of the researcher influences the method used to report the findings. This is because the role of readers and the relationship between the researcher and the reader vary among different epistemological positions. According to social constructivism, the reader may also be active interpreters, thus attaching importance to their comments on the study.

In view of the connections between epistemology, methodology and methods, this rest of this section first introduces the investigator's epistemological position, then explains the methodology and explicates the research methods of this study.

Epistemological Position of This Study

The epistemological approach for this study is Vygotsky's social constructivism (1978) because the study attaches primary importance to external factors and considers interpersonal communication a crucial driving force for individual meaning construction.

As social being, human has intricate association with the world around it. Human organismic development is interpreted by Berger and Luckmann (1966) as socially determined because it continues to take place after birth when a human infant has established a relationship with its natural and social environment. During this period when the human organism develops to its completion, the human self is formed. The formation of the self thus is also related to social environment. That is to say, an adequate understanding of the organism and the self has to take their social context into account. On the other hand, human being externalizes itself in activity. All human activity is subject to habitualization. Reciprocal typification of habitualized actions produces institutions, which is acknowledged by all group members. This is also the process of objectivation. To know the social world, new generations need to internalize objectivated reality. Due to the fact that different people have varied knowledge of reality, the construction of the knowledge and the further establishment of reality on the basis of the knowledge pertain to specific social contexts (Berger & Luckmann, 2022).

Social constructivism is an interpretive paradigm whereby individuals seek to understand the world and develop subjective meanings directed towards their experiences (Creswell & Poth, 2018). It develops from structuralism, which advocates the notion that knowledge is constructed in a closed system where meanings derive from internal coherence rather than external

association (Davis, 2004). However, different from structuralism, social constructivism explores outwards and attributes one's perception of the world more to external factors. Social constructivist researchers believe that the subjective meanings developed by individuals from their experiences are varied and multiple and seek the complexity in their studies (Creswell & Creswell, 2018).

Unlike constructivists, like Piaget, who confine their cognition research to individual construction of knowledge within closed and self-referential systems, social constructivists, like Lev Vygotsky, focus their research on the external factor—social context. Constructivists assume that knowledge is framed in terms of personal ongoing adaptations due to the difference between novel circumstances and their history of experience (Davis, 2004). However, social constructivists consider knowledge construction as collaborative work, in which one learns through mimicking observed social roles, like interaction with others. Consequently, while Piaget put forward the construction of mental schemas, Vygotsky inspired theories that highlight the social and cultural parameters of learning. According to Vygotsky, teaching is mediating, mentoring, modeling, and initiating (Davis, 2004). Project-oriented and group-based classroom structures, like telecollaboration, are informed by his work. According to Chun (2015), telecollaborative projects in L2/FL education are theorized most frequently from sociocultural perspectives. Social constructivism, thus, justifies the great importance that the researcher attaches to telecollaboration in the context of intercultural education in China. To use them effectively and appropriately, both language and culture need to be acquired through interaction with people who speak the language and who are the carrier of the culture.

Social constructivism also focuses on the specific contexts in which people live and work. On the one hand, it helps show how culture and social interactions affect the teacher cognitive development to understand the historical and cultural settings of the participants in this study. Therefore, the data of the context where participants in this study posit themselves were collected and analyzed carefully. On the other hand, social constructivist researchers recognize that their own backgrounds shape their interpretation, and they position themselves in the research to acknowledge how their interpretation flows from their personal, cultural, and historical experiences. Thus, the position of the investigator had been discussed in the chapter of Introduction. The context of this study, which determines to which extent its theoretical

framework, research methods and findings can be referred to by other researchers has also been described in detail in Chapter Two.

Social constructivism also informs the current study that open-ended questions enable interviewees to express themselves freely instead of being restricted or influenced by the questions. The researcher needs to carefully listen to and record what they say. Social constructivism entitles each person the right to speak out his or her idea, which is respected as part of the collective construction of the world. However, it does not mean the world is whatever an individual interprets. Neither should every individual perception of the world be attached equal importance. Therefore, Byram's (1997) and O'Dowd's (2015) models are applied as references for teachers' perception and competence needed for intercultural language teaching via CMC.

Methodology of This Study

The purpose of this study is to explore how to enhance EFL teachers' IC perception and telecollaborative competence. However, the complex conceptualization of IC and different facets of telecollaborative competence make it impractical to explore them in general in this single study. If participants are not familiar with these two concepts or either one of them, an unstructured interview is likely to collect little meaningful data. Thus, the quantitative research was conducted first to measure participants' perception of their telecollaborative competence as well as the concept IC and to identify experience-related factors that have associations with them. This helped to narrow down the focus of qualitative research to major features of teachers' understanding and the competence as well as their teaching, training and overseas experiences correlated to them as social constructivism argues one's experiences are pivotal to knowledge construction. This allowed participants and the researcher to focus on the most closely related elements. Thus, this study is primarily quantitative. Quantitative approaches include true experiments, quasi experiments, applied behavioral analysis or single-subject experiments and correlational design (Creswell & Creswell, 2018). Depending on such factors as how reliability and validity are framed within a study's research design, such approaches are more conducive to determining definitive and generalizable results.

My original research design included a provision for qualitative data collection in the form of interviews. This was in an effort to produce a mixed method study. However, as I cover in my section on limitations in the conclusion to this thesis, significant factors beyond my control

prevented me from conducting significant and trustworthy qualitative data collection that would lead to a study that could unambiguously be termed mixed method. These limitations also affected my ability to integrate the two forms of data collection. It is true that there are examples from the research literature in which studies characterized as mixed method utilize very little data from either side of the qualitative/quantitative divide (see, e.g., Cots et al, 2016; Ma, 2012). However, in an effort to be transparent, I prefer to follow the recommendations of Clark and Creswell (2008) and use this limited qualitative data as a means of validating the quantitative findings. Thus, this study is best characterized as being primarily survey-based research in which a questionnaire has been used to test the correlations between variables.

Quantitative research designs have advantages in terms of revealing the overall features and tendency but provide limited interpretations about how these features work. This is because when a study goes deep, it will involve more details. Including all the details in a quantitative instrument with closed-ended questions not only requires the research designer to be fully aware of these details but also results in a lengthy questionnaire.

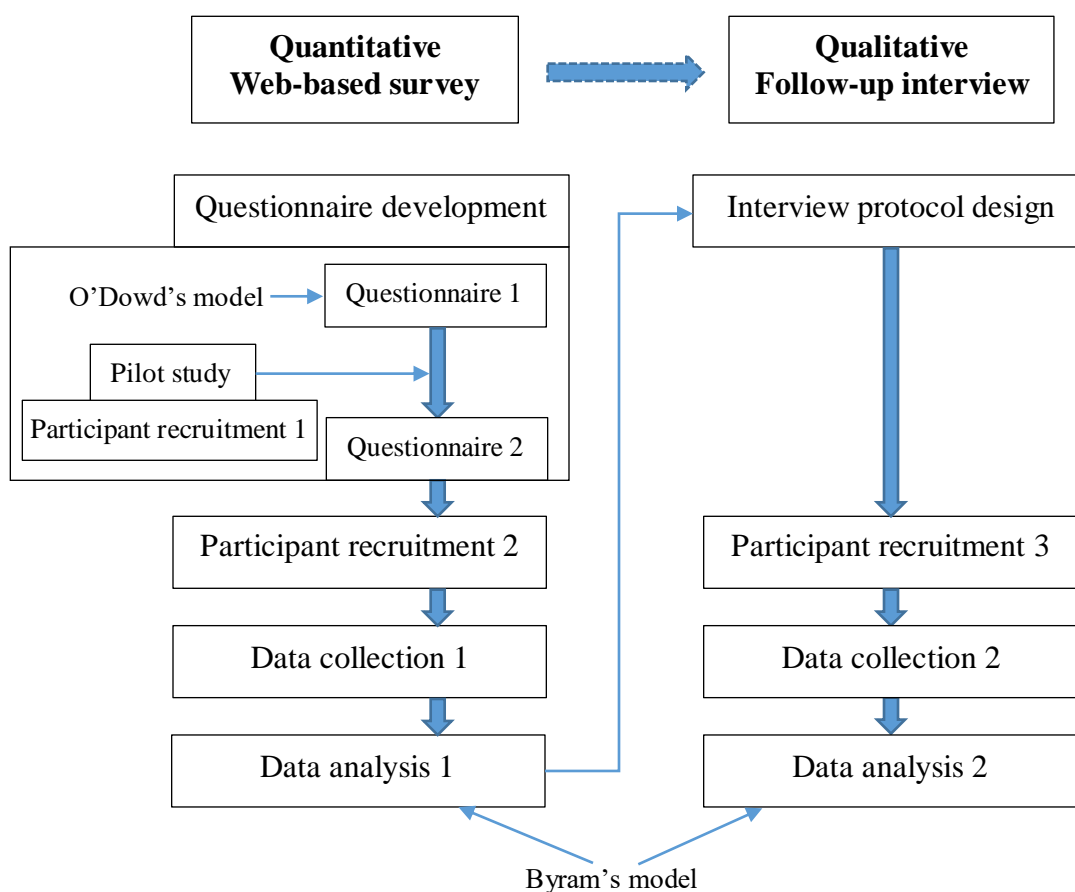
Therefore, given the fact that the researcher of this study counts on the participants to jointly construct how to improve participants' IC understanding and telecollaborative competence, qualitative interview was also conducted for in-depth data concerning the dynamic interaction between the variables. Interviewing, as an information collecting method, is a social interaction between two or more people where questions are asked and answers are given on a predetermined topic. "The goal of any qualitative research interview is to see the research topic from the perspective of the interviewee and to understand how and why they come to have this particular perspective" (King, 2004, p. 11). It holds higher value when closed-ended questions on a survey do not work well, such as when a research topic is complex, when a lengthy explanation is required for a question, and when more information is anticipated from participants' responses (Blackstone, 2012). For example, after the correlation had been identified between the length of their overseas visits and attitudes and beliefs through quantitative analysis, interviewees were asked to recall their overseas experiences to see if overseas experiences made attitudes and beliefs different and to share whether the length of their stay contributed to the change. Their narrative provided a detailed picture about what EFL teachers found effective to change their attitudes and beliefs during their stay overseas and how it happened. Some responses from the

interview also triangulated the quantitative data, such as those concerning IC components and telecollaboration projects.

In addition, in the present study the response patterns revealed by the quantitative survey were also used to inform the follow-up interview for a sub-sample of survey respondents. For example, when the survey showed that the teachers' overseas experiences were associated with their IC perception, participants with overseas experiences will be accepted for the interview and be asked whether the overseas experiences have an effect on their IC understanding.

Figure 4

A Paradigm of Research Procedures



Research Methods of This Study

This study used both quantitative and qualitative methods to collect and analyze data. As a study which involves human participants in data collection, this study supports and concurs with UO commitment to ensuring that all research are conducted in a way that respects the

dignity, rights, and welfare of participants. This section first describes the ethical considerations and then how the research was specifically implemented, from recruitment and participants, instruments adopted by this study to data collection and data analysis. The rationale for each decision that was made is provided for better understanding of the reader. Figure 4 presents the procedures step by step and the interplay between the quantitative part and the qualitative part.

Ethical Considerations

This study adheres to the ethical standards of the university in accordance with research ethics guidelines specified by *Research Ethics Boards*. Extensive ethical issues may arise through the whole research process. This subsection describes the ethical concerns of this study over participant recruitment, anonymity, confidentiality, privacy and local ethical policies. Following the ethical considerations and protocols in the approval, it also reports the actions taken in this study to minimize risks to participants.

Local ethics policy. As this present study was conducted out of Canada, the permissions/approvals needed to be granted from local places with the research conforming to its ethical guidelines or rules. The investigator thus attempted to seek approval before the participant recruitment began. However, the ethical considerations in these Chinese universities were taken for high-stake research, like medical research. No ethical rules or offices had been created for low-risk social science research like this one. Consequently, this study was conducted in accordance with the Canadian ethical guidelines.

Participant recruitment. Before the recruitment, consent needed to be first granted by the university as well as the specific faculties where potential teacher participants were located. The invitation to the interview was included in the online survey and sent to teachers by the school. If they agreed to participate, teachers needed to provide their contact information so that the consent form could be sent and signed, and the specifics of interviewing could be negotiated.

Though the interview was web-based, participants still had the right to be interviewed in the way they felt comfortable so different types of online interviewing was offered, including but not limited to video-conferencing, audio-conferencing, email interview, and voice message interview. Synchronous interviewing needed to be recorded for analysis, for which consent should be granted from participants before the interviewing starts. In addition, participants were clearly informed before their consent that they could withdraw from the interview when they want to.

Anonymity, confidentiality and privacy. The private information of all the participants should remain confidential unless any of them prefer to have it revealed. They could choose whether to keep their identity confidential or not and clearly indicate it in the consent form. In case of midway withdrawal after they have submitted their first responses to the questionnaire, every participant needs to use a name in the pilot study. For those who wanted their identity to remain confidential, they used pseudonyms that they like.

This study involves the examination of teachers' cognition and competence. The result may reveal some of them lack the understanding and competence, which may undermine their self-confidence or good reputations. Therefore, teacher participants' names remain confidential, including from their colleagues and the dean. Thus, random names were prepared for participants to choose from.

Online surveys and interviews which were adopted to collect data may possibly lead to breaches of personal information. Although the research topic is low in sensitivity, there are still potential risks for participants. Therefore, this study used authorized tools on private devices from home, encrypt identifiable data before it was transferred over a network and informed the participants of potential risks in the consent form, in the survey and in every e-mail exchange.

Additionally, my supervisors and I saved all the electronic data gathered in encrypted files in our password-protected computers or kept paper-based data in a locked cabinet at home. The audio files and the transcripts will be destroyed five years after the completion of the study. Participants were informed of this procedure in the consent form.

Recruitment and Participants

The investigator started to recruit participants for this study right after the ethics approval was obtained from the Ethics Board at the University of Ottawa in June 2021 (see Appendix P). As Appendix P shows, this approval has been extended to June 2023 in case extra data need to be collected. Participants were respectively recruited for the pilot study, the web-based survey, and the follow-up interview. This subsection reports the recruitment procedures and results, which are followed by the accountability of the participation rate.

Pilot study. The participants for the pilot study were recruited from native Chinese who teach English at non-key university in Jiangsu province through random sampling. There are 54 qualified EFL teachers at the university, with the investigator excluded. Considering the ethics policy may vary in different locations, the investigator intended to obtain REB approval from the

chosen university to access its employees before the recruitment. However, the office that is responsible for ethics review was unidentified at this university. The investigator thus contacted the dean of Foreign Language Faculty in the university with a message in Chinese (see Appendix B) via *WeChat*, a Chinese social media application. With the dean's permission, I sent a recruiting message in Chinese (see Appendix C) to EFL teachers through an instant messaging network tool, *QQ* before the survey started, coupled with the consent form (see Appendix D) and the online survey link. As clearly stated in the message and consent form, the pilot study was voluntary. The details of the survey were explained elaborately so that potential participants could make informed decisions. By reading the consent form, teachers can learn the purpose of this pilot study and what they need to do if they accept the invitation.

The pilot study was created to test the reliability of the questionnaire and to provide suggestions for its modification by comparing the results of the repeated surveys that participants responded to. Thus, I randomly sent the recruiting message to the qualified teachers individually and stopped the recruitment when thirty valid responses were received. I sent the invitation message to thirty-two colleagues and distributed thirty-two copies of the questionnaires in total, among which thirty responses were valid. The response rate of the pilot study was 93.8% though it was technically irrelevant in this case. 93.8% is an acceptable figure. I believe this is mainly due to two reasons, a good relationship between the participants and the investigator as well as a formal questionnaire design. The potential participants are all my colleagues, so we know each other well. Moreover, according to the feedback of some participants, from the inviting message to the cover letter and the questionnaire itself, the survey was presented in a formal academic manner. This stimulated potential participants to take it seriously.

It was desirable for the sample size of this study to be bigger. However, according to Hatch and Lazaraton (1991), when a random sample reaches 30 and more, the frequency distribution of the sample is close enough to a normal distribution. Thus, 30 is considered as the minimum size for statistical analysis, particularly parametric analysis (Qin & Bi, 2015). This justified the end of recruitment when the sample reached 30 in this study.

Main survey. Participants for the main survey were invited from EFL teachers in the public universities in Jiangsu province. There are 48 public universities certified by the Ministry of Education, which are located at 13 cities in Jiangsu. The exact total number of EFL teachers at these universities remains undetermined despite the investigator's efforts to obtain it. By

estimate, there are over 2,000 EFL teachers in these universities. According to Cohen et al. (2011), the sample size is 322 when the population is 2,000 if a 5% sample error can be accepted. I also intended to leave a decent margin for some unforeseen conditions. For example, participants may drop out in the middle. Hence, I intended to recruit approximately 500 participants. For such a large size, cluster sampling was applied to choose the sample. It meant that I gave each university a number, from 1 to 48, and used an online number generator to choose universities. The universities, their locations and the numbers assigned to them have been listed in Appendix E. The questionnaire was edited in *SurveyMonkey* and sent to potential participants through the most used social network in China, *QQ* or *WeChat*. To start the recruitment process, I first contacted the deans of foreign language faculties in the selected universities. After they had permitted, I sent the recruiting message (see Appendix F) with the consent form (see Appendix G) and the online survey link to the deans who shared the messages with their EFL teachers.

As a result, 101 EFL teachers from 15 universities responded to the survey. However, six of them did not complete it by skipping the part regarding their profile and experiences so 95 EFL teachers were valid participants in this study. “The survey response rate—that is, the proportion of individuals in a sample population that participates in a survey—is a significant component for the quality of survey-based research” (Pedersen & Nielsen, 2016, p. 229). “Whether or not a response rate is adequate depends (in part) on the use that is being made of the data” (Nulty, 2008, p. 306). Whereas the precise participation rate could not be calculated, it was much lower than expected. Compared to those in the literature and in the pilot study, the response rate of the main survey was very low, 5% by estimate suppose I could send the recruiting message to every EFL teacher in the province.

I believe this accounted for some reasons. Firstly, there was a lack of connection between the investigator and potential participants. Due to COVID-19, the recruitment of the participants for this survey was completely web-based. The dissemination of the survey was carried out by the teachers of the chosen faculty. It meant I, as the investigator, was utterly a stranger to potential participants when having no opportunity to establish face-to-face communication with them. I thus failed to develop a relationship with the EFL teachers in other universities than the one that I work at. Secondly, I did not offer any incentives to participate in any stages of this study to avoid biased recruitment. Potential participants’ motivation thus would be lowered to fill

out a questionnaire from a stranger with no reward. The third reason is technical failure. I found the link to *SurveyMonkey* was blocked by some devices. In some cases, clicking the link did not lead people to the online questionnaire but a cyber-security warning, saying the link may carry security risks. Other reasons included no interest to participate, inability to attain contact with every school, and lack of time to answer the survey.

Question 45, *What do you think are the components of IC?*, is an open-ended question. Forty-six participants responded to this question, accounting for 48.4% of the total number. This response rate shows that half of the EFL teachers may hardly have a clear understanding of what people need to possess to perform successful intercultural communication. Whereas open-ended questions are often used to produce rich and detailed information about the topic of interest, getting a quality response and a high item response rate can be challenging (Reja et al. 2003). I believe that apart from participants' vague conceptualization of IC, the response rate of Item 45 was undermined by the fact that answering open-ended questions could be inconvenient and time-consuming.

Table 7

Demographic Data for Survey Participants

The university participants work at	Gender		Degree of education			Total
	Male	Female	Bachelor	Master	Doctor	
Southeast University	1	7	0	1	7	8
Jiangsu University of Science and Technology	0	1	0	1	0	1
China University of Mining and Technology	3	5	0	7	1	8
Changzhou University	7	12	0	11	8	19
Jiangnan University	2	8	0	8	2	10
Nanjing University of Posts and Telecommunications	1	0	0	0	1	1
Nanjing Agricultural University	2	3	0	1	4	5
Yancheng Teachers University	1	4	0	5	0	5
Changshu Institute of Technology	3	1	0	1	3	4
Huaiyin Institute of Technology	2	7	0	7	2	9
Yangzhou University	0	2	0	1	1	2
NanJing XiaoZhuang University	1	0	0	1	0	1
Jiangsu University of Technology	6	5	2	7	2	11
Changzhou Institute of Technology	0	1	0	0	1	1
Xuzhou University of Technology	3	7	1	9	0	10
Total	32	63	3	60	32	95

Background of survey participants. As Table 7 showed, ninety-five participant teachers came from 15 universities located at nine cities in Jiangsu Province, three universities at Nanjing,

three at Changzhou, two at Xuzhou, and one at Zhenjiang, Wuxi, Changshu, Yancheng, Huai'an and Yangzhou respectively. Among these participants, female EFL teachers were sixty-three, almost double the population of male teachers. 63.16% of these participants had received master's degrees, 33.8% with Doctor's degree while only 3.16% had bachelor's degree.

Interview. At the end of the online questionnaire was a message inviting teachers to the follow-up interview. The informed consent form for the interview (see Appendix H) had been sent to those who showed interest by leaving their contact information and had been signed before the interview was arranged.

The investigator received 30 pieces of contact information from 95 valid respondents to the questionnaire and sought contact with the potential interviewees through them. As a result, nine EFL teachers accepted the invitation. Some teachers did not reply to the email or the inviting message via *QQ* or *WeChat*. I assumed that they rarely had interest or time to be interviewed. A few declined the recruitment by stating they were not familiar with the subject of the interview, telecollaborative competence.

Background of interview participants. In the main survey, the respondents were asked demographic questions about their employer, gender, education degree, years of teaching, participation in telecollaborative projects, students that they taught, overseas experiences and training experiences. In the interview, they also talked about their unique personal experiences. This subsection summarizes such demographic data and the biography of nine interview participants to provide a personal background profile for qualitative analysis. To protect the privacy, the names of the participants are all pseudonyms and the names of the university where they were working are hidden.

1. Andrea. She had a master's degree and was working at University #1. She had been teaching for nineteen years. She taught undergraduates from various programs, including English majors. She had two overseas experiences, one as a tourist and one as a visiting scholar. Both were short-term for less than three months. She had six training experiences, three for ICC and three for telecollaboration. During a short-term overseas TESOL training, her first kid was younger than two years old. The separation from her young kid distracted her from learning. She missed her baby so much that she was overwhelmed in a bad mood and low motivation for the project. As a result, Andrea did not achieve much improvement in her teaching ability. She had not participated in any intercultural telecollaboration projects.

2. Flora. She had a master's degree and was working at University #2. She was a new EFL teacher with only one year of teaching experiences. She taught non-English major undergraduates. She had five overseas experiences, four as a tourist and one as an interpreter. They were all short-term visits for less than one month and had no direct impact on her teaching ability and telecollaborative competence. Due to her brief teaching career, the opportunity for her to receive professional training and to attend academic exchanges were limited, none for ICC and one for telecollaboration. She had not participated in any intercultural telecollaboration projects.

3. Tina. She had a master's degree and was also working at University #2. She had been teaching for nineteen years. She was an EFL teacher for non-English major undergraduates. She had four overseas experiences, three as a tourist and one as a visiting scholar. The overseas tours were short-term for less than one month while the visiting scholar experience lasted for almost six months. Though she had not received any training with regard to ICC and telecollaborative competence, she had been engaged with intercultural teaching for many years. She, in a cohort of six EFL teachers, had built up a blended course of communication between the West and the East, which aimed at developing students' ICC. While she had not participated in any intercultural telecollaboration projects, her rich experience in intercultural teaching would bring this study practice-based perspectives.

4. Wendy. She had a doctorate degree in English literature and was also working University #2. She had been teaching for twelve years. She was an EFL teacher for non-English major undergraduates. She taught non-English major undergraduates and postgraduates as well as English major undergraduates. She had six overseas experiences, four for tours, one for an international conference, and one as a visiting scholar. Except the visiting scholar experience, which was longer than six months, her other overseas experiences were all less than one month. COVID-19 broke out at the beginning of her long-term visit to the United States as a scholar. As a result, she spent most of her time indoors and conducted intercultural communication online. Like other EFL teachers, she found it essential to integrate intercultural teaching with English teaching. However, she had not taken pedagogical approaches to practice this integration due to her devotion to English literature. She had no training experiences either for ICC or for telecollaboration. She also had not participated in any intercultural telecollaboration projects.

5. Serena. She had a master's degree and was also working at University #2. She had been teaching for fifteen years. She taught non-English major undergraduates and international students. She had two overseas experiences, one business trip and one visit as a scholar. The business trip was ten days while the visiting scholar experiences lasted for over six months. She had limited training experiences, one for ICC and none for telecollaboration. Although she reported no participation in telecollaboration in the survey, the interview revealed that her intercultural teaching practice was implemented between students from two culture groups and was assisted by CMC. Thus, this study defined it as one of a few telecollaborative projects. The course that she taught was named *International Business Etiquette*. Students who had enrolled in this course include Chinese English major undergraduates and international students from Central Asia, Africa and Russia. However, they lived on separated campuses. She connected Chinese students and international students through *QQ* by assigning group work. This attempt received positive feedback from the students on both sides.

6. Stella. She had a doctoral degree and was working at University #3. She had been teaching for twenty-one years. She taught various students, including English major and non-English major undergraduates, English major postgraduates and international students. She had three overseas experiences, two international conference attendances and one visiting scholar experience. The duration for her overseas experiences were unidentified. By estimate, the conference could not have lasted for one than one week and the visiting scholar experience could have been 3-6 months. She had the richest training experiences among the interviewees, five for ICC training and three for telecollaboration. She attached primary importance to intercultural education and commenced research and teaching practice in this area as early as 2005. Unfortunately, she had to stop the teaching reform to intercultural education because of the interference of administration. In the late ten years, she switched her focus to English literature while pursuing a doctoral degree, which further reduced her investment in intercultural education. She reported to have participated in telecollaboration projects, which was found unrelated to intercultural exchanges in the interview.

7. Albert. He is the only male teacher who accepted the interview invitation. He completed his doctor's thesis in the United States and was working at university #4. He had been teaching for three years. He taught non-English major undergraduates. He had two overseas experiences, one as a visiting scholar for over twelve months and one study abroad for 3-6

months. He participated in no training for ICC or telecollaboration. Whereas he was a strong advocate of intercultural education, he carried out limited relevant teaching practice because his research interest was devoted to literary studies. Thus, the seminars and workshops that he chose to attend were mostly literature-centered. He also had not participated in any intercultural telecollaboration projects.

8. Daisy. She had a doctoral degree and was also working at University #4. She had been teaching for twelve years. She taught non-English major undergraduates and postgraduates. She had rich overseas experiences, including over ten overseas tours (<1 month), one visiting scholar experience (1-3months), and once study abroad (>12 months). In 2007, she went to Great Britain and obtained her master's degree in education one year and a half later. She had no training experiences for ICC or telecollaboration. However, she considered it critically important to conduct intercultural teaching in university English teaching. Although she had not participated in any intercultural telecollaboration projects, she had already started other forms of intercultural teaching, where cultural differences were compared, and debates were organized. Because her doctoral dissertation examined teaching English writing, she argued for the development of critical awareness among learners and paid special attention to it in her intercultural teaching.

9. Amanda. She had a doctoral degree and was working at University #5. She had been teaching for three years. She taught English major undergraduates and postgraduates as well as non-English major undergraduates. She had the longest and richest overseas experiences, more than ten overseas tours (<1 month), more than ten overseas business trips (<1 month), more than ten international conference attendances (<1 month), one study abroad (>12 months), and one working abroad (>12 months). She spent six years in the United States to earn her Ph. D degree and had worked there for over one year after graduation. In addition, her family lived abroad so she frequently traveled across the border. She had received no training for ICC but three for telecollaboration. Different from other interviewees, Amanda used telecollaboration to teach and conduct academic exchanges, during the pandemic in particular. These projects were intercultural in nature but not for intercultural teaching. Neither was the related training.

Background of five universities. Demographic data showed that the nine interviewees came from five universities. These universities were of different types and at different locations, which was considered to result in different characteristics of EFL teachers and constitutes

different working environment and requirements for them. This study considered that it was necessary to take into account these contextual factors when this study explored how to improve the telecollaborative competence and IC understanding of EFL teachers who were working at these universities. A brief introduction of these universities is thus made to provide background information for better understanding of the interviewees. The investigator visited the official websites of these universities and the faculties as well as the government websites and found the following data.

University #1 is a non-key public university, which is located in the north of the Yangtze River. This university is an engineering-based university, where nine among the total sixteen faculties commit to cultivating engineers in various fields while the remaining include one business school, one school of politics, one faculty of social work, one foreign language school, one faculty of science, one art school and one sports faculty. The official webpage of the Faculty of Foreign Languages of this university, where the interviewee works, shows the university offers its EFL teachers very limited opportunities for teaching or academic research exchanges with foreign colleagues. Likewise, notices of conferences and related accounts concerning ICC or telecollaboration were also not found on its webpage. This does not mean EFL teachers at University #1 utterly have no chances for intercultural communication but shows the university does not create favorable conditions to promote it.

University #2 is a non-key public university located in the south of the Yangtze River. According to the national gross domestic product (GDP) index, Jiangsu province constantly ranked second among all the thirty-one provinces, municipalities and autonomous regions in the past two decades. However, there exist city differences in Jiangsu. The GDP for five cities in the south of the Yangtze River accounts for nearly 60% of the total GDP in Jiangsu despite the fact that eight cities in the north outnumber the south. Such differences in the economy may lead to teacher differences in these places and unequal opportunities for in-service teachers to go abroad and receive professional training because intercultural communication projects sometimes require financial support. University #2 is also an engineering-based university. However, the proportion of engineering schools at this university is lower than that at University #1. Among the eighteen faculties at this university, seven are engineering, one school of pharmacy, one business school, one school of economics, one law school, one management school, one faculty of politics, one art school, one music school, one school of foreign languages, one school of

Chinese and literature and one sports faculty. Notifications and accounts on intercultural communication of any kind were not presented on the webpage of the Faculty of Foreign Languages at this university.

University #3 is a national key university directly under the Ministry of Education. It is located at the less economically prosperous area, the north of the Yangtze River. Key universities in China receive more funding and policy support from the government. Their admission scores for students are higher than those of non-key universities. The qualifications for recruiting teachers at these universities are also higher. Such differences may have an effect on EFL teachers' telecollaborative competence and IC understanding, which may indicate that to improve their competence and understanding requires different measures for teachers at different universities. For example, it was found different numbers of academic activities were organized within the School of Foreign Studies at University #3 every year, ten in 2021, six in 2020, eighteen in 2019, which is far more than University #1 and #2. It is worth noting that there were two lectures given by professors from a foreign country. Whereas these lectures and seminars were mainly with regard to English linguistics and literature, it is considered to hold more potential to draw EFL teachers' attention to foreign cultures and may be more likely to stimulate their reflection upon their teaching.

University #4 and #5 are also national key universities. However, they are in the south of the Yangtze River. These universities have different dominant disciplines but like all the other universities, neither had programs in foreign language studies or intercultural communication. This indicates they may attach inadequate importance to developing students' English ability and intercultural competence. From the official webpage of the Faculty of Foreign Studies at University #4, there were identified not as many academic activities as organized by University #3 but its connection with foreign universities seemed closer because more foreign scholars were invited to deliver lectures to the students and teachers in the school. University #5 is considered to have established a more beneficial environment for intercultural exchanges in view of the number and diversity of foreign scholars they have invited for academic exchange. It proves my previous assertion that intercultural communication is impacted by funding in some cases.

Instruments

This subsection describes two instruments that this study adopted, a questionnaire and interview, including questionnaire design, validity and reliability tests of the questionnaire and interview protocol design.

Questionnaire design. A web-based questionnaire was used to collect quantitative data about the self-evaluation of the telecollaborative competence and IC understanding of EFL teachers in Chinese universities. The questionnaire was designed in three sections.

1. Teachers' telecollaborative competence: organizational, pedagogical and digital competences, as well as attitudes and beliefs (O'Dowd, 2015);
2. Teachers' perception of IC: the importance of culture in language learning, the necessity of integrating culture in language teaching, and their familiarity with the concept and the components of IC;
3. Teachers' profile: gender, academic qualifications, years of teaching, overseas experiences, and IC/ICC and CMC training experiences.

The first section was adapted from O'Dowd's (2015) model, which had altogether 40 descriptors in organizational, pedagogical and digital competences, as well as attitudes and beliefs. According to O'Dowd (2015), these are what EFL teachers need to successfully establish and carry out an online intercultural exchange with their learners. This study directly used the statements of the model as items in the questionnaire. However, due to the multiple semantics included in one descriptor in digital competence, "The telecollaborative teacher has a basic working knowledge of web management systems (e.g., Moodle) or exchange platforms (e.g., ePals, eTwinning) in order to locate and run his/her online exchanges", the investigator rephrased it into two items, Item 11 and 12 (see Appendix I). Thus, 41 items were formulated from the model. These items can be divided into four broad categories, which are the four dependent variables in the statistical analysis. Items 1 to 7 are attitudes and beliefs; Items 8 to 18 are ICT/digital competences; Items 19 to 32 are organizational competences; Items 33 to 41 are pedagogical competences. To gain EFL teachers' understanding of IC, instead of their IC, the second section of the questionnaire consisted of ten questions, nine closed-ended about their familiarity of relevant concepts and the definition and components of IC and ICC, and one that was open-ended and focused on the components of IC. Informed by the way Byram distinguishes IC from ICC in his model, Section Two organized questions about ICC and IC separately. In the

section of personal profile, the questionnaire collected data concerning participants' education, teaching, overseas, and relevant training experiences through nine questions. As a result, this questionnaire contained 60 items in total. It took the respondents approximately 5 minutes to complete.

The questionnaire was originally written in English and subsequently translated into Chinese to avoid respondents' misunderstanding or ambiguity. The items in the questionnaire were mainly closed questions in the form of a 7-point Likert scale. The preference for closed to open-ended questions was attributed to their advantages in comparing data in a large sample, examining correlations between factors, and outlining the overall trends. However, one open-ended question was included to explore participants' understanding of IC components. As it had been recommended, both positively and negatively worded items should be included in a questionnaire to avoid a response set whereby the respondent marks only one side of a rating scale, which may also reduce the harmful effects of the acquiescence bias (Dörnyei & Taguchi, 2010). Thus, eight questions were converted to negatively worded items at a regular interval, which were Items 4, 10, 15, 20, 25, 31, 36 and 40.

Validity of the questionnaire. “Validity is the extent to which a psychometric instrument measures what it has been designed to measure” (Dörnyei & Taguchi, 2010, p. 93). The first section of the questionnaire used in this study was adapted from O’Dowd’s model. O’Dowd (2015) adopted the Delphi technique and developed the 40 descriptors of teacher’s telecollaborative competence, which indicates its high overall validity, including content validity, predictive validity and construct validity. He successfully recruited a total of 60 experts and experienced practitioners from different educational and geographical contexts to respond to an online survey of 30 “can-do” statements of telecollaborative competence for FL teachers identified by a literature review. 25 descriptors which received a mean value of greater than 4 and a standard deviation of less than 1 were maintained. Based on comments and suggestions from the participants, the 25 statements were refined and 16 new descriptors were incorporated. The second draft of the survey were distributed to the 60 respondents. With the same analysis conducted and modifications done based on suggestions from participants, the model was finally elaborated with 40 descriptors.

The second section of the questionnaire directly inquired how familiar respondents were with the concepts and what they considered to be the components of IC. Three questions were

designed to measure participants' familiarity of ICC. The same design was applied to IC. Multiple questions helped to improve the validity. The understanding of IC as a relational but distinct concept from ICC stemmed from Byram's model which is one of the operational framework of this study. After the first phase of the pilot study, five random participants were asked if they were confronted with any confusing or inappropriate wording to ensure no ambiguity was accommodated in the expressions of these ten questions. These added to the content validity of the questions in the second section.

Reliability of the questionnaire. Provided that the respondents are chosen appropriately, the results obtained from the questionnaire can be generalized to the target population. A pre-condition for this is that the questionnaire used must be both valid and reliable. "The reliability of a psychometric instrument refers to the extent to which scores on the instrument are free from errors of measurement" (Dörnyei & Taguchi, 2010, p. 93). The questionnaire designed by the investigator has yet been used in the FL education field in the Chinese context. A pilot study was thus conducted to assess the reliability of the quantitative aspects of the questionnaire and to inform the following necessary revisions, which is considered to be able to maximize the quality of quantitative data in this present study. Among the three sections of the questionnaire, the third one concerns teachers' profiles such as gender, academic qualifications, and years of teaching, as well as their experiences in teaching, visiting abroad, and professional training, which do not require a reliability test. Thus, items from 1 to 50 were analyzed, with Items 51-60 excluded.

The reliability test was conducted in terms of external and internal consistency. There are various indices for the credibility of a questionnaire, external consistency ones such as test-retest reliability and alternate form reliability, internal consistency ones such as split-half reliability and Cronbach alpha. This study drew on test-retest reliability and Cronbach alpha. The questions continued to be modified based on the results until it indicated that the questionnaire has a high test-retest reliability. This subsection reports the results of two consistency tests respectively and the corresponding modifications made to the questionnaire.

External consistency. Test-retest reliability and alternate form reliability are two approaches often used to demonstrate the external consistency reliability of a questionnaire. Due to the difficulty in developing two questionnaires parallel in content, form and length of scale as the alternate form reliability requires, this study employed test-retest reliability. Test-retest reliability requires that the same method should be used on two occasions (Qin & Bi, 2015). The

correlation between the two variables represents the reliability coefficient. If the time between the repetitions is too short, a memory effect will be expected while if the time is too long, the opinion may be changed. There is no definite conclusion on the interval between the repetitions, but some researchers suggest two to four weeks. In this study, the first questionnaire was sent on June 25, 2021, and the second one 15 days later, on July 9, 2021. Subsequently, the Pearson product-moment coefficient of the two measurements and the r values for items were calculated, which was informed by the survey conducted by Gu (2016).

According to O'Dowd's model, teachers' telecollaborative competence consists of attitudes and beliefs, ICT/digital competences, organizational competences and pedagogical competences. The mean of the multiple items for each component and telecollaborative competence as a whole was calculated for the test-retest reliability test. The correlation of attitudes and beliefs was .71, ICT/digital competences .75, organizational competences .68 and pedagogical competences .79 (see Appendix J). These correlations were all significant at the .01 level (2-tailed). The correlation of telecollaborative competence was .78 while that of IC was even higher, .80. (see Appendix J). Both of their significance was at the .01 level (2-tailed).

Table 8

The Test-Retest Reliability of Individual Items

Item	Pearson correlation	Sig. (2-tailed)	Number of items
Q2	0.22	0.24	30
Q7	0.28	0.13	30
Q11	0.29	0.12	30
Q23	0.36	0.05	30
Q31	0.29	0.12	30
Q42	0.13	0.51	30
Q43	0.35	0.06	30
Q47	-.50**	0.01	30

** . Correlation is significant at the 0.01 level (2-tailed).

In terms of individual items, the result (see Table 8) indicated that there was no significant correlation in responses to items 2, 7, 11, 23, 31, 42 and 43 and a negative correlation in responses to item 47 in the two repeated surveys. Items 2 and 7 are two of the indicators of attitudes and beliefs. Item 2 inquired about respondents' openness to different pedagogical beliefs and aims from partner teachers. Item 7 showed respondents' interest in learning with students about new aspects of L2 language use and culture from their exchange partners. Item 11 reported respondents' digital competence to locate online exchanges through exchange platforms

(e.g., ePals, eTwinning) or online networks. Items 23 and 31 were related to the organizational competence. Item 23 inquired about whether respondents can match learners from the different institutions to create effective partnerships and exchange groups. Item 31 was a reversed question, concerning whether respondents know how to ensure that the exchange receives appropriate academic recognition within the home institution. Item 42 and 43 investigated respondents' understanding of IC. Item 42 tested their agreement on the inseparable relationship between culture and language. Item 43 was whether they had heard about ICC. Additionally, it needs to be noted that the test-retest correlation of Item 47 was significant at the level of 99% but in the negative value. Question 47 inquired about the degree in which participants believe IC is the same as ICC. It was designed to see if respondents fully understand these two concepts to differentiate them. However, the wording of this question makes it inappropriate to answer it in the form of a 7-point scale.

Internal consistency. This attribute refers to “the homogeneity of the items making up the various multi-item scales within the questionnaire” (Dörnyei & Taguchi, 2010, p. 93). It is generally considered the psychometric prerequisite for any scientific survey measurement. It can be measured by split-half reliability or the Cronbach's Alpha coefficient. Given that the original questionnaire has included 60 items, doubling the items to do the split-half test will produce a questionnaire of 120 items, which the investigator assumes may greatly reduce the participation rate. Thus, this study employed Cronbach alpha. The coefficient ranges between 0 and 1. If it proves to be very low, either the particular scale is too short, or the items have very little in common. While lower Cronbach's Alpha coefficients are to be expected in short scales, the coefficients need to be in excess of .70. This study uses SPSS 25 to run Cronbach's alpha test on telecollaborative competence subscales and IC understanding. Appendix K shows the results.

In Pilot One, the Cronbach's alpha of attitudes and beliefs (items 1 to 7) was .69, slightly lower than .70. However, removing any items in this component will not increase the coefficient of this component. However, removing items 11, 15, 31, 36 and 47 will contribute to significantly higher reliability of the parts they were in. If Item 11 is deleted, the Cronbach's Alpha of digital competences will increase from .83 to .85. If Item 15 is deleted, the Cronbach's Alpha of digital competences will rise from .83 to .84. If Item 31 is deleted, the Cronbach's Alpha of organizational competences will increase from .86 to .88. If Item 36 is deleted, the Cronbach's Alpha of pedagogical competences will rise from .84 to .85. If Item 47 is deleted, the

Cronbach's Alpha of IC understanding will increase from .75 to .79.

According to Appendix K, Pilot 2 presented higher internal consistency in general with the coefficients of every component higher than .70. Removing items 4, 11, 15, 25, 40 and 47 will further improve the reliability. The Cronbach's Alpha of attitudes and beliefs will increase from .79 to .84 with Item 4 deleted. The Cronbach's Alpha of digital competences will increase from .79 to .84 with Item 11 deleted. It will also increase from .79 to .81 when Item 15 is deleted. The Cronbach's Alpha of organizational competences will increase from .91 to .93 with Item 25 deleted. The Cronbach's Alpha of pedagogical competences will increase from .90 to .94 with Item 40 deleted. The deletion of Item 47 will also contribute to higher Cronbach's Alpha of IC understanding in the second pilot survey, from .83 to .86.

The tests respectively conducted for Pilot 1 and Pilot 2 showed that items 4, 11, 15, 25, 31, 36, 40 and 47 reduced the internal consistency of the questionnaire. Among them, items 11, 31 and 47 have been discussed in the previous subsection of external consistency. Other items are all reversed questions. Item 4 inquired participants' open-mindedness in using new telecollaborative tasks and new online tools which may be proposed by students or other-teachers. Item 15 inquired whether participants could protect students' safety and respect privacy issues related to students' work when organizing the online exchange. Item 25 presented the ability to adapt the logistics of the exchange to emerging developments and problems (e.g., low levels of participation, access to technology problems, etc.). Item 36 was about the ability to design tasks which are attractive and relevant for students and which serve to develop culturally and linguistically rich interaction. Item 40 tested the ability to integrate seamlessly and effectively the content and themes of the telecollaborative exchange into my contact classes (when they exist) before, during and after the exchange itself.

Modifications of the questionnaire. Informed by the result of the pilot study, the questionnaire was modified to ensure its high reliability for the main study. The result revealed items 2, 4, 7, 11, 15, 23, 25, 31, 36, 40, 42, 43, and 47 were either internally inconsistent or externally reliable, or both. The deletion of these items was determined by whether substantial improvement in both internal and external reliability could be achieved and to what extent the theoretical breadth or soundness of the questionnaire would be compromised. After careful analysis, the elimination of items 2, 11, 15, 31, 42 and 47 resulted in a noticeable improvement in the external reliability of the questionnaire (see Table 9) and little compromise in the breadth

of the scale.

Table 9

The Test-Retest Reliability of the Questionnaire after Elimination

Item	Pearson correlation	Sig. (2-tailed)	Number of items
Section 1 Attitudes and beliefs	.79**	.00	30
Section 2 ICT	.76**	.00	30
Section 3 Organizational competence	.70**	.00	30
Section 4 Pedagogical competence	.80**	.00	30
Part 1 Telecollaborative competence	.79**	.00	30
Part 2 IC	.86**	.00	30
Total	.80**	.00	30

** . Correlation is significant at the 0.01 level (2-tailed).

The deletion of Item 42 and 47 from the second part of the questionnaire resulted in the misfit of Item 50 as the only statement concerning the attitude towards IC/ICC teaching against all other items concerning the familiarity of the concepts. This study, thus, measured the Cronbach's Alpha coefficient of the rest of items in "attitudes and beliefs" of telecollaborative competence and Item 50 to see if they were internally correlated. The result (see Table 10) showed that Item 50 had a correlation to the component of "attitudes and beliefs" and was thus transferred to serve as an indicator in that component. The final questionnaire for the main survey (see Appendix L) was created after modifications.

The Cronbach's Alpha of the modified questionnaire was retested to show its improved internal reliability. The complete results could be found in Appendix M. In pilot 1, the components where modifications were made all achieved an increase in internal reliability, including attitudes and beliefs, ICT competences, organizational competences, understanding of IC and the overall telecollaborative competence. A remarkable increase was witnessed in attitudes and beliefs (see Figure 5). Before the modifications, pilot 2 had higher internal reliability than pilot 1 in all components except for ICT competences. The increase thus was not as noticeable as in pilot 1. The internal reliability of attitudes and beliefs and organizational competences even showed a slight decrease. However, taking all components into account, there were noticeable development in the internal consistency.

Table 10

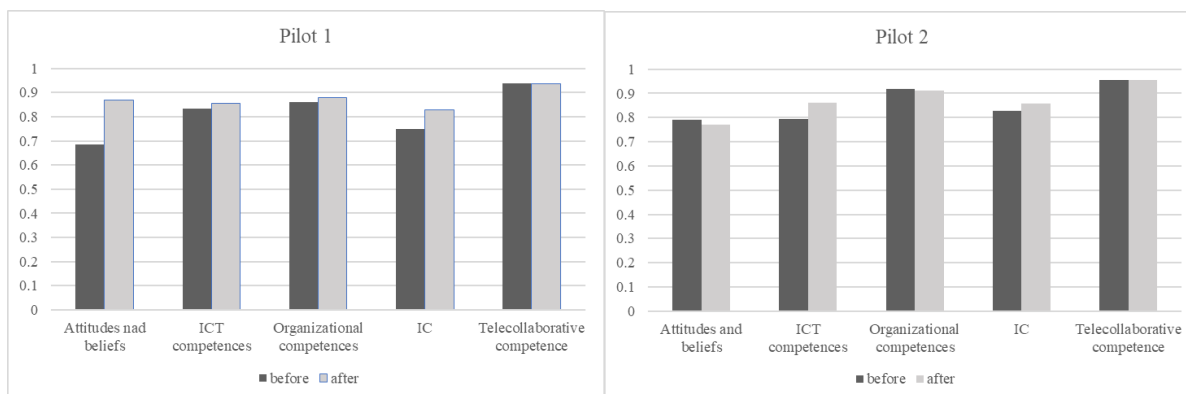
The Internal Reliability of the Attitudes and Beliefs with Item 50 Included

Reliability Statistics			Item-Total Statistics			
			Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Pilot 1	Q1	Cronbach's Alpha 0.686	39.10	5.96	0.43	0.66
	Q3	N of items 7	39.27	5.51	0.46	0.64
	Q4		40.10	2.85	0.61	0.63
	Q5		39.67	5.056	0.46	0.63
	Q6		39.20	5.75	0.40	0.66
	Q7		39.37	5.34	0.49	0.63
	Q50		39.30	5.73	0.26	0.68
Pilot 2	Q1	Cronbach's Alpha 0.769	39.33	5.89	0.54	0.75
	Q3	N of items 7	39.53	5.15	0.62	0.72
	Q4		40.20	3.55	0.50	0.81
	Q5		39.83	4.97	0.62	0.72
	Q6		39.47	5.43	0.54	0.74
	Q7		39.63	4.93	0.66	0.71
	Q50		39.60	5.42	0.43	0.75

Consequently, the forty-four closed items constituted the quantitative section of the questionnaire for the main survey. These items were divided into six broad categories, which are the six dependent variables for the follow-up statistical analysis. Items 1 to 6 and Item 44 are attitudes and beliefs; Items 7 to 15 are ICT/digital competences; Items 16 to 28 are organizational competences; Items 29 to 37 are pedagogical competences; Items 1 to 37 plus Item 44 are the overall telecollaborative competence; Items 38 to 43 are in regard to how IC is understood.

Figure 5

The Comparison of the Internal Reliability before and after the Modification



Interview protocol design. Informed by the findings of the quantitative survey, the follow-up interview aims to derive participant teachers' interpretations of how to improve IC understanding and telecollaborative competence. As standard procedures for each interview, an interview protocol for asking questions was developed (see Appendix O). Before the interview was conducted, the questions had been designed according to the findings of the survey.

The interview started with questions about IC education. The questions about what IC is, and participants' attitudes towards integrating IC teaching in FL education, which had been asked in the survey, were used again to serve as ice-breaker questions to help the interviewees to open up. Furthermore, given that respondents had shown their attitudes in the Likert scale and provided their construction of IC components with a few words in the survey, these repeated questions in the interview were intended for the triangulation of the survey findings. The investigator maintains that attitudes and understanding can be demonstrated in behavior. Thus, this study also explored the actions that the participants had undertaken in FL teaching by including questions about their IC teaching practice and the problems that they identified. The investigator considered them as another source for participants' IC understanding and triangulation for two previous questions. The following interview questions mainly focused on EFL teachers' experiences, such as their participation in telecollaboration projects, their overseas experiences, and their relevant trainings, which were found to have a significant influence on their understanding and competence in the survey. In terms of participants' experiences with telecollaboration projects, the question about whether participants had heard of telecollaboration was added. For those who were not sure about the telecollaboration contextualized in IC teaching, explanation was provided. In addition, participants' attitudes towards using telecollaboration in IC teaching were also collected in case they had no experience to share. The survey showed that all the interviewees had overseas experiences, so they were directly asked

about how the experiences impacted on their IC understanding and pedagogical competences. Due to the correlation between IC training and telecollaboration training, the interview designed questions for both of them. The first question in this part about participants' accessibility to relevant training was added to inform the follow-up suggestions about improve teachers' training experiences. The final question was "What else do you think may influence your telecollaborative competence and understanding of IC?"

The main questions were open-ended, general and carefully phrased so that the interviewees could understand them without ambiguity. When necessary, the interviewer asked the participants to elaborate on what they had said. Ultimately, the interview ended with closure comments thanking participants for their time and unconditioned support.

Procedures of Data Collection

After the questionnaire had been designed and testified highly reliable, quantitative data was collected through the online survey. Qualitative data was not collected until the protocol of the semi-structured interview had been completed on the basis of the findings of the survey. This subsection describes the data collection procedures, firstly quantitative and secondly qualitative.

Web-based survey. A survey with structured questions was posted on SurveyMonkey and used to collect responses on September 28, 2021. To gather as much data as possible, it was available for approximately 65 days until December 3, 2021. The questionnaire (see Appendix S) was sent to the EFL teachers by their faculties via *QQ* or *WeChat* to collect demographic data and obtain a snapshot of their experiences, perceptions of IC and telecollaborative competence. Distributed by an officially recommended survey software by the University of Ottawa, *SurveyMonkey*, the modified questionnaire contained 54 statements and took respondents about 10 minutes on average to complete. In addition, the survey also served to recruit interview participants.

Some problems emerged in the process of data collection, in response to which actions were undertaken. The biggest problem was that some candidate universities were inaccessible through the personal and professional contact of the investigator. To reach more EFL teachers, I asked my colleagues for a favor. They helped spread the inviting message to more candidate universities. Another problem occurred that some participants could not open the survey link. When they clicked the link in the recruiting message, they found a warning about cyber security rather than the questionnaire. An investigation showed this probably resulted from the security

settings of some Chinese software or devices. It could be fixed by copying and opening the link in browsers. I thus added this tip in the recruiting message. However, I assumed this inconvenience could still negatively impact the participation rate.

One-on-one semi-structured interview. Due to the Covid-19, semi-structured interview was conducted online with participant's consent. The first interview was conducted on December 6, 2021, the last on February 15, 2022. The interaction tools that participants chose included *QQ*, *WeChat* and *Tencent Meeting*. The former two were the most popular social networking in China. *Tencent Meeting* was a teleconferencing software like *Teams* and *Zoom*, which was widely employed by teachers in response to the lockdown policy to stop the pandemic. Although the investigator used these tools on a daily basis, they were still carefully and repeatedly checked to ensure they functioned well during the interview. Fortunately, no technical failure occurred. Synchronous interviews were conducted via *Tencent Meeting* and was audio recorded with participants' consent while asynchronous interviews were performed in written form or voice message on *QQ* or *WeChat*. The consent for the interview was reconfirmed orally at the beginning of the recording. There was difference in the richness of responses from individual interviewees. However, the difference can hardly be attributed to the use of varied communication modalities because no significant differences between data collected by these two types of tools were detected. As the research interprets, asynchronous communication allowed participants much longer time to recall their experiences and voice messages spared them the inconvenience of texting.

Synchronous interviews, which were chosen by five participants, lasted differently: from 30 minutes to 60 minutes. Asynchronous interviews via *QQ* or *WeChat* were chosen by other participants for their convenience to respond in time fragments so the duration for them varied more greatly. Open-ended questions were prepared about how to improve EFL teachers' perception of ICC and telecollaborative competence through training, intercultural communication or other approaches with regard to the significant correlations identified in the survey. Whereas I presented the interview protocol in English in Appendix O, the participants were interviewed in their mother tongue, Chinese.

Data Analysis

The approach that this study employed generated two types of data, quantitative and qualitative. This subsection separately elaborates on the actions that the investigator undertook to analyze these two types of data.

Analysis of the quantitative data. Quantitative data were produced in both the pilot study and the main survey. Because the pilot study had been reported in the subsection of instruments due to its function for the development of the questionnaire, quantitative data here refer to what generated from the main survey. They were first analyzed to reveal respondents' understanding of IC and their self-evaluation of telecollaborative competence. Frequency and percentage calculation could be automatically done by *SurveyMonkey*, which elicited the big picture of respondents' understanding and competence. The responses to the questionnaire could be directly exported in an SPSS format data file. Prior to the statistical analysis with SPSS version 25, this study made some preparations.

Handling missing data. Missing responses were mainly identified to questions with respect to participants' overseas IC training and telecollaboration training experiences, such as Items 52, 53, and 54. These items asked not only what kind of experiences the participants had but also details about each type of experiences, such as how many times they had been abroad and how long they had stayed. For example, even if the participants had no long-term overseas experiences, they were expected to provide details. I think this is why some respondents skipped many questions about details despite the reminder. I thus interpreted it that the respondents had no such experiences and coded them to be 1 for quantitative analysis. I also identified two missing responses to Item 46, "which university you work at". Based on the time when the survey was completed, I inferred that those two respondents were from the same universities as other respondents who wrote the survey around that time and input the corresponding value which stands for the university. This approach to handle the missing data may entail the risk that my assumption is different from the reality, which compromises the data quality. However, it was still applied due to the number of participants lower than expectation. Further reduced participants may also reduce the data quality. I also identified two more missing values in the Likert scale. Because the participants were fewer than expectation, I replaced them with the item means rather than delete them.

Coding data. I assigned scores, 1, 2, 3, 4, 5, 6 and 7 to the seven levels of the Likert scale, ranging from strongly disagree to strongly agree. Reversed questions, including items 5, 17 and 32 were coded in an opposite way. Items in the last section in regard to participants' profile and experiences were also converted into nominal data in the form of numerical scores for data analysis.

Recoding values. Considering multiple variables in items 46, 48, 51, 52, 53 and 54, and the limited number of total responses, the investigator recoded these items into fewer and broader categories to reveal major features from these questions. They were categorized into twelve independent variables, including the type of university where EFL teachers are working at, different regions the universities are located in, gender, teachers' degree of education, years of teaching, their engagement in telecollaborative projects, students they teach, activities they do abroad, the number of trips abroad, the duration of trips abroad, the number of IC training they had, and the number of telecollaborative training they had.

The fifteen universities were grouped into "key universities" recoded "1" and "non-key universities" recoded "2" and compared to see if the university type has an impact on EFL teachers' telecollaborative competence and their understanding of IC. These universities scatter in different regions in Jiangsu province. To explore the influence of different regions, I also classified these universities into the ones located in the south of the Yangtze River and the others positioned in the north of the Yangtze River and recoded them "1" and "2". The cities located in the south of the Yangtze River are more economically prosperous, including Nanjing, Wuxi, Changzhou and Changshu.

To balance the number of people with different lengths of teaching years, I divided them into two groups. Teachers with 15 and fewer years of teaching experiences were recoded "1" while teachers with more than 15 years of teaching experiences were recoded "2".

This survey also investigated what students with whom participant teachers worked in the past year. These students included undergraduates and postgraduates, English majors and non-English majors, Chinese students and international students. I believe there are differentiated English teaching objectives for students in various programs. Also taking the limited responses into account, I recoded the participants who taught merely non-English majors as "1" including undergraduate and/or graduate, and those who taught international students, or English majors

and/or non-English majors as “2” to examine whether teaching students from varied majors has an influence on EFL teachers.

Concerning teachers’ overseas experiences, I redefined them based on what they had done, how many times they had been abroad and how long they had stayed. Teachers who had crossed borders for academic activities were recoded as “1” while those who participated in other activities were recoded as “2”. Academic activities included attending academic conferences, visiting as scholars, and studying abroad. Other activities were traveling, business trips and working. Teachers who had been abroad for a short term of 3 months and less and for twice and fewer were also divided into group “1” with those who had paid overseas visits longer than 3 months and for three times and more into group “2”.

Data manipulation. While it generated electronically rather than manually, the data was carefully checked to identify mistakes like impossible data, contradicting data, and implausible data. I believe this check and correction help improving the quality of data analysis. In completion of these preparations, I started statistical processing.

Analysis method selection. Determined by the number of independent variables, the number of grouping variables, normal distribution and homogeneity of variance, parametric analysis, such as Manova analysis or regression analysis, or nonparametric analysis, like Chi-square test could be applied to find out the correlation between teachers’ experiences (twelve independent variables) and their IC understanding and telecollaborative competence (six major dependent variables). Thus, before the quantitative analysis was conducted, normal distribution had been tested to inform the decision about what statistical analysis should be used.

Table 11 shows the results of the normality tests for the responses to the six major dependent variables, including respondents’ attitudes and beliefs, ICT competences, organizational competences, pedagogical competences, telecollaborative competence and IC understanding at different levels of all the independent variables. 99 combinations of the variables among the total of 144 were normally distributed, with $p > .05$. For the remaining 45 combinations of the variables whose p value of significance is lower than .05, the skewness and kurtosis were examined to decide whether their distribution could be considered normal.

Table 11

Sig. for All Variables in the Kolmogorov-Smirnov Test

		Attitudes	ICT	Organization	Pedagogy	Overall TC	IC
University Type	Key	.20*	.06	.20*	.20*	.20*	.19
	Non-key	.02	.02	.20*	.01	.20*	.01
Region	South	.01	.01	.20*	.20*	.20*	.02
	North	.18	.20*	.04	.20*	.20*	.09
Gender	Male	.20*	.02	.20*	.20*	.20*	.05
	Female	.01	.02	.03	.20*	.20*	.00
Education degree	Master	.04	.20*	.05	.20*	.20*	.08
	Doctor	.05	.00	.20*	.20*	.20*	.01
Teaching years	≤ 15	.00	.20*	.20*	.20*	.20*	.20*
	> 15	.08	.00	.18	.20*	.06	.02
Telecollaboration participation	Yes	.05	.16	.19	.20*	.20*	.01
	No	.02	.01	.09	.20*	.20*	.16
Student	Non-English majors	.09	.20*	.19	.20*	.20*	.00
	Mixed	.07	.00	.20*	.06	.20*	.08
Activities abroad	Academic	.01	.06	.20*	.20*	.20*	.02
	Others	.20*	.07	.20*	.01	.20*	.02
Duration of trips abroad	≤ 3 mons	.02	.02	.20*	.10	.20*	.01
	> 3 mons	.00	.20*	.11	.20*	.20*	.09
Number of trips abroad	≤ 2	.01	.01	.20*	.09	.20*	.05
	> 2	.02	.08	.20*	.20*	.20*	.15
IC training	Yes	.03	.01	.14	.13	.20*	.18
	No	.01	.20*	.20*	.20*	.20*	.01
Telecollaboration training	Yes	.02	.01	.20*	.20*	.20*	.06
	No	.09	.10	.20*	.20*	.20*	.06

*. This is a lower bound of the true significance.

Table 12 shows the absolute skewness and kurtosis values of most variables were lower than 1. They were thus considered normally distributed. Eight variables, in bold, remained undetermined as normally distributed. Among them, five variables whose skewness and kurtosis values were beyond the range from -1 to 1 were related to IC while the three others were related to ICT. The investigator, therefore, checked the histograms and normal QQ plot of these variables (see Appendix N). The histograms showed each of these eight variables basically distributed on a bell curve. The normal QQ plot showed the scatter points of each of these variables also basically matched the diagonal line. These eight variables were thus determined to be normally distributed. As a result, parametric analysis was applicable to quantitative data analysis of the difference between respondents' experiences (twelve independent variables) and their competences and understanding (six dependent variables).

Table 12*Skewness and Kurtosis for the Variables Not Normally Distributed*

	General Attitudes	General ICT	General IC	South Attitudes	South ICT	South IC	≤2 ICT	≤2 Attitudes	North Organization
Skewness	-.37	-.85	-.96	-.73	-.74	-.77	-.88	-.33	-.00
Kurtosis	-.73	-.90	.90	-.13	.90	.38	.36	-.26	.90
	Female Attitudes	Female ICT	Female IC	≤15 Attitudes	> 15 ICT	> 15 IC	≤2 IC	> 2 Attitudes	Female Organization
Skewness	-.65	-.56	-.89	-.58	-.57	-.49	-.95	-.83	.06
Kurtosis	.17	.28	.58	.09	.20	.04	1.25	-.13	.16
	Master Attitudes	Male ICT	Male IC	TP Yes Attitudes	TP No ICT	TP Yes IC	ICtrain Yes ICT	ICtrain Yes Attitudes	General Pedagogy
Skewness	-.55	-1.08	-.30	-.22	-.61	-1.35	-.73	-.43	-.20
Kurtosis	.21	1.26	-.70	-.85	.17	2.51	1.29	-.60	.16
	Doctor Attitudes	Doctor ICT	Doctor IC	TP No Attitudes	Mixed ICT	Non-English majors IC	ICtrain No IC	ICtrain No Attitudes	Others Pedagogy
Skewness	-.62	-1.29	-1.11	-.75	-.92	.96	-.56	-.80	-.12
Kurtosis	-.64	1.34	.92	.05	.59	.60	.02	.72	.19
	Academic Attitudes	Academic IC	Others ≤3 mons IC	≤3 mons Attitudes	≤3 mons ICT	≤3 mons IC	Ttraining Yes ICT	> 3 mons Attitudes	Ttraining Yes Attitudes
Skewness	-.60	-.63	-1.28	-.46	-.70	-1.15	-.63	-.93	-.89
Kurtosis	-.31	.03	2.01	.36	.28	1.84	-.04	.06	.75

As presented in Figure 11, 11 among the 12 independent variables had two levels of groups with participants from one group completely independent of those from the other group. Therefore, the t-test was considered as the analysis method of choice for this study. The t-test “compares the mean and standard deviation of one group to another group and asks whether the groups come from the same or different populations” (Mackey & Gass, 2012, p. 249). Due to its small number, three participants with bachelor’s degrees were excluded from the quantitative analysis so that the independent-samples t-test could also be applied to identify the association between education degree and six major dependent variables, attitudes and beliefs, ICT/digital competences, organizational competences, pedagogical competences, telecollaborative competence and IC understanding.

The homogeneity of variance was another requirement for parametric analysis. Because t-test conducted by SPSS included the homogeneity of variance in its results, it would be reported in the findings, rather than here.

Apart from major dependent variables, this study also investigated the correlation between the independent variables and individual items. As a result, the Kolmogorov-Smirnov test was also conducted to check if the response to each item were normally distributed at different levels of independent variables. The results revealed that none of them conformed to the bell curve. Given the two levels of independent variables, this study found the Mann-Whitney test, as a non-parametric analysis approach for two independent samples, was appropriate to reveal whether different responses to those items from EFL teachers in different samples achieved statistical significance.

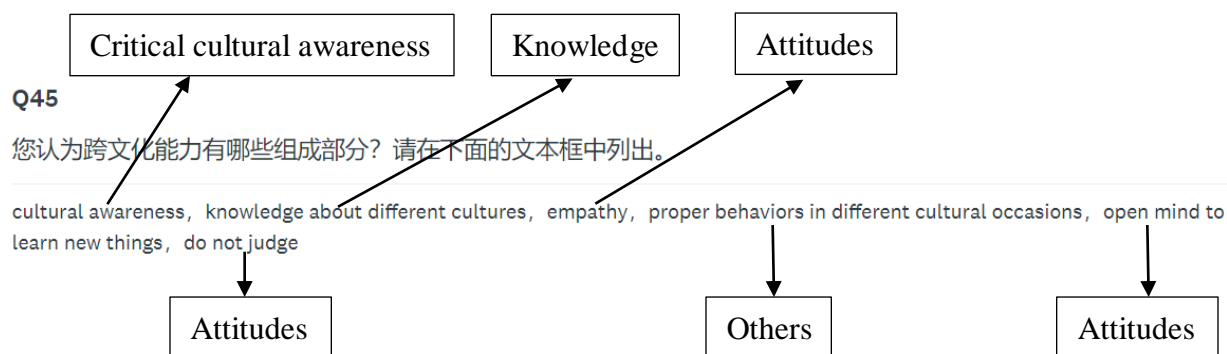
Analysis of the qualitative data. Qualitative data in this study derived from two sources, one open-ended question in the survey and the follow-up interview. This subsection discussed how they were analyzed separately.

The analysis of the open-ended question. Content analysis was applied to scrutinize participants' construction of IC components. As the responses to the open-ended question in a survey, the texts for Question 45 were in the written form and mostly brief. Thus, the data was not transcribed and was hand coded one participant by one participant. According to Byram's (1997) model (see Appendix A), *attitudes, knowledge, skills of interpreting and relating, skills of discovery and interaction, and critical cultural awareness* were initially established as structured codes. However, the investigator found that respondents hardly differentiated skills in the way that Byram did. Hence *skills of interpreting and relating* and *skills of discovery and interaction* were combined as *skill*. Participants also proposed some components that could not be categorized into the four components from Byram's model. The most common one was related to language so this study added *language* as a new code and *others* for a few others that could not be categorized into the above five codes. Take respondents # 16 as an example. Her response to Question 45 was in the screenshot (see Figure 6). The figure also showed how it was code on the basis of Byram's construction. The whole coding result could be found in Appendix T. After the coding had been completed, the number of responses in each category could be counted to find out the readily accepted components by participants and their differences from Byram's

construction. What were not included in Byram's model also showcased the difference and possibly helped to develop the model in the context of this study.

Figure 6

A Coding Sample of Question 45



The analysis of the follow-up interview. Unlike that of the survey, the data analysis of the interview proceeded while some interviews had been completed and other interviews were still going. The content analysis was also used for the qualitative analysis of the data gathered through interview. The data was firstly organized and transcribed. Five participants among the nine chose to have the interview through a synchronous teleconferencing tool, Tencent Meeting, while the other four used *QQ* or *WeChat* in an asynchronous manner. The audio data were transcribed into texts with the help of an audio transcription tool. The text data from asynchronous interviews were organized into a Word document. While the technology saved the investigator considerable time, I still spent tens of hours in punctuating the text, correcting the spelling, and editing the text.

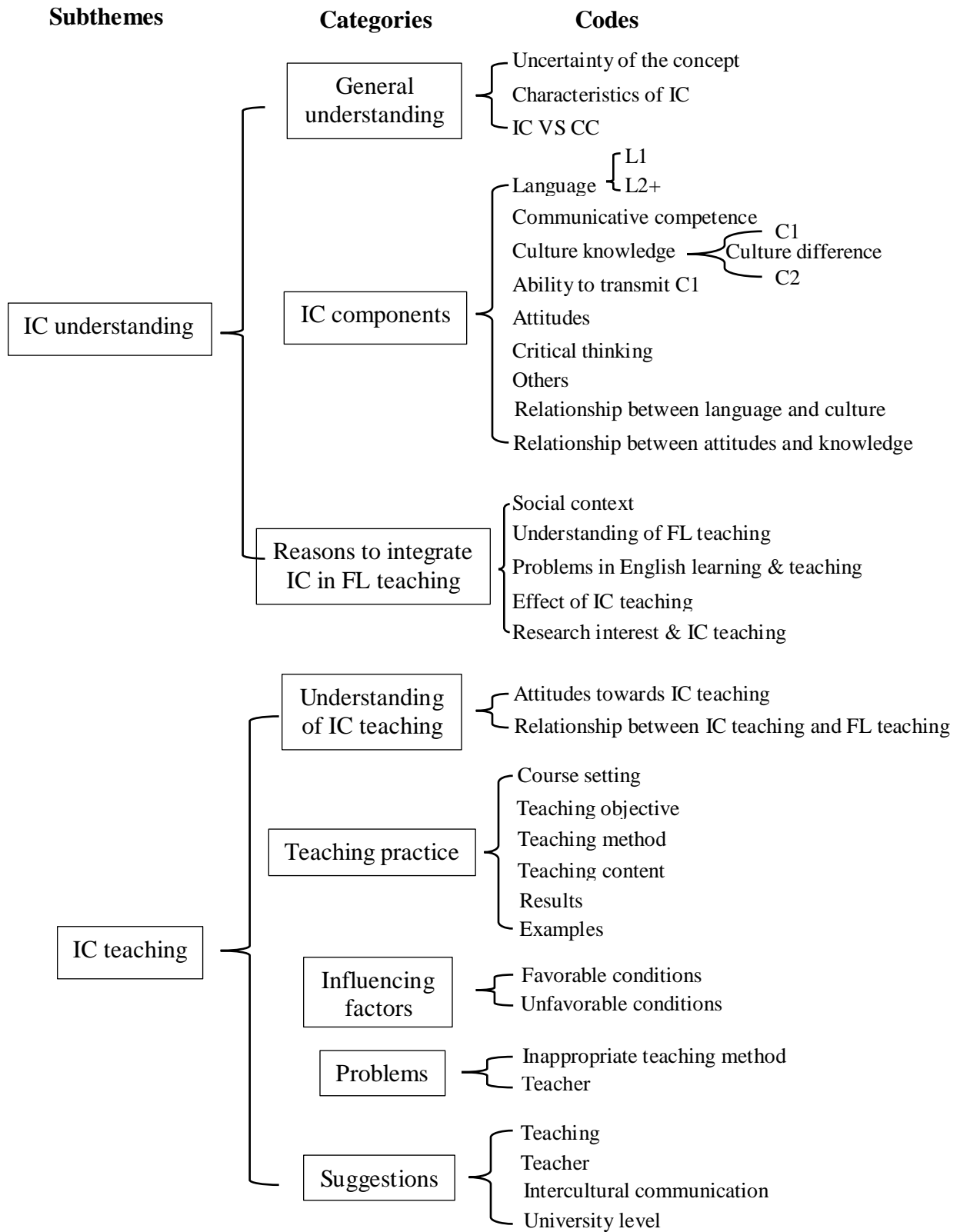
After the texts had been prepared, coding was performed. As shown in the protocol (see Appendix O), this study designed four general themes in the interview, namely IC education, telecollaboration, overseas experiences and training. While questions concerning IC education was ice-breaking, the questions in other categories were created because the quantitative analysis defined them as the factors of EFL teachers' IC understanding and telecollaborative competence. Qualitative open coding strategy was implemented to allow the coding structure to emerge from significant units of discourses in each theme and to develop tentative ideas about categories and relationships.

The first theme was IC education. In the interview protocol, question concerning participants' IC understanding and IC teaching were designed, which became two subthemes for data coding. The investigator first coded the participants' responses to questions for IC understanding. After making sure every meaning had been labelled, the investigator combined those with close connections to generate categories. Three categories were formulated, featuring general understanding, IC components and reasons to integrate IC in FL teaching (see Figure 7). "General understanding" included participants' interpretations of what IC was, such as brief descriptions of its characteristics and the difference between the concept and other related concepts like communicative competence (CC). A few participants expressed their ignorance of IC, which was also sorted in this category. Participants shared more perceptions on IC components in the interview by describing the relationship between different components, such as language and culture and attitudes and knowledge, which were also included in this category. When being asked about their attitudes towards integrate IC in FL teaching, they further explained their stances. The reasons ranged from the macro level of social development, which calling for IC, to the nature of FL learning and the problems caused by neglecting IC in FL teaching. The investigator also repeatedly encountered texts concerning the relationship between participants' research interest and their IC teaching practice.

The investigator subsequently coded the answers to questions related to IC teaching and refined five categories, which were understanding of IC teaching, teaching practice, influencing factors, problems and suggestions. The understanding of IC teaching resonated the understanding of IC in the previous theme. "Teaching practice" depicted what participants had done in their teaching, which they considered to be IC teaching. It involved the course setting, teaching objectives, teaching methods, teaching contents, and the results of teaching. Some participants also illustrated their actions with examples, which were classified as one separate code. "Influencing factors" referred to external circumstances which benefited or hindered IC teaching while "problems" meant what needed to be improved in their teaching, which was caused by the teacher and teaching. "Suggestions" were proposed by participants based on their personal teaching reality.

Figure 7

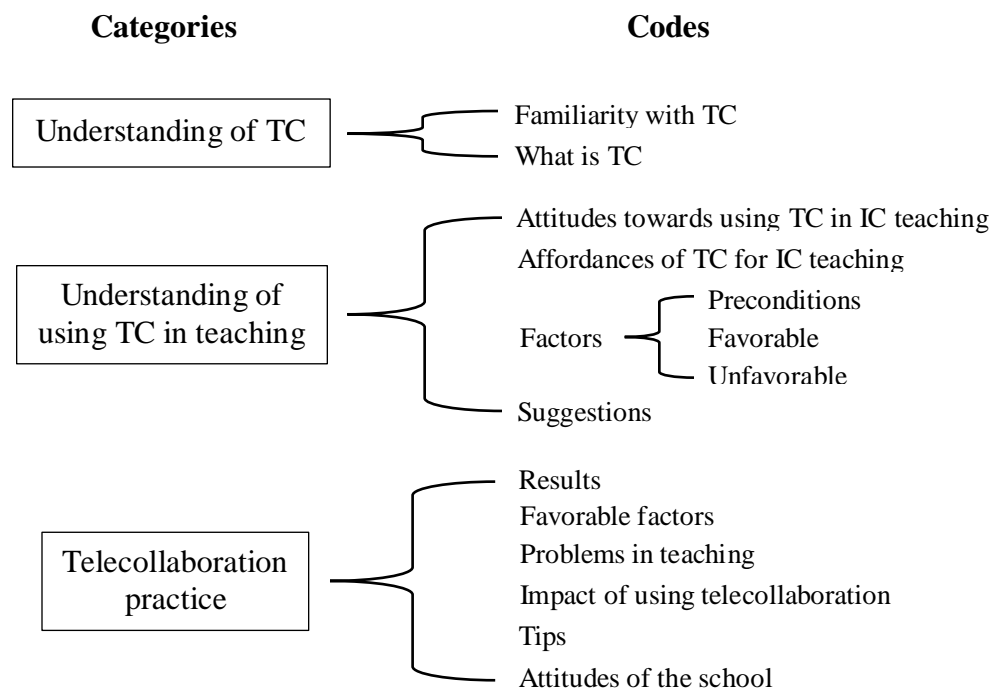
Diagram for IC Education Coding



The investigator applied the same coding approach for the text of telecollaboration. Due to the less thick data in this theme than IC education, the codes were subsumed into three categories, with no subtheme formulated, which were understanding of telecollaboration (TC), understanding of using telecollaboration in teaching and telecollaboration practice (see Figure 8).

Figure 8

Diagram for Telecollaboration Coding

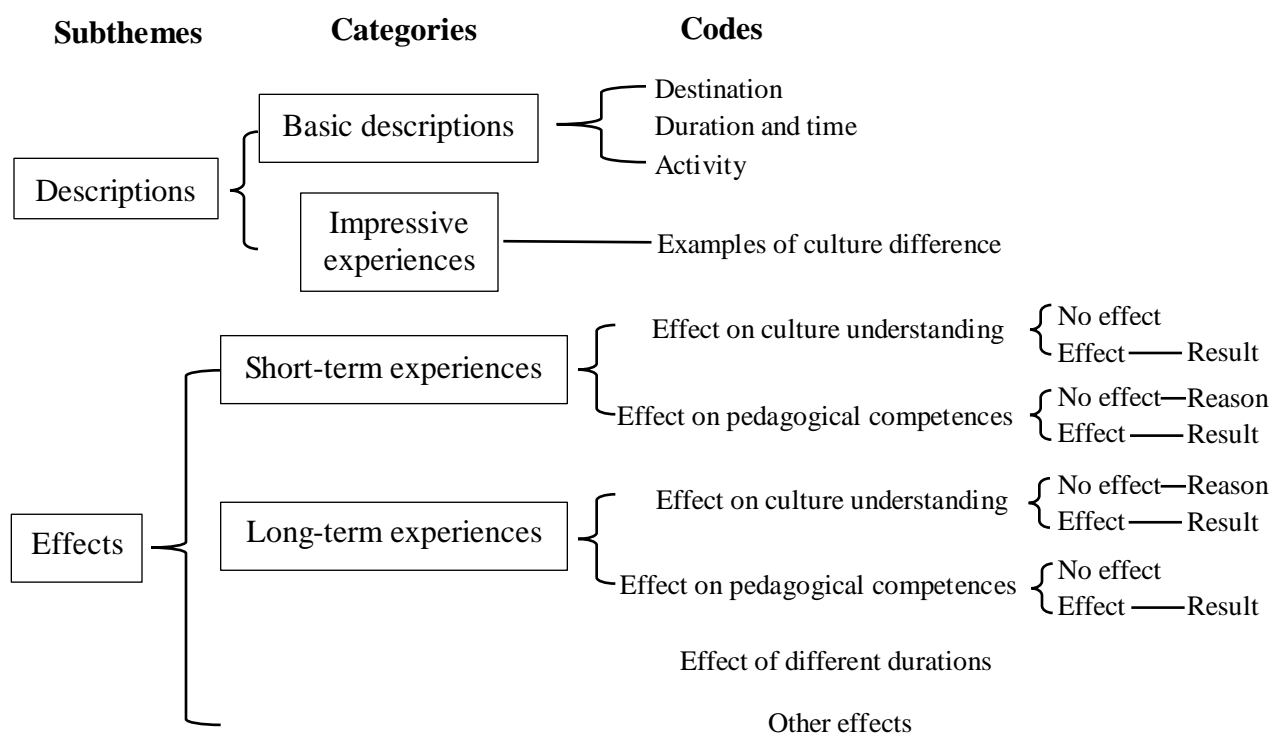


The category “Understanding of TC” contained the data which showed whether participants had heard of this term and how they defined it. “Understanding of using TC in teaching” remained in the theoretical level, with the data from respondents’ imagination rather than from their real practice. It included their attitudes towards the outlook of using telecollaboration in IC teaching, their perceptions on the affordances of telecollaboration for IC teaching, the factors that they expected to deal with in telecollaboration projects and suggestions that they prompted to promote the use of telecollaboration. Among these codes, “affordances of TC for IC teaching” partly explained participants’ positive attitudes towards telecollaboration. In addition, telecollaboration was a process which involved enormous factors. The investigator divided them into preconditions that necessitated the project establishment, favorable factors for the success of the project and unfavorable factors that may cause problems. “Telecollaboration

practice” proceeded to participants’ real experiences with using telecollaboration in teaching. The data in this category were all based on reality rather than imagination. It included the results of telecollaboration projects, the positive and negative contributors that the participants identified in teaching, the impact of telecollaboration on the teacher, the tips based on real practice and the attitude of the university towards this approach.

Figure 9

Diagram for Overseas Experiences Coding

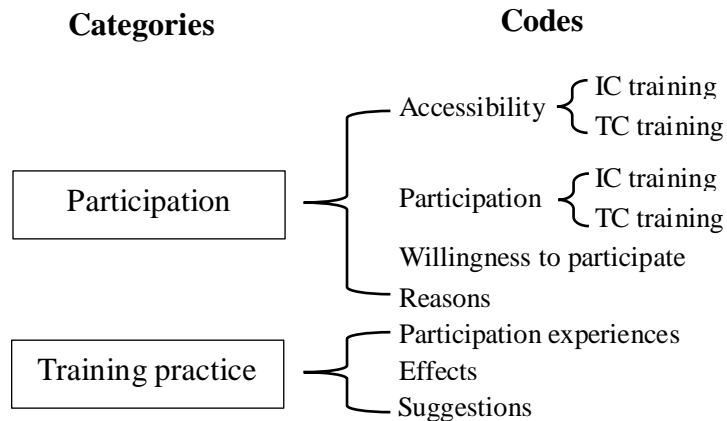


The third theme was “overseas experiences”. This theme developed into two subthemes “descriptions” and “effects” (see Figure 9). The former were the facts of participants’ overseas experiences while the latter was the effects of the overseas experiences on them. The analysis generated three codes, “destination”, “duration and time” and “activity”, which together formed the category of the basics. Apart from the basic descriptions of their experiences abroad, some participants also recalled specific incidents which occurred during their stay. These incidents were misunderstandings and culture shock caused by culture differences, which were classified into the category of “impressive experiences”. According to the quantitative analysis, the duration of participants’ overseas experiences was responsible for their different IC

understanding and pedagogical competences. Thus, the investigator separated the short-term experiences from the long-term ones and coded them as “effect on culture understanding” and “effect on pedagogical competences”. In each branch, the code was further developed into no effect reported and effect recognized. The reasons for no effect and the results of the effect on their follow-up teaching were provided by some participants and coded. Participants’ comments on the effect of short-term overseas experiences and long-term ones were coded as “effect of different durations”. Additionally, a few narratives of the effect on participant in other aspects than IC understanding. Pedagogical competences were also coded.

Figure 10

Diagram for Training Coding



The last theme for qualitative analysis was “training”, which included participants’ experiences which was related to IC training and telecollaboration training. Due the little experiences that the participants had with relevant training and the last position of this section in the interview, not as rich data generated. The first code was “accessibility”, in which the data was related to whether participants had been informed of IC or telecollaboration-themed trainings and if yes, whether they were allowed to sign up for them (see Figure 10). The second code was whether they participated in the trainings. Some participants expressed their willingness to attended IC or telecollaboration trainings, which was coded as “willingness to participate”. The fourth code was “reasons”, which explained why participants did not enter for the training activity or why they did it. The first four codes constituted one category, “participation”. The second category involved the personal experiences for some respondents

who were part of any training programs. It incorporated brief descriptions of the experiences, the effects of such trainings that participants reported and a few suggestions concerning the organization of relevant trainings.

Data saturation is an important index for high data quality in qualitative research. Different types of qualitative research with different purposes have varied methods to reach data saturation. However, the general principles that qualitative researchers agree on include no new data, no new themes, no new coding, and the ability to replicate the study (Guest et al., 2006). In terms of coding, it is preferable that the data is coded by different researchers to minimize the personal bias. However, because the interview of this study was in Chinese, my colleagues from Canada could not help. Furthermore, this study was conducted during the prevalence of COVID-19. Many academic conferences were cancelled, which led to the fact that I was academically isolated due to the physical quarantine. As a result, I had to code the interview transcriptions alone. To draw as much information as possible from the data, I spent prolonged time in coding. After I finished coding for the first time, I left the data untouched for two weeks. Then I started the coding process all over again and compared the results of two coding to adjust the themes. I replicated this for four times when there were no new ideas emerging.

The coding procedure was assisted by data analysis software, *NVivo* 1.6.1. A sample of NVivo analysis had been attached in Appendix U. The investigator kept writing memos in the analysis process to facilitate the analytic thinking and deepen the insights.

To achieve richer and deeper insights, this study adopted CDA, which centers on language as a form of social practice and how issues of power, equality, and dominance are reproduced in texts (van Dijk, 2015). CDA is theoretically based on criticality, which defines reality and knowledge as socially constructed entities influenced by political, historical, cultural, and economic factors as well as societal power relations (Guba & Lincoln, 1994). The qualitative data are examined from the critical perspective to explore how the interviewee and researcher are influenced by power relations. It is also worth noting that female EFL teachers outnumber male ones in Chinese universities, accounting for over 70% of the population (Dai & Zhang, 2004). According to DeVault (2018), technology has been understood as a male-dominated field of work and play. As a female EFL teacher, I concerned myself with women teachers' use of technology during the data analysis. There were indeed more female participants in this study, sixty-three, which accounted for 66.32%. Surprisingly, no significant difference was identified in

IC understanding and telecollaborative competence of different gender groups. However, the investigator recognized the power influence on participants' IC teaching practice and discussed it in the chapter of discussion.

Different from quantitative data which needs to be assessed to achieve objectivity, qualitative data holds its value in its inclusiveness of subjectivity. To “provide a more logical and derivative relation to the naturalistic axioms” (Lincoln & Guba, 1985, p. 301), different terms are used to refer to the criteria to judge the quality of qualitative research from quantitative one. In qualitative research, trustworthiness, also known as authenticity and credibility, means the accuracy of the qualitative findings from the standpoint of the researcher, the participant, or the readers (Creswell & Miller, 2000). It is equivalent to validity in quantitative research in the sense that both of them refer to the degree of consistency between the collected data and what is intended to collect. The researcher could check the trustworthiness in multiple ways. According to Creswell and Creswell (2018), the primary strategies for the validation of qualitative data include triangulation, member checking, using a rich and thick description to convey the findings, clarifying the bias the researcher brings to the study, presenting negative or discrepant information that runs counter to the themes, spending prolonged time in the field, peer debriefing, and using an external auditor to review the entire project. Given that the investigator of the present study is inexperienced in qualitative analysis and the connection between each interviewee and the investigator had not been well established due to the pandemic, this study adopted two of the above strategies, triangulation and providing a rich and thick description when presenting the findings.

The equal importance was given to the consistency of the qualitative design, which needs to be checked in a different way from how reliability was determined in the quantitative design. The researcher took two measures to improve the reliability of the qualitative analysis in this study. Firstly, after the transcriptions had been completed, the researcher spent tens of hours to check them repeatedly to ensure that obvious mistakes were all corrected. Such a check continued after coding had started. A mistake was corrected immediately after it had been spotted, including punctuation errors. The second strategy was coding repeatedly at an interval of two weeks and constantly comparing the codes with the data to avoid “a drift in the definition of codes” and “a shift in the meaning of the codes” (Creswell & Creswell, 2018, p. 275).

Chapter 6

Findings of the Web-Based Survey

In the main survey, this study used the modified questionnaire (see Appendix L) whose reliability and validity had been verified in the pilot study. In addition to 44 quantitative questions, there was one open-ended question, Item 45, which inquired about respondents' construction of IC components. The findings of the survey mainly addressed research question 1, *Based on Byram's ICC construct, what are EFL teachers' current understanding of IC?*, research question 2, *According to O'Dowd's model, what are EFL teachers' current telecollaborative competence?*, and research question 3, *What factors are associated with the development of their competence and understanding?*. They are respectively reported as quantitative and qualitative results in this chapter.

Status Quo

Quantitative data from the survey directly displayed participants' telecollaborative competence and their familiarity with the concept *IC*. The findings addressed the first two research questions and were depicted in the first subsection, quantitative results. The open-ended question in the survey also addressed the first research question. It showed how participants constructed the concept, *IC*. Thus this section unfolds in these two aspects.

Quantitative Results

There were 42 closed questions in a form of 7-point Likert scale in the questionnaire for the main survey. As explained in the previous chapter, they could be categorized into six dependent variables. Items 1 to 6 and Item 44 are the first dependent variable, attitudes and beliefs; Items 7 to 15 are the second dependent variable, ICT/digital competences; Items 16 to 28 are the third dependent variable, organizational competences; Items 29 to 37 are the fourth dependent variable, pedagogical competences; Items 1 to 37 plus Item 44 are the fifth dependent variable, the overall telecollaborative competence; Items 38 to 43 are the sixth dependent variable, IC understanding. The value of each major dependent variable was the mean of its subordinate items.

As shown in Table 13, the mean of the overall telecollaborative competence of 95 EFL teachers scored 5.82 ($SD=.49$), which was slightly higher than the mean of IC understanding, 5.78 ($SD=.86$). In terms of the four components of telecollaborative competence, the highest-scoring component was attitudes and beliefs ($M=6.38$, $SD=.43$), followed by ICT competences

($M=5.96$, $SD=.60$), pedagogical competences ($M=5.70$, $SD=.57$) and organizational competences ($M=5.49$, $SD=.66$). The skewness and kurtosis values of the six major dependents were within the range from -1 to 1. It means they could all be considered as normally distributed. The data of respondents' IC understanding showed the highest dispersion while that of attitudes and beliefs had the lowest dispersion judging from the standard deviation, variance and the distribution of the responses in 25, 50 and 75 percentiles.

Table 13

The Descriptive Statistics of Telecollaborative Competence and IC Understanding

		Attitudes	ICT	Organization	Pedagogy	T Competence	IC
N	Valid	95	95	95	95	95	95
	Missing	0	0	0	0	0	0
	Mean	6.38	5.96	5.49	5.70	5.82	5.78
	Std. Deviation	.43	.60	.66	.57	.49	.86
	Variance	.18	.36	.44	.33	.24	.74
	Skewness	-.52	-.71	-.09	-.07	-.06	-.91
	Std. Error of Skewness	.25	.25	.25	.25	.25	.25
	Kurtosis	-.12	.43	.29	.00	-.09	.91
	Std. Error of Kurtosis	.49	.49	.49	.49	.49	.49
	Minimum	5.14	4.33	3.77	4.33	4.68	3.00
	Maximum	7.00	7.00	7.00	7.00	6.89	7.00
Percentiles	25	6.14	5.67	5.15	5.33	5.53	5.33
	50	6.42	6.00	5.46	5.67	5.84	5.83
	75	6.71	6.44	5.85	6.00	6.13	6.33

Descriptive statistics of each closed-ended item in the questionnaire revealed that responses to Item 1 ($M=6.79$, $SD=.46$), Item 38 ($M=6.73$, $SD=.47$) and Item 44 ($M=6.60$, $SD=.59$) achieved the highest agreement among participants while Item 17 ($M=3.93$, $SD=1.57$), Item 32 ($M=4.73$, $SD=1.61$) and Item 43 ($M=4.88$, $SD=1.53$) were the three questions with the lowest mean (see Appendix R). Item 1 inquired about respondents' agreement on the intrinsic role of culture in foreign language education; Item 38 was related to respondents' acquaintance with ICC as a concept; Item 44 was a question concerning respondents' acceptance of IC/ICC development as one of the major objectives of foreign language education. Three items in which respondents showed the least confidence were whether they can establish and clearly explain their plans and expectations to possible partner-teachers in an intercultural exchange; whether

they can design tasks which are attractive and relevant for students and which serve to develop culturally and linguistically rich interaction; and whether they clearly know the components of IC.

A close look into respondents' familiarity of ICC and IC indicated that with the highest mean being achieved by participants' familiarity of ICC, the second highest mean, 6.55 ($SD=.78$), was of Question 41, which asked if the participant had heard of IC. Then questions concerning respondents' clear understanding of the concepts followed, which were Question 39 regarding ICC ($M=5.92$, $SD=1.14$) and Question 42 regarding IC ($M=5.47$, $SD=1.38$). Question 40 and 43 that investigated whether respondents know the components of ICC and IC had the lowest mean, 5.11 ($SD=1.44$) for ICC and 4.88 ($SD=1.53$) for IC.

The standard deviation, variance and the distribution of the responses in 25, 50 and 75 percentiles indicated that Item 17, Item 5, Item 32, Item 43 and Item 40 showed the highest dispersions while Items 1, 38, 44, and 2 had the lowest dispersion. Apart from Item 17, 32 and 43 which had been mentioned above, more heterogeneous responses had been identified in Item 5 concerning the sole authority of the teacher on the target culture and language and in Item 40 soliciting respondents' idea about what ICC is composed of.

In contrast with the highest value of the Likert scale, 7, the scores for telecollaborative competence and IC understanding were not low. However, it was too early to conclude that they were absolutely high. However, as described above, certain patterns had been revealed. More data were still needed to add to participants' competence and perception.

Open-Ended Question

Except for one respondent who wrote that she did not know the definition of IC and another who considered "ICC" as the component of IC, the remaining forty-four respondents all expressed their understandings of the IC composition. Based on the interpretations provided by Byram (1997) (see Appendix A), the investigator coded the text responses of the forty-four participants (see Appendix T). This section presents respondents' construction of IC components in descending order of occurrence frequency. The occurrence frequency of some words was given in brackets.

As shown in Appendix T, thirty among the total 44 EFL teachers positioned language as one component of IC. "语言能力", "沟通能力" and "交际能力" were most frequently used words to describe language ability, which mean language skills, communication skills and

communicative competence. One teacher stressed “母语功底”, which can be translated to native language ability while another teacher considered that proficiency in the target language was important.

The second component of IC was knowledge, which mainly referred to “文化知识” (4), “跨文化知识” (3) and “文化常识” (2) according to 23 participant teachers, which are overall cultural knowledge, intercultural knowledge, and cultural common sense. Some provided more details for this component. Six of them clarified that the knowledge included first and foreign cultural knowledge while three EFL teachers interpreted knowledge as the cultural knowledge of a foreign country. Two participants described knowledge as the difference in two cultures. However, no participants explicitly mentioned, as specified by Byram (1997), declarative knowledge of how social identities are acquired, perceived by other members of one group and how to perceive the interlocutors from other groups, and procedural knowledge of how to act in specific circumstances.

This study categorized 15 responses into skills. They were “认知” (4), “处理文化冲突能力” (4), “文化理解能力” (3), “技能” (2), “协调能力” (1) and “与本族文化的关联能力” (1), which respectively mean cognition, the ability to address cultural conflicts, the ability to understand culture, skills, mediating ability and the ability to connect other cultures with one’s native culture. Approximately 50% of the participants provided general responses like “cognition” or “skills” with no attempt to further explain the specific skills needed by a competent intercultural communicator. As discussed in Chapter 3, Byram (1997) conceptualized two skills in IC, namely the skills of interpreting and relating, and the skills of discovery and interaction. The ability to address cultural conflicts which was listed by the survey respondents of this study does not fit into Byram’s interpretation of skills needed by intercultural competent people.

This study coded words such as “开放” (5), “共情 (2) /同理心 (1)”, “好奇心” (1), “合作” (1), “情感” (5), and “尊重” (1) used by 14 EFL teaches into the category of attitudes, which mean open-mindedness, empathy, curiosity, cooperativeness, emotions and respectfulness. One candidate used “文化自信”, which is the confidence that one has in his/her native culture.

Seven participants conceived “cultural awareness” (2) or “intercultural awareness” (3) as a component of IC. However, critical cultural awareness, which is given top priority by Byram (1997), did not acquire adequate attention among Chinese EFL teachers as only two teachers incorporated it into IC.

Apart from the elements extracted above, participants also included other compositions, such as behavior (8), collaborativity (2), adaptability (2), social skills (1), interpersonal relationship (1), leadership (1), creativity (1), and international mindset (1). As with knowledge and skills, participants used general words without detailed explanations. Though these answers did not fall into the framework formulated by Byram (1997), most of them, except leadership and creativity, are abilities supportive to develop or maintain a harmonious intercultural relationship, which is one of the primary purposes of intercultural communication according to Byram (1997).

The results are different from those revealed by Gu (2016), in which respondents were asked to list at least three components that they considered as the most important in the construct of ICC. Gu (2016) found that the percentages of cultural knowledge far exceeded those of the other dimensions, followed by skill-related item, attitude-related entries, and language skills. The different rankings of language can be caused by the different classification of language skills, communication skills and communicative competence. They were classified as language in the present study while as skills in Gu's study. Taking that into account, language and cultural knowledge were considered the top two construct of ICC in both studies. What is noteworthy is the narrowing gap between attitudes and the top two components. According to Gu (2016), about 30% of the participants listed cultural knowledge and skills while only 10.7% listed attitudes. In the present study, 14 responses are related to attitudes against 23 responses about cultural knowledge.

Associated Factors

Quantitative data were also intended to identify the associated factors through statistical analysis. Due to its exploratory nature, this study covered numerous potential factors. Thus, it was desirable to clarify these factors prior to the quantitative analysis. After that, varied tests were conducted with the major dependent variables and individual items of telecollaborative competence and familiarity with IC to identify the contributing factors for research question 3. Thus, this section unfolds in three facets, namely independent variables, major dependent variables, and individual items.

Independent Variables

As described in the previous chapter, nine questions in the section of personal profile were recoded to be 12 independent variables for the quantitative test. On the basis of social

constructivism, these variables were mainly related to participants' personal experiences. As a germ of an idea to examine the inequity in FL education, gender was also included for analysis. The twelve independent variables were as follows.

Working experiences (4 factors): 1. University type; 2. Work location; 3. Teaching years; 4. Students

Overseas experiences (3 factors): 1. Activity; 2. Duration; 3. Number of times

Training experiences (2 factors): 1. Number of times for ICC training;

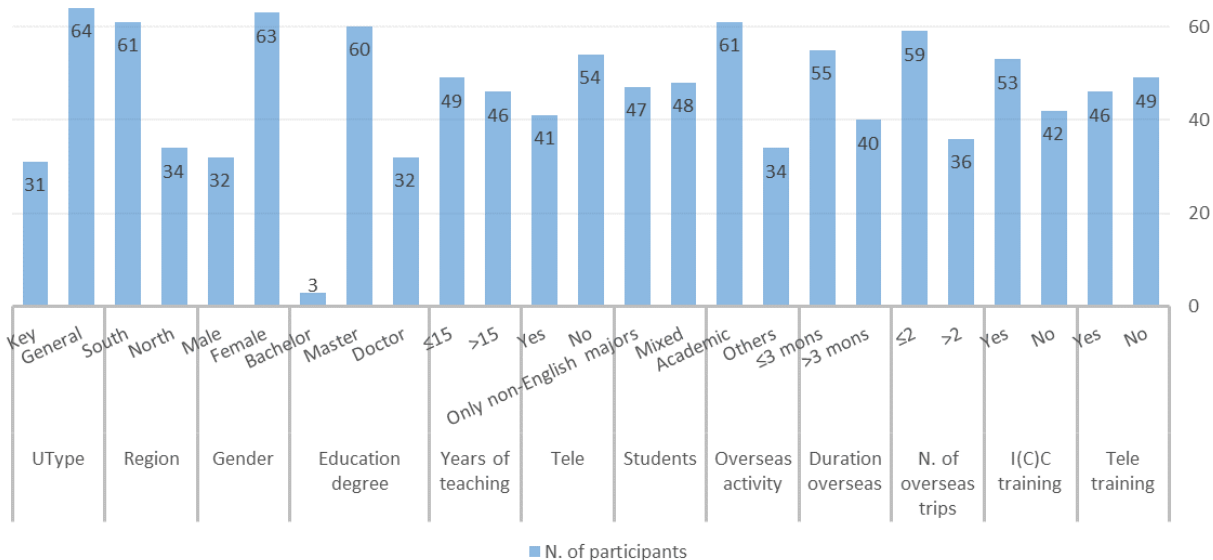
2. Number of times for telecollaboration training

Others (3 factors): 1. Gender; 2. Education degree; 3. Participation in telecollaboration

Figure 11 presents the distribution of respondents in different levels of each independent variable. Except for education degree, in which there were three EFL teachers with bachelor's degree, the participants for each variable all exceeded 30, which is considered as the minimum number of large samples.

Figure 11

The Distribution of Respondents for Each Level of Independent Variables



Major Dependent Variables

The independent samples t-test was respectively conducted to examine if the four components of telecollaborative competence and the overall telecollaborative competence as well as the IC understanding of participants varied in terms of twelve independent variables. The

result of Levene's test for equality of variances confirmed that the different groups of participants showed no heterogeneity in variance and could be analyzed by t-test (see Table 19).

Independent samples t-test for major dependent variables. Among the 95 respondents, 55 had been abroad for three months and less while 40 had long-term overseas experiences for more than three months. EFL teachers who had stayed overseas for more than three months reported a higher mean, 6.49 ($SD=.45$), than the teachers who had been abroad for no more than three months ($M=6.31$, $SD=.40$) in attitudes and beliefs (see Table 14). The t-test result showed that EFL teachers' attitudes and beliefs significantly varied at the 95% level in the duration of their overseas experiences ($t[93]=-2.09$, $p[2-tailed]=.04$, CI or $MD=-.36$, $-.01$) (see Table 19). Longer overseas experiences were associated with teachers' improved attitudes towards telecollaborative intercultural teaching.

Table 14

Group Statistics of Different Overseas Durations in Attitudes and Beliefs

		Attitudes & beliefs			
		<i>N</i>	<i>M</i>	<i>SD</i>	<i>Std. Error Mean</i>
Overseas duration	≤ 3 mons	55	6.31	.40	.05
	>3 mons	40	6.49	.45	.07

A significant difference at the 95% level between EFL teachers with short-term overseas experiences and those with long-term experiences was also found in their pedagogical competences ($t[93]=-2.26$, $p[2-tailed]=.03$, CI or $MD=-.49$, $-.03$) (see Table 19). As shown in Table 15, the mean of participants who had been overseas for three months and less was 5.59 ($SD=.54$) while that of those who had a long-term overseas experience for more than three months was 5.86 ($SD=.59$). Teachers who had longer-term stay abroad perceived themselves with higher teaching skills than their counterparts with less than 3 months stay overseas. Extended stay abroad is associated with respondents' enhanced teaching ability.

In terms of telecollaboration experiences, 41 respondents reported to have participated a telecollaboration project while 54 respondents reported no such experiences. Respondents who had participated in intercultural exchange ($M=5.64$, $SD=.71$) possessed higher organizational competences than those who had no such experiences ($M=5.37$, $SD=.60$) (see Table 16). The results of the independent samples t-test showed that the difference was significant at the level of

95%. EFL teachers' organizational competences significantly varied according to whether they had participated in telecollaborative projects ($t[93]=-2.02$, $p[2-tailed]=.05$, CI or $MD=.00$, $.54$) (see Table 19).

Table 15

Group Statistics of Different Overseas Durations in Pedagogical Competences

		Pedagogical competences			
		<i>N</i>	<i>M</i>	<i>SD</i>	<i>Std. Error Mean</i>
Overseas duration	≤3 mons	55	5.59	.54	.07
	>3 mons	40	5.86	.59	.09

Respondents were also grouped according to their years of teaching. Forty-nine had been working as a university English teacher for 15 years and less while 46 had been working for more than 15 years. EFL teachers with more teaching experience achieved lower means in IC understanding ($M=5.59$, $SD=.85$) than those with less teaching experiences ($M=5.95$, $SD=.84$) (see Table 17). The t-test revealed the difference in the familiarity with IC concept to be significant at the 95% level between EFL teachers with different years of working ($t[93]=-2.11$, $p[2-tailed]=.04$, CI or $MD=-.71$, $-.02$) (see Table 19). The longer the respondents had been teaching, the less familiar they perceived themselves were with IC. Respondents with longer teaching experiences self-reported lower familiarity with the concept, IC.

Table 16

Group Statistics of Different Telecollaboration Experiences in Organizational Competences

		Organizational competences			
		<i>N</i>	<i>M</i>	<i>SD</i>	<i>Std. Error Mean</i>
Participation in telecollaboration	Yes	41	5.64	.71	.11
	No	54	5.37	.60	.08

The familiarity with IC was also found to significantly vary at the level of 95% between teachers who had or had not received trainings concerning IC ($t[93]=-2.80$, $p[2-tailed]=.01$, CI or $MD=-.82$, $-.14$) (see Table 19). There were 53 respondents who had IC training experiences and 42 without. Table 18 showed that EFL teachers who had attended IC training received a higher mean in understanding of the concept, 5.99 ($SD=.79$), than those who had not ($M=5.51$, $SD=.88$).

Table 17*Group Statistics of Different Teaching Years in IC Understanding*

		IC understanding			
		<i>N</i>	<i>M</i>	<i>SD</i>	<i>Std. Error Mean</i>
Teaching years	>15	46	5.59	.85	.13
	≤15	49	5.95	.84	.12

The complete data of the test results can be found in Appendix Q.

Because the significance is inadequate for data interpretation, effect size and power were calculated to explain how significant the difference was and the probability to reject the null hypothesis when it was incorrect. A free online calculator was used for effect size calculation. (<https://www.socscistatistics.com/effectsize/default3.aspx>) The effect size was calculated with means, standard deviations and sample sizes. Due to the different sample sizes of each level of the independent variables, Hedge's *g* was used to show the effect size. Table 19 showed that the effect size varied from .42 to .47 except for the highest effect size of IC training on respondents' IC understanding ($g=.58$). It indicated that the means of the two groups differed by approximately .45 standard deviations. According to Cohen (1988), the effect size of these differences was medium.

Table 18*Group Statistics of Different IC Training in IC Understanding*

		IC understanding			
		<i>N</i>	<i>M</i>	<i>SD</i>	<i>Std. Error Mean</i>
IC training	Yes	53	5.99	.79	.11
	No	42	5.51	.88	.14

In regard to the effect size, the investigator also used *GPower 3.1* to conduct the post hoc power analysis to derive power. As Table 19 showed, the power fluctuated between .52 and .61 except for the highest power level of IC training and IC understanding ($1-\beta=.79$). Cohen (1992) proposed that when the power level was .80, it was sufficient to balance alpha and beta risk. Thus the power of IC training and IC understanding which was identified in the present study could be considered high but the differences among variables were not significant enough.

To sum up, statistical significance was identified in the association between the overseas duration and attitudes and beliefs, and pedagogical competences, in the association between participation in telecollaboration projects and organizational competences, in the association between teaching years and participation in IC trainings and IC understanding. Among them, IC training had a remarkable correlation with respondents' IC understanding while other factors had a medium association.

Table 19

Independent Variables that are Associated with Major Dependents

Dependent variables	Independent variables	Levene's Test for Equality of Variances		CI (MD)	t (df)	P (2-tailed)	g	Power
		F	Sig.					
Attitudes & beliefs	Overseas duration	1.47	.23	-.36, -.01 (-.18)	-2.09 (93)	.04	.43	.54
Pedagogical competences	Overseas duration	.36	.55	-.49, -.03 (-.26)	-2.26 (93)	.03	.47	.61
Organizational competences	Telecollaboration exp.	.89	.35	.00, .54 (.27)	-2.02(93)	.05	.42	.52
IC understanding	Teaching years	.30	.59	-.71, -.02 (-.37)	-2.11 (93)	.04	.43	.55
IC understanding	IC training	1.04	.31	-.82, -.14 (-.48)	-2.80 (93)	.01	.58	.79

The correlation among independent variables. The t-test revealed that among the four contributing factors, years of teaching and IC training both had a significant correlation with participants' IC understanding. This provoked the investigator to reflect whether there was correlation between teaching years and IC training. The investigator suspected that the mere passage of time did not necessarily develop one's IC understanding. Thus the present study subsequently conducted the correlation test to explore whether these four independent variables were interrelated with each other. This also helped further narrow down the focus of the follow-up interview. Because all the four variables are nominal data, phi coefficient was calculated to reveal the significant correlation between different combinations of these independent variables, if there was any.

Table 20*Teaching Years * IC Training Crosstabulation*

			IC training		Total
			No	Yes	
Teaching years	>15	Count	27	19	46
		% within Teaching years	58.7%	41.3%	100.0%
	% within IC training		64.3%	35.8%	48.4%
	≤15	Count	15	34	49
% within Teaching years		30.6%	69.4%	100.0%	
% within IC training		35.7%	64.2%	51.6%	
Total	Count		42	53	95
	% within Teaching years		44.2%	55.8%	100.0%
	% within IC training		100.0%	100.0%	100.0%

Table 20 showed that the percentage of participants with over fifteen years' teaching experiences was lower in IC professional education than that of participants with less teaching experiences. The participation in IC training decreased along with respondents' years of teaching. Phi coefficient test revealed that among the four variables, the significant correlation was only identified between the years of teaching and EFL teachers' participation in IC training ($\phi=.28, P=.01$) (see Table 21). IC training thus was a major associated factor with the increasing familiarity with IC.

Table 21*Symmetric Measures of Teaching Years and IC Training*

Variable pair		Value	Approximate Significance
Teaching years by	Phi	.28	.01
IC training	Cramer's V	.28	.01
Cases		95	

Individual Items

Due to the non-normal distribution of the data, the parametric analysis method like the t-test could not be applied to individual items. Thus, the Mann-Whitney test, one of the non-parametric methods for two independent samples, was selected. Because non-parametric methods did not require normal distribution and homogeneous variance, they were not tested and reported. The results were presented in the order of independent variables appearing in the questionnaire.

The association between the university type and individual items. Some universities where participants worked at were key universities, such as Southeast University, Nanjing Agricultural University, China University of Mining and Technology, and Jiangnan University. Others are non-key universities. Among the ninety-five participants, thirty-one were from key universities while sixty-four were from non-key universities (see Table 22). Mann-Whitney test was conducted to see whether responses to individual questions varied between EFL teachers from these two types of universities.

Table 22

Ranks of Items for Participants from Different Types of Universities

	University Type	N	Mean Rank	Sum of Ranks
Q15	Key universities	31	38.95	1207.50
	Non-key universities	64	52.38	3352.50
	Total	95		
Q20	Key universities	31	40.26	1248.00
	Non-key universities	64	51.75	3312.00
	Total	95		
Q21	Key universities	31	38.73	1200.50
	Non-key universities	64	52.49	3359.50
	Total	95		
Q22	Key universities	31	39.74	1232.00
	Non-key universities	64	52.00	3328.00
	Total	95		
Q30	Key universities	31	38.31	1187.50
	Non-key universities	64	52.70	3372.50
	Total	95		
Q37	Key universities	31	40.68	1261.00
	Non-key universities	64	51.55	3299.00
	Total	95		

Although no significant difference was identified in overall telecollaborative competence and IC understanding between participants from key universities and non-key universities, the Mann-Whitney test revealed significant difference in Item 15, 20, 21, 22, 30 and 37 between respondents from the two types of universities (see Table 23). EFL teachers from non-key universities had higher mean ranks in all the six items (see Table 22). According to the Mann-Whitney test, the difference in Item 15 was significant at the 95% level between two groups of EFL teachers ($Z=-2.40$, $P=.02$). The teachers from non-key universities ($MR=52.38$, $SR=3352.50$) reported higher capability of developing in students a critical understanding of

online tools – the interests they serve, the type of communication they promote etc. than the teachers from key universities ($MR=38.95$, $SR=1207.50$). The Mann-Whitney test also revealed the difference in Item 20 to be significant at the level of 95% between respondents ($Z=-2.00$, $P=.05$). Respondents from non-key universities ($MR=51.75$, $SR=3312.00$) perceived themselves to be more capable of employing various strategies to “match” learners from the different institutions and to create effective partnerships and exchange groups than those from key universities ($MR=40.26$, $SR=1248.00$). The significant difference also existed in Item 21 ($Z=-2.47$, $P=.01$) at the level of 99%. Non-key university EFL teachers ($MR=52.49$, $SR=3359.50$) believed that they were more capable of maintaining a good working relationship with the partner-teacher throughout the exchange, identifying problems as they arise than key university EFL teachers ($MR=38.73$, $SR=1200.50$). The Mann-Whitney test also found the difference in Item 22 ($Z=-2.29$, $P=.02$) to be significant between two groups of teachers. Teachers working at non-key universities ($MR=52.00$, $SR=3328.00$) assess themselves to be more capable of altering the logistics of the exchange to adapt to developments and problems as they arise (e.g., low levels of participation, access to technology problems etc.) than teachers from the other group ($MR=39.74$, $SR=1232.00$). The Mann-Whitney test revealed the significant difference at the level of 99% in responses to Item 30 ($Z=-2.61$, $P=.01$) between participants from different universities. EFL teachers from non-key universities ($MR=52.70$, $SR=3372.50$) reported that they could better support students in discerning and reflecting upon culturally contingent patterns of interaction in follow-up classroom discussions than teachers from key universities ($MR=38.31$, $SR=1187.50$). The last significant difference was identified at the level of 95% by the Mann-Whitney test in Item 37 ($Z=-1.98$, $P=.05$). Non-key university EFL teachers ($MR=51.55$, $SR=3299.00$) believed that they could also better integrate the content and themes of the telecollaborative exchange into their contact classes (when they exist) than key university EFL teachers ($MR=40.68$, $SR=1261.00$).

Table 23

The Mann-Whitney Test of University Type

Item	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	r
Q15	711.50	1207.50	-2.40	.02	.02	.25
Q20	752.00	1248.00	-2.00	.05	.05	.21
Q21	704.50	1200.50	-2.47	.01	.01	.25

Q22	736.00	1232.00	-2.29	.02	.02	.23
Q30	691.50	1187.50	-2.61	.01	.01	.27
Q37	765.00	11261.00	-1.98	.05	.05	.20

The association between the region and individual items. As stated in the methodology chapter, the universities where respondents were from were also grouped according to their locations. There were sixty-one participants from the universities in the south of Yangtze River and thirty-four from those in the north of Yangtze River (see Table 24). Mann-Whitney test was conducted to see whether responses to individual questions varied between EFL teachers from the universities located in two sides of the river.

Table 24

Ranks of Items for Participants from Different Regions

	Region	N	Mean Rank	Sum of Ranks
	South of Yangtze River	61	53.42	3258.50
Q32	North of Yangtze River	34	38.28	1301.50
	Total	95		

The t-test identified no difference in overall telecollaborative competence and IC understanding between participants from different locations. However, according to the Mann-Whitney test (see Table 25), EFL teachers working in the south and north of Yangtze River were significantly different in responses to Item 32 ($Z=-2.64$, $P=.01$) at the level of 99%. EFL teachers from the South of Yangtze River ($MR=53.42$, $SR=3258.50$) seemed more competent at designing tasks which are attractive and relevant for students, and which serve to develop culturally and linguistically rich interaction than the teachers from the other region ($MR=38.28$, $SR=1301.50$).

Table 25

The Mann-Whitney Test of Region

Item	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	r
Q32	706.50	1301.50	-2.64	.01	.01	.27

The association between gender and individual items. There were thirty-two male teachers and sixty-three female teachers who participated in the questionnaire survey (see Table 26). Mann-Whitney test was conducted to see whether responses to individual questions varied

between different genders.

Table 26

Ranks of Items for Participants from Different Genders

	Gender	N	Mean Rank	Sum of Ranks
Q15	Male	32	55.70	1782.50
	Female	63	44.09	2777.50
	Total	95		
Q27	Male	32	56.27	1800.50
	Female	63	43.80	2759.50
	Total	95		

According to the Mann-Whitney test, male and female EFL teachers were significantly different in response to Items 15 ($Z=-2.09$, $P=.04$) and to Item 27 ($Z=-2.27$, $P=.02$) at the level of 95% (see Table 27). Male EFL teachers achieved higher mean ranks in both of these items. Male EFL teachers ($MR=55.70$, $SR=1782.50$) reported to be more competent at developing students' critical understanding of online tools – the interests they serve, the type of communication they promote etc. than female EFL teachers ($MR=44.09$, $SR=2777.50$). Male EFL teachers ($MR=56.27$, $SR=1800.50$) seemed also more aware of how to evaluate the strengths and weaknesses of their online exchange than females ($MR=43.80$, $SR=2759.50$).

Table 27

The Mann-Whitney Test of Gender

Item	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	r
Q15	761.50	2893.50	-2.09	.04	.04	.21
Q27	743.50	2759.50	-2.27	.02	.02	.23

The association between education degree and individual items. Among the ninety-five participants, sixty had the master's degree while thirty-two had the Doctor's degree (see Table 28). Only three had the bachelor's degree. Mann-Whitney test was conducted to see whether responses to individual questions varied between EFL teachers with different education degrees. As described in the methodology chapter, participants with bachelor's degree were eliminated from the test due to its small number.

Table 28

Ranks of Items for Participants with Different Education Degrees

	Education degree	N	Mean Rank	Sum of Ranks
Q26	Master	60	42.55	2553.00
	Doctor	32	53.91	1725.00
	Total	92		
Q32	Master	60	42.45	2547.00
	Doctor	32	54.09	1731.00
	Total	92		
Q33	Master	60	41.65	2499.00
	Doctor	32	55.59	1779.00
	Total	92		
Q41	Master	60	42.85	2571.00
	Doctor	32	53.34	1707.00
	Total	92		

The results of the Mann-Whitney test showed that responses to Item 26 ($Z=-2.10$, $P=.04$), Item 32 ($Z=-2.05$, $P=.04$) and Item 41 ($Z=-2.12$, $P=.03$) significantly varied the level of 95% as well as Item 33 ($Z=-2.63$, $P=.01$) at the level of 99% among respondents with the Master's and Doctor's degree at (see Table 29) whereas no significant difference was identified through the t-test in the overall competence and IC understanding. EFL teachers with the higher degree of education achieved higher scores in all the four items. Teachers with the doctorate degree ($MR=53.91$, $SR=1725.00$) had more knowledge of the common causes of organizational and intercultural problems in online exchanges and knew more about how to apply techniques and strategies to address these problems than the teachers with the master's degree ($MR=42.55$, $SR=2553.00$). Doctor teachers ($MR=54.09$, $SR=1731.00$) were more capable of designing tasks which are attractive and relevant for students, and which serve to develop culturally and linguistically rich interaction than Master teachers ($MR=42.52$, $SR=2547.00$). EFL teachers with the Doctor's degree ($MR=55.59$, $SR=1779.00$) were also more capable of designing tasks which support the activities of collaborative inquiry and the construction of knowledge than their colleagues with the master's degree ($MR=41.65$, $SR=2499.00$). Additionally, EFL teachers with the Doctor's degree ($MR=53.34$, $SR=1707.00$) had deeper impression of IC than those with the master's degree ($MR=42.85$, $SR=2571.00$).

Table 29

The Mann-Whitney Test of Education Degree

Item	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig.	Exact Sig.	r
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				(2-tailed)	(2-tailed)	
Q26	723.00	2553.00	-2.10	.04	.04	.22
Q32	717.00	2547.00	-2.05	.04	.04	.21
Q33	669.00	2499.00	-2.63	.01	.01	.27
Q41	741.00	2571.00	-2.12	.03	.03	.22

The association between teaching years and individual items. The survey collected data in regard to teachers' years of teaching. There were forty-six participants who have been working as EFL teachers for more than fifteen years while forty-nine who have spent fifteen years and less in teaching English as a foreign language (see Table 30). Mann-Whitney test was conducted to see whether responses to individual questions varied between EFL teachers with different teaching years.

Table 30

Ranks of Items for Participants with Different Teaching Years

	Teaching years	N	Mean Rank	Sum of Ranks
Q05	>15	46	54.45	2504.50
	≤15	49	41.95	2055.50
	Total	95		
Q39	>15	46	40.60	1867.50
	≤15	49	54.95	2692.50
	Total	95		
Q40	>15	46	40.93	1883.00
	≤15	49	54.63	2677.00
	Total	95		
Q43	>15	46	41.84	1924.50
	≤15	49	53.79	2635.50
	Total	95		

The Mann-Whitney test revealed significant difference at the level of 95% in Item 5, 39, 40 and 43 between respondents with longer and shorter teaching experiences (see Table 31). Significant difference was firstly identified in Item 5 ($Z=-2.28$, $P=.02$). EFL teachers who have been teaching for more than fifteen years ($MR=54.45$, $SR=2504.50$) less agreed that the teacher was the sole authority on the target culture and language than the teachers with shorter teaching experiences ($MR=41.95$, $SR=2055.50$). Responses to Item 39 were revealed to be significantly different between two groups of teachers with different teaching years at the level of 99% ($Z=-2.72$, $P=.01$). Participants with less teaching experiences ($MR=54.95$, $SR=2692.50$) had a clearer

idea of ICC than those with longer years of teaching ($MR=40.60$, $SR=1867.50$). Responses to Item 40 were also revealed to be significantly different between two groups of teachers at the level of 99% ($Z=-2.50$, $P=.01$). Participants with less teaching years ($MR=54.63$, $SR=2677.00$) reported more understanding of ICC components than those with more teaching years ($MR=40.93$, $SR=1883.00$). Item 43 was the last item in which the Mann-Whitney test revealed significant difference between EFL teachers with different teaching years at the level of 95% ($Z=-2.18$, $P=.03$). Teachers with less teaching experiences ($MR=53.79$, $SR=2635.50$) knew more about the IC components than those with more teaching experiences ($MR=41.84$, $SR=1924.50$).

Table 31

The Mann-Whitney Test of Teaching Years

Item	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	r
Q05	830.50	2055.50	-2.28	.02	.02	.23
Q39	786.50	1867.50	-2.72	.01	.01	.28
Q40	802.00	1883.00	-2.50	.01	.01	.26
Q43	843.50	1924.50	-2.18	.03	.03	.22

The association between participation in telecollaboration projects and individual items. Among the ninety-five participants, forty-one had experiences in telecollaborative teaching, accounting for 43.16% (see Table 32). Mann-Whitney test was conducted to see whether responses to individual questions varied between participants with and without telecollaboration experiences.

Table 32

Ranks of Items for Participants with and without Participation in Telecollaboration

Participation in telecollaboration	N	Mean Rank	Sum of Ranks
Q03	Yes	41	54.93
	No	54	42.74
	Total	95	
Q16	Yes	41	56.06
	No	54	41.88
	Total	95	
Q18	Yes	41	56.51
	No	54	41.54
	Total	95	
Q20	Yes	41	54.49

	No	54	43.07	2326.00
	Total	95		
Q26	Yes	41	54.26	2224.50
	No	54	43.25	2335.50
	Total	95		
Q30	Yes	41	55.35	2269.50
	No	54	42.42	2290.50
	Total	95		
Q31	Yes	41	54.88	2250.00
	No	54	42.78	2310.00
	Total	95		

The results of the Mann-Whitney test showed responses to seven items significantly varied in accordance with teachers' engagement of online exchange (see Table 33). EFL teachers with and without experience in telecollaboration projects were different the level of 95% in response to Item 3 ($Z=-2.38$, $P=.02$). Those who had participated in telecollaboration projects ($MR=54.93$, $SR=2252.00$) reported more interest in trying out new telecollaborative tasks and new online tools which may be proposed by students or other-teachers than those who had no telecollaboration experiences ($MR=42.74$, $SR=2308.00$). EFL teachers with and without experience in telecollaboration projects were significantly different the level of 99% in response to Item 16 ($Z=-2.58$, $P=.01$). Respondents with telecollaboration experiences ($MR=56.06$, $SR=2298.50$) were more capable of locating possible partner-teachers in distant locations through their professional contacts than those who had not participated in such projects ($MR=41.88$, $SR=2261.50$). Significant difference also existed the level of 99% between two groups of EFL teachers in response to Item 18 ($Z=-2.98$, $P=.00$). Teachers with the experience ($MR=56.51$, $SR=2317.00$) had more confidence in themselves to design the structure of an exchange (i.e. aims, minimum participation requirements, language use) according to the interests, L2 proficiency and level of electronic literacy of their own students than the teachers without the experience ($MR=41.54$, $SR=2243.00$). The Mann-Whitney test also found significant difference at the level of 95% between different groups of EFL teachers in response to Item 20 ($Z=-2.09$, $P=.04$). Teachers with the experience ($MR=54.49$, $SR=2234.00$) could better employ various strategies to "match" learners from the different institutions and to create effective partnerships and exchange groups than those without this experience ($MR=43.07$, $SR=2326.00$). Significant difference also existed at the level of 95% between EFL teachers from two groups in response to Item 26 ($Z=-2.09$, $P=.04$). Participants who had participated in online exchanges ($MR=54.26$,

$SR=2224.50$) could better understand the common causes of organizational and intercultural problems in online exchanges and apply techniques and strategies to deal with these problems than those who had not ($MR=43.25$, $SR=2335.50$). There was also significant difference the level of 99% in response to Item 30 ($Z=-2.48$, $P=.01$) between EFL teachers with different telecollaboration experiences. Experienced teachers ($MR=55.35$, $SR=2269.50$) could better support students in discerning and reflecting upon culturally contingent patterns of interaction in follow-up classroom discussions than teachers without the experiences ($MR=42.42$, $SR=2290.50$). The last item that showed significant difference the level of 95% between two groups of teachers was Item 31 ($Z=-2.36$, $P=.02$). Experienced teachers ($MR=54.88$, $SR=2250.00$) more believed that they could apply their knowledge of the culture and language of the partner class to organize culturally and linguistically rich tasks for the exchange than those without the experiences ($MR=42.78$, $SR=2310.00$).

Table 33

The Mann-Whitney Test of Participation in Telecollaboration Projects

Item	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	r
Q03	823.00	2308.00	-2.38	.02	.02	.24
Q16	776.50	2261.50	-2.58	.01	.01	.26
Q18	758.00	2243.00	-2.89	.00	.00	.30
Q20	841.00	2326.00	-2.09	.04	.04	.21
Q26	850.50	2335.50	-2.09	.04	.04	.21
Q30	805.50	2290.50	-2.48	.01	.01	.25
Q31	825.00	2310.00	-2.36	.02	.02	.24

The association between students and individual items. The survey investigated what students with who participant teachers worked in the past year to explore if teachers' telecollaborative competence or IC understanding was correlated with students who they taught. Forty-seven respondents merely taught non-English major students while the other forty-eight respondents taught mixed students, including international students, or English majors and/or non-English majors (see Table 34). Mann-Whitney test was conducted to see whether responses to individual questions varied between participants teaching different students.

Table 34

Ranks of Items for Participants Teaching Different Students

	Students	N	Mean Rank	Sum of Ranks
Q15	Non-English majors	47	40.48	1902.50
	Mixed	48	55.36	2657.50
	Total	95		
Q18	Non-English majors	47	42.03	1975.50
	Mixed	48	53.84	2584.50
	Total	95		
Q23	Non-English majors	47	41.43	1947.00
	Mixed	48	54.44	2613.00
	Total	95		
Q26	Non-English majors	47	41.56	1953.50
	Mixed	48	54.30	2606.50
	Total	95		

The results of the Mann-Whitney test indicated that Item 15, Item 18, Item 23 and Item 26 varied accordingly (see Table 35) while there was no significant difference in overall telecollaborative competence and IC understanding identified by the t-test. EFL teachers who only worked with non-English majors were significantly different from those who worked with mixed students in response to Item 15 at the level of 99% ($Z=-2.83$, $P=.00$). Participants only teaching non-English majors ($MR=40.48$, $SR=1902.50$) were less capable of developing students' critical understanding of online tools than participants who taught more students than non-English majors, such as English majors and international students ($MR=55.36$, $SR=2657.50$). EFL teachers from two groups were significantly different at the level of 95% in response to Item 18 ($Z=-2.30$, $P=.02$). Participants only teaching non-English majors ($MR=42.03$, $SR=1975.50$) showed less confidence in their ability to design the structure of an exchange (i.e. aims, minimum participation requirements, language use) which reflects the interests, L2 proficiency and level of electronic literacy of their own students than participants teaching English majors, international students and non-English majors ($MR=53.84$, $SR=2584.50$). EFL teachers from two groups were also significantly different the level of 99% in response to Item 23 ($Z=-2.55$, $P=.01$). Respondents only teaching non-English majors ($MR=41.43$, $SR=1947.00$) reported to be less capable of articulating to their virtual partner-teachers the learning objectives and pedagogical beliefs that lie behind proposed tasks than those teaching mixed students ($MR=54.44$, $SR=2613.00$). Additionally, significant difference was also found the level of 95% in Item 26 ($Z=-2.44$, $P=.02$). EFL teachers merely working with non-English majors ($MR=41.56$, $SR=1953.50$) could be less capable of understanding the common causes of organizational and

intercultural problems in online exchanges and applying a series of techniques and strategies to deal with these problems than the teachers working with mixed students ($MR=54.30$, $SR=2606.50$).

Table 35

The Mann-Whitney Test of Students

Item	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	r
Q15	774.50	1092.500	-2.83	.01	.00	.29
Q18	847.50	1975.50	-2.30	.02	.02	.24
Q23	819.00	1947.00	-2.55	.01	.01	.26
Q26	825.50	1953.50	-2.44	.02	.02	.25

The association between overseas experiences and individual items. Data was gathered in regard to what participants did abroad, how many times they had been abroad and how long they had stayed abroad. Sixty-one participants had engaged in academic activities abroad. The remaining thirty-four participants went traveling across the border, had overseas business trips or worked abroad (see Figure 11). The independent samples t-test and the Mann-Whitney test identified no significant difference between these two groups of EFL teachers in all major components and all individual items.

Table 36

Ranks of Items for Participants with Different Overseas Durations

	Overseas duration	N	Mean Rank	Sum of Ranks
Q05	≤3 mons	55	43.42	2388.00
	>3 mons	40	54.30	2172.00
	Total	95		
Q26	≤3 mons	55	43.34	2383.50
	>3 mons	40	54.41	2176.50
	Total	95		
Q32	≤3 mons	55	43.34	2383.50
	>3 mons	40	54.41	2176.50
	Total	95		
Q33	≤3 mons	55	42.73	2350.00
	>3 mons	40	55.25	2210.00
	Total	95		

There were fifty-five EFL teachers having short-term overseas experiences while forty had been abroad for a longer duration (see Table 36). Mann-Whitney test was conducted to see whether responses to individual questions varied between participants who had longer and shorter overseas experiences.

Table 37

The Mann-Whitney Test of Overseas Duration

Item	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	r
Q05	848.00	2388.000	-1.96	.05	.05	.20
Q26	843.50	2383.50	-2.09	.04	.04	.21
Q32	843.50	2383.50	-1.99	.05	.05	.20
Q33	810.00	2350.00	-2.41	.02	.02	.25

The results of the Mann-Whitney test indicated responses to Item 5, Item 26, Item 32 and Item 33 significantly different due to the time length of participants' overseas experiences (see Table 37). There was significant difference at the level of 95% in Item 5 between respondents with different lengths of overseas experiences ($Z=-1.96$, $P=.05$). EFL teachers who had stayed abroad longer ($MR=54.30$, $SR=2172.00$) more disagreed on the idea that the teacher is the sole authority on the target culture and language than EFL teachers who had been abroad in a shorter term ($MR=43.42$, $SR=2388.00$). There was also significant difference at the level of 95% in Item 26 between respondents with different lengths of overseas experiences ($Z=-2.09$, $P=.04$). Participants who had stayed abroad for a longer duration ($MR=54.41$, $SR=2176.50$) were more aware of the common causes of organizational and intercultural problems in online exchanges and more competent at applying a series of techniques and strategies to deal with these problems than those who had been abroad for shorter duration ($MR=43.34$, $SR=2383.50$). Significant difference at the level of 95% was also found in Item 32 between respondents from two groups ($Z=-1.99$, $P=.05$). Teachers with longer overseas experiences ($MR=54.41$, $SR=2176.50$) were more capable of designing tasks which are attractive and relevant for students, and which serve to develop culturally and linguistically rich interaction than teachers with shorter experiences ($MR=43.34$, $SR=2383.50$). Significant difference at the level of 95% was also found in Item 33 between respondents in two groups ($Z=-2.41$, $P=.02$). EFL teachers who had stayed abroad longer ($MR=55.25$, $SR=2210.00$) were more capable of designing tasks which support the activities of collaborative inquiry and the construction of knowledge than those with short

overseas experiences ($MR=42.73$, $SR=2350.00$).

Participants were also grouped in accordance with the number of their trips abroad. Fifty-nine EFL teachers had been abroad for two and fewer times while thirty-six EFL teachers had been in foreign countries for more than twice (see Table 38). Mann-Whitney test was conducted to see whether responses to individual questions varied between participants who had been abroad for different times.

Table 38

Ranks of Items for Participants with Different Travel Times

	Travel times	N	Mean Rank	Sum of Ranks
	≤ 2	59	52.07	3072.00
Q07	> 2	36	41.33	1488.00
	Total	95		
	≤ 2	59	52.49	3097.00
Q10	> 2	36	40.64	1463.00
	Total	95		
	≤ 2	59	53.78	3173.00
Q13	> 2	36	38.53	1387.00
	Total	95		
	≤ 2	59	53.38	3149.50
Q27	> 2	36	39.18	1410.50
	Total	95		

The independent samples t-test identified no significant difference in overall telecollaborative competence and IC understanding. However, the Mann-Whitney test showed that items 7 ($Z=-2.04$, $P=.04$), Item 10 ($Z=-2.16$, $P=.03$), Item 13 ($Z=-2.83$, $P=.01$) and Item 27 ($Z=-2.66$, $P=.01$) notably varied between these two groups at the level of 95% or 99% (see Table 39). EFL teachers who had been abroad less frequently ($MR=52.07$, $SR=3072.00$) were more capable of choosing the appropriate online communication tools (e.g., email, blogs, wikis, Skype) to fit both the everyday online practices of the students as well as the project's aims than those who had been abroad for more than twice ($MR=41.33$, $SR=1488.00$). EFL teachers who had overseas experiences with less frequency ($MR=52.49$, $SR=3097.00$) reported to better model social presence and online identity for their students and help to create an online community of trust and learning than those who visited foreign places more often ($MR=40.64$, $SR=1463.00$).

They ($MR=53.78$, $SR=3173.00$) could also better understand web management systems (e.g., Moodle) to run online exchanges than their colleagues with more overseas visits ($MR=38.53$, $SR=1387.00$). Additionally, participants who had been abroad for fewer times ($MR=53.38$, $SR=3149.50$) knew more about how to evaluate the strengths and weaknesses of their online exchange than their colleagues who had visited overseas more frequently ($MR=39.18$, $SR=1410.50$).

Table 39

The Mann-Whitney Test of Traveling Times

Item	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	r
Q07	822.00	1488.000	-2.04	.04	.04	.21
Q10	797.00	1463.00	-2.16	.03	.03	.22
Q13	721.00	1387.00	-2.83	.01	.01	.29
Q27	744.50	1410.50	-2.66	.01	.01	.27

The association between IC training and individual items. The Mann-Whitney test was subsequently conducted to compare the participants who had received IC training and those who had not. Forty-two among the total ninety-five participants had not received IC/ICC training, accounting for 44.21% (see Table 40).

Table 40

Ranks of Items for Participants with and without IC Training

	IC training	N	Mean Rank	Sum of Ranks
Q39	No	42	41.15	1728.50
	Yes	53	53.42	2831.50
	Total	95		
Q40	No	42	38.26	1607.00
	Yes	53	55.72	2953.00
	Total	95		
Q42	No	42	42.02	1765.00
	Yes	53	52.74	2795.00
	Total	95		
Q43	No	42	38.86	1632.00
	Yes	53	55.25	2928.00
	Total	95		

The result showed that EFL teachers with or without experiences in IC training were also significantly different in response to Item 39 ($Z=-2.31, P=.02$), Item 40 ($Z=-3.17, P=.00$), Item 42 ($Z=-1.96, P=.05$) and Item 43 ($Z=-2.97, P=.00$) varied in accordance with teacher participation in IC training (see Table 41). EFL teachers with the training experiences ($MR=53.42, SR=2831.50$) had a clearer idea about what ICC was than their colleagues who had not received such trainings ($MR=41.15, SR=1728.50$). EFL teachers who had been trained in terms of IC ($MR=55.72, SR=2593.00$) believed that they better knew what ICC was composed of than those who had not ($MR=38.26, SR=1607.00$). The teachers with IC training ($MR=52.74, SR=2795.00$) also had more confidence in their understanding of what IC was than their colleagues without such experiences ($MR=42.02, SR=1765.00$). Statistics showed that the teachers who had participated in IC training ($MR=55.25, SR=2928.00$) also had a clearer idea about what IC was composed of than those who had not ($MR=38.86, SR=1632.00$).

Table 41

The Mann-Whitney Test of IC Training

Item	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	r
Q39	825.50	1728.500	-2.31	.02	.02	.24
Q40	704.00	1607.00	-3.17	.00	.00	.33
Q42	862.00	1765.00	-1.96	.05	.05	.20
Q43	729.00	1632.00	-2.97	.00	.00	.30

The association between telecollaboration training and individual items. This study also compared forty-six participants with telecollaboration training experiences with the forty-nine ones without (see Table 42). Mann-Whitney test was conducted to see whether responses to individual questions varied between participants who had different telecollaboration training experiences.

Table 42

Ranks of Items for Participants with and without Telecollaboration Training

	Telecollaboration training	N	Mean Rank	Sum of Ranks
Q16	Yes	46	41.41	1905.00
	No	49	54.18	2655.00
	Total	95		
Q17	Yes	46	54.83	2522.00

	No	49	41.59	2038.00
	Total	95		
	Yes	46	42.03	1933.50
Q40	No	49	53.60	2626.50
	Total	95		

The independent samples t-test found no difference in their overall telecollaborative competence and specific component competences. However, the Mann-Whitney test revealed the difference in participants' responses to Item 16 ($Z=-2.34$, $P=.02$), Item 17 ($Z=-2.38$, $P=.02$) and Item 40 ($Z=-2.11$, $P=.03$) to be significant at the level of 95% between participants who had attended telecollaboration training and those who had not (see Table 43). Respondents who had not been trained in terms of telecollaboration ($MR=54.18$, $SR=2655.00$) reported better ability to use their own professional contacts to locate possible partner-teachers in distant locations than those who had received such trainings ($MR=41.41$, $SR=1905.00$). However, respondents with telecollaboration training ($MR=54.83$, $SR=2522.00$) believed that they could better establish and more clearly explain their plans and expectations related to a possible exchange to possible partner-teachers than their colleagues without the training ($MR=41.59$, $SR=2038.00$). Statistics also showed that respondents without telecollaboration training ($MR=53.60$, $SR=2626.50$) developed a clearer idea of ICC components than those with the experiences ($MR=42.03$, $SR=1933.50$).

Table 43

The Mann-Whitney Test of Telecollaboration Training

Item	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	r
Q16	824.00	1905.00	-2.34	.02	.02	.24
Q17	813.00	2038.00	-2.38	.02	.02	.24
Q40	852.50	1933.50	-2.11	.04	.03	.22

The test of the association that the 12 independent variables had with individual items further pinpointed their correlation with the major dependent variables. For example, it revealed that the significant effect of the related training on respondents' familiarity with IC manifested in Item 39, 40, 42 and 43. The other two items of IC understanding, Item 38 and 41 showed no difference between participants with and without the training. Apart from that, the Mann-Whitney test also revealed that some items were more susceptible to the independent variables

that I examined in this study (see Table 44). For example, teachers' responses to Item 26 varied in accordance with four variables, the education degree that EFL teaches had received, the students who they taught, the duration of their stay overseas and whether they had participated in telecollaboration projects. Items 15, 32 and 40 were respectively impacted by three variables. Other items varied with one or two variables.

Table 44

Items and Associated Factors

Factors	Attitudes	Item No.			
		ICT	Organization	Pedagogy	IC
University type		<u>15</u>	20, 21, 22	30, 37	
Region				<u>32</u>	
Gender		<u>15</u>	27		
Degree of education			<u>26</u>	<u>32, 33</u>	41
Years of teaching	5				39, <u>40</u> , 43
Telecollaboration experiences	3		16, 18, 20, <u>26</u>	30, 31	
Students		<u>15</u>	18, 23, <u>26</u>		
Type of overseas activity	/	/	/	/	/
Overseas duration	5		<u>26</u>	<u>32, 33</u>	
Number of trips abroad		7, 10, 13	27		
IC training					39, <u>40</u> , 42, 43
Telecollaboration training			16, 17		<u>40</u>

Effect size. Effect size was calculated to show how significant the differences were. The effect size for the Mann-Whitney test was calculated with Z values and sample sizes, $r = |Z|/\sqrt{N}$. According to Cohen (1988), the effect size is high when r reaches .50, medium when r reaches .30 and low when r reaches .10. As presented in the above tables, the effect sizes of the individual items all exceeded .20. The size of the effect that participation in telecollaboration projects has on Item 18 was .30. The size of the effect that IC training has on Item 40 and Item 43 was .33 and .30. These effect sizes were medium. The effect size of the differences in other individual items varied between .20 and .30.

Summary of the Survey

The web-based survey addressed the first three research questions about the current telecollaborative competence and IC understanding of EFL teacher as well as the factors associated with them. It revealed that the mean of participants' telecollaborative competence was 5.82 out of 7. Sorted by the mean, the four major components of telecollaborative competence were attitudes and beliefs, digital competences, pedagogical competences and organizational

competences.

In terms of IC perception, the investigator designed six questions to directly inquire participants' familiarity with this concept and one open-ended question about the components of IC. The mean of participants' familiarity of IC was 5.78 out of 7, slightly lower than that of telecollaborative competence. Three questions concerning ICC achieved higher mean than three questions about IC. Among the six questions, Question 43 had the lowest mean, 4.88, which asked respondents whether they clearly knew the components of IC. The responses to the open-ended Question 45 shed more light on EFL teachers' understanding of IC. Thirty out of forty-four respondents used words such as "language skills", "communication skills", and "communicative competence" to describe language, one component of IC in Byram's ICC model. Twenty-three respondents used words like "overall cultural knowledge", "intercultural knowledge", and "cultural common sense", which were defined as knowledge according to Byram. Respondents also included skill- and attitude-related words in IC. Such responses were fifteen and fourteen for each category. Critical cultural awareness was mentioned by only two participants.

To address the third research question, t-test and the Mann-Whitney test were employed to analyze the association between EFL teachers' telecollaborative competence and IC understanding and their experiences.

The t-test of the closed-ended questions in the main survey revealed that years of teaching and relevant training or workshops showed an association with teachers' familiarity with IC. EFL teachers who had fewer years of teaching experiences or who had attended IC training or workshops perceived themselves more familiar with this concept. They self-reported better understanding of what ICC was, what this concept consisted of and what IC was composed of. The significant difference in participation in IC training between participants with different teaching years indicated that EFL teachers' IC understanding was mainly associated with IC training. The survey also found that EFL teachers' attitudes and beliefs as well as pedagogical competences needed in telecollaboration significantly varied between those with different lengths of overseas experiences. Those who had been abroad longer scored higher in attitudes and beliefs. EFL teachers who had participated in long-term overseas activities more disagreed with the teacher identity as the sole authority on the target culture and language than EFL teachers who had been abroad in a shorter term. Participants who had longer stay abroad

perceived themselves to be more capable of designing tasks which are attractive and relevant for students, and which serve to develop culturally and linguistically rich interaction, and tasks which support the activities of collaborative inquiry and the construction of knowledge. Conversely, those who had been abroad for shorter duration considered themselves less aware of the common causes of organizational and intercultural problems in online exchanges and less competent at dealing with these problems. According to the t-test, the last major associated factor was telecollaboration experiences. EFL teachers who had participated in telecollaborative projects self-reported to be more competent at organizing online exchanges. They could find potential partner-teachers, design the structure of an exchange which reflects the interests, L2 proficiency and level of electronic literacy of their own students, create effective partnerships and exchange groups, and organize culturally and linguistically rich tasks based on their knowledge of the culture and language of the partner class, understand the common causes of organizational and intercultural problems in online exchanges and apply techniques and strategies to deal with these problems, and support students in discerning and reflecting upon culturally contingent patterns of interaction in follow-up classroom discussions. Participation in telecollaborative projects was correlated with promoted teachers' interest in trying out new telecollaborative tasks and new online tools which may be proposed by students or other-teachers.

Due to the correlation between IC understanding and multiple independent variables, this study also explored the connection between these independent variables. The phi coefficient identified the significant correlation between the years of teaching and EFL teachers' participation in IC training. IC training was determined to be an associated factor with the years of teaching excluded.

The Mann-Whitney test pinpointed the association between independent variables and the major dependent variables to a more micro level. It revealed that overseas duration was correlated with Question 5 in attitudes and beliefs, and with Question 32 and 33 in pedagogical competences; participation in telecollaboration was correlated with Question 16, 18, 20 and 26 in organizational competences; IC training was correlated with Question 39, 40, 42 and 43 in IC understanding. The Mann-Whitney test also identified 25 individual items which were susceptible to the independent variables. These items scattered in different components of telecollaborative competence and IC understanding. While many items were found to be affected

by one or two variables, some items including Items 15, 26, 32 and 40 were correlated with three, even four factors.

Chapter 7

Findings of the Follow-Up Interview

The qualitative findings described below were the result of the semi-structured interviews with nine EFL teachers. As described in the methodology chapter, the interview protocol was informed by the quantitative results of the survey. The survey found that IC training had an association with EFL teachers' IC understanding and overseas duration and telecollaboration projects had an association with their telecollaborative competence. Thus, the interview inquired about teachers' IC training experiences to explore how they improve their IC understanding. It also collected data about interviewees' understanding of the concept, their attitudes toward integrating IC teaching in FL education and their experiences with IC training to triangulate the corresponding quantitative result and get a deeper insight into the status quo of Chinese intercultural language teaching. In terms of telecollaborative competence, the interview mainly focused on teachers' previous participation in telecollaboration projects and their overseas experiences to reveal how these two factors affected telecollaborative competence, with a few questions for richer data and triangulation. As a result, this section unfolds from two aspects, IC and telecollaborative competence. Due to the thick text data, this section focuses on the qualitative findings which provided evidence for triangulation and were closely connected with the effect of the identified contributors. Please refer to Appendix V for the results of coding.

IC

Telecollaboration in this study is an approach to developing students' IC with the assistance of computer-mediated communication tools. In the web-based interview, questions regarding IC were asked as a warm-up and to collect more data to enrich my understanding of the participants' IC perception in this study. These questions inquired interviewees' understanding of IC, their attitudes toward integrating IC teaching in the FL class, IC teaching that they have implemented and IC training that they have received.

IC Understanding

In terms of IC perception, two interviewees admitted that they “hardly had a clear understanding of this concept whereas the term was very familiar to them”. Despite this, they still provided their understanding when having been asked.

IC components. The interview showed that five out of the total nine participants clearly pointed out that language ability was the primary constituent of IC. Three of these five

interviewees stressed that this ability not only specialized in the target language, English, but also applied to the mother tongue of the speaker, Chinese. Apart from language, five interviewees defined cultural knowledge as another essential component of IC. The three interviewees who stressed the ability of two languages also showed their attention to the knowledge of at least two cultures where the intercultural speakers were involved. As one of them, Stella explained that intercultural communication needed to be “two-way” and the in-depth knowledge like “national psychology” of the other and one’s own culture contributed to two-way communication. Other components mentioned by the interviewees included “communicative skills” (by four interviewees), “critical thinking” (by two interviewees), “attitudes” (by one interviewee), “intercultural consciousness” (by one interviewee), “cultural sensitivity” (by one interviewee) and “the ability to interpret and obtain relevant knowledge” (by one interviewee). In addition, one interviewee used “knowledge”, “ability” and “willingness” to outline IC components without providing details.

Interpretation of culture. When talking about their IC understanding, three EFL teachers also expressed their perceptions of culture. Participant “Stella” argued that culture was “the characteristics, ethnicity, history and custom of a nation as well as deep-rooted national psychology”. Wendy believed that culture could be categorized into “high-ended and daily ones”. Andrea used the word “advanced culture” and explained it at the request of the investigator as “culture that reflected advanced productivity and research achievements, culture that was up-to-date and culture that represented the essence of a national culture”. This is critically examined through CDA.

In summary, it is evident that participants’ responses in the interview were consistent with the findings of the survey. Those were 1) though EFL teachers were familiar with the term, IC, many of them (seven out of nine in the interview) were unable to provide a clear interpretation of this concept; 2) EFL teachers widely (five out of nine in the interview) accepted that the target language skills were the fundamental element of IC, with equal importance given to the mother tongue, Chinese, by a small proportion of the interviewees (33.33%); 3) the knowledge of the target culture were considered the second important component of IC, with limited awareness of the importance of one’s own culture (four out of nine); 4) other components like attitude, skills and cultural critical awareness were ignored by many interviewees (seven or eight out of nine). In addition, participants’ responses in the interview were more focused than

those in the survey. The words that interviewees used could be easily categorized into linguistic competence, communicative competence, cultural knowledge, critical cultural awareness and attitudes.

Attitudes toward Integrating IC Teaching in the FL Class

When asked about their attitudes toward IC teaching, the nine interviewees all demonstrated their awareness of the great importance of IC teaching and considered it essential to implement IC teaching in FL classes. I attributed this to their consensus that language ability alone may not necessarily guarantee effective and appropriate communication. This is consistent with the findings in previous studies (Han, 2014; Zhang, 2014), that IC should be combined with FL teaching.

Apart from triangulating EFL teachers' positive attitudes toward IC teaching, the interview elicited more data than the survey to explain why IC teaching was widely embraced by EFL teachers. Participant "Amanda" explained that "as the ultimate purpose of language learning, successful communication will not be achieved unless people from different cultures understand each other". She also mentioned, "IC helps people adapt to a multicultural environment and contributes to better collaboration and more output". Participant "Wendy" believed that "regardless of any purpose of communication, a language is used in a context, which is culture-related". Participant "Albert" argued that "effective communication relies on participants' respect for different cultures and their ability to avoid cultural taboos". Participant "Daisy" was concerned that "without IC teaching, language learners may be overwhelmed in the face of culture shock, be easily misled and intimidated to express their opinions".

IC Teaching Practice

Whereas the nine interviewees have all conducted IC teaching, they adopted different approaches. Seven of them integrated it into their EFL courses while the other two had culture-focused courses. To integrate IC development in language teaching, EFL teachers discussed cultural topics that were mentioned in or closely related to the language teaching materials. Explanation of and comments on culture elements involved in teaching were also found to be a major IC teaching practice by participants in Han's (2014) study. For example, participant "Serena" said:

For example, when I wanna show students how to use an English word, I asked them to look for culture-related examples from the Internet. There were enormous examples

concerning Chinese culture and English culture... to develop their comprehensive understanding of the word.

Flora combined IC teaching with English vocabulary development. When she explained the usage of the word “toast”, she shared a story to introduce the origin of toasting. Amanda instructed students to consider the needs and preferences of readers when teaching technical writing with the intention of increasing students’ intercultural awareness and equipping them with relevant cultural knowledge.

Apart from introducing cultural knowledge to students, three of the interviewees also compared the culture of English-speaking countries with Chinese culture. They designed learning tasks like “translation”, “in-class presentation”, “debate” and “writing” to engage students in comparison. Furthermore, the two interviewees who taught culture-focused courses demonstrated a higher potential to promote students’ IC. Both of them aimed to develop students’ critical thinking, which was not mentioned by other interviewees. Participant “Andrea” said she taught a course named *Chinese Culture*, in which students expressed their understandings of culture through discussion, in-class presentations and short essay writing. Participant “Tina” stressed that:

The course that I teach aims at one of the important objectives, which is to enhance students’ IC. With the assistance of technology, we adopted blended teaching to develop their IC, intercultural communicative awareness and the most high-end component of IC, critical thinking. ... We presented knowledge (as videos) (on an) online (MOOC platform) so that in face-to-face classroom teaching we designed various activities to promote students’ communicative competence, intercultural awareness and critical thinking ability.

In summary, the interview echoed the result of the survey that EFL teachers in this study acknowledged the critical role of culture in English teaching and strongly advocated the integration of IC teaching in EFL teaching. However, their attempt to develop students’ IC was mainly introducing the cultures of English-speaking countries to students. The investigator connected this with their limited understanding of IC and neglect of other important components of IC proposed by Byram (1997), such as attitudes, the skills of interpreting, the skills of discovery, and critical cultural awareness.

Training Experiences

The result of the survey showed that respondents’ familiarity with IC was significantly

different between those who had participated in IC training and who had not. To shed light on how IC training made the difference, the interview encouraged EFL teachers to recall their training experiences.

Participation in IC training. Eight EFL teachers said that they had received invitations to IC training or workshops. Flora was an exception because of her brief career for half a year. However, among the eight EFL teachers who knew there were IC-related training or workshops, only two had participated. According to the interview, there were two reasons why they did not take part in IC training. One major reason was that EFL teachers' research interest focused on literature, linguistics and translation rather than IC or IC education. For example, Albert admitted that "I had never been to those workshops because my research interest was not IC education. I didn't follow it." The second reason was related to the first one. Because Literature, linguistics and translation were the dominant fields of study in the faculties where the interviewees worked at. Thus, funding was usually committed to those fields rather than IC education. IC training or workshops were not equally financially sponsored by the faculty. One interviewee said that:

There should be many (intercultural and telecollaboration) training and workshops. But we don't have many opportunities to participate. Information channels are limited. And we are in a basic public university. Few academic leaders focus on intercultural communication. Most of them study literature, linguistics, and translation.

Effect of IC training. Tina and Serena were the two EFL teachers who had relevant training experiences. Both of them found IC training or workshops beneficial to IC teaching. On the one hand, Tina said, "such experiences provided opportunities to know the leading professors in this field". Their unique perspectives on IC education could be instructive. On the other hand, unlike Tina who was more interested in theoretical updates, Serena was more concerned with teaching implementation. She recalled "I found it very enlightening. There were many speakers. Some talked about theories. Some talked about teaching practices. I was more interested in what to do in teaching".

It needs to be noted that three respondents provided contradictory data in the survey and interview. Two who said they had IC training experiences in the survey turned out to have participated in no such activities in the interview. One who shared her IC training experiences in the interview said she had no relevant experiences in the survey.

Telecollaboration training. The survey also inquired about respondents'

telecollaboration training experiences. However, no significant difference was identified between the group that had the training and the one that had not. To find out the reason why telecollaboration training showed no impact on telecollaborative competence, this interview also designed relevant questions.

According to the interview, no EFL teachers had heard of intercultural telecollaboration training or workshops. However, forty-six respondents said they had such experiences in the survey. Given their confusion over the concept of telecollaboration in this study, I suspected that some of the survey respondents did not receive the training. Amanda had the most experience in telecollaboration among all the participants when she teaches technical writing. However, Amanda clarified that those workshops or training were not connected with English teaching but with “software use” and with “her own research”.

In summary, this study gathered very limited data concerning EFL teachers’ IC training experiences because only two teachers had participated in such activities. The interview revealed that the EFL teachers knew there were many IC-related training or workshops. However, seven of nine interviewees did not sign up for them mainly because their research interest lay in other fields. EFL teachers in this study were less motivated in improving their teaching. If they had time and energy after teaching, they were more willing to commit them to their research interest in literature, linguistics or translation. Despite the limited data about IC training, the interview revealed IC training promoted EFL teachers’ IC understanding in both theoretical and practical ways. IC training and workshops usually invited scholars in this field to deliver speeches about the latest developments in theory construction and the results of recent empirical studies. This updated participants’ understanding of the concept and showed them potential approaches to implementing IC teaching. Compared with IC training, telecollaboration training was new without being paid enough attention in China because none of the interviewees had heard of it.

Telecollaborative Competence

To enrich the understanding of interviewees’ telecollaborative competence, the interview collected data about their understanding of telecollaboration and attitudes toward using telecollaboration in IC teaching. As revealed by quantitative data analysis, participation in telecollaboration had a significant effect on survey respondents’ organizational competences while the duration of overseas experiences had a significant effect on their attitudes and beliefs as well as pedagogical experiences. The interview thus collected in-depth data concerning

participants' telecollaboration experiences and overseas experiences to examine how the effect generated.

Telecollaboration Understanding

No specific questions were designed in the survey to gather respondents' understanding of telecollaboration because its definition was offered to help participants clearly understand the items in that part so as to improve the reliability of the quantitative data. However, the survey indicated that 43.16% of the respondents had participated in telecollaboration projects and 48.42% had experience in telecollaboration training, which was higher than my hypothesis. Thus, the interview included relevant questions to triangulate the quantitative results.

No interviewees had heard of intercultural telecollaboration training and workshops. When asked whether they had heard of telecollaboration, three of the nine interviewees said "no". Among the six EFL teachers who had heard of this term, four were unable to clearly explain what it was. Stella interpreted telecollaboration as "online teaching via synchronous communication tools, which was provided by universities due to COVID-19". Only Daisy and Tina illustrated telecollaboration in a way that was consistent with the present study. According to Daisy, telecollaboration was "to collaborate to accomplish specific teaching goals by using hybrid communication methods to integrate domestic and foreign teaching resources and to connect different disciplines and colleges". Tina defined telecollaboration as "a project in which students from different cultures worked together and practiced their IC".

Attitudes toward Using Telecollaboration in IC Teaching

After the interviewer had clarified what telecollaboration was, all the nine interviewees expressed their supportive attitudes toward adopting telecollaboration in IC teaching. Andrea found it was "a great idea" because "telecollaboration allowed students to get access to real communication scenarios", which she believed could be "more motivating and inspiring than learning from books". Wendy thought telecollaboration "was highly efficient, diverse in the way of presenting information, catered for the learning habits of modern students and would be the future of teaching".

However, the interviewees also expressed their concerns over the complicatedness of this approach and proposed the prerequisites for successful telecollaboration in intercultural teaching, such as "willingness from the teacher", "support from the university", "shared interest and active engagement among participants from both sides", "self-discipline of participants", "good

organization”, and “solution to time difference”.

Participation in Telecollaboration Projects

Among the nine interviewees, seven reported not to have engaged in any telecollaboration projects. It needs to be noted that one interviewee said she had participated in telecollaborative projects in the survey but denied such experiences after knowing what telecollaboration was in the interview while another interviewee was the opposite.

According to the interview, two EFL teachers, Amanda and Serena, had participated in telecollaboration projects and shared their experiences. Amanda had been studying in the US for six years and has maintained academic contacts with foreign professors after graduation. In a telecollaborative project, she invited a professor abroad to give lectures to students in China and interact with them in class through synchronous CMC, Skype and Zoom. According to Amanda, “the students of the foreign professor, who were postgraduates, also participated in the project to evaluate Chinese students’ performance”.

As the other EFL teacher who had telecollaboration experiences, Serena had organized a telecollaboration project once, which occurred in her course named *International Business Etiquette*. Chinese students majoring in English and international students coming from central Asia, Africa and Russia took this course in the same term but lived on different campuses. Serena grouped Chinese students and international students together to collaborate on presentations concerning business etiquette. The students communicated in English through synchronous communication tools like *QQ* and *WeChat*. Serena functioned as an organizer rather than a participator. She reflected, “I asked the group leaders during the breaks or in class how the task was going, how were their partners and how engaged was group members. But I didn’t take part in students’ online discussion groups”. She evaluated and gave comments on students’ presentations. She found that both Chinese students and international students were highly motivated and active in this project.

In summary, compared with the concept of IC, EFL teachers were less familiar with telecollaboration, particularly telecollaboration used to develop IC in this study. Due to the pandemic, telecollaboration has become a commonly used communication method. Interviewees in this study confused intercultural telecollaboration with the online meetings or classes they had had. Whereas this term had been explained in the survey for their understanding of the questions, many participants still knew little about it. After they had understood it with the interviewer’s

clarification, they all consented to its positive potential for IC teaching and English teaching. However, they also proposed some factors that may undermine the successful implementation of telecollaboration, such as teachers' motivation, students' engagement, the attitudes of the university, and time difference. The interview collected limited data about teachers' telecollaboration experiences as it did with IC training. Two EFL teachers had used telecollaboration in teaching. Amanda's telecollaboration project was not intended for IC development. Serena's project was conducted only once though it was highly popular among students. However, they both organized the project, including finding partners, selecting the communication tools, matching learners and designing tasks. Such experiences exposed the potential problems in online exchanges and boosted their confidence in solving them.

Overseas Experiences

All the nine interviewees had overseas experiences, yet with different destinations, purposes, and durations. This subsection starts from the basics, such as foreign places that EFL teachers had visited, the purposes for going abroad and the activities they had participated in during their stay, and then moves on to the effect of the overseas experiences.

Basic description. According to the interview, the most visited English-speaking countries are the U.K. and the U.S. Four out of the nine teacher participants had been in the U.K. Three had been in the U.S. Other English-speaking countries that EFL teachers visited included Australia and Ireland. European countries were also popular among them, including Sweden, Swiss, Denmark, France, Italy, and Spain. Five interviewees had been in one or more European countries. One interviewee had been in Argentina, a South American country.

EFL teachers went abroad for various purposes. The interview revealed that studying and visiting as a scholar, which occurred either in the U.S. or the U.K. in this study, were two activities that took relatively longer time. Obtaining a master's or doctorate degree requires more than one year's stay abroad. Amanda spent six years earning her Ph. D. in the U.S. Daisy stayed for one and a half years to complete the master's program in the U.K. Visiting scholars usually stayed overseas for six months, who also preferred American and British universities. Such intercultural exchanges were mainly sponsored and administrated by the provincial government, which also decided the time length of the visit. Andrea was in such a program. She recalled, "We were learning TESOL. The spare time was fully scheduled, by the government. There was only little time for sightseeing, so the contact was very limited". Some universities also sponsored

visiting scholar projects, which followed the provincial protocol. During their stay, these teachers, such as Tina and Serena, were usually allowed to audit 1-2 courses and had opportunities to participate in various activities provided by the host university. They also had time to go sightseeing in their spare time, which gave them insights into different dimensions of the host country or countries nearby.

Short-term activities last from 7 to 40 days, such as attending academic workshops, participating in teaching training projects, working as interpreters, and travelling. The academic workshop that Wendy and Stella attended in Sweden and Denmark was literature-related, which was a part of the same Ph. D. program at a university in Nanjing. Teaching training projects were organized by the provincial government or by the university itself. According to Andrea, “the TESOL project in Australia was fully scheduled”. As a result, she “hardly had free time to experience the local culture”. Different from this project, the bilingual teaching project that Stella participated in was organized by her university. This project featured “British cultural courses”. According to Stella, participants in this project were “allowed adequate opportunities to communicate with local people and to visit British cathedrals, ancient castles, celebrity houses, and world-famous British universities like the University of Oxford, and Cambridge”. Flora and Serena had been abroad for approximately seven days as accompanying interpreters, in which they were responsible for communicating with local people on behalf of their delegations and had limited free time. Another short-term intercultural interaction activity was cross-border travelling. International traveling usually lasted within two weeks and showed less impact on people’s attitudes and beliefs as well as pedagogical competences according to the qualitative findings. Thus, this study did not intend to collect in-depth data on interviewees’ traveling experiences.

Effect on culture understanding. When asked what effect that overseas experiences had on them, nine EFL teachers all affirmed its positive significance in increasing their understanding of the target culture. Flora said, “overseas experiences allowed me to immerse myself in the local culture and to better promote my communicative competence”. Albert and Wendy pointed out that such experiences provided “first-hand cultural resources”, which could be used in their teaching. Tina also believed that the first-hand cultural resources, which were available when she was abroad, contributed to her deeper and broader understanding of the target culture and inspired the cultural transfer of her English teaching. They all agreed that personal experiences

are more effective and impressive than knowledge from books. However, Stella argued that going abroad was not the only way to learn more about a foreign culture. She found “reading books and watching online videos” could be alternatives.

Participants of short-term activities, such as Andrea, Flora, and Stella suggested that limited time hindered their in-depth understanding of the host culture though they were better than learning from books. They all agreed that the longer people stayed in a foreign place, the more they would know about its culture. Wendy is one of the interviewees who had both short-term and long-term experiences abroad. She had been in Sweden for seven days and the U.S. for half a year. She said the short-term experience in Sweden showed her “the highlight and the most typical part of Swedish culture” while the longer visit to the U.S. allowed her to “be immersed in its culture and have more contact with local people”. As a result, she gained a more comprehensive understanding of the American culture, including “politics, economic structure and social customs”. The more interaction she had with local people also helped her see “the individual difference in the American culture”. Daisy, who had different overseas experiences, also argued that the long-term stay brought her “deeper interpersonal relationships” and “a deeper understanding of local social problems”, such as “work efficiency, the educational philosophy of the middle class, tramps, and problem teenagers”.

To collect more data on the effect of overseas experiences, the interview encouraged EFL teachers to further recall their overseas experiences, which revealed that a longer duration contributed to more chances for cultural contact and for encounters with cultural differences. According to participant teachers, one of the most impressive experiences was cultural shocks in daily life. For example, Albert said:

Before going abroad, I assumed all the customs in the West are pretty much the same. But when I was in Spain, I found that the Spanish had a strong sense of identity with their country. They thought they are Spanish rather than westerners. What’s more, unlike how we understood it, Spanish people did not celebrate Halloween though they held carnivals to celebrate festivals. Neither did they celebrate Black Friday. At Christmas they had a family reunion, cooking and having delicious food for dinner, but no crazy shopping.

The festival culture Albert experienced in Spain enabled him to detect the heterogeneity of western culture and eliminated his stereotype that the West, which consists of developed countries, shared the same culture. Albert also learned that culture is dynamic. “What is in books

could differ from the present reality”, Albert also found. Daisy echoed Albert’s view by saying that a longer stay in the U.K. allowed her:

to take a more comprehensive and in-depth reflection on the relatively single-sided understanding of a country and region that she used to have in the past, challenged some biased opinions and understandings, and removed the overly beautified or uglified perspectives about a foreign country and region.

The experience thus enhanced her “intellectual development, particularly critical thinking ability”.

Apart from the stereotypes over the target culture, overseas experiences also exposed foreigners’ inadequate understanding of Chinese culture, which aroused EFL teachers’ awareness of the necessity to strengthen the transmission of Chinese culture. During her stay in Australia as a visiting scholar in around 2006, Andrea lived in “a local family, who knew little about China’s economy and development, assuming China as led by Chairman Mao Zedong and in times of revolution”. “China’s political situation in their cognition was more than thirty years ago”. Andrea could hardly find any news report on China in local TV media.

It was significant to the respondents that there were cultural differences between the host country and China. Two EFL teachers mentioned the culture shock they had gone through when asked to recall the most impressive experiences during their stay abroad. Tina talked about the queue culture in British. “I was on the top of a mountain in Scotland ... and wanted to confirm when the last cable car to go down the mountain would be”. There was no inquiry desk but a ticket office with some people lining up there. In China, people do not need to wait in line for consultations, so Tina directly went to the front of the line. At that moment, a British senior who was queuing said to her angrily that she should wait in line. “Shocked, I explained that I was not going to take the cable car or intended to cut in the line but made one inquiry. But the senior insisted that I had to queue. I looked at him in shock and asked, “Why?” The British man responded that he should enjoy the service prior to me”. Tina realized she needed to do as Romans do so she retreated to the back of the line and waited. Learning from this experience, Tina waited patiently since then during her stay in the U.K. On the day she left the country, she also went all her way through the waiting area without taking any short-cuts even when there were no people waiting in front of her. The officer had a friendly talk with her and pitifully asked her “Are you going back to China? Won’t you come back again?” Tina realized that “If you stay

in a place long enough, your mind will be influenced by local culture”. In this story, she had her awareness of queueing strengthened in the U.K. and adapted to this culture. She also considered the nice talk she had at the airport as a reward for following the local queue culture.

In nutshell, long-term overseas experiences exposed various culture differences and allowed EFL teachers to realize the importance and necessity of integrating culture into English teaching. As Serena said in the interview, whereas it may take more effort to conduct intercultural teaching, her overseas experiences broadened her understanding of English teaching beyond vocabulary and grammar learning to intercultural communicative competence.

Effect on pedagogical competences. In terms of pedagogical competences, six EFL teachers, Stella, Tina, Amanda, Wendy, Daisy and Serena, agreed with the benefit that the overseas experiences brought to their teaching ability. Such an impact could be detected in two aspects, teaching content and teaching methods. Two interviewees talked about how overseas experiences changed their decisions on teaching content.

Stella proposed that “the overseas experiences in the U.K. and European countries increased her awareness to contrast different cultures”. As a result, she “introduced not only cultures of English- speaking countries such as America, Australia, and Canada but also North European cultures in teaching to extend students’ mind”. Wendy also shared what she had learned abroad with her students when it is related to her teaching. Her understanding of the target culture, which had been updated during her stay overseas, helped her judge the authenticity and accuracy of resources. Wendy said “when you want to share some videos from the Internet with students, you will choose different videos before and after your visit abroad. You will judge whether the content is the same with what you saw out there”.

Four interviewees learned from their foreign colleagues how to implement teaching. The teaching model that she experienced in Britain greatly inspired Tina and led to the teaching reform after she had returned to China. Tina said:

Their different teaching model had a profound impact on the teaching reform of my course. My visit in Britain gave me a deep insight into their teaching model. I guess those who study abroad also notice this. Their course consisted of two sections, lectures and seminars. The lectures were given by the teacher, which was particularly about theories. The seminars were carried out by students, in which they discussed what they had learned in previous classes. The hybrid teaching we are using in this course now was inspired by this.

She engaged students in many discussions rather than allowed them to listen to her lectures in a passive manner after she had returned from the U.K. Daisy and Serena also introduced British teaching methods into their English teaching in China, like “teacher-student interaction”, “group work”, “presentation” and “discussions”. Serena liked the teaching method adopted by the British colleagues after auditing their classes. She commented that:

I feel it the same way that the use of linguistic knowledge is greatly important. So is the use of cultural knowledge. It shouldn't be the teacher who tells the students what linguistic knowledge is, what cultural knowledge is and what the students should do in communication. I think this is no good. We should teach like them. Let the students gain knowledge themselves. University students have such a learning ability. After they have acquired the knowledge, the teacher gives them more opportunities to practice their communicative competence in class. I think this is more important.

In addition, Amanda had been in the U.S. for six years. Apart from using English as a working language, that experience also familiarized her with advanced educational technology and enabled her to use them. Due to the outbreak of COVID-19 during her stay in the U.S., Wendy “learned some useful approaches to conducting online teaching”, such as “questioning skills” and “classroom management skills”.

However, three interviewees, including Andrea, Flora and Albert, found overseas experiences had little impact on their pedagogical competences. Flora worked abroad as an interpreter for a sports team. Albert concentrated on academic research on literature. These activities were barely relevant to teaching. However, it is worth noting that Andrea was in the U.K. to participate in a TESOL program, which aimed at improving participants' teaching ability. She found it little helpful because she was missing her almost two-year-old baby who was then living back in China. When she was asked what impact the overseas experiences had on her pedagogical competence/ICT competence, she replied:

Not as great as other colleagues. At that time, my older kid was less than 2 years old. And I looked at the pictures of my baby every day, thinking of returning to China as soon as possible. That experience happened to me in a state of unhappy mood and low intellectual curiosity.

In summary, the interview identified that all the nine EFL teachers acknowledged the positive effect of overseas experiences on their understanding of the host country. They believed

longer duration in the target country resulted in a better and deeper insight into its culture. The activity that they took part in during their stay determined whether their pedagogical competences could be improved. For example, the EFL teachers who focused their research interests on literature during their study abroad did not identify any increase in their pedagogical competences. However, visiting scholars usually found inspirations when auditing classes given by local teachers. They said they applied what they had learned to their own teaching after they had been back. They usually chose the U.K. or the U.S. as their destination for long-term activities. European countries were popular among them for short-term sightseeing, particularly when they had been in the U.K. It needs to be noted that teacher motivation had a great effect on the result of the overseas experiences. If they were not devoted to the activity, little could be achieved.

Summary of the Interview

The follow-up interview mainly addresses the second and third research question of this study: “How are their competence and understanding related to their teaching, training and overseas experiences?” and “How do EFL teachers understand their competence and understanding could be enhanced?” The survey had revealed IC training, the length of overseas experiences and participation in telecollaboration projects had an effect on EFL teachers’ IC understanding and telecollaborative competence. The interview was designed to confirm and enrich the data concerning the correlation and, more importantly, gather data from the teacher regarding how to improve EFL teachers’ IC understanding and telecollaborative competence.

The interview echoed some results of the survey. Firstly, in terms of IC understanding, the interview also found that interviewees were familiar with the concept. However, the interview indicated that such familiarity stayed at the level that participants had heard of IC. The interviewees became less capable when asked to define and further construct the concept. Language and cultural knowledge were still considered to be the two most important components of IC. Attitude and critical cultural awareness were only mentioned by one or two interviewees. Secondly, the interview echoed the result of the survey in that EFL teachers in this study acknowledged the critical role of culture in English teaching and advocated the integration of IC teaching in EFL teaching. All the nine interviewees not only elaborated on the importance of IC teaching but also described what they had done in teaching. It showed that IC education had been

widely promoted in Jiangsu province. Furthermore, the interview confirmed the effect of IC training on IC understanding and the effect of overseas experiences on attitudes and beliefs.

The interview collected in-depth data in how interviewees carry out IC teaching, how they understand telecollaboration, how they view using telecollaboration in IC teaching, what the telecollaboration projects that they had participated in were like, and what they had experienced during their stay abroad. The interview revealed that while different approaches had been used for IC teaching, EFL teachers' attempt to develop students' IC was mainly by introducing the cultures of English-speaking countries to students. Whereas telecollaboration had been widely used in China due to the rapid development of ICT and the outbreak of COVID-19, eight out of the nine interviewees had yet employed it in IC teaching. Thus their understanding of telecollaboration remained as teaching via teleconferencing. Only two out of nine interviewees defined it from the perspective of IC teaching. Nine participants found it a good idea to use it in IC teaching. However, they expressed their concerns over "willingness of the teacher", "support from the university", "shared interest and active engagement among participants from both sides", "self-discipline of participants", "good organization", and "solution to time difference". According to the two interviewees who had organized telecollaboration in teaching (though one was not for IC teaching), it was a rewarding experience and popular among students. In the interview, participants shared some stories and examples, which shed light on their overseas life. The interview found that all the nine EFL teachers acknowledged the positive effect of overseas experiences on their understanding of the host country. They believed longer duration in the target country gave them a better and deeper insight into its culture. The activity that they took part in abroad could be a critical contributor to the improvement of their pedagogical competences. However, one interviewee reported to have little achievements from her participation in a TESOL program in the U.K. because she was missing her almost two-year-old baby who was then living back in China.

In addition, the interview also identified data which contradicted with the findings of the survey. For example, one interviewee said she had participated in telecollaborative projects in the survey but denied such experiences in the interview while another interviewee was the opposite.

Chapter 8

Discussion

Informed by the findings of the web-based survey and the semi-structured interview, this chapter conducts an in-depth discussion of EFL teachers' IC perception and telecollaborative competence. This discussion commits to addressing the three research questions, particularly the third one about how to enhance EFL teachers' IC understanding and telecollaborative competence.

IC Understanding

The survey revealed that although all of them had heard of it, teacher participants in this study had limited knowledge of IC as previous surveys had reported. This was echoed by the data collected from the interview. Such a limited understanding of IC was shown in three aspects, overwhelming emphasis on language and cultural knowledge, neglect of culture 1, and partial understanding of culture.

Overwhelming Emphasis on Language and Cultural Knowledge

As stated in Chapter Three, teachers' knowledge of IC decides IC teaching. The investigator further argues that EFL teachers' interpretations of IC components holds more practical value to IC education than the understanding of its highly refined definition. EFL teachers tend to teach one or some of what they believe are the components when they are conscious of its importance and are allowed by external conditions. This study investigated teachers' interpretations of IC components through their narrative. Most of their answers fall into the framework constructed by Byram (1997). Sorted by frequency from high to low, IC components perceived by EFL teacher in China were language, knowledge, skills, attitudes, and critical cultural awareness.

According to the survey and interview, language was the most accepted component of IC among Chinese EFL teachers. 68.18% of the total respondents in the survey and 55.6% of the participants in the interview believed interculturally competent individuals need to possess language competence. I found this was justifiable as participants in this study were all EFL teachers. This indicated that these EFL teachers failed to distinguish IC from ICC as Byram (2015) did. They used these two terms interchangeably.

Two participants interpreted IC as a capacity of a higher order than language ability. They believed the mastery of a language was the premise for IC development. According to Byram's

(1997) model, the acquisition of the knowledge and the use of some skills do relate to linguistic competence, sociolinguistic competence and discourse competence. However, the investigator disagrees to formulate language competence and IC to be two stages of a developmental process. They entwine in intercultural interactions and interdepend each other. Furthermore, the investigator maintains that attitudes and beliefs as well as critical cultural awareness may not necessarily involve those language competences.

Cultural knowledge came the second in the survey and was defined to be an IC component by the same number of respondents as language was in the interview. This was triangulated by the IC teaching reality stated by the interviewees that they all introduced cultural facts of English-speaking countries when teaching English. Culture is a complex construct. It is thus understandable that the respondents were unable to detail the specifics of culture in a 10-minute survey. I interpret the cultural knowledge mentioned by participants to be equivalent to emblematic knowledge, such as items of dress and modes of greetings and differentiating knowledge, such as history and religious belief in Byram's (1997) ICC model. According to Byram (1997), emblematic knowledge and differentiating knowledge of other countries are usually relational with but differently interpreted in that of their own country and identities. He further argues the knowledge of the processes of interaction at individual and societal levels is fundamental to successful interaction and should be included in IC knowledge. He divides it into declarative knowledge of how social identities are acquired, perceived by other members of one group and how to perceive the interlocutors from other groups, and procedural knowledge of how to act in specific circumstances. Declarative knowledge and procedural knowledge need to be learned by applying the skills of interpreting and relating and the skills of discovery and interaction.

I believe that attitudes, skills to acquire necessary knowledge and critical culture awareness become more important than cultural knowledge itself in the following two senses. Firstly, given the extreme complexity of culture, its dynamic nature and individual differences, it is almost impossible for an intercultural communicator to have equipped him/herself with all emblematic knowledge and differentiating knowledge needed before the exchange starts. It is thus unfair to set learning cultural knowledge as a major objective for intercultural teaching. I think the focus on the cultural knowledge is likely to make cultural indoctrination one of the goals of IC teaching. Secondly, in intercultural communication, conflicts often arise due to

different cultural perceptions and incompatible value orientations. According to Dai (2017), “individuals need to mediate between their own and others’ cultural systems, so that they can effectively solve their problems and improve their intercultural relationships” (p. 93). Zhu (2014) defines the process in which people with differing cultural identities learn from each other, develop intercultural personhood, and mediate between different perspectives as interculturality. It may help people to overcome ethnocentrism, negotiate intercultural agreements and establish reciprocal relationships. However, apart from language and cultural knowledge, other elements, such as attitudes and skills were much less frequently proposed by the participants. Critical cultural awareness, which was placed in the center of Byram’s ICC model, was the least recognized component of IC in this study.

Neglect of Culture 1

One teacher particularly highlighted native language ability in the survey while another teacher considers proficiency in the target language is important. In the field of FL education, teachers tend to neglect the teaching of the first language (L1). However, the links between the L1 and L2/FL have long been recognized (Forbes & Fisher, 2020). The interference between L1 and L2/FL has been investigated to enhance the target language learning. Depending on the grammatical compatibility between the languages, such interference may lead to language transfer, which can be positive or negative. The importance attached to L1 language proficiency may probably increase both the negative and the positive language transfer. Stimulating positive transfer will improve L2/FL competence, which means the similarities between the languages are highlighted and the unique features of L1 language can be undermined. Vice versa. The importance of L1 language is unquestionable. However, I argue here that it is unnecessary to put special emphasis on the L1 competence when intercultural communication is scrutinized in the field of FL education.

However, my view of the first culture is different. Six out of twenty-three respondents stressed that the knowledge included first and foreign cultural knowledge in the survey and three out of nine did that in the interview. Approximately 70% of the participants failed to show their awareness about the importance of the native culture in IC teaching. Zhang (2014) also identified that EFL teachers believed English teaching in universities needed to promote students’ better understanding of English culture. However, participants in that study also underlined Chinese

culture, particularly the ability to mediate between two cultures. Participants in Han's (2014) study also interpreted FL learning as a venue for students to understand their own culture.

I echo Byram's (1997) statement that foreign cultural knowledge is usually relational with native cultural knowledge. For example, knowledge of the history of another country is through the stories from the history of one's own country. Such a connection means culture 1 contributes to a more complete understanding of culture 2. When people encounter a new cultural phenomenon, their extant related experiences with their native culture can serve as a reference to promote their understanding of it. The ignorance of the connections between the first and second culture may lead to less diversified pedagogy in IC teaching. Furthermore, I think declarative knowledge and procedural knowledge have no fundamental distinction between different cultures. One's declarative knowledge and procedural knowledge in his/her own culture as well as the skills that one accordingly chooses are also applicable in intercultural scenarios and have an effect on the result of the communication. Nor are attitudes and critical cultural awareness aimed solely at foreign cultures.

Byram (1997) elaborates that a competent intercultural speaker needs to be curious, open, ready to suspend disbeliefs and judgement with respect to others' meanings, beliefs and behaviors and also willing to suspend belief in one's own meanings and behaviors, and to analyze them from the viewpoint of the others with whom one is engaging. Though Byram does not encompass confidence in one's own culture in his conceptualization of IC, I believe it is a proper attitude that FL learners should possess towards their own culture. Take China as an example, the government requires students to learn English for the purpose to promote the communication between China and English-speaking countries. Because many English-speaking countries are ones that are economically prosperous, the inferiority in economy probably leads to the worship of the English culture and the lack of confidence in their own culture among EFL learners. Thus, I argue the readiness to suspend the doubt about one's own culture and the beliefs in other cultures is more proper in the case of FL education whereas Byram justified the opposite situation in his model.

Partial Understanding of Culture

When they talk about IC understanding and overseas experiences in the interview, participants explicitly and inexplicitly expressed their perception of culture. I think one's

perception of culture has an influence on his/her understanding of IC and further on decisions that one makes for IC teaching. I found four descriptions that are worth noting.

Firstly, one interviewee said before he visited Spain, he assumed European countries shared one single culture. In a positivist and modernist paradigm, culture was defined as solid, fixed, separate geographical blocks confining the behavior of the people who live within them. As can be seen in Billig's (1995) analysis of the term banal nationalism, the concept of national culture is part of people's conscious and subconscious understanding. However, culture has later been interpreted to be a fluid and socially constructed entity. Even within the same country there are different cultural groups and cultural identities, let alone in a union. Ignorance of the individual difference within a cultural community may lead to cultural biases, even conflicts. Thus, reductionism need to be avoided.

Secondly, one interviewee complaint that during her stay abroad, some local people that she knew had an obsolete understanding of Chinese culture. The impression they had of China remained 40 years ago. This raised her awareness to spread up-to-date Chinese culture. An interviewee used the word "advanced culture" to refer to "culture that reflected advanced productivity and research achievements, which was up-to-date and that represented the essence of a national culture". Although I do not agree that there are hierarchies of cultures, I can absolutely understand her concern about this entrenched belief in a certain culture. Culture as a product of human social life is not only multi-faceted, but also constantly evolving. This phenomenon also verifies the importance and necessity of culture 1 in IC teaching.

When asked how they think the overseas experiences enhanced their IC understanding, one interviewee replied that her IC understanding was barely improved because her life abroad was filled with training courses, and she had little spare time to visit cultural venues. This interviewee constrained culture to be visible products which were displayed in specific places like museums or galleries. However, culture is much more than tangible objects. The internal and subconscious parts that underlie external and visible parts constitute a large portion of culture, including some beliefs, values and thoughts and patterns. It penetrates into every part of society and life and can be perceived and learned by various kinds of contacts on different occasions.

Lastly, one interviewee showed her excitement about being accepted by local people after she acted as they did. This implied that the participant considered gaining compliance in intercultural communication important, at least on a specific issue like queuing. Such an idea can

be found in adaptational theories, in which adaptability is foundational to achieving competence. Gallois et al. (1988), Berry et al. (1989) and Navas et al. (2005) have developed several acculturation models to articulate the complex factors involved in this process and the possible results. However, should accommodation to the host culture be an objective for all intercultural exchanges? Spitzberg (1993) discussed the tension between adaptability and consistency, which indicated that adaptation is a questionable index of a competent communicator. According to Spitzberg (1993), adapting one's repertoire of action to the parameters of the situation had two problems. Firstly, it cannot fulfil the expectation of consistency in specific relationships. While one may perform flexibly in different relationships, he/she are expected to act consistently with one partner. Secondly, whereas rigidity in action may be considered as a lack of concern for others, inconsistency will make it difficult for other communicators to predict how to adapt their actions in their communication with you. Apart from the dialectics between adaptability and consistency in interpersonal communication, this study argues against blind compromise in intercultural communication. Communicators in intercultural exchanges bring their own culture. These cultures are neither superior nor inferior to each other. Every communicator needs to show respect to other cultures. In most cases, these cultures can co-exist. Accommodation to one among various cultures may pose a threat to communicators' native cultures and undermine the inclusiveness of a multicultural environment. Adaptation is inappropriate when it comes to the prejudiced or biased parts of the host culture.

In addition to the above three findings, it is worth noting that four respondents constructed "emotion", "cognition" and "behavior" as IC components. Such ideas were consistent with a model formulated by Chen and Starosta (2012). Their model explains a transformational process of symmetrical interdependence in three perspectives of IC, affective, cognitive and behavioral. The affective process, also addressed as intercultural sensitivity, is built on four personal attributes: self-concept, open-mindedness, nonjudgmental attitudes, and social relaxation. The cognitive perspective of IC requires intercultural awareness, which includes self-awareness of one's own identity, and cultural awareness of how cultures vary. The behaviors, verbal and nonverbal, encompass message skills, knowledge regarding appropriate self-disclosure, behavioral flexibility, interaction management, and social skills. This model describes both internal and external elements which form a holistic picture of IC and emphasizes the interdependence among them. It is one of the widely accepted theoretical frameworks in the field

of intercultural communication, with its priority given to attitudes, affective components. However, the use of three highly generalized words in response to Question 45 failed to demonstrate the connotation of IC from the participants' perspective.

This study found that the elements of the ideological level, in particular criticality, have not received adequate attention from EFL teachers. Furthermore, some participants failed to provide detailed explanations of the IC components that they proposed. For example, a vague description of knowledge may be caused by the lack of reflection on its connotation and the lack of awareness of varied contributions of different knowledge to IC development. I am concerned that this may lead to superficiality and inefficiency in their intercultural teaching.

IC Teaching

Both the survey and the interview revealed that respondents were aware of the important role of culture in language learning and highly agreed that IC teaching should be integrated in FL education. Nevertheless, despite the actions that all the nine participants had taken to carry out IC teaching, the interview indicated that they had little confidence in how to implement it. I believe their IC teaching practice also reflected their IC understanding. From interviewees' narratives, this study identified three problems of current IC teaching in China, namely the subordination of IC teaching to FL teaching, cultural knowledge-centered IC teaching and power influence.

The subordinate status of IC teaching in FL teaching. The latest edition of *China's Guidance to College English Teaching* (MOE Advisory Board for Foreign Language Teaching, 2020) attaches equal importance to the instrumentality and humanity of college English learning and teaching. Thus, this study advocates that equal efforts need to be put into developing EFL learners' communicative competence and IC. However, in the survey and interview language was the Top One component of IC from participants' perspective.

Seven out of nine interviewees taught English language courses, in which the objective focused on language skills development. Due to their awareness of the importance of IC, these seven participants added cultural elements to teaching. However, they thought that IC teaching could not occupy too much language teaching time. One interviewee, for example, said the time that she spent on cultural knowledge cannot exceed 10 minutes in a 45-minute session. Otherwise, "it would hinder the achievement of the major objectives of the course, which were textbook analysis, drill doing and preparation for College English Test Band 4 and Band 6".

Whereas this idea was explicitly expressed by merely one single interviewee, I assumed that the other six EFL teachers may think likewise. It implies that IC development was an adjunctive objective of college English courses. EFL teachers considered it important because it contributed to the improvement of language competence. Talking about cultures will also increase learning interest and enliven classroom atmosphere. However, when compared with language teaching, IC teaching is of secondary importance. This is not the case only for two interviewees who taught culture-focused courses. The major objective for those courses were to enhance students' IC, such as intercultural awareness and critical cultural awareness, rather than to improve English skills.

These scenarios were also found by Han (2014). The researcher believed that the time distributed over language teaching and culture teaching depended on both the teachers' perception of the (inter)cultural dimension of language teaching and the objectives of the course. I argue that the teaching objectives of university FL teaching need to be shifted more to IC development rather than basic linguistic skills. Linguistic skills has been centered around in about ten years of learning process before EFL learners enter universities. If such an approach is effective, learners must have already mastered those skills. If it is not as effective as expected, it will not be harmful to change it. Thus, this study maintains that the importance of IC teaching needs to be further improved to equate that of language teaching among EFL teachers.

Cultural knowledge-centered IC teaching. According to the interview, six out of the nine participants implemented IC teaching mainly by introducing cultural facts about English-speaking countries. Due to participants' lack of the awareness of varied contributions of different knowledge to IC development as revealed by the interview, these cultural facts mainly consisted of emblematic knowledge and differentiating knowledge, which were confined to the topics of the texts for language teaching. As a supplement to linguistic knowledge, the cultural foci that EFL teachers determined to discuss in class depended on the content of language teaching. Furthermore, while culture could be integrated in FL teaching in different approaches, what the participants of this study adopted mainly focused on the indoctrination of culture, such as serving as the warm-up or lead-in of a lesson, combining with vocabulary teaching, and supplementing text analysis. Introducing cultural facts about an English-speaking country may potentially promote learners' cultural awareness, but may not effectively enhance their IC skills and critical cultural awareness. This overemphasis on introducing superficial cultural knowledge to students

led to the ignorance of other components of IC such as skills and critical awareness and indicated that intercultural education was in its early phase in China.

I interpreted that this phenomenon resulted from the acknowledgement of the importance of IC, yet the overweight put on language teaching over IC by EFL teachers. This can be reflected in CET 4. Chinese national English proficiency test. Despite the inclusion of IC in *China's Guidance to College English Teaching*, there have been few related changes to this Chinese national standardized English proficiency test. All but one question in the test were language-targeting. The question that involves cultural elements in CET 4 is translation, in which test-takers are expected to translate a text about Chinese culture from Chinese to English. Likewise, what is mainly tested in college English courses is also composed of English reading, listening, writing and translation skills. To prepare students for CET 4, the course exams also focus on language. The test has a washback effect on learning and teaching. EFL learners in China are accustomed to concentrating their learning on what will be tested. Consequently, the teacher gives priority to language teaching to satisfy learners' need. In addition, it is more difficult to measure attitudes, IC skills and critical cultural awareness than knowledge in a traditional written test. This also inhibits the teacher from paying adequate attention to the elements of the ideological level in IC, in particular criticality.

Moreover, as discussed in the previous subsection, limited time for IC teaching constructs another influencing factor. Real-time interactions such as discussions, debates, and student presentations in class usually occupy much more time than cultural knowledge indoctrination. A course which aims at linguistic competence development cannot afford it.

Power influence. In the follow-up interview, one EFL teacher expressed a pity that she had for her IC teaching practice. This participant had had particular interest in IC development. In as early as 2005, she found that university students showed enormous enthusiasm for western culture and conducted an academic training project with students, which was sponsored by her university. This project investigated the effect of western culture on student communication. Since then on, she had maintained her research interest in culture. In 2007, she explored the status and introduction of Chinese culture in college English teaching, which was then consistent with the concern of the country and experts in the FL education. This study was also financially supported by her university. In 2008, she, together with other EFL teachers who also attached great importance to IC teaching, offered a course, named *Intercultural Communication*.

Unfortunately, the course was cancelled approximately three years later due to the change of leadership. Consequently, the university where she is working at concentrates English teaching on English reading and writing. This participant worried that had little benefit for student IC development.

This case indicated that apart from teachers' intrinsic motivation, IC teaching in China also relied on supports from the employer. Such supports mainly present in two aspects, the support for IC teaching research and the support for IC teaching practice. Given the fact the teaching research is inclined to recruit participants, it is easier to conduct such research with funds. This gives power to fund providers to decide which applicants can be approved the money. Fortunately, the participant who voluntarily underscored the significance of IC development initially received university approval and financial support for her related research. The official recognition further improved her motivation for IC research and stimulated her follow-up practical behavior. However, no approval may damage EFL teachers' motivation for related research and may arouse their doubts over their own academic aptitude. In terms of IC teaching practice, the officers in charge of teaching affairs have the power to decide teaching goals, curriculum, and teaching content. In the case of the participant, when a new head of the department held power, with the decision made by the head to orient FL teaching back to linguistic skills, IC teaching were completely terminated. To respond to the sudden change, the participant and her colleagues had to abandon what they had achieved with great efforts. According to the interviewee, if it had been supported, a complete IC teaching curriculum should have been constructed and developed by her group.

Such power influence plays an even more significant role when EFL teachers have no definite FL teaching goals in their mind. Despite Byram's (1997) perception that linguistic competence could be interconnected with IC and could contribute to IC development, such interconnection and contribution could be fulfilled with EFL teachers' deep insights. When they lack the insights, they tend to follow decision-makers.

Telecollaborative Competence

The interview revealed that telecollaboration was barely organized for IC development in the universities where participants work. Merely two interviewees out of nine had ever participated in exchange projects, which were randomly rather than systematically organized. For one interviewee, the project was intended for technical writing. For the other, the project was

conducted only once. Furthermore, one participant misperceived telecollaboration as online teaching. This subsection discusses the problems of telecollaboration that have been identified in this study, such as inadequate practice in intercultural teaching and EFL teachers' underdeveloped organizational competences, as well as potential challenges that participants will be confronted with in the implementation of telecollaborative projects, the fulfillment of its affordances, and the changes of teachers' role.

Inadequate Use of Telecollaboration in Intercultural teaching

Also known as online intercultural exchange, telecollaboration in the field of language education is characterized by remote communication technology and collaborative learning. With the development of technology and economy, smart devices such as mobile phones, tablets, and laptops have become ubiquitous among different age groups. Empowered by the easy access of the Internet and user-friendliness of social software, these devices connect Chinese people from different places. Online communication is used by colleagues, family members and friends and penetrates into every walk of life due to its low cost and high convenience. As introduced in Chapter 1, Chinese government devised the plan for education informatization to enhance the employment of ICT in education. As a result, EFL teachers in higher education use social networks like *QQ* and *WeChat* to provide instructions and help to students after class and communicate with colleagues for teaching affairs.

The use of ICT in FL teaching has been upgraded by the outbreak and contagion of COVID-19. To minimize interpersonal physical contact, social activities have been transferred to the Internet or cancelled. EFL teachers have to rely on the technology to teach from home. They deliver online lectures, organize online discussions, collect electronic assignments and even conduct online tests. Academic exchanges have also been organized online, such as teaching workshops, academic symposiums, and various seminars. In this sense, Chinese EFL teachers are very familiar with communication technology. They count on it everywhere in work and life. They not only attend virtual activities but also organize online teaching themselves. As revealed by the survey, participants get 5.96 in ICT competences, only lower than 6.38 in attitudes and beliefs among the four components of telecollaborative competence.

However, collaborative learning is an unfamiliar concept to EFL teachers in China and is seldom used in FL teaching practice. This term is often interchangeably used with cooperative learning. However, according to those who distinguish them, these two concepts take two

difference epistemological stances (Ferguson-Patrick & Jolliffe, 2018). Collaborative learning is rooted in social constructivism (Vygotsky, 1978), which encourages meaning construction through dialogue among learners in a learning community while cooperative learning is based on a theory of social interdependence (Sharan, 1990), which focuses on group dynamics. According to Smith and MacGregor (1992), collaborative learning refers to learning approaches which involve joint intellectual efforts by students, or students and teachers, with students working in groups larger than two to search for understanding, solutions, or meanings, or creating a product. It promotes language learning through increasing the use of the target language, allowing learners to notice the gap between their partners and them in linguistic knowledge, and leading them to reflect on and revise their knowledge (Swain, 2001). Collaborative learning was introduced into the field of Chinese FL teaching in the late 1990s. However, a survey (Yuan, 2008) concerning the teachers' degree of acceptance revealed that college English teachers were reluctant to apply this approach in FL teaching mainly because of their traditional teaching belief. To a large extent, their belief generates from their previous English learning experiences. The lack of experience and "understanding of what the collaborative process entails not only poses problems when having to collaborate with other colleagues but also results in teachers not being able to support students effectively throughout their own collaborative process" (Vinaigre, 2017, p.36). They make detailed explanations to indoctrinate students in language knowledge and allow students little time to construct meaning in groups. According to the survey, other factors that obstruct the practice of collaborative learning include the teaching objectives of a course, teachers' personality and their major.

The inadequate use of telecollaboration in FL education can be also reflected by the data concerning related research. To exhaust the literature, the investigator did the search with various key words in all the journals in CNKI. Forty-one studies were found concerning cross-nation online exchanges in FL education. This number is approximately 0.004% of the total research in this field.

In present FL education in Chinese universities recurs some of the problems that had been identified in American undergraduate education in 1980s. These problems include the distance between faculty and students, a prevailing pedagogy of lecture, an educational culture that reinforces student passivity and a reward system that gives low priority to teaching (Smith & MacGregor, 1992). The investigator believes collaborative learning via CMC holds great

potential for improving EFL student learning experiences and promoting student ICC development.

EFL Teachers' Underdeveloped Organizational Competences

It can be challenging for EFL teachers in China to adopt telecollaboration in FL education as it is a radical departure from the contemporary practice. Intercultural telecollaboration requires the teacher to have relevant competence. The survey indicated that one component of telecollaborative competence with the lowest mean, 5.49, was organizational competences. As the name shows, organizational competences are EFL teachers' abilities to organize online exchanges, including find and communicate with partner teachers, design the project and tasks, group students, solve occurring problems, evaluate the project and promote it to other colleagues. As introduced in the chapter of methodology, there were thirteen indicators for the organizational competences, from Item 16 to Item 28. Because most participants had no telecollaboration experiences, the responses to these items were their estimate and anticipation. The result implied that among all the abilities involved EFL teachers were more positive about communicating and problem-solving and were hesitant about partner hunting, project and task design, and project assessment and promotion. Item 17 was the one in which participants had the least confidence, $M=3.93$, which was also the lowest mean for the whole questionnaire. Item 16 had the second lowest mean in this component, 4.94. The mean of other indicators fluctuated between 5.38 and 5.95.

One of the major problems was EFL teachers were not able to find partner teachers from another culture through their professional contacts. Whereas 42.11% of the respondents had overseas experiences for more than three months, which mostly involved academic activities, most of them did not establish professional relationships with the colleagues who they had worked with in these activities. Only one interviewee mentioned the joint research with professors from other countries and its application in teaching after she had returned to work in China. Other interviewees attended academic seminars, listened to lectures and audited classes during their stay abroad yet without developing them into sustainable cooperation in research or teaching. Although cooperation requires consent from both sides, the investigator thinks EFL teachers in China lack collaboration awareness. As explained in the previous subsection, EFL teachers in China had very limited collaborative experiences when they had been students. Thus they hardly sought for collaboration with foreign colleagues in teaching. Overseas experiences

for them were opportunities for one-way learning rather than for two-way cooperation. Consequently, a few telecollaborative projects were established by the participants in this study.

It is natural for EFL teachers who have seldom participated in collaborative learning and adopted no collaboration approach in teaching to be cautious when they predict their abilities to organize and evaluate telecollaboration projects. The investigator interpreted the relatively low scores of these items as respondents' uncertainty rather than their incapability.

Potential Problems of Telecollaboration

Apart from the rarity of collaborative learning and the uncertainty in regard to organizational competences in this context, EFL teachers also expressed their concerns about implementing telecollaboration in China in the interview. The investigator believes that these considerations derived from participants' previous teaching experiences and held practical value for the use of telecollaboration in IC teaching in China. This subsection thus discusses these problems in the following three aspects, the implementation of telecollaboration, the assessment of students' performance and the shift of teachers' role.

The complex implementation of telecollaboration. Compared with the indoctrination of knowledge, telecollaboration is a relatively complex teaching approaches, which partly explains why it has yet become established practice in FL education. In this process, apart from their own students, EFL teachers need to take many other factors into account, such as the partner teacher and students from another culture, as well as online communication tools. It had been discussed in the previous subsection that participants of this study found it difficult to launch a telecollaboration project because they hardly established professional contact with colleagues from other cultures. Lack of personal experience in collaboration undermines teachers' ability to design collaborative tasks for students. Furthermore, unlike indoctrination, the popular teaching approach in Chinese universities, where the EFL teacher plays an independent role, telecollaboration requires practitioners to interact and collaborate with their partner teachers to achieve the learning objectives of both sides. The time difference between the two sides means such communication cannot be arranged in the working time of both sides.

For the smooth implementation of the project, EFL teachers also need to be ready to address technical problems caused by distant communication tools. Literature shows technical failure did occur despite the rapid technological development. Such technical breakdowns may distract or depress learners (Çiftçi, 2016). Students from different cultures possibly have varied

preferences for online technologies. However, different tools have different affordances for ICC development. For example, Chun (2011) found “asynchronous forum entries contain longer, syntactically more complex statements, whereas synchronous chat entries are short, reactive, and less formal” (p. 415), which echoes Thorne’s (2003) conclusion that different internet tools are not neutral media in that each fosters a different kind of syntactic and pragmatic style. Therefore, EFL teachers need to coordinate the difference in technology preferences according to the learning objectives. In addition, some tools that are ubiquitously used in one culture may be not accessible in the other, which in some degree increases the difficulty in selecting proper tools for online collaboration.

These extra considerations not only make teaching more demanding but consume teachers more energy and time. According to the interview, they increase teachers’ reluctance to employ telecollaboration in teaching if these efforts are not recognized.

Teacher’s indefinite apprehension of assessment. Multi-factors in a telecollaboration project make great challenges to achieve the intended learning outcomes. An EFL teacher proposed in the interview that telecollaboration projects need to create real development of students’ IC rather than merely arouse their interest. According to the literature review on FL teaching through CMC in the Chinese context, most student participants made positive remarks about online intercultural exchanges. For example, in the study conducted by Lu and Goodale (2015), students found it exciting and fascinating to have direct communication with foreigners. However, Çiftçi (2016) pointed out that previous telecollaboration projects scratched the surface of IC without deep reflections on involved cultures and detailed discussions over different viewpoints.

This study maintains that apart from careful activity design and management, proper assessment of students’ performance is needed to fulfill the potential of telecollaboration. Assessment refers to “conscious and systematic activities used by teachers and students for gathering information, analyzing and interpreting it, drawing inferences, making wise decisions, and taking appropriate actions in the service of improving teaching and learning” (Berry, 2008, p.6). Among the nine items of pedagogical competences in the survey, Item 34, the single one that inquired teaching assessment, got the mean of 5.69, which was merely higher than a reversed question, Item 32. Participants were not sure concerning how to integrate appropriate

assessment procedures and rubrics to accurately reflect the activities which students carried out during their exchange.

The basic functions of assessment include selection and placement, accountability, diagnosis and support of learning, which are to measure learners' capability and performance, to monitor the learning process, to enhance student motivation, to identify learning difficulties or to judge teaching effectiveness (Berry, 2008). In telecollaboration projects, EFL teachers need to be able to use multidimensional assessment methods to reflect different facets of learning since IC is a complex concept, such as portfolios, observations, exhibition, and interview. IC development may demonstrate in different forms, such as changes in attitudes towards various cultures, accumulation of cultural knowledge, deeper insights into culture phenomena, and the improvement of critical cultural awareness. EFL teachers also need to undertake formative assessment throughout the process of the project. With continuous monitoring, teachers are able to identify existing problems in learning and teaching, provide timely feedback and guidance to help students achieve final learning objectives and explore better approaches of teaching. In addition, assessment has a washback effect on learning and teaching. EFL learners in China tend to concentrate learning on what will be tested. In this case, proper means of assessment guide learning towards the intended IC development.

Teacher's concern about their role. One interviewee acknowledged the necessity of changing the teacher's role when using telecollaboration in IC teaching. Telecollaboration established the exchanges between people from different time zones. She argued that some participants would inevitably participate in the project beyond normal working hours and noted whether technology would undermine teacher's role. She was concerned that the teacher would become an appendage of technology. Whereas the claim sounds exaggerative, the investigator agrees that the relationship between the teacher and technology is worthy of careful examination.

To discuss the relationship between the teacher and technology in telecollaboration, the evolution of technology use in language learning is briefly overviewed. The history of using technology for FL/L2 learning can be traced back to the early decades of the 20th century. With the emergence of networkable multimedia minicomputers in 1990s, "the Web began to profoundly revolutionize the world of information and communication, opening up compelling new horizons in technology-based language learning and teaching" (Otto, 2017, p. 17). As a result of its increasingly wide application in daily life, technology has developed beyond its

ancillary role in the curriculum. Given the prospect that “technology becomes invisible, embedded in everyday practice” (Bax, 2003, p. 23), this study echoes that it will become more integrated into language education until it becomes a normal part of everyday practice.

Chun (2016) proposed four stages of the role of technology in second language teaching (see Table 45). The features refined by Chun revealed that the learning objective and the teaching paradigm conform to the affordances of technology. These technologies are not specifically or exclusively designed for language learning. In this sense, FL education is subject to technology advances. However, as each new technology materializes, the key issues that researchers and practitioners address remain constant, which relate to quality of learning materials, teacher engagement and training, effectiveness of technology to specific instructional goals, and sound pedagogical principles (Otto, 2017). This means while CALL is confined to available technology, the use of technology is to serve the attainment of learning objectives. Thus this study argues that research and practice of language learning and teaching should focus on the exploration of pedagogies with less prominence given to the technical tools that are used to realize the intended goals. In telecollaboration projects, teachers should devote themselves to participants’ IC development.

Table 45

Chun’s (2016) Four Stages of CALL

Stage	1970s-1980s Structural CALL	1980s-1990s Communicative CALL	2000s Integrative CALL	2010s Ecological CALL
Technology	Mainframe	PCs	Multimedia and Internet	Mobile and wearable devices
English teaching paradigm	Grammar translation and audiolingual	Communicative language teaching	Content-based, English for Specific Purposes	Digital literacies, multiliteracies
View of language	Structural (a formal structural system)	Cognitive (a mentally constructed system)	Sociocognitive (developed in social interaction)	Symbolic and intercultural competence
Principal use of computers	Drill and practice	Communicative exercises	Authentic discourse	Global communication
Principal objective	Accuracy	Fluency	Agency	Identity as global citizens

It has been well established in the literature that the teacher plays a crucial role in technology-enhanced language learning with telecollaboration included. They are principal decision makers when it comes to the specific teaching approach to use within their teaching context, the technology to facilitate learning and proper methods for the assessment of student performance. Technology integration practices are influenced by teacher underlying beliefs about knowledge and learning (Kim et al., 2013). As analyzed in the previous subsection, participants in this study were reluctant to innovate their teaching with online exchange projects due to their old-fashioned epistemological beliefs built on their own learning experiences. According to Clark and Zagarell (2012), teachers will “continue to use the same methods of teaching they have always used” (p. 138) without effective training. The interviewee also appealed for professional education to increase teachers’ self-efficacy, competencies and ability to match the affordance of a particular technology with learning goals.

Improvement of Teachers’ IC Understanding and Telecollaborative Competence

As described in Chapter 5, the result of the present study indicated that three factors had a statistically significant effect on teachers’ telecollaborative competence, namely overseas experiences, IC training and telecollaboration participation. Specifically, the length of overseas experiences changed teachers’ attitudes and beliefs and affected pedagogical competences; IC training deepened participants’ IC perception; past experiences in telecollaboration enhanced organizational competences. This subsection discusses how to develop teachers’ telecollaborative competence based on the data which were offered by the participants in the interview from these three perspectives.

Overseas Experiences

Being immersed in a culture makes it a natural process to learn about it. Visiting a place of another culture offers such an opportunity. What happens when people live in one culture is that they pick it up with no deliberate efforts because they experience the culture on a daily basis. The longer they are exposed, the more they undergo. As Wendy recalled in the interview, compared to an arranged trip to Sweden for one week, her six-month stay in California offered her more insights into local politics and customs. Furthermore, she said that the longer stay allowed her to build more contact with local people and to witness more cultural differences. Thus, it takes time for people to integrate into one culture whether it is their native culture or a second culture. This study maintains that knowledge of a second culture acquired through longer

immersion holds potential to develop EFL teachers' cultural awareness, which can be defined as a conscious understanding of the role culture plays in language learning and communication (in both first and foreign languages) (Baker, 2012).

Apart from the length of overseas experiences, specific activities that people are engaged in also play an important role in their telecollaborative competence development. The survey showed that the duration of their visit abroad had an effect on pedagogical competences. However, the further analysis revealed the correlation between duration and activity. It was supported by the follow-up interview that the pedagogical competences were literally enhanced by related activities, such as auditing classes when EFL teachers visited a university as scholars and studying abroad as postgraduate students. Instead, short-term visits such as business trips as an interpreter for a hockey team and academic symposiums on English literature were reported to have no contribution to pedagogical competences. Analogously, digital competences and organizational competences will also be improved if EFL teachers participate in activities with related themes.

It is worth noting that when talking about the effect of overseas experiences on their understanding of the host culture, some interviewees described the cultural shocks that they had encountered. Many of the culture shocks occurred when EFL teachers were interacting with local people. This study asserts that such cultural shocks contribute to the raised intercultural awareness. Intercultural awareness is an understanding of "the role culturally based forms, practices, and frames of understanding can have in intercultural communication, and an ability to put these conceptions into practice in a flexible and context specific manner in real time communication" (Baker, 2012, p. 66). Culture shock also improves EFL teachers' motivation for IC teaching and will probably arouse their awareness of preparing students to respond to culture shocks.

Furthermore, overseas experiences make noticeable the difference between one's previous constructions of a culture and the reality that they undergo. This provides people with new aspects to understand the culture and opportunities to remove stereotypes. As Albert said, his journey to Spain changed his original belief that European culture was monolithic. EFL teachers with an ability to relate will further apply the critical awareness to the understanding of their own culture. The critical intercultural awareness of teachers can also influence their

teaching. They will probably showcase a foreign culture phenomenon from multiple aspects or provoke students to challenge their bias.

Going abroad constructs a reliable method to improve EFL teachers' telecollaborative competence in multiple aspects. All participants in this study have overseas experiences. The quantitative analysis and the interview revealed that their telecollaborative competence developed to varying degrees. To achieve better results, EFL teachers need to stay longer, take active participation in social activities, establish contacts with people from other cultures, and attend formal activities about learning or teaching, and digital technology use.

Professional Education

Empirical data of this study showed that IC trainings had a remarkable effect on respondents' IC understanding. EFL teachers gained more insights into this concept after having attended trainings on IC. According to the interview, such trainings organized keynote speeches that introduced relevant theories and seminars where participants had discussions of case studies. The teachers' unfamiliarity with telecollaboration and the lack of related trainings proved the affordances of professional training in reverse. The communication tools needed by virtual exchange projects are available and user-friendly. However, the effective integration of telecollaboration in IC teaching requires more than the availability of technologies. According to Koehler and Mishra (2009), teachers need to be competent in technology, content and pedagogy to effectively use technology in teaching. Thus, this study recommends that professional development programs for in-service EFL teachers be offered to develop their telecollaborative competence.

However, the interview also found that EFL teachers, Tina and Serena, who had attended IC training, adopted different approaches in IC teaching. Tina allowed students more time to collectively construct their understanding of culture through discussion while Serena imparted cultural knowledge in class. The question is what in-service training can increase EFL teachers' perception of telecollaboration and empower them to effectively implement online exchange projects for IC education.

Continuing professional development (CPD), defined as a learning process that leads to "changes in teachers' professional practice (actions) and in their thinking about that practice" (Kelchtermans, 2004, p. 220), plays an important role in improving or changing teachers' cognition and practices. Effective professional development programs have the capacity to

promote teachers' knowledge and proficiencies as well as self-efficacy, which ultimately affect students' achievement and success (Ravandpour, 2019). As an EFL teacher at university, CPD that I have experienced in China is far from systematic, continuous, and durable. The CPD programs for university EFL teachers in China are commonly organized by textbook publishers. Due to the large population and enormous funds needed, EFL teachers have to take turns to participate on an annual basis. These programs regularly last for approximately four days. The content and strategies in such programs remain the same for years. The faculty where EFL teachers work at seldom offers CPD activities voluntarily. It occasionally invites professors to deliver speeches on the dominant research interests of the faculty. For the faculty without education programs, these speeches can focus on literature, linguistics or translation but much less possibly on FL pedagogy. It has been proven by this study. The interviewees with definite research interest originally established it or have transferred it away from education. This study attributes this situation partly, if not entirely, to the departure of CPD from education. In addition, restricted by the form, the speeches organized by the faculty are normally fragmented and mutually independent. Such activities require very limited active engagement from teachers.

Rather than triggers radical shifts in teaching, CPD creates consistent learning opportunities for teachers to improve their teaching effectiveness in a lasting process. Over the years, many studies have been conducted to explore the features of effective CPD programs. Desimone (2011) summarized five features from extant literature at that time as the focus on subject matter content (content focus), active teacher engagement (active learning), consistency among different activities of professional development programs (coherence), over one semester with no less than twenty hours of contact time (duration) and participation of groups of teachers from the same background (collective participation). Researchers, such as Garet et al. (2001), van Veen et al. (2012), and Park and So (2014), advocated practice- and inquiry-based collaborative programs that include learning tasks like peer observations, experience sharing, and meaningful discussions. More recently, Kalinowski et al. (2019) highlighted three broad areas of effective CPD program characteristics: (1) structural features such as multiple delivery formats, expert involvement, and consideration of teachers' needs, interests, and existing knowledge; (2) content-related features such as application-oriented knowledge; and (3) didactic features such as cooperation and collaboration, input, application and reflection, active learning, and supplementary materials.

Informed by the interview data and previous literature, this study argues for a sustained CPD program to develop telecollaborative competence, which focuses on IC development, maintains the balance between knowledge updating and pedagogical practice, designs collaborative tasks and requires teacher reflection. To trigger actual changes in teaching, the program should be department-based and take teachers' individual needs into account.

Telecollaboration Projects

Apart from above two approaches, this study maintains that telecollaboration can be drawn on to promote EFL teachers' organizational competences. As the quantitative analysis indicated, organizational competences were the component with the lowest score in telecollaborative competence. Due to the lack of opportunities to engage themselves in virtual exchange projects, participants in this study showed least confidence in their organizational competences. To prepare teachers for telecollaboration, "it is essential to engage them in collaborative virtual exchanges as a means of raising awareness and fostering the development of telecollaborative competences" (Vinagre, 2017, p.36). According to the INTENT project (**I**ntegrating **T**elecollaborative **N**etworks into Foreign Language Higher Education) in European Union, educators who had experience of telecollaboration as part of their training were likely to use it in classroom practice (Guth et al., 2012).

While its use for teacher professional development was initiated in the early 2000s, telecollaboration was not considered as an approach to develop teachers' telecollaborative competence until after 2010. Since then, an increasing body of empirical studies have focused on this issue or produced data for the understanding of this issue. Ernest et al. (2013) investigated the hands-on experience of a group of language teachers from universities in different locations with online collaboration within a training environment. The researchers suggested that the practical experience of online collaboration be employed so that teachers themselves are exposed to the opportunities and challenges of telecollaboration and also proposed four factors in terms of organization for program design. Fuchs et al. (2012) recruited student teachers, in-service teachers and language learners from colleges/universities located in different countries and found that understanding e-literacy skills and being aware of the affordances of specific technologies were a prerequisite for teachers' successful task design to achieve the intended objectives of fostering their students' competence. Vinagre (2016) enrolled nine in-service teachers who had no previous experience in telecollaboration, but had used some ICT tools in a course entitled

Intercultural Collaborative Exchanges in Virtual Environments, in which participants reviewed articles on virtual collaboration and critically analyzed examples from authentic online exchanges and worked in groups of four or five members to design tasks in a Wikispace, guidelines and assessment tools for a hypothetical telecollaborative project. Findings of this study suggested that constant and active collaboration between participants effectively improved their telecollaborative competence, thus sufficient quality interaction during the project needs to be ensured. Kurek and Müller-Hartmann (2017) noted that after having participated in a task-based telecollaborative training course, intercultural groups of TESOL teachers demonstrated great improvement in their telecollaborative competence, particularly in their perception of technology-enhanced tasks, sensitivity to task structure and task sequencing, and awareness of the importance of clearly communicated task objectives and explicit instructions, task feasibility and the match between task objectives and pedagogical affordances of a tool.

In view of the inexperience of the participants, this study puts forward propositions about using virtual exchange projects for teachers to acquire telecollaborative competence on the basis of extant literature. This study suggests that EFL teachers in China engage in intercultural online exchanges as experiential learning. In a telecollaborative project which aims at enhancing their IC, EFL teachers are able to construct understanding of this approach from students' perspective, which will bring them insights into the challenges that students may be faced with in prospective programs. Given that EFL teachers in China are unfamiliar with this approach, theoretical knowledge base of telecollaboration is essential. This can be achieved by reviewing papers on online intercultural collaboration either prior to their experiential learning or after. Another must-do is reflective practice during the telecollaboration course designed for them and soon after it has finished. Additionally, active engagement and interaction with other participants are facilitated not only in the project but in other stages before and after the project.

The Use of both Quantitative and Qualitative Methods Approach

As a research beginner, this is my first time to use both quantitative and qualitative methods in one study. Although it took prolonged time to complete the data collection and analysis, the joint use of both approaches did produce richer and thicker findings than single employment of one.

The researcher of this exploratory study did not have a thorough insight into the research theme. Social constructivism suggests that the researchers should resort to social construction to

develop their understanding of the topic. However, the multi-layered model of IC and the numerous indicators of telecollaborative competence made a general investigation a formidable mission. The quantitative survey successfully highlighted some significant aspects to begin with through statistical analysis. Although the small sample size was inadequate to reveal all the associated factors, the strongest correlations had been identified. This effectively narrowed down the number of potential factors from 12 to 3. It allowed the interviewees more time to describe their experiences so that it improved the data quality.

The use of quantitative research along with qualitative one also lends itself to the triangulation of data collected. The findings of two phases can be compared in one study, which can either provide evidence to confirm the findings or promptly expose problems in the study. For example, in this study the conflicting responses to the experiences in telecollaborative projects between the survey and the interview showed that participants had a misunderstanding of the word “telecollaboration” in the survey. Their responses to related items are unreliable. Furthermore, the contradiction itself indicated that the participants were unfamiliar with this concept. Despite the dramatic increase in the use of communicative technology in teaching during the prevalence of COVID-19, EFL teachers have yet adopted it to facilitate collaborative learning.

Apart from the strengths, the use of two methods also posed some challenges in this study. The first challenge is time. Because the quantitative and qualitative parts are implemented in separate phases, this study required more time investment. . This means that not only the researcher needed to prepare more time, but also participants have to spend extra time, which will reduce their willingness to participate. In this study, 30 participants out of 95 provided their contact information. Some did not reply when I tried to contact them with the e-mail addresses they left. Some declined the invitation. As a result, only 9 teachers agreed to be interviewed.

The second challenge is the integration of two forms of data. Although quantitative and qualitative data can be used in a flexible manner, there are five paradigms to align the data in an integrative way, “triangulation, complementarity, development, initiation and expansion” (Riazi & Candlin, 2014, p. 143). The joint use of quantitative and qualitative research in one inquiry makes formulating research questions and designing research procedures difficult and crucial. To use them in an integrative way, three generic research questions need to be proposed, one for

quantitative research, one for qualitative one and one to address the combined strands. This provided me with valuable experience for future research.

Chapter 9

Conclusion

Based on the idea that EFL teachers who have a full understanding of IC and are capable of implementing online intercultural exchange programs will greatly contribute to IC development of EFL students in China, this study adopted both quantitative and qualitative methods to address four research questions concerning the current IC perception and telecollaborative competence of EFL teachers in Chinese universities and reliable ways to effectively improve them. To explore the status quo of teachers' telecollaborative competence, this study developed O'Dowd's (2015) model of telecollaborative competence for teachers into a questionnaire to collect participants' self-report and designed related questions in the follow-up interview for triangulation. To advance workable suggestions, this study included potential variables in the questionnaire to identify which may have association with teachers' IC understanding and telecollaborative competence and inquired corresponding questions in the interview for detailed data regarding how correlated variables work.

For the first two research questions, the result of this study showed that participants had a decent overall IC understanding and telecollaborative competence. The mean of the six items for IC understanding was a little lower than that of the thirty-seven items for telecollaborative competence. The successive decrease in the mean of items regarding the familiarity with ICC, its definition and its components exhibited that while the participants had heard of the concept they lacked deep insights into it. The same pattern was identified with items of IC understanding. A further comparison between ICC and IC suggested that participants had a clearer idea about ICC than IC, which another time ascertained teachers' superficial understanding of ICC and IC.

The responses to the only open-ended question and the answers to the related questions in the follow-up interview provided richer data on respondents' construction of IC. The most accepted two components of IC was language and knowledge according to the survey. Attitude- and skill-related words and phrases were also mentioned by fewer respondents in the survey. Critical cultural awareness stressed by Byram (1997) was the least recognized component. It is also worth noting that in terms of language and culture a few respondents specified the first language and the first culture, which showed their awareness of their strong connection with foreign languages and cultures.

With a closer look at specific items of telecollaborative competence, the investigator found that attitudes and beliefs achieved the highest mean, followed by ICT competences, pedagogical competences and organizational competences. This indicated that the participants had a consensus on the important role of culture in language teaching and showed keen interest in using telecollaboration in FL teaching and strong willingness to collaborate with partner teachers and students yet had less confidence in conducting pedagogical practice and running online exchange projects. These were triangulated by the interview. Though agreed with the affordances of telecollaboration for IC teaching, all the nine interviewees expressed their concerns over the complicatedness of this approach. Furthermore, some interviewees confused intercultural telecollaboration with the online meetings or classes they had had during the pandemic. The same problem arose when the participants were asked about the training that they have attended for telecollaboration. These contradictions exhibited participants' unfamiliarity with this concept. Whereas this did not necessarily equate with EFL teachers' low telecollaborative competence, it justified its low rate of utilization in IC teaching and teachers' uncertainty as to their organizational competences.

The t-test analysis to address the third research question pinpointed five significant correlations, one between teachers' attitudes and beliefs and different lengths of overseas experiences, one between teachers' pedagogical competences and the length of overseas experiences, one between teachers' organizational competences and their telecollaboration experiences, one between teachers' IC understanding and their years of teaching and one between teachers' IC understanding and their IC training. The recurrence of variables prompted the investigator to examine the interplay among these four independent variables. The phi coefficient confirmed the only significant correlation between the years of teaching and EFL teacher participation in IC training. Therefore, the length of overseas experiences, telecollaboration experiences and IC training were determined as three associated factors.

Informed by the quantitative analysis, the interview focused on the length and activities of EFL teachers' stay abroad, their professional training and telecollaboration experiences. The result showed that all the nine interviewees acknowledged the positive effect of overseas experiences on their IC understanding development. This is because longer duration in the target country provided more opportunities for them to build social contacts with local people, exposed more culture differences and allowed them to realize the importance and necessity of integrating

culture into English teaching. The interview also found that the activities that are related to learning or teaching helped to improve teachers' pedagogical competences, such as study abroad and auditing classes.

Contrary to the rich data on EFL teachers' overseas experiences, the interview collected very limited descriptions of IC and telecollaboration training. While IC training was accessible to all interviewees, only 25% of interviewees accepted the invitation. The follow-up inquiry revealed this was largely because EFL teachers' research interest focused on literature, linguistics and translation rather than IC or ICC education. Even worse, telecollaboration training was unavailable among EFL teachers as none of them heard of it. Despite the limited data, the interview revealed that IC training effectively updated participants' theoretical understanding of the concept and offered discussions on case studies of IC teaching. In addition, the interview also collected limited data about teachers' telecollaboration experiences because only two participants had used telecollaboration in teaching. Their narrative indicated that such experiences exposed the potential problems in telecollaboration and boosted teachers' confidence in solving them.

Informed by the findings of the quantitative and qualitative analysis, this study proposed suggestions in regard to overseas experiences, professional training and telecollaboration practice to improve EFL teachers' IC understanding and telecollaborative competence. Firstly, EFL teachers should be provided with opportunities to visit places of other cultures, which are not necessarily English-speaking countries. Longer stay is preferable but is not the only consideration. Overseas experiences that can successfully improve IC understanding and pedagogical competences need to engage visitors in various social activities, frequent contacts with people from other cultures, and formal activities about learning or teaching. Secondly, EFL teachers should be encouraged to participate in a productive CPD program for IC education. A productive CPD program for IC education needs to be sustained, contextualized, and balanced in updating knowledge and pedagogical practice. This should include collaborative tasks, teacher reflection and the consideration of individual teacher needs. Thirdly, telecollaboration should be integrated with professional development to provide EFL teachers with experiential learning. Because EFL teachers in China are unfamiliar with telecollaboration, they should review related papers to establish theoretical knowledge base. Active engagement and interaction with other participants need to be facilitated in the whole process. Last but not least, teacher reflection is also essential not only during the telecollaboration course but also soon after it has finished.

Limitations of This Study

This is one of the first empirical studies that the researcher has conducted. While careful consideration has been given to the design of this study, there are still limitations in research questions, the number and diversity of participants and data analysis mainly due to the underdeveloped ability of the investigator.

Firstly, the research questions are not narrow-focused enough. The use of telecollaboration in FL teaching in China is not a newly emerging approach. The first empirical study on it can be traced back to 2000. However, since its initial employment in the Chinese context, it has not been widely practiced. While having enormous interest in this subject, the researcher has not participated in any virtual intercultural exchange projects. Furthermore, after the model of telecollaborative competence for teachers was formulated by O'Dowd (2015), the field of IC education in China has not seen research on this topic. As a result, this is an exploratory study, with the intention of catching the snapshot of this competence of EFL teachers in Chinese universities. Due to the investigator's inexperience with telecollaboration practice, the present study mainly examined the participants' self-perception of their overall competence and was not situated in a real project. If an online intercultural exchange program had been established, this study would have focused narrowly on micro aspects and provided specific strategies or interventions for implementation.

Secondly, the small size of the sample means that this study does not provide conclusive recommendations, but thoughts for pedagogical implementation and further research. By estimate, there are over 2,000 EFL teachers at universities which scatter in Jiangsu Province. According to Cohen et al. (2011), the sample size needs to be 322 when the population is 2,000 if a 5% sample error is allowed. Hence, this study intended to recruit approximately 500 participants to leave a decent margin for some unforeseen conditions. For example, participants may drop out in the middle. Unfortunately, due to the pandemic, participant recruiting was recommended to carry out online. This inhibited the investigator to establish emotional connections with potential participants. There was only one participant for a few universities. While the investigator made great efforts to reach more universities, 101 EFL teachers finally accepted the invitation, much lower than anticipation. Insufficient participants compromised the quality of quantitative data. The same problem occurred when participants for the follow-up interview were recruited. The quantitative research was intended to select the sub-sample for

qualitative research. This means EFL teachers with overseas experiences, relevant training experiences and experiences with participation in telecollaboration projects could have been accepted for interview. However, only nine respondents agreed to be interviewed. The above criteria could not be completely met. Furthermore, because some interviewees confused intercultural telecollaboration and online meeting/class, even fewer interviewees had relevant experiences. This led to insufficient qualitative data, particularly in training experiences and telecollaboration projects, compromising the richness and depth of qualitative analysis.

Thirdly, intended for the meaning construction of EFL teachers' IC understanding and telecollaborative competence, this study slightly performed a critical analysis of qualitative data. In view of its relationship with intercultural communication, it is desirable to use postmodernist approaches in the present study. Postmodernism focuses on "the social and cultural construction of truth—in the shape of human systems and relations, the ways in which language reflects power and ideology, or the ways in which social realities are or can be shaped and manipulated" (Ellaway, 2020, p. 857) and attaches particular importance to critical reflexivity. However, this study missed the chance to examine intercultural exchanges since the telecollaborative project was not implemented. Driven by the special importance attached to the context by social constructivism, the researcher still decided to analyze the power relations in IC teaching, which was conducted in a very limited and superficial manner. In fact, apart from contextual dependencies, postmodernism can also critique the categories, symbols and identities that are imposed upon research objects, deconstruct the components or aspects of a phenomenon to look for contradictory interpretations and meanings, and analyze the ontological and epistemological assumptions in discourses (Ellaway, 2020). For example, this study could have explored how the improvement of EFL teachers' IC understanding and telecollaborative competence shapes the social realities and practices of FL education and the potential problems in there. Furthermore, the researcher could not recall any differentiated treatments in her personal experiences which is related to her experiences with English learning and teaching, thus is not insightful in gender difference. She was born as the only child in her family. She had been adored by teachers from kindergarten to university due to her excellent academic achievements and helpful personality. These led to her insensitivity to gender difference and, in the present study, the inadequate discussion from the feminist perspective.

Last but not least, without investigation into internal contributing factors, the results of this study and the suggestions that were proposed may be compromised. This study, built on the social constructivism, gives priority to the effect of external factors, such as learning, teaching, and intercultural communication experiences. However, IC is a complicated concept influenced by various factors, both external and internal. Internal factors such as cognitive ability, personality, intelligence, and individual needs, may also have an influence on the internalization of constructions. A case in this point was found in the interview with Andrea. She evaluated her participation in a TESOL program in the U.K. as little helpful because she was missing her baby who was then living back in China and was not motivated to learn whatsoever.

Implications for Further Research

While Chinese researchers initiated IC teaching via CMC-assisted intercultural exchanges in 2000, telecollaboration has not been extensively practiced in China. According to the findings of this study, the investigator calls for enhancing IC understanding and telecollaborative competence of EFL teachers in Chinese universities. It necessitates further research on theoretical construction, teacher professional development, and telecollaboration practice.

Firstly, this study argues for further research on theoretical framework of IC and telecollaborative competence. The theoretical foundation of this study are Byram's (1997) ICC model and O'Dowd's (2015) model of telecollaborative competence for teacher. The descriptions of IC from participants did not perfectly fit into the structure formulated by Byram (1997). Take "the ability to address cultural conflicts" as an example. Cultural conflicts commonly arise in values with huge differences, which are possibly more common between two cultures far away geographically from each other. The willingness to suspend one's extant beliefs is a positive psychological prerequisite. However, more importantly, follow-up actions are required when such conflicts emerge. This is included in Byram's model as the skill of interaction with no particular emphasis. Furthermore, Byram's model was proposed before the ubiquitous use of CMC tools. Thus it fails to take the late characteristics of online communication into account. On the other hand, O'Dowd's (2015) framework was the only theoretical framework for teachers' telecollaborative competence. It developed from the structure of teachers' competence models like TPACK. It showed inadequate emphasis on teachers' IC perception. Among the total 41 statements, only eight are related to IC teaching. The descriptions

are too general to present the key characteristics of IC. Thus, this study suggests that more research be conducted to update the theoretical model of teachers' telecollaborative competence in the context of IC teaching, particularly in places where English is taught as a foreign language, like China.

As suggested in Chapter 8, effective CPD programs make a mainstream approach to prepare teachers for promoting IC teaching with telecollaboration. However, such studies have not been conducted in the field of FL education in the Chinese context yet. According to this study, very few EFL teachers in Chinese universities graduated from an education program. This means they had never received systematic training of teaching. This was triangulated by their low score in pedagogical competences. Neither did they show spontaneous interest in teaching training as their responses to IC training showed. As a result, I argue that further research is needed to seek how to organize productive CPD programs for teachers' pedagogical competences and telecollaborative competence development in the context of China. In addition, participants could have been recruited from students, administrators and policy-makers to offer a more comprehensive interpretation of EFL teachers' telecollaborative competence and IC understanding and deeper insights into measures to enhance them.

Last but not least, empirical studies of virtual intercultural exchanges are also needed to accumulate data on telecollaborative IC learning and teaching in the Chinese context. There have been abundant telecollaborative projects launched by language teachers in Europe. The exchanges were commonly established between students from Europe and the USA. However, the need for mutual understanding is not confined to these two areas. With the large population of English learners, China needs to operate more telecollaborative projects to enhance students' ICC and better their language learning experiences. In view of the unique Chinese culture, online exchanges between China and other cultures will probably produce rich and rewarding findings.

References

- ACTFL. (2006). *Standards for foreign language learning in the 21st century* (3rd ed.). National Standards in Foreign Language Education Project.
- Ajabshir, Z. (2019). The effect of synchronous and asynchronous computer-mediated communication (CMC) on EFL learners' pragmatic competence. *Computers in Human Behavior*, 92, 169–177. <https://doi.org/10.1016/j.chb.2018.11.015>
- Angelova, M., & Zhao, Y. (2016). Using an online collaborative project between American and Chinese students to develop ESL teaching skills, cross-cultural awareness and language skills. *Computer Assisted Language Learning*, 29(1), 167–185.
- Antoniadou, V. (2011). Using activity theory to understand the contradictions in an online transatlantic collaboration between student-teachers of English as a Foreign Language. *ReCALL*, 23(3), 233–251.
- Arasaratnam, L. A. (2006). Further testing of a new model of intercultural communication competence. *Communication Research Reports*, 23(2), 93–99.
- Arasaratnam, L. A., Banerjee, S., & Dembek, K. (2010). The integrated model of intercultural communication competence (IMICC): Model test. *Australian Journal of Communication*, 37(3), 103–116. <https://login.proxy.bib.uottawa.ca/login?url=https://www-proquest-com.proxy.bib.uottawa.ca/scholarly-journals/integrated-model-intercultural-communication/docview/884025625/se-2?accountid=14701>
- Arasaratnam, L. A., & Doerfel, M. L. (2005). Intercultural communication competence: Identifying key components from multicultural perspectives. *International Journal of Intercultural Relations*, 29(2), 137–163.
- Bachman, L. F. (1990). *Fundamental considerations in language testing*. Oxford University Press.
- Baker, W. (2012). From cultural awareness to intercultural awareness: Culture in ELT. *ELT Journal*, 66(1), 62–70. <https://doi.org/10.1093/elt/ccr017>
- Barrett, M., Byram, M., Lázár, I., Mompoin-Gaillard, P., & Philippou, S. (2013). *Developing intercultural competence through education*. Council of Europe Publishing.
- Bax, S. 2003. CALL—Past, present and future. *System*, 31(1), 13–28.

- Belz, J. (2007). The development of intercultural communicative competence in telecollaborative partnerships. In R. O'Dowd (Ed.), *Online intercultural exchange: An introduction for foreign language teachers* (pp. 127-166). Multilingual Matters.
- Bennett, M. J. (1986). A developmental approach to training for intercultural sensitivity. *International Journal of Intercultural Relations*, 10(2), 179–196.
- Bennett, J. M., & Bennett, M. J. (2004). Developing intercultural sensitivity: An integrative approach to global and domestic diversity. In D. Landis, J. M. Bennett & M. J. Bennett (Eds.), *Handbook of intercultural training* (pp. 147-165). Sage.
- Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge* (1st ed.). Doubleday.
- Berger, P. L., & Luckmann, T. (2022). From the social construction of reality: A treatise in the sociology of knowledge. In F. Dobbin (Ed.), *The new economic sociology* (pp. 496–517). Princeton University Press. <https://doi.org/10.1515/9780691229270-020>
- Berry, R. (2008). *Assessment for learning*. Hong Kong University Press.
- Berryman, D. R. (2019). Ontology, epistemology, methodology, and methods: Information for librarian researchers. *Medical Reference Services Quarterly*, 38(3), 271–279. <https://doi.org/10.1080/02763869.2019.1623614>
- Berry, J. W., Kim, U., Power, S., Young, M., & Bujaki, M. (1989). Acculturation in plural societies. *Applied Psychology: An International Review*, 38(2), 185–206.
- Billig, M. (1995). *Banal nationalism*. London: Sage.
- Biria, R., & Momenzadeh, M. (2015). The efficacy of CMC versus traditional approaches to teaching translation to Iranian junior translation and civil engineering students. *Theory and Practice in Language Studies*, 5(12), 2528–2538. <http://www.academypublication.com.proxy.bib.uottawa.ca/issues2/tpls/vol05/12/13.pdf>
- Blackstone, A. (2012). *Sociological inquiry principles: Qualitative and quantitative methods*. <https://2012books.lardbucket.org/books/sociological-inquiry-principles-qualitative-and-quantitative-methods/index.html>
- Blake, R. J. (2017). Technologies for teaching and learning L2 speaking. In C. A. Chapelle & S. Sauro (Eds.), *The handbook of technology and second language teaching and learning* (pp. 107-117). John Wiley & Sons. <https://doi.org/10.1002/9781118914069>

- Bloomfield, L. (1933). *Language*. Holt.
- Bok, D. (2009). Foreword. In D. K. Deardorff (Ed.), *The SAGE handbook of intercultural competence* (pp. ix-x). SAGE.
- Borg, S. (2003). Teacher cognition in language teaching: A review of research on what language teachers think, know, believe, and do. *Language Teaching*, 36, 81–109.
- Borghetti, C. (2013). Integrating intercultural and communicative objectives in the foreign language class: A proposal for the integration of two models. *The Language Learning Journal*, 41(3), 254–267. <https://doi.org/10.1080/09571736.2013.836344>
- Bourdieu, P. (1990). *In other words: Essays towards a reflexive sociology*. Polity.
- Bower, J., & Kawaguchi, S. (2011). Negotiation of meaning and corrective feedback in Japanese/English tandem. *Language Learning*, 15(1), 41–71.
- Bueno-Alastuey, M. C., & Kleban, M. (2016) Matching linguistic and pedagogical objectives in a telecollaboration project: A case study. *Computer Assisted Language Learning*, 29(1), 148–166. <https://doi.org/10.1080/09588221.2014.904360>
- Byram, M. (1997). *Teaching and assessing intercultural communicative competence*. Multilingual Matters.
- Byram, M. (2009). Intercultural competence in foreign languages: The intercultural speaker and the pedagogy of foreign language education. In D. K. Deardorff (Ed.), *The SAGE handbook of intercultural competence* (pp. 321-332). SAGE.
- Byram, M. (2012). Language awareness and (critical) cultural awareness – relationships, comparisons and contrasts. *Language Awareness*, 21(1–2), 5–13. <https://doi.org/10.1080/09658416.2011.639887>
- Byram, M. (2013). Intercultural competence in foreign languages: The intercultural speaker and the pedagogy of foreign language education. In M. Byram & A. Hu (Eds.), *Routledge encyclopedia of language teaching and learning* (2nd edition., pp.321-332). Routledge. <https://login.proxy.bib.uottawa.ca/login?url=https://www.taylorfrancis.com/books/9780203101513>
- Byram, M. (2015). *Culture in foreign language learning—the implications for teachers and teacher training*. In W. M. Chan, S. K. Bhatt, M. Nagami & I. Walker (Eds.), *Culture and foreign language education: Insights from research and implications for the practice* (pp. 35-54). Walter de Gruyter.

- Byram, M., Holmes, P., & Savvides, N. (2013). Intercultural communicative competence in foreign language education: Questions of theory, practice and research. *The Language Learning Journal*, 41(3), 251–253. <https://doi.org/10.1080/09571736.2013.836343>
- Byram, M., & Wagner, M. (2018). Making a difference: Language teaching for intercultural and international dialogue. *Foreign Language Annals*, 51(1), 140–151. <https://doi.org/10.1111/flan.12319>
- Byrnes, H. (2002). The cultural turn in foreign language departments: Challenge and opportunity. *Profession*, 114–129. <https://www.jstor.org/stable/25595736>
- Canale, M. (1983). From communicative competence to communicative language pedagogy. In J. C. Richards & R. W. Schmidt (Eds.), *Language and Communication* (pp. 2-27). Longman.
- Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics* 1(1), 1–47.
- Canto, S., & Jauregi Ondarra, K. (2017). Language learning effects through the integration of synchronous online communication: The case of video communication and Second Life. *Language Learning in Higher Education (Berlin, Germany)*, 7(1), 21–53. <https://doi.org/10.1515/cercles-2017-0004>
- Carter, S. M., & Little, M. (2007). Justifying knowledge, justifying method, taking action: Epistemologies, methodologies, and methods in qualitative research. *Qualitative Health Research*, 17(10), 1316–1328. <https://doi.org/10.1177/1049732307306927>
- Chen, G.-M., & Starosta, W. J. (2000). The development and validation of the intercultural sensitivity scale. *Human Communication*, (3), 1–15. <https://files.eric.ed.gov/fulltext/ED447525.pdf>
- Chen, G.-M., & Starosta, W. J. (2012). Intercultural communication competence: A synthesis. In B. R. Burleson & A. W. Kunkel (Eds.), *Communication yearbook 19* (pp. 353-383). Routledge.
- Chen, H.-I. (2017). Intercultural communication in online social networking discourse. *Language and Intercultural Communication*, 17(2), 166–189. <https://doi.org/10.1080/14708477.2016.1211137>

- Chen, J. J., & Yang, S. C. (2016). Promoting cross-cultural understanding and language use in research-oriented Internet-mediated intercultural exchange. *Computer Assisted Language Learning*, 29(2), 262–288. <https://doi.org/10.1080/09588221.2014.937441>
- Cheng, S., & Yang, F. (2017). Research on blended teaching experiment of college English based on mobile-cloud-classroom + SPOC. *Experimental Technology and Management* 34(5), 183–188.
- Chomsky, N. (1957). *Syntactic Structures*. Mouton.
- Chun, D. (1994). Using computer networking to facilitate the acquisition of interactive competence. *System*, 22(1), 17–31.
- Chun, D. M. (2011). Developing intercultural communicative competence through online exchanges. *CALICO Journal*, 28(2), 392–419. <http://search.proquest.com/docview/869641268/501F06BCEE7347EAPQ/9>
- Chun, D. M. (2015). Language and culture learning in higher education via telecollaboration. *Pedagogies: An International Journal*, 10(1), 5–21. <https://doi.org/10.1080/1554480X.2014.999775>
- Chun, D. M. (2016). The role of technology in SLA research. *Language Learning & Technology*, 20(2), 98–115. <http://dx.doi.org/10125/44463>
- Chun, D. M. (2019). Current and future directions in TELL. *Educational Technology & Society*, 22(2), 14–25.
- Chun, D. M., & Barbara, S. (2011). Developing intercultural communicative competence through online exchanges. *CALICO Journal; San Marcos*, 28(2), 392–419. <http://search.proquest.com/docview/869641268/501F06BCEE7347EAPQ/9>
- Çiftçi, E. Y. (2016). A review of research on intercultural learning through computer-based digital technologies. *Educational Technology & Society*, 19(2), 313–327.
- Çiftçi, E. Y., & Savaş, P. (2018). The role of telecollaboration in language and intercultural learning: A synthesis of studies published between 2010 and 2015. *ReCALL*, 30(3), 278–298.
- Clark, V. L. P., & Creswell, J. W. (2008). *The mixed method reader*. Sage.
- Clark, G., & Zagarell, J. (2012). Teachers and technology: A technological divide. *Childhood Education*, 88(2), 136–139.

- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Laurence Erlbaum Associates.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155–159.
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). Routledge.
- Cots, J. M., Aguilar, M., Mas-Alcolea, S., & Llanes, À. (2016). Studying the impact of academic mobility on intercultural competence: A mixed-methods perspective. *The Language Learning Journal*, *44*(3), 304–322. <https://doi.org/10.1080/09571736.2016.1198097>
- Council of Europe. (2018). *Common European framework of reference for languages: Learning, teaching and assessment. Companion volume with new descriptors*. <https://www.coe.int/en/web/common-european-framework-reference-languages>
- Courchene, R. (1996). Teaching Canadian culture: Teacher preparation. *TESL Canada Journal*, *13*(2), 1–16. <https://doi.org/10.18806/tesl.v13i2.666>
- Cowan, R., Choo, J., & Lee, G. S. (2014). ICALL for improving Korean L2 writers' ability to edit grammatical errors. *Language Learning & Technology*, *18*(3), 193–207. <https://search-proquest-com.proxy.bib.uottawa.ca/docview/1651866072?accountid=14701>
- Crane, D. (1994). Introduction: The challenge of the sociology of culture to sociology as discipline. In D. Crane (Ed.), *The sociology of culture* (pp. 1-19). Blackwell.
- Creswell, J. W., & Miller, D. (2000). Determining validity in qualitative inquiry. *Theory Into Practice*, *39*(3), 124–130.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). Sage.
- Czura, A. (2016). Major field of study and student teachers' views on intercultural communicative competence. *Language and Intercultural Communication*, *16*(1), 83–98. <http://dx.doi.org.proxy.bib.uottawa.ca/10.1080/14708477.2015.1113753>
- Dai, M., & Zhang, X. (2004). An investigation of English teacher quality in colleges and universities. *Journal of PLA University of Foreign Language*, *27*(2), 42–46.

Dai, X. (2017). The development of interculturality and the management of intercultural conflict.

In X. Dai & G.-M. Chen (Eds.), *Conflict Management and Intercultural Communication: The Art of Intercultural Harmony* (1st ed., pp. 85-97). Routledge. <https://doi-org.proxy.bib.uottawa.ca/10.4324/9781315266916>

Dai, Y., & Wu, Z. (2023). Mobile-assisted pronunciation learning with feedback from peers and/or automatic speech recognition: A mixed-methods study. *Computer Assisted Language Learning*, 36(5–6), 861–884. <https://doi.org/10.1080/09588221.2021.1952272>

Davis, B. (2004). *Inventions of teaching: A genealogy*. L. Erlbaum Associates.

Davies, G., Walker, R., Rendall, H., & Hewer, S. (2012). Introduction to computer assisted language learning (CALL). Module 1.4 in G. Davies (Ed.), *Information and communications technology for language teachers (ICT4LT)*. Thames Valley University [Online]. http://www.ict4lt.org/en/en_mod1-4.htm

DeVault, M. L. (2018). Feminist qualitative research: Emerging lines of inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (5th ed., pp. 317-349). Sage.

Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education*, 10(3), 241–266.

Desimone, L. M. (2011). A primer on effective professional development. *Phi Delta Kappan*, 92(6), 68–71. <https://doi.org/10.1177/003172171109200616>

Dooly, M. (2017). Telecollaboration. In C. A. Chapelle & S. Sauro (Eds.), *The handbook of technology and second language teaching and learning* (pp. 169-183). John Wiley & Sons. <https://doi.org/10.1002/9781118914069>

Dörnyei, Z., & Taguchi, T. (2010). *Questionnaires in second language research : Construction, administration, and processing* (2nd edition.). Routledge. <https://doi.org/10.4324/9780203864739>

Doyé, P. (1993). Fremdsprachenerziehung in der Grundschule. *Zeitschrift für Fremdsprachenforschung*, 4 (1), 48–90.

- Ellaway, R. (2020). Postmodernism and medical education. *Academic Medicine*, 95(6), 856–859. <https://doi.org/10.1097/ACM.00000000000003136>
- Ellis, R. (1994). *The study of second language acquisition*. Oxford University Press.
- Enayat, M. J., & Haghighatpasand, M. (2019). Exploiting adventure video games for second language vocabulary recall: A mixed-methods study. *Innovation in Language Learning and Teaching*, 13(1), 61–75. <http://dx.doi.org.proxy.bib.uottawa.ca/10.1080/17501229.2017.1359276>
- Engstrom, M. E., & Jewett, D. (2005). Collaborative learning the wiki way. *TechTrends*, 49(6), 12–15. <https://doi.org/10.1007/BF02763725>
- Eren, Ö. (2023). Raising critical cultural awareness through telecollaboration: Insights for pre-service teacher education. *Computer Assisted Language Learning*, 36(3), 288–311. <https://doi.org/10.1080/09588221.2021.1916538>
- Ernest, P., Guitert Catasús, M., Hampel, R., Heiser, S., Hopkins, J., Murphy, L., & Stickler, U. (2013). Online teacher development: Collaborating in a virtual learning environment. *Computer Assisted Language Learning*, 26(4), 311–333. <https://doi.org/10.1080/09588221.2012.667814>
- Eslami-Rasekh, Z., Mirzaei, A., & Dini, S. (2014). The role of asynchronous computer mediated communication in the instruction and development of EFL learners' pragmatic competence. *System*, 48, 99–111. <https://doi.org/10.1016/j.system.2014.09.008>
- Fantini, A. E. (1995). Language, culture, and world view: Exploring the nexus. *International Journal of Intercultural Relations*, 19(2), 143–153.
- Fantini, A. E. (2009). Assessing intercultural competence: Issues and tools. In D. K. Deardorff (Ed.), *The SAGE handbook of intercultural competence* (pp. 456 – 476). Sage.
- Fantini, A. E. (2018). *Intercultural communicative competence in educational exchange: A multinational perspective*. Routledge. <https://doi.org/10.4324/9781351251747>
- Ferguson-Patrick, K., & Jolliffe, W. (2018). *Cooperative learning for intercultural classrooms: Case studies for inclusive pedagogy* (1st ed.). Routledge. <https://doi-org.proxy.bib.uottawa.ca/10.4324/9781351164641>
- Fishman, J. A. (2010). Theoretical and historical perspectives on researching the sociology of language and education. In K. A. King & N. H. Hornberger (Eds.), *Research methods in*

- language and education: Encyclopedia of language and education 10* (pp.3-15). Springer.
- Forbes, K. & Fisher, L. (2020). Strategy development and cross-linguistic transfer in foreign and first language writing. *Applied Linguistics Review*, 11(2), 311–339.
<https://doi.org/10.1515/applirev-2018-0008>
- Freebody, P. (2002). *Qualitative research in education: Interaction and practice*. Sage.
- Fuchs, C., Hauck, M. & Müller-Hartmann, A. (2012) Promoting learner autonomy through multi-literacy skills development in cross-institutional exchanges. *Language Learning and Technology*, 16(3): 82–102.
- Gallois, C., Franklyn-Stokes, A., Giles, H., & Coupland, N. (1988). Communication accommodation in intercultural encounters. In Y. Y. Kim (Ed.), *Theories in intercultural communication* (pp.157-185). Sage.
- Gao, Y. (1998). Tao and Qi of intercultural communicative competence. *Language Teaching and Linguistic Studies*, (3), 39–53.
- Gao, Y. (2014). The development of conceptual framework for assessing Chinese college students' intercultural communicative competence. *Foreign Language World*, 163(4), 80–88.
- Garet, M., & Porter, A., Desimone, L., Birman, B., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4), 915–945.
<https://doi.org/10.3102/00028312038004915>
- Griffith, D. A., & Harvey, M. G. (2000). An intercultural communication model for use in global interorganizational networks. *Journal of International Marketing*, 9(3), 87–103.
- Gruba, P. (2004). Designing tasks for online collaborative language learning. *Prospect*, 19(2), 72–81.
- Gu, X. (2016). Assessment of intercultural communicative competence in FL education: A survey on EFL teachers' perception and practice in China. *Language and Intercultural Communication*, 16(2), 254–273. <https://doi.org/10.1080/14708477.2015.1083575>
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (pp. 105-117). Sage.

- Gudykunst, W. B. (1994). *Bridging differences: Effective intergroup communication* (2nd ed.). Sage.
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82.
- Guichon, N., & Hauck, M. (2011). Teacher education research in CALL and CMC: More in demand than ever. *ReCALL*, 23(3), 187–199.
<https://doi.org/10.1017/S0958344011000139>
- Guth, S., Helm, F., & O’Dowd, R. (2012). University language classes collaborating online: Report on the Integration of Telecollaborative Networks in European Universities.
https://www.unicollaboration.org/wp-content/uploads/2016/06/1.1-Telecollaboration_report_Executive_summary-Oct2012_0.pdf
- Hall, E. T. (1976). *Beyond culture*. Anchor Press/Doubleday.
- Halliday, M. A. K. (1961). Categories of the theory of grammar. *Word*, 17(2), 241–292.
- Halualani, R. T., Mendoza, S. L., & Drzewiecka, J. A. (2009). “Critical” junctures in intercultural communication studies: A review. *The Review of Communication*, 9(1), 17–35.
- Han, X. (2014). Cultivating college students’ intercultural communicative competence: From the perspective of college English teachers. *Foreign Language Research*, 178(3), 106–110.
- Han, X., & Song, L. (2011). Teacher cognition of intercultural communicative competence in the Chinese ELT context. *Intercultural Communication Studies*, 1, 175–192.
- Harding, S. (1987). Introduction: Is there a feminist method? In S. Harding (Ed.), *Feminism and methodology: Social science issues* (pp. 1–14). Indiana University Press.
- Hatch, E., & Lazaraton, A. (1991). *The research manual: Design and statistics for applied linguistics*. Newbury House.
- Hathcoat, J. D., Meixner, C., & Nicholas, M. C. (2019). Ontology and epistemology. In P. Liamputtong (Ed.), *Handbook of Research Methods in Health Social Sciences* (pp. 99–116). Springer.
- He, P., & Hu, Y. (2015). A study on the development of open education students’ critical literacy through the communities of practice on QQ platform. *Journal of Huzhou Vocational and Technological College*, (01), 9–12+18.

- Heift, T., & Schulze, M. (2015). Tutorial computer-assisted language learning. *Language Teaching*, 48(4), 471–490. <https://doi.org/10.1017/S0261444815000245>
- Heift, T., & Vyatkina, N. (2017). Technologies for teaching and learning L2 grammar. In C. A. Chapelle & S. Sauro (Eds.), *The handbook of technology and second language teaching and learning* (pp. 26-44). John Wiley & Sons. <https://doi.org/10.1002/9781118914069>
- Helm, F., Guth, S., & Farrah, M. (2012). Promoting dialogue or hegemonic practice? Power issues in telecollaboration. *Language Learning & Technology*, 16(2), 103–127.
- Helm, F. (2013). A Dialogic Model for Telecollaboration. *Bellaterra Journal of Teaching & Learning Language & Literature*, 6(2), 28–48. <https://doi.org/10.5565/rev/jtl3.522>
- Hampel, R., & Stickler, U. (2005). New skills for new classrooms: Training tutors to teach languages online. *Computer Assisted Language Learning*, 18(4), 311–326. <https://doi.org/10.1080/09588220500335455>
- Ho, S. T. K. (2009). Addressing culture in EFL classroom: The challenge of shifting from a traditional to an intercultural stance. *Electronic Journal of Foreign Language Teaching*, 6(1), 90–109.
- Hoff, H. E. (2014). A critical discussion of Byram’s model of intercultural communicative competence in the light of *bildung* theories. *Intercultural Education*, 25(6), 508–517. <https://doi.org/10.1080/14675986.2014.992112>
- Hsu, S.-Y. S., & Beasley, R. E. (2019). The effects of international email and Skype interactions on computer-mediated communication perceptions and attitudes and intercultural competence in Taiwanese students. *Australasian Journal of Educational Technology*, 35(1), 149–162. <https://doi.org/10.14742/ajet.4209>
- Hu, J., & Hu, J. (2020). Theoretical and paradigm evolution of foreign language education informatization in the past 70 years. *Technology Enhanced Foreign Language Education*, 191, 17–23.
- Hubbard, P., & Siskin, C. B. (2004). Another look at tutorial CALL. *ReCALL*, 16(2), 448–461. <https://doi.org/10.1017/S0958344004001326>
- Hymes, D. (1972). On communicative competence. *Pride and Holmes*, 2, 69–93.
- Imahori, T. T., & Lanigan, M. L. (1989). Relational model of intercultural communication competence. *Intercultural Communication Competence*, 13, 269–286.

- ISTE. (2008). The ISTE national educational technology standards (NETS•T) and performance indicators for teachers. <http://www.csun.edu/science/standards/technology/iste.html>
- Jia, L., Zhang, G., & Shi, C. (2016). Flipping Medical English Reading Class based on Wechat public platform and Wechat community. *Technology Enhanced Foreign Language Education*, 168 (2), 65–69.
- Kalinowski, E., Gronostaj, A., & Vock, M. (2019). Effective professional development for teachers to foster students' academic language proficiency across the curriculum: A systematic review. *AERA Open*, 5(1), 1–23. <https://doi.org/10.1177/2332858419828691>
- Kelchtermans, G. (2004). CPD for professional renewal: Moving beyond knowledge for practice. In C. Day & J. Sachs (Eds.), *International handbook on the continuing professional development of teachers* (pp. 217-237). Open University Press.
- Kern, R. G. (1995). Restructuring classroom interaction with networked computers: Effects on quantity and characteristics of language production. *The Modern Language Journal*, 79(4), 457–476.
- Kern, R. G., & Warschauer, M. (2000). Theory and practice of network-based language teaching. In M. Warschauer & R. Kern (Eds.), *Network-based language teaching: Concepts and practice* (pp. 1-19). Cambridge University Press.
- Khateeb, A. A. A. (2018). Assessing English teachers as a foreign language (EFL) telecollaborative competence: A case study from Saudi Arabia. *English Language Teaching*, 11(4), 52–69. <https://doi.org/10.5539/elt.v11n4p52>
- Kim, C., Kim, M. K., Lee, C., Spector, M., & DeMeester, K. (2013). Teacher beliefs and technology integration. *Teaching and Teacher Education*, 29, 76–85.
- King, N. (2004). Using interviews in qualitative research. In C. Cassell & G. Symon (Eds.), *Essential guide to qualitative methods in organizational research* (pp. 11-22). SAGE Publications.
- King, P. M., & Baxter Magolda, M. B. (2005). A developmental model of intercultural maturity. *Journal of College Student Development*, 46(6), 571–592.
- Koehler, M., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education*, 9(1), 60–70 <https://www.learntechlib.org/primary/p/29544/>.

- Kohli Bagwe, T., & Haskollar, E. (2020). Variables impacting intercultural competence: A systematic literature review. *Journal of Intercultural Communication Research*, 49(4), 346–371. <https://doi.org/10.1080/17475759.2020.1771751>
- Kramersch, C. (1998). *Language and culture*. Oxford University Press.
- Kreijns, K., Kirschner, P. A., & Jochems, W. (2003). Identifying the pitfalls for social interaction in computer-supported collaborative learning environments: A review of the research. *Computers in Human Behavior*, 19(3), 335–353. [https://doi.org/10.1016/S0747-5632\(02\)00057-2](https://doi.org/10.1016/S0747-5632(02)00057-2)
- Kurek, M., & Müller-Hartmann, A. (2017). Task design for telecollaborative exchanges: In search of new criteria. *System (Linköping)*, 64, 7–20. <https://doi.org/10.1016/j.system.2016.12.004>
- Kusumaningputri, R., & Widodo, H. P. (2018). Promoting Indonesian university students' critical intercultural awareness in tertiary EAL classrooms: The use of digital photograph-mediated intercultural tasks. *System*, 72, 49–61. <https://doi.org/10.1016/j.system.2017.10.003>
- Lantolf, J. P., & Johnson, K. E. (2007). Extending Firth and Wagner's (1997) ontological perspective to L2 classroom praxis and teacher education. *The Modern Language Journal (Boulder, Colo.)*, 91(s1), 877–892. <https://doi.org/10.1111/j.1540-4781.2007.00675.x>
- Lee, L. (2009). Promoting intercultural exchanges with blogs and podcasting: A study of Spanish–American telecollaboration. *Computer Assisted Language Learning*, 22(5), 425–443.
- Lee, L. (2011). Focus-on-form through peer feedback in a Spanish–American telecollaborative exchange. *Language Awareness*, 20(4), 343–357. <https://www.tandfonline.com/doi/abs/10.1080/09658416.2011.592589>
- Lee, L., & Markey, A. (2014). A study of learners' perceptions of online intercultural exchange through Web 2.0 technologies. *ReCALL*, 26(3), 281–297. <https://doi.org/10.1017/S0958344014000111>
- Lee, E., & Oh, S. Y. (2015). *Computer-mediated communication*. (Oxford bibliographies. Communication). DOI: 10.1093/OBO/9780199756841-0160

- Leung, K., Ang, S., & Tan, M. L. (2014). Intercultural competence. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 489–519.
<https://doi.org/10.1146/annurev-orgpsych-031413-091229>
- Levy, M. (1997). *CALL: Context and conceptualisation*. Oxford University Press.
- Li, C., Wu, L., Li, C., & Tang, J. (2017). Exploring meaning negotiation patterns in synchronous audio and video conferencing English classes in China. In K. Borthwick, L. Bradley & S. Thouësny (Eds.), *CALL in a climate of change: Adapting to turbulent global conditions – short papers from EUROCALL 2017* (pp. 194-199). Research-publishing.net.
<https://doi.org/10.14705/rpnet.2017.eurocall2017.712>
- Li, N., & Kirkup, G. (2008). Gender and cultural differences in Internet use: A study of China and the UK. *Computers and Education*, 48, 301–317.
- Li, X., & Cao, H. (2017). Research on VR-supported flipped classroom based on seamless learning: A case study in News English Audio-Visual Course. *Modern Educational Technology*, 27(12), 69–74.
- Li, X., & Wang, Y. (2014). The application of CMIC in cultivating learners' cross-cultural communication competence. *Applied Mechanics and Materials*, 610, 667–672.
<https://doi.org/10.4028/www.scientific.net/AMM.610.667>
- Liang, L. (2010). Research on the application of the network communication approach in an intercultural communication course. *China Educational Technology*, 287, 45–49.
- Liddicoat, A. J., Papademetre, L., Scarino, A., & Kohler, M. (2003). *Report on intercultural language learning*. Canberra ACT: Commonwealth of Australia.
- Lin, H. (2015). A meta-synthesis of empirical research on the effectiveness of computer-mediated communication (CMC) in SLA. *Language, Learning and Technology*, 19(2), 85–117. <https://doi.org/10.1016/j.system.2011.05.003>.
- Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage.
- Ling, Q., Wang, H., & Wang, Z. (2019). A study on the effectiveness of mobile game-based learning for vocabulary acquisition among college learners. *Technology Enhanced Foreign Language Education*, 190(6), 9–15.
- Liu, D. (2015). A study of intercultural communicative competence model and development: From the intercultural, intertextual and intersubjective perspective. *Foreign Language Research*, (6), 127–131.

- Liu, P., Zeng, W. & Liu, Z. (2020). Corpus-based data-driven learning of ESP vocabulary for doctoral students. *Foreign Language Research*, 212(1), 64–69.
- Loveday, L. (1981). *The sociolinguistics of learning and using a non-native language*. Pergamon.
- Lu, R., & Goodale, T. A. (2015). Effects of online synchronous videoconference on English oral competence: A case study on co-operative learning between Chinese and American college students. *Education and Teaching Research*, 29(11), 66–70.
- Ma, L. P. F. (2012). Strengths and weaknesses of NESTs and NNESTs: Perceptions of NNESTs in Hong Kong. *Linguistics and Education*, 23(1), 1–15.
<https://doi.org/10.1016/j.linged.2011.09.005>
- Mackey, A., & Gass, S. M. (2012). *Research methods in second language acquisition a practical guide* (1st ed.). Wiley-Blackwell.
- Mangenot, F., & Nissen, E. (2013). Collective activity and tutor involvement in e-learning environments for language teachers and learners. *CALICO Journal*, 23(3), 601–622.
<https://doi.org/10.1558/cj.v23i3.601-622>
- Menard-Warwick, J., Heredia-Herrera, A., & Palmer, D. S. (2013). Local and global identities in an EFL Internet chat exchange. *The Modern Language Journal*, 97(4), 965–980.
- Merlo, J. R., & Gruba, P. A. (2015). Contemporary tutorial call: Using purpose-built video as a grammar tutor. *Australian Review of Applied Linguistics*, 38(1), 50–65.
<https://doi.org/10.1075/aral.38.1.03mer>
- Ministry of Education of the People's Republic of China. (2012). *Notice on printing and distributing the Ten-Year Development Plan for Education Informatization (2011-2020) by the Ministry of Education*.
http://old.moe.gov.cn//publicfiles/business/htmlfiles/moe/s3342/201203/xxgk_133322.html
- Mirzaei, A., Hashemian, M., & Khoramshekouh, A. (2016). L2 learners' enhanced pragmatic comprehension of implicatures via computer-mediated communication and social media networks. *Iranian Journal of Applied Linguistics*, 19(1), 141–180.
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108, 1017–1054.

- MOE Advisory Board for Foreign Language Teaching. (2020). *Guidance to college English teaching*. Higher Education Press.
- Moeller, A. J., & Osborn, S. R. F. (2014). A pragmatist perspective on building intercultural communicative competency: From theory to classroom practice. *Foreign Language Annals*, 47(4), 669–683. <http://dx.doi.org.proxy.bib.uottawa.ca/10.1111/flan.12115>
- Mou, Y., Zhu, L., & Shen, W. (2013). The effects of intercultural email exchange on learners' English writing performance. *Modern Distance Education Research*, 121(1), 78–84.
- Mu, W., & Lv, M. (2013). On the influence of the Internet environment on college students' intercultural communicative competence. *China Educational Technology*, 317, 125–127.
- Müller-Hartmann, A. (2012). The classroom-based action research paradigm in telecollaboration. In M. Dooly & R. O'Dowd (Eds.), *Research methods for online interaction and exchange* (pp. 156-192). Peter Lang.
- Nadeem, M. U., Mohammed, R., & Dalib, S. (2017). A proposed model of intercultural communication competence (ICC) in Malaysian context. *International Journal of Educational Research Review*, 2(2), 11–11. <https://doi.org/10.24331/ijere.327470>
- Navas, M., García, M. C., Sánchez, J., Rojas, A. J., Pumares, P., & Fernández, J. S. (2005). Relative acculturation extended model (RAEM): New contributions with regard to the study of acculturation. *International Journal of Intercultural Relations*, 29(1), 21–37.
- Nulty, D. D. (2008). The adequacy of response rates to online and paper surveys: What can be done? *Assessment & Evaluation in Higher Education*, 33(3), 301–314. <https://doi.org/10.1080/02602930701293231>
- O'Dowd, R. (2005). Negotiating sociocultural and institutional contexts: The case of Spanish–American telecollaboration. *Language and Intercultural Communication*, 5(1), 40–56.
- O'Dowd, R. (2007). *Online intercultural exchange: An introduction for foreign language teachers*. Multilingual Matters.
- O'Dowd, R. (2012). Intercultural communicative competence through telecollaboration. In J. Jackson (Ed.), *The Routledge handbook of language and intercultural communication* (pp. 340-356). Routledge.
- O'Dowd, R. (2015). The competences of the telecollaborative teacher. *The Language Learning Journal*, 43(2), 194–207. <https://doi.org/10.1080/09571736.2013.853374>

- O'Dowd, R., & Dooly, M. (2020). Intercultural communicative competence development through telecollaboration and virtual exchange. In J. Jackson (Ed.), *The Routledge handbook of language and intercultural communication* (2nd ed., pp. 361-375). Routledge. <https://doi-org.proxy.bib.uottawa.ca/10.4324/9781003036210>
- Ono, H., & Zavodny, M. (2007). Digital inequality: A five country comparison using microdata. *Social Science Research*, 36(3), 1135–1155. <https://doi.org/10.1016/j.ssresearch.2006.09.001>
- Otto, S. E. K. (2017). From past to present: A hundred years of technology for L2 learning. In C. A. Chapelle & S. Sauro (Eds.), *The handbook of technology and second language teaching and learning* (pp. 10-25). John Wiley & Sons. <https://doi.org/10.1002/9781118914069>
- Özdemir, E. (2017). Promoting EFL learners' intercultural communication effectiveness: A focus on Facebook. *Computer Assisted Language Learning*, 30(6), 510–528. <http://dx.doi.org.proxy.bib.uottawa.ca/10.1080/09588221.2017.1325907>
- Pan, B., & Rong, J. (2000). E-mail aided cross-cultural communications teaching. *Media in Foreign Language Instruction*, (4), 30–33.
- Pan, X. (1996). An analysis of intercultural communication competence. *Foreign Language Research*, 84 (2), 32–34.
- Park, M., & So, K. (2014). Opportunities and challenges for teacher professional development: A case of collaborative learning community in South Korea. *International Education Studies*, 7(7), 96–108. <https://doi.org/10.5539/ies.v7n7p96>
- Pedersen, & Nielsen, C. V. (2016). Improving survey response rates in online panels: Effects of low-cost incentives and cost-free text appeal interventions. *Social Science Computer Review*, 34(2), 229–243. <https://doi.org/10.1177/0894439314563916>
- Peng, X., & Davies, M. (2020). The Internet-based English corpus iWeb and its application in teaching and learning English as a second language. *Technology Enhanced Foreign Language Education*, 194(4), 12–12, 73–81.
- Perry, L. B., & Southwell, L. (2011). Developing intercultural understanding and skills: Models and approaches. *Intercultural Education*, 22(6), 453–466.
- Qin, X., & Bi, J. (2015). *Quantitative approaches and quantitative data analysis in L2 research*. Foreign Language Teaching and Research Press.

- Rahimi, M., & Fathi, J. (2022). Employing e-tandem language learning method to enhance speaking skills and willingness to communicate: The case of EFL learners. *Computer Assisted Language Learning*. <https://doi.org/10.1080/09588221.2022.2064512>
- Rathje, S. (2007). Intercultural competence: The status and future of a controversial concept. *Language and Intercultural Communication*, 7(4), 254–266.
- Ravandpour, A. (2019). The relationship between EFL teachers' continuing professional development and their self-efficacy: A structural equation modeling approach. *Cogent Psychology*, 6. <https://doi.org/10.1080/23311908.2019.1568068>
- Reja, U., Manfreda, K. L., Hlebec, V., & Vehovar, V. (2003). Open-ended vs. closed-ended questions in web questionnaires. *Developments in Applied Statistics*, 19, 159–77.
- Ren, S., & Liang, W. (2014). An empirical study of the effect of the international telecollaboration course on intercultural communicative competence. *Foreign Language World*, 165(6), 87–94.
- Riazi, A. M., & Candlin, C. N. (2014). Mixed-methods research in language teaching and learning: Opportunities, issues and challenges. *Language Teaching*, 47(2), 135–173. <https://doi.org/10.1017/S0261444813000505>
- Ruan, Q. (2014). A study on the development of students' critical literacy through the communities of practice on QQ platform. *Computer Assisted Foreign Language Education*, 156(2), 48–54.
- Ryshina-Pankova, M. (2018). Discourse moves and intercultural communicative competence in telecollaborative chats. *Language Learning & Technology*, 22(1), 218–239.
- Sadler, R., & Dooly, M. (2016) Twelve years of telecollaboration: What we have learnt. *ELT Journal*, 70(4), 401–413. <https://doi.org/10.1093/elt/ccw041>
- Savin-Baden, M., & Howell Major, C. (2013). *Qualitative research. The essential guide to theory and practice*. Routledge
- Schenker, T. (2012). Intercultural competence and cultural learning through telecollaboration. *CALICO Journal*, 29(3), 449–470.
- Schwandt, T. A. (2001). *Dictionary of qualitative inquiry* (2nd ed.). Sage.
- Sercu, L., & Bandura, E. (2005). *Foreign language teachers and intercultural communication: An international investigation*. Multilingual Matters.

- Shang, J., & Zhang, W. (2011). On the application of e-mail in English teaching and learning in local Colleges: An empirical study in Xuzhou institute of technology. *Journal of Tongling University*, 5, 123–125.
- Sharan, S. (1990). *Cooperative learning: Theory and research*. Praeger.
- Shetzer, H., & Warschauer, M. (2000). An electronic literacy approach to network-based language teaching. In M. Warschauer & R. Kern (Eds.), *Network-based language teaching: Concepts and practice* (pp. 171-185). Cambridge University Press.
- Shi, X. (2014). Practice and research of Skype applied to intercultural collaborative learning under the concept of third space. *Distance Education in China*, 11, 64–68.
- Shi, X., & Zhu, X. (2015). Retrospect and prospect of intercultural communication studies in China in last ten Years. *Foreign Languages in China*, 12(6), 58–64.
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4–14.
- Siemens, G. (2004). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology & Distance Learning*, 2(1), 3–10.
- Smith, B., & MacGregor, J. (1992). What is collaborative learning? In A. Goodsell, M. Maher, V. Tinto, B. Smith & J. MacGregor (Eds.), *Collaborative learning: A sourcebook for higher education* (pp. 10-30). National Centre for Postsecondary Teaching and Learning, and Assessment at Pennsylvania State University.
- Spitzberg, B. H. (1993). The dialectics of (in)competence. *Journal of Social and Personal Relationships*, 10(1), 137–158.
- Spitzberg, B. H., & Changnon, G. (2009). Conceptualizing intercultural competence. In D. K. Deardorff (Ed.), *The SAGE handbook of intercultural competence* (pp. 2-52). Sage.
- Sprague, J. (2010). Seeing through science: Epistemologies. In W. Luttrell (Ed.), *Qualitative educational research: Readings in reflexive methodology and transformative practice* (pp. 78-94). Routledge.
- Starkey, L. (2020). A review of research exploring teacher preparation for the digital age. *Cambridge Journal of Education*, 50(1), 37–56.
<https://doi.org/10.1080/0305764X.2019.1625867>
- Stern, H. (1983). *Fundamental concepts of language teaching*. Oxford University Press.

- Stockwell, G. (2022). Historical foundations of technology in SLA. In N. Ziegler & M. González-Lloret (Eds.), *The Routledge handbook of second language acquisition and technology* (1st ed., pp.9-20). Routledge. <https://doi.org/10.4324/9781351117586>
- Su, Y., & Su, Y. (2015). Development and application of integrable wares of mobile learning games for college students to learn English words: Taking the game of “Happy Farm” as an example. *Technology Enhanced Foreign Language Education*, 165, 30–96.
- Swain, M. (2001). Integrating language and content teaching through collaborative tasks. *Canadian Modern Language Review*, 58(1), 44–63. <https://doi.org/10.3138/cmlr.58.1.44>
- Sykes, J. M. (2017). Technologies for teaching and learning intercultural competence and interlanguage pragmatics. In C. A. Chapelle & S. Sauro (Eds.), *The handbook of technology and second language teaching and learning* (pp. 118-133). John Wiley & Sons. <https://doi.org/10.1002/9781118914069>
- Tajfel, H. (1981). *Human groups and social categories*. Cambridge University Press.
- Tan, W. (2013). Electron exchange language learning method in university English teaching. *Journal of Nanchang College of Education*, 28(2), 149–153.
- Tang, X. (2019). The effects of task modality on L2 Chinese learners’ pragmatic development: Computer-mediated written chat vs. face-to-face oral chat. *System*, 80, 48–59.
- TESOL International Association (2008). *TESOL technology standards framework*. Teachers of English to Speakers of Other Languages.
- Thorne, S. L. (2003). Artifacts and cultures-of-use in intercultural communication. *Language Learning & Technology*, 7(2), 38–67.
- Thorne, S. L., & Payne, J. S. (2005). Evolutionary trajectories, Internet-mediated expression, and language education. *CALICO Journal*, 22(3), 371–397.
- Ting-Toomey, S., & Kurogi, A. (1998). Facework competence in intercultural conflict: An updated face-negotiation theory. *International Journal of Intercultural Relations*, 22(2), 187–225.
- Tomlinson, B., & Musuhara, H. (2004). Developing cultural awareness. *MET*, 13(1), 1–7.
- Trilokekar, R. D., & Rasmi, S. (2011). Student perceptions of international education and study abroad: A pilot study at York University, Canada. *Intercultural Education*, 22(6), 495–511. <https://doi.org/10.1080/14675986.2011.644951>

- UNESCO. (2008). ICT competency standards for teachers: Competency standards modules. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000156207_eng
- van Dijk, T. (2015). Critical discourse analysis. In D. Schiffrin, D. Tannen & H. Hamilton (Eds.), *The handbook of discourse analysis* (pp. 466-485). Blackwell.
- Van Ek, J. (1986). *Objectives for foreign language learning*. Council of Europe.
- van Veen, K., Zwart, R., & Meirink, J. (2012). What makes teacher professional development effective? A literature review. In M. Kooy & K. van Veen. (Eds), *Teacher learning that matters: International perspectives* (pp. 3–21). Routledge.
- Vande Berg, M., Connor-Linton, J., & Paige, R. M. (2009). The Georgetown Consortium Project: Interventions for student learning abroad. *Frontiers*, 18(1), 1–75. <https://doi.org/10.36366/frontiers.v18i1.251>
- Vinagre, M. (2016). Training teachers for virtual collaboration: A case study. *British Journal of Educational Technology*, 47(4), 787–802. <https://doi.org/10.1111/bjet.12363>
- Vinagre, M. (2017). Developing teachers' telecollaborative competences in online experiential learning. *System*, 64, 34–45. <https://doi.org/10.1016/j.system.2016.12.002>
- Von Humboldt, W. (2000). Theory of Bildung. In I. Westbury, S. Hopmann, & K. Riquarts (Eds.), *Teaching as a reflective practice: The German Didaktik tradition* (pp. 57–61). Lawrence Erlbaum.
- Voogt, J., Fisser, P., Pareja Roblin, N., Tondeur, J., & van Braak, J. (2013). Technological pedagogical content knowledge - a review of the literature. *Journal of Computer Assisted Learning*, 29(2), 109–121. <https://doi.org/10.1111/j.1365-2729.2012.00487.x>
- Vygotsky, L. S. (1978). *Mind in society*. Harvard University Press.
- Wang, X. & Chen, D. (2011). An EFL program in Second Life: What we learned from the students. *Computer Assisted Foreign Language Education*, 140(4), 21–27.
- Wang, X., & Xiao, X. (2006). The cultivation of intercultural communication competence by using networked modern multimedia in teaching. *Journal of Sichuan International Studies University*, 22(6), 134–136+141.
- Wang, J. (2016). CMC foreign language cooperative learning under the context of university education internationalization: The practice of Sino-American GU in Henan Polytechnic University. *Wenjiaoziliao*, 706(2), 167–169.

- Wang, J., & Yu, S. (2017). Research on cultivating primary students' intercultural communication literacy with E-mail based on CMC. *Modern Long-Distance Education*, 4, 44–50.
- Wang, Z., & Zhang, J. (2020). Construction of blended learning in Mosoteach learning management System: A case study of English linguistics. *China Educational Technology*, 398(3), 100–105.
- Ware, P., & Kramsch, C. (2005). Toward an intercultural stance: Teaching German and English through telecollaboration. *The Modern Language Journal*, 89(2), 190–205.
- Warschauer, M., & Healey, D. (1998). Computers and language learning: An overview. *Language Teaching*, 31, 57-71.
- Wu, H. (2019). Improving EFL learners' temporal variables of oral fluency based on WeChat: An empirical study. *Journal of Nanchang Hangkong University: Social Sciences*, 33(4), 110–115.
- Xiao, F., & Zhang, J. (2012). The construction of intercultural competence index in international business. *Statistics and Decision*, 367(19), 84–88.
- Xiong, S. (2017). The effects of telecollaboration between Chinese EFL learners and American students on Chinese learners' English writing. *Journal of Xi'an International Studies University*, 25(3), 73–78.
- Xu, B., & Huang, S. (1998). On intercultural communicative competence. *Foreign Language Research*, 91(1), 60–62.
- Xu, D. (2016). The theoretical basis of intercultural communicative competence: Gudykunst's Anxiety/Uncertainty Management (AUM) Theory. *Journalism Bimonthly*, 135(1), 56–63+153.
- Xu, L. (2011). Intercultural competence revisited. *Journal of Zhejiang University (Humanities and Social Sciences)*, 41(3), 132–139.
- Yang, M. (2017). The construction of intercultural competence model in university education circumstance. *Journal of Educational Science of Hunan Normal University*, 16(4), 113–116.
- Yang, D., Wang, W., & Ning, D. (2014). Wiki and collaborative English language teaching project: A case study. *Computer Assisted Foreign Language Education*, 159(5), 28–33.

- Yang, Y., & Zhuang, N. (2007). Constructing a framework of intercultural communicative competence in foreign language teaching. *Foreign Language World*, 121(4), 13–21+43.
- Yeh, H.-C., & Wang, K. (2016). “The third place” of intercultural communication. *Seeker*, (5), 42–46.
- Yeh, H.-C., & Heng, L. (2022). Creating a virtual “third space” in a telecollaborative project to promote English as a Foreign Language (EFL) learners’ language proficiency and intercultural awareness. *Interactive Learning Environments*.
<https://doi.org/10.1080/10494820.2022.2043384>
- Yoshii, R., & Milne, A. (2013). DaRT: A CALL system to help students practice and develop reasoning skills in choosing English articles. *CALICO Journal*, 16(2), 121–155.
<https://doi.org/10.1558/cj.v16i2.121-155>
- Yuan, M. (2008). A survey of college English teachers’ acceptance on cooperative learning. *Foreign Language Education*, 29(2), 51–55.
- Yue, N. (2017). Computer multimedia assisted English vocabulary teaching courseware. *International Journal of Emerging Technologies in Learning (IJET)*, 12(12), 67–78.
<https://doi.org/10.3991/ijet.v12i12.7955>
- Yue, J. (2019). Use of foreign films in cultivating intercultural communicative competence in ELT: A case study. *Theory and Practice in Language Studies*, 9(2), 198–203.
<http://dx.doi.org.proxy.bib.uottawa.ca/10.17507/tpls.0902.09>
- Yuen, C. Y. (2010). Dimensions of diversity: Challenges to secondary school teachers with implications for intercultural teacher education. *Teaching and Teacher Education*, 26(3), 732–741. <https://doi.org/10.1016/j.tate.2009.10.009>
- Zhang, C. (2014). Quantitative research on the teacher knowledge of Chinese University EFL teachers: Based on intercultural communication competence development. *Foreign Languages in China*, 62(6), 91–95+105.
- Zhang, F. (2019). Factors influencing Blackboard online forum posts—College English as a case. *Technology Enhanced Foreign Language Education*, 185, 90–96.
- Zhang, W., Guo, Q., Wu, S., & Zhang, H. (2017). Status quo of and reform proposals for English education in China: Based on a survey of status quo and reform needs of foreign language testing in China. *Foreign Languages in China*, 14(6), 18–26.

- Zhang, Y., & Yang, Y. (2006). New mold of language teaching based on Web and intercultural communication competence. *Computer-Assisted Foreign Language Education, 110*, 75–79.
- Zhang, W., & Yang, L. (2012). The development of a system of intercultural communicative competence based on the perspective of foreign language education and an empirical method. *Foreign Language World, 149*(2), 8–16.
- Zheng, P. (2011). A study on the role of text-based synchronous computer-mediated communication in developing oral proficiency. *Computer Assisted Foreign Language Education, 141*, 32–37.
- Zhu, H. (2014). *Exploring intercultural communication: Language in action*. Routledge.

Appendix A

IC Descriptors in Byram's (1997) Model of Intercultural Communicative Competence

1. Attitudes (5 descriptors)

willingness to seek out or take up opportunities to engage with otherness in a relationship of equality, distinct from seeking out the exotic or the profitable

The intercultural speaker is interested in the other's experience of daily life in contexts not usually presented to outsiders through the media nor used to develop a commercial relationship with outsiders; is interested in the daily experience of a range of social groups within a society and not only that represented in the dominant culture.

Interest in discovering other perspectives on interpretation of familiar and unfamiliar phenomena both in one's own and in other cultures and cultural practices

The intercultural speaker does not assume that familiar phenomena, cultural practices or products common to themselves and the other are understood in the same way, or that unfamiliar phenomena can only be understood by assimilating them to their own cultural phenomena; and is aware that they need to discover the other person's understanding of these, and of phenomena in their own culture which are not familiar to the other person.

willingness to question the values and presuppositions in cultural practices and products in one's own environment

The intercultural speaker actively seeks the other's perspectives and evaluations of phenomena in the intercultural speaker's environment which are taken for granted and takes up the other's perspectives in order to contrast and compare with the dominant evaluations in their own society.

readiness to experience the different stages of adaption to and interaction with another cultural during a period of residence

The intercultural speaker is able to cope with their own different kinds of experience of otherness (e.g. enthusiasm, withdrawal) during residence and place them in a longer-term context of phases of acceptance and rejection.

readiness to engage with the conventions and rites of verbal and non-verbal communication and interaction

The intercultural speaker notes and adopts the behaviors specific to a social group in a way which they and the members of that group consider to be appropriate for an outsider;

the intercultural speaker takes into consideration the expectations the others may have about appropriate behavior from foreigners.

2. Knowledge (11 descriptors)

historical and contemporary relationships between one's own and one's interlocutor's countries

The intercultural speaker knows about events, significant individuals and diverse interpretations of events which have involved both countries and the traces left in the national memory; and about political and economic factors in the contemporary alliances of each country.

the means of achieving contact with interlocutors from another country (at a distance or in proximity), of travel to and from and the institutions which facilitate contact or help resolve problems

The intercultural speaker knows about (and how to use) telecommunications, consular and similar services, modes and means of travel, and public and private organizations which facilitate commercial, cultural/leisure and individual partnerships across frontiers.

the types of cause and process of misunderstanding between interlocutors of different cultural origins

The intercultural speaker knows about conventions of communication and interaction in their own and the foreign cultures, about the unconscious effects of paralinguistic and non-verbal phenomena, about alternative interpretations of shared concepts, gestures, customs and rituals.

the national memory of one's own country and how its events are related to and seen from the perspective of one's interlocutor's country

The intercultural speaker knows the events and their emblems (myths, cultural products, sites of significance to the collective memory) which are markers of national identity in one's own country as they are portrayed in public institutions and transmitted through processes of socialization, particularly those experienced in schools; and is aware of other perspectives on those events.

the national memory of one's interlocutor's country and the perspective on it from one's own

The intercultural speaker knows about the national memory of the other in the same way as their own (see above).

the national definitions of geographical space in one's own country and how these are perceived from the perspective of other countries

The intercultural speaker knows about perceptions of regions and regional identities, of language varieties (particularly regional dialects and languages), of landmarks of significance, of markers of internal and external borders and frontiers, and how these are perceived by others.

the national definitions of geographical space in one's interlocutor's country and the perspective on them from one's own

The intercultural speaker knows about perceptions of space in the other country as they do about their own (see above).

the processes and institutions of socialization in one's own and one's interlocutor's country

The intercultural speaker knows about education systems, religious institutions, and similar locations where individuals acquire a national identity, are introduced to the dominant culture in their society, pass through specific rites marking stages in the life-cycle, in both their own and the other country.

social distinctions and their principal markers, in one's own country and one interlocutor's

The intercultural speaker knows about the social distinctions dominant in the two countries e.g. those of social class, ethnicity, gender, profession, religion and how these are marked by visible phenomena such as clothing or food, and invisible phenomena such as language variety e.g. minority languages, and socially determined accent or non-verbal behavior, or modes of socialization and rites of passage.

institutions, and perceptions of them, which impinge on daily life within one's own and one's interlocutor's country and which conduct and influence relationships between them

The intercultural speaker knows about public or private institutions which affect the living conditions of the individual in the two countries e.g. with respect to health, recreation, financial situation, access to information in the media, access to education.

the processes of social interaction in one's interlocutor's country

The intercultural speaker knows about levels of formality in the language and non-verbal behavior of interaction, about conventions of behavior and beliefs and taboos in routine situations such as meals, different forms of public and private meeting, public behavior such as use of transport etc.

3. Skills of interpreting and relating (3 descriptors)

identify ethnocentric perspectives in a document or even and explain their origins

The intercultural speaker: can “read” a document or event, analyzing its origins/sources e.g. in the media, in political speech or historical writing and the meanings and values which arise from a national or other ethnocentric perspective (stereotypes, historical connotations in texts) and which are presupposed and implicit, leading to conclusions which can be challenged from a different perspective.

identify areas of misunderstanding and dysfunction in an interaction and explain them in terms of each of the cultural systems present

The intercultural speaker can identify causes of misunderstanding (e.g. use of concepts apparently similar but with different meanings or connotations; use of genres in inappropriate situations; introduction of topics inappropriate to a context, etc.) and dysfunctions (e.g. unconscious response to unfamiliar non-verbal behavior, proxemic and paralanguage phenomena; over-generalization from examples; mistaken assumptions about representativeness of views expressed); and can explain the errors and their causes by reference to knowledge of each culture involved.

mediate between conflicting interpretations of phenomena

The intercultural speaker can use their explanations of sources of misunderstanding and dysfunction to help interlocutors overcome conflicting perspectives; can explain the perspective of each and the origins of those perspectives in terms accessible to the other; can help interlocutors to identify common ground and unresolvable difference.

4. Skills of discovery and interaction (7 descriptors)

elicit from an interlocutor the concepts and values of documents or events and develop an explanatory system susceptible of application to other phenomena

The intercultural speaker can use a range of questioning techniques to elicit from informants the allusions, connotations and presuppositions of a document or event and their origins/sources, and can develop and test generalizations about shared meanings and values (by using them to interpret another document; by questioning another informant; by consulting appropriate literature) and establish links and relationships among them (logical relationships of hierarchy, of cause and effect, of conditions and consequence, etc.).

identify significant references within and across cultures and elicit their significance and connotations

The intercultural speaker can “read” a document or event for the implicit references to shared meanings and values (of national memory, of concepts of space, of social distinction, etc.) particular to the culture of their interlocutor, or of international currency (arising for example from the dominance of western satellite television); in the latter case, the intercultural speaker can identify or elicit different interpretations and connotations and establish relationships of similarity and difference between them.

identify similar and dissimilar processes of interaction, verbal and non-verbal, and negotiate an appropriate use of them in specific circumstances

The intercultural speaker can use their knowledge of conventions of verbal and non-verbal interaction (of conversational structures; of formal communication such as presentations; of written correspondence; of business meetings; of informal gatherings, etc.) to establish agreed procedures on specific occasions, which may be a combination of conventions from the different cultural systems present in the interaction.

use in real-time an appropriate combination of knowledge, skills and attitudes to interact with interlocutors from a different country and culture, taking into consideration the degree of one's existing familiarity with the country and culture and the extent of difference between one's own and the other

The intercultural speaker is able to estimate their degree of proximity to the language and culture of their interlocutor (closely related cultures; cultures with little or no contact or little or no shared experience of international phenomena; cultures sharing the “same” language; cultures with unrelated languages) and to draw accordingly on skills of interpreting, discovering, relating different assumptions and presuppositions or connotations in order to ensure understanding and avoid dysfunction.

identify contemporary and past relationships between one's own and the other culture and country

The intercultural speaker can use sources (e.g. reference books, newspapers, histories, experts, lay informants) to understand both contemporary and historical political, economic and social relationships between cultures and societies and analyze the differing interpretations involved.

identify and make use of public and private institutions which facilitate contact with other countries and cultures

The intercultural speaker can use their general knowledge of institutions facilitating contacts to identify specific institutions (consulates, cultural institutes, etc.) to establish and maintain contacts over a period of time.

use in real-time knowledge, skills and attitudes for mediation between interlocutors of one's own and a foreign culture

The intercultural speaker can identify and estimate the significance of misunderstandings and dysfunctions in a particular situation and is able to decide on and carry out appropriate intervention, without disrupting interaction and to the mutual satisfaction of the interlocutors.

5. Critical cultural awareness/political education (3 descriptors)

identify and interpret explicit or implicit values in documents and events in one's own and other cultures

The intercultural speaker: can use a range of analytical approaches to place a document or event in context (of origins/sources, time, place, other documents or events) and to demonstrate the ideology involved.

make an evaluative analysis of the documents and event which refers to an explicit perspective and criteria

The intercultural speaker is aware of their own ideological perspectives and values ("human rights"; socialist; liberal; Moslem; Christian etc.) and evaluates documents or events with explicit reference to them.

interact and mediate in intercultural exchanges in accordance with explicit criteria, negotiating where necessary a degree of acceptance of those exchanges by drawing upon one's knowledge, skills and attitudes

The intercultural speaker is aware of potential conflict between their own and other ideologies and is able to establish common criteria of evaluation of documents or events, and where this is not possible because of incompatibilities in belief and value systems, is able to negotiate agreement on places of conflict and acceptance of difference.

Appendix B

Message in Chinese to the Head of Foreign Language Faculty for Pilot Study

亲爱的陈院长:

我的博士论文的研究目标是提高中国高校英语教师的远程协作能力以及他们对跨文化交际能力的理解。我想邀请我们学院的相关老师进行试点研究。试点研究用于检验问卷的信度,需要我院的教师参与者完成同一份问卷两次,时间间隔约两周。本研究已经通过了渥太华大学的伦理审核。我请教过我校的人文社科处和科技处,学校对于该项研究的伦理审核没有明确的规定和手续,因此向您请示。如果您批准,我将邀请学院老师参加。谢谢!

刘丽敏

Appendix C

Recruiting Message to Teachers of the Pilot Study

亲爱的老师，您好！

我想邀请您参加我博士论文的试点研究。这个研究用于检验问卷的信度，需要您完成同一份网络问卷两次，每次的时间约为 5 分钟，两次的时间间隔约为两周。本研究已经通过了渥太华大学的伦理审核并在 XXX 大学外国语学院报备。不知您是否愿意参加？如果您愿意参加，请填写知情同意书，并在您方便的时候点击以下问卷链接，填写问卷 <https://www.surveymonkey.ca/r/F9NDMPD> 如果链接无法直接打开，请将链接地址复制到浏览器里，手机、电脑、ipad 都可以。请注意每项都要选，尤其是 57 题。谢谢！

刘丽敏

Appendix D

Consent Form for the Pilot Study



Université d'Ottawa
Faculté d'éducation

University of Ottawa
Faculty of Education

Ph.D. Thesis

Intercultural Communicative Competence and its Development via Computer-Mediated Communication: The Role of EFL Teachers in Chinese Universities

Supervisors:

Dr. Emmanuel Dupl  a, Dr. Douglas Fleming
Faculty of Education, University of Ottawa
Email: XXX@uottawa.ca XXX@uottawa.ca

Name of Student:

Limin Liu
Email: XXX@uottawa.ca

Invitation to Participate: I am invited to participate in the pilot study of research study entitled **Intercultural Communicative Competence and its Development via Computer-Mediated Communication: The Role of EFL Teachers in Chinese Universities** conducted by Limin Liu for her Ph.D. thesis.

Purpose of the Study: The purpose of the pilot study is to ensure the questionnaire that will be used to collect data for the main study has high test-retest reliability. The main study explores how to improve English as a Foreign Language (EFL) teachers' telecollaborative competence and their understanding of intercultural competence (IC) in Chinese universities.

Participation: My participation will consist essentially of two sessions, each of approximately 5 minutes during which I will complete an online questionnaire. It has been scheduled for a date and time that are convenient for me.

Risks: I understand that there are no foreseeable risks to participating in the survey, which entails that I respond to the online questionnaire.

Benefits: My participation in this study will provide information about the test-retest reliability of the questionnaire that will be used in the main study and will provide evidence for the increase in its reliability, thus improving the quality of the data collected by the survey.

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Confidentiality and Anonymity: I have received assurance from the researcher that the information I will share will remain strictly confidential. I can decide whether or not my name can be used in the reporting of the research. The contents will be used only for this study.

Conservation of data: The electronic documents of the survey results will be kept in a secure manner on a password protected computer or in a Canadian server shared by the investigator and supervisors. Hard copies, if there is any, will be kept in a locked filing cabinet. The data will be destroyed after five years.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I may withdraw from the study at any time and/or refuse to answer any questions. If I choose to withdraw, all data gathered until the time of withdrawal will be destroyed.

Acceptance: I, _____, agree to participate in the pilot study conducted by Limin Liu of the Faculty of Education, University of Ottawa, which research is under the supervision of Dr. Emmanuel Dupl a and Dr. Douglas Fleming. I understand that by accepting to participate I am in no way waiving my right to withdraw from the study.

- I AGREE to have the data used for completion of the thesis.
 I also AGREE that the data may be used for oral presentations and paper publication of the researcher.

If I have any questions about the study, I may contact the student and/or her supervisors at the numbers mentioned above.

If I have any ethical concerns regarding my participation in this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland Street, Room 154, (613) 562-5387 or ethics@uottawa.ca.

There are two copies of the consent form, one of which is mine to keep.

Please check one:

- I agree to have my identity associated with the survey data collected
 I prefer that my identity remain confidential

Participant's signature:

Date:

Researcher's signature:

Date:

Appendix E

List of Candidate Universities for Participant Recruitment

No.	University	Location (City)
1	Nanjing University	Nanjing
2	Suzhou University	Suzhou
3	Southeast University	Nanjing
4	Nanjing University of Aeronautics and Astronautics	Nanjing
5	Nanjing University of Science and Technology	Nanjing
6	Jiangsu University of Science and Technology	Zhenjiang
7	China University of Mining and Technology	Xuzhou
8	Nanjing Tech University	Nanjing
9	Changzhou University	Changzhou
10	Nanjing University of Posts and Telecommunications	Nanjing
11	Hohai University	Nanjing, Changzhou
12	Jiangnan University	Wuxi
13	Nanjing Forestry University	Nanjing
14	Jiangsu University	Zhenjiang
15	Nanjing University of Information Science and Technology	Nanjing
16	Nantong University	Nantong
17	Yancheng Institute of Technology	Yancheng
18	Nanjing Agricultural University	Nanjing
19	Nanjing Medical University	Nanjing
20	Xuzhou Medical University	Xuzhou
21	Nanjing University Of Chinese Medicine	Nanjing
22	China Pharmaceutical University	Nanjing
23	Nanjing Normal University	Nanjing
24	Jiangsu Normal University	Xuzhou
25	Huaiyin Normal University	Huai'an
26	Yancheng Teachers University	Yancheng
27	Nanjing University Of Finance & Economics	Nanjing

28	Jiangsu Police Institute	Nanjing
29	Nanjing Sport Institute	Nanjing
30	Nanjing University of the Arts	Nanjing
31	Suzhou University of Science and Technology	Suzhou
32	Changshu Institute of Technology	Changshu
33	Nanjing Vocational University of Industry Technology	Nanjing
34	Huaiyin Institute of Technology	Huan'an
35	Changzhou Institute of Technology	Changzhou
36	Yangzhou University	Yangzhou
37	Nanjing Institute of Technology	Nanjing
38	Nanjing Audit University	Nanjing
39	NanJing XiaoZhuang University	Nanjing
40	Jiangsu University of Technology	Changzhou
41	Jiangsu Ocean University	Lianyungang
42	Xuzhou University of Technology	Xuzhou
43	Nanjing Normal University of Special Education	Nanjing
44	Nanjing Forestpolice College	Nanjing
45	Taizhou University	Taizhou
46	Jinling Institute of Technology	Nanjing
47	Suqian University	Suqian
48	Jiangsu Second Normal University	Nanjing

Appendix F

Recruiting Message to Teachers for the Main Survey

Dear teachers,

I'm Limin Liu, a PhD candidate in Studies in Teaching and Learning at University of Ottawa, Canada. I am also a teacher of English from XXX University, China. I am doing a study of how EFL teachers' understanding of intercultural competence (IC) and telecollaborative competence can be promoted for my thesis. If you are a native Chinese, who teaches English at the university level in China, I would like to invite you to respond to this survey. I am interested in learning about your understanding of IC and telecollaborative competence. Further, I would like to find out your perspectives on how to improve them for future intercultural language education.

The survey will take approximately 5 minutes to complete. Your participation is entirely voluntary, and you can withdraw at any time without any negative consequences. By participating in this survey, you agree to your anonymous responses being used for research purposes. Please note that the survey data will be saved for five years and securely stored in password protected file. After that, the data will be deleted. The survey is strictly confidential and anonymous. To the best of my knowledge, there are no known risks associated with this study. No unauthorized person will gain access to your responses.

If you agree to participate, please get access to the questionnaire through the following link. If you have any questions about this survey, please feel free to contact me. I can be reached at XXX@uottawa.ca or XXX@cczu.edu.cn. You may also contact either of my supervisors at any time: Professor Emmanuel Dupl a (XXX@uottawa.ca) or Professor Douglas Fleming (XXX@uottawa.ca). Should you have questions or concerns about your personal data, you can also contact the Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland Street, Room 154, (613) 562-5387 or ethics@uottawa.ca.

Thank you in advance for participating in this survey.

Limin Liu

Faculty of Education, University of Ottawa, Canada & XXX University, China

Appendix G

Consent Form for Survey



Université d'Ottawa
Faculté d'éducation

University of Ottawa
Faculty of Education

Ph.D. Thesis

Intercultural Communicative Competence and its Development via Computer-Mediated Communication: The Role of EFL Teachers in Chinese Universities

Supervisors:

Dr. Emmanuel Dupl a, Dr. Douglas Fleming
Faculty of Education, University of Ottawa
Email: XXX@uottawa.ca XXX@uottawa.ca

Name of Student:

Limin Liu
Email: XXX@uottawa.ca

Invitation to Participate: I am invited to participate in the research study entitled **Intercultural Communicative Competence and its Development via Computer-Mediated Communication: The Role of EFL Teachers in Chinese Universities** conducted by Limin Liu for her Ph.D. thesis.

Purpose of the Study: The purpose of the study is to explore how to improve English as a Foreign Language (EFL) teachers' telecollaborative competence and their understanding of intercultural competence (IC) in Chinese universities. It is intended to provide suggestions to stimulate the development of teachers' competence to realize the full potential of computer-mediated communication for students' IC promotion.

Participation: My participation will consist essentially of one session of approximately 5 minutes during which I will complete an online questionnaire. It has been scheduled for a date and time that are convenient for me.

Risks: I understand that there are no foreseeable risks to participating in the survey, which entails that I respond to the online questionnaire.

Benefits: My participation in this study will provide information about IC cultivation and CMC use as well as their combination and will provide evidence for the improvement of IC cultivation in China.

Confidentiality and Anonymity: I have received assurance from the researcher that the information I will share will remain strictly confidential as I need to

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provide contact information at the end of this survey if I am interested in the follow-up interview. The contents will be used only for this study.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I may withdraw from the study at any time and/or refuse to answer any questions. However, given the anonymous nature of the survey, I understand if I choose to withdraw after the survey has been submitted, I will be unable to withdraw my data from the study as the researchers will be unable to retrace individual datasets.

The above research study is conducted by Limin Liu of the Faculty of Education, University of Ottawa, which research is under the supervision of Dr. Emmanuel Duplâa and Dr. Douglas Fleming. I understand that by accepting to participate I am in no way waiving my right to withdraw from the study.

- I AGREE to participate and the data may be used for the thesis writing, oral presentations and paper publication of the researcher.
- I do NOT AGREE to participate.

If I have any questions about the study, I may contact the student and/or her supervisors at the numbers mentioned above.

If I have any ethical concerns regarding my participation in this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland Street, Room 154, (613) 562-5387 or ethics@uottawa.ca.

Participants should print a copy of the consent form to keep for their personal records.

Appendix H

Consent Form for Interview



Université d'Ottawa
Faculté d'éducation

University of Ottawa
Faculty of Education

Ph.D. Thesis

Intercultural Communicative Competence and its Development via Computer-Mediated Communication: The Role of EFL Teachers in Chinese Universities

Supervisors:

Dr. Emmanuel Duplâa, Dr. Douglas Fleming
Faculty of Education, University of Ottawa
Email: XXX@uottawa.ca XXX@uottawa.ca

Name of Student:

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Purpose of the Study: The purpose of the study is to explore how to improve English as a Foreign Language (EFL) teachers' telecollaborative competence and their understanding of intercultural competence (IC) in Chinese universities. It is intended to provide suggestions to stimulate the development of teachers' competence to realize the full potential of computer-mediated communication for students' IC promotion.

Participation: My participation will consist essentially of one session of approximately 30 minutes during which I will be interviewed. The interview will be audio-recorded. It has been scheduled for a date and time that are convenient for me.

Risks: I understand that since my participation in this study will entail that I respond to questions about doing qualitative research, it may cause me to feel that I am sharing personal reflections and insights. I have received assurance from the researcher that every effort will be made to respect these personal reflections in the writing and reporting of the research.

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Benefits: My participation in this study will provide information about IC cultivation and CMC use as well as their combination and will provide evidence for the improvement of IC cultivation in China.

Confidentiality and Anonymity: I have received assurance from the researcher that the information I will share will remain strictly confidential. I can decide whether or not my name can be used in the reporting of the research. The contents will be used only for this study.

Conservation of data: The audio recordings and transcripts will be kept in a secure manner on a password protected computer or in a Canadian server shared by the investigator and supervisors. Hard copies of the transcripts will be kept in a locked filing cabinet. The data will be destroyed after five years.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I may withdraw from the study at any time and/or refuse to answer any questions. If I choose to withdraw, all data gathered until the time of withdrawal will be destroyed.

Acceptance: I, _____, agree to participate in the above research study conducted by Limin Liu of the Faculty of Education, University of Ottawa, which research is under the supervision of Dr. Emmanuel Dupl a and Dr. Douglas Fleming. I understand that by accepting to participate I am in no way waiving my right to withdraw from the study.

- I AGREE to have the data used for completion of the thesis.
 I also AGREE that the data may be used for oral presentations and paper publication of the researcher.

If I have any questions about the study, I may contact the student and/or her supervisors at the numbers mentioned above.

If I have any ethical concerns regarding my participation in this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland Street, Room 154, (613) 562-5387 or ethics@uottawa.ca.

There are two copies of the consent form, one of which is mine to keep.

Please check one:

- I agree to have my identity associated with the interview data collected
 I prefer that my identity remain confidential

Participant's signature:

Date:

Researcher's signature:

Date:

Appendix I

Questions in the Original Questionnaire

Part I Telecollaborative competence

(Attitudes and beliefs)

1. I think culture plays an intrinsic role in foreign language education.
2. I'm open to partner-teachers' alternative pedagogical beliefs and aims.
3. I'm willing to look for compromise with the partner-teacher in relation to task design, exchange structure and other issues.
4. I'm not interested in trying out new telecollaborative tasks and new online tools which may be proposed by students or other-teachers.
5. I'm willing to deal with new messages, texts and questions in contact classes or tutorials as they emerge during the online exchange.
6. I accept that the teacher is not the sole authority on the target culture and language.
7. I'm interested in learning with students about new aspects of L2 language use and cultural products and practices from their exchange partners.

(ICT/digital competences)

8. I can choose the appropriate online communication tools (e.g. email, blogs, wikis, Skype) to fit both the everyday online practices of the students as well as the project's aims.
9. I have a basic working knowledge of current (e.g. Web 2.0) communication tools and their pedagogic affordances and constraints.
10. I cannot explain the use of the chosen tools to students or provide them with online or third-party support for learning how to use them.
11. I can use exchange platforms (e.g. ePals, eTwinning) or online networks to locate online exchanges.
12. I have a basic working knowledge of web management systems (e.g. Moodle) to run online exchanges.
13. I can organize and structure real-time student interaction taking into account the particular affordances and technicalities of synchronous tools such as videoconferencing, chat etc.
14. I can interact appropriately online with my partner-teacher and, if necessary, with the participating students, attending to online communication norms (e.g. responding to emails in a timely manner, using appropriate register etc.)

15. I cannot organize the online exchange in a manner which protects students' safety and respects privacy issues related to students' work.
16. I can model social presence and online identity for my students and help to create an online community of trust and learning.
17. I can instruct my students on how to use online tools autonomously – tools which help them resolve language difficulties (e.g. online dictionaries, Google translator, multimedia authoring tools).
18. I can develop in students a critical understanding of online tools – the interests they serve, the type of communication they promote etc.

(Organizational competences)

19. I can use my own professional contacts to locate possible partner-teachers in distant locations.
20. I cannot establish and explain clearly to possible partner-teachers my plans and expectations related to a possible exchange.
21. I can design the structure of an exchange (i.e. aims, minimum participation requirements, language use) which reflects the interests, L2 proficiency and level of electronic literacy of my own students.
22. I can negotiate effectively with the partner-teacher the structure and organizational technicalities of the exchange which take into account both institutional contexts (calendars etc.) as well as the needs and interests of both sets of participants.
23. I can employ various strategies to “match” learners from the different institutions and to create effective partnerships and exchange groups.
24. I can maintain a good working relationship with the partner-teacher throughout the exchange, identifying problems as they arise.
25. I cannot alter the logistics of the exchange to adapt to developments and problems as they arise (e.g. low levels of participation, access to technology problems etc.)
26. I can articulate to my virtual partner-teachers the learning objectives and pedagogical beliefs that lie behind my proposed tasks.
27. I can apply my experiences of online exchanges to avoid repeating mistakes and to innovate my practice.

28. I can apply my knowledge of the educational context in which the partner class is working in order to structure the exchange and avoid problems.
29. I have knowledge of the common causes of organizational and intercultural problems in online exchanges and can apply a series of techniques and strategies to deal with these problems.
30. I'm aware of action research methodology in order how to evaluate the strengths and weaknesses of my online exchange.
31. I'm not aware of measures to ensure that the exchange receives appropriate academic recognition within the home institution.
32. I can articulate the relevance and the added pedagogical value of telecollaborative exchanges to colleagues and superiors in order to support their use throughout the institution.

(Pedagogical competences)

33. I can identify tasks for the online exchange which meet at least some of the objectives of the participating classes' curricula.
34. I can support students in discerning and reflecting upon culturally contingent patterns of interaction in follow-up classroom discussions.
35. I can apply my knowledge of the culture and language of the partner class to organize culturally and linguistically rich tasks for the exchange.
36. I cannot design tasks which are attractive and relevant for students and which serve to develop culturally and linguistically rich interaction.
37. I can design tasks which support the activities of collaborative inquiry and the construction of knowledge.
38. I can integrate appropriate assessment procedures and rubrics which accurately reflect the activities which students carried out during their exchange.
39. I can explain clearly to students what is expected from them during an exchange – deadlines, performance objectives, learning outcomes etc.
40. I cannot integrate seamlessly and effectively the content and themes of the telecollaborative exchange into my contact classes (when they exist) before, during and after the exchange itself.

41. I can provide learning support for learners either through scaffolded guidance (in the classroom or in online tutorials) or through the provision of reflective tools, such as learning logs or journals.

Part II Understanding of intercultural competence (IC)

42. Culture is an integral part of language.

43. I have heard about ICC.

44. I have a clear idea about what ICC is.

45. I have a clear idea about what ICC is composed of.

46. I have heard about IC.

47. IC is the same as ICC.

48. I have a clear idea about what IC is.

49. I have a clear idea about what IC is composed of.

50. IC/ICC development should be one of the major objectives of foreign language education.

51. What do you think are the components of IC? _____

Part III Personal profile

52. Your name _____. (Please use a pseudonym that you like if you prefer your identity remain confidential and remember this pseudonym as you will use it again in the second survey.)

53. The university you work at.

54. Your gender. Male, Female, or _____.

55. Your level of education. Bachelor / Master / Ph.D. and above

56. How many years of teaching experience do you have? 0-40

57. What students do you teach? Undergraduates in English-related majors (such as English, business English, English teaching) / Undergraduates in non-English majors / Postgraduates in English-related majors / Postgraduates in non-English majors

58. What overseas experiences do you have? Tourism / Business trip / International conference / Visiting scholar / Study abroad / Work abroad / None; How many times? 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and more; How long on average for each time? 1 month and less, 1-3 months, 3-6 months, 6-12 months, 12 months and more.

59. How many times have you received teaching training or attended workshops of IC/ICC? 0-

60. How many times have you ever received teaching training or attended workshops on telecollaboration? 0-10

Appendix J

The Test-Retest Reliability of the Original Questionnaire

Item	Pearson correlation	Sig. (2-tailed)	Number of items
Q1	.802**	0.000	30
Q2	0.222	0.237	30
Q3	.489**	0.006	30
Q4	.644**	0.000	30
Q5	.414*	0.023	30
Q6	.375*	0.041	30
Q7	0.282	0.131	30
Q8	.626**	0.000	30
Q9	.767**	0.000	30
Q10	.683**	0.000	30
Q11	0.292	0.118	30
Q12	.665**	0.000	30
Q13	.495**	0.005	30
Q14	.443*	0.014	30
Q15	.611**	0.000	30
Q16	.670**	0.000	30
Q17	.647**	0.000	30
Q18	.645**	0.000	30
Q19	.479**	0.007	30
Q20	.452*	0.012	30
Q21	.392*	0.032	30
Q22	.629**	0.000	30
Q23	0.359	0.052	30
Q24	.510**	0.004	30
Q25	.478**	0.008	30
Q26	.661**	0.000	30
Q27	.430*	0.018	30
Q28	.591**	0.001	30
Q29	.438*	0.015	30
Q30	.664**	0.000	30
Q31	0.288	0.123	30
Q32	.428*	0.018	30
Q33	.703**	0.000	30
Q34	.680**	0.000	30
Q35	.731**	0.000	30
Q36	.693**	0.000	30
Q37	.494**	0.006	30
Q38	.633**	0.000	30
Q39	.384*	0.036	30
Q40	.624**	0.000	30
Q41	.560**	0.001	30
Q42	0.126	0.508	30

Q43	0.348	0.059	30
Q44	.565**	0.001	30
Q45	.638**	0.000	30
Q46	.813**	0.000	30
Q47	-.496**	0.005	30
Q48	.574**	0.001	30
Q49	.698**	0.000	30
Q50	.538**	0.002	30
<hr/>			
Section 1 Attitudes and beliefs	.710**	0.000	30
Section 2 ICT	.750**	0.000	30
Section 3 Organizational competence	.679**	0.000	30
Section 4 Pedagogical competence	.794**	0.000	30
<hr/>			
Part 1 Telecollaborative competence	.781**	0.000	30
Part 2 IC	.799**	0.000	30
<hr/>			
Total	.789**	0.000	30

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix K

The Internal Reliability of the Original Questionnaire

	Pilot 1				
	Reliability Statistics (section)	Item-Total Statistics			
		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	Cronbach's Alpha 0.685 N of items 7	38.7667	6.668	0.407	0.667
Q2		39.3000	5.734	0.296	0.683
Q3		38.9333	6.064	0.513	0.635
Q4		39.7667	3.426	0.587	0.621
Q5		39.3333	5.540	0.523	0.617
Q6		38.8667	6.602	0.303	0.674
Q7		39.0333	6.033	0.469	0.640
Q8	Cronbach's Alpha 0.832 N of Items 11	56.8000	48.786	0.603	0.819
Q9		57.0000	44.276	0.745	0.802
Q10		57.3333	42.989	0.597	0.810
Q11		59.1333	44.395	0.331	0.845
Q12		57.0000	45.172	0.663	0.808
Q13		57.2000	47.407	0.450	0.823
Q14		56.7000	48.079	0.648	0.816
Q15		56.7667	48.737	0.231	0.843
Q16		57.2667	46.202	0.468	0.821
Q17		57.4667	41.292	0.588	0.811
Q18		57.6667	40.851	0.702	0.798
Q19	Cronbach's Alpha 0.861 N of Items 14	69.6333	76.309	0.623	0.845
Q20		69.7667	73.357	0.594	0.848
Q21		68.7000	80.562	0.609	0.847
Q22		68.9000	76.507	0.745	0.839
Q23		69.0667	72.961	0.822	0.832
Q24		68.4333	79.013	0.602	0.847
Q25		69.2667	74.064	0.612	0.846
Q26		68.1667	86.695	0.475	0.856
Q27		68.2000	88.924	0.218	0.863
Q28		68.4000	83.972	0.507	0.853
Q29		69.0000	81.448	0.566	0.849
Q30		68.9000	82.576	0.565	0.850
Q31		70.1667	84.833	0.170	0.878
Q32		69.3000	82.217	0.352	0.862
Q33	Cronbach's Alpha 0.843 N of Items 9	46.6333	22.585	0.784	0.809
Q34		46.5333	22.878	0.829	0.809
Q35		46.5667	23.771	0.586	0.826
Q36		46.9333	21.582	0.438	0.853
Q37		46.8333	24.144	0.432	0.840

Q38		46.7000	22.838	0.830	0.808
Q39		46.1667	25.523	0.401	0.842
Q40		47.2333	20.254	0.540	0.840
Q41		46.6667	22.299	0.622	0.820
Q42	Cronbach's Alpha	44.5000	35.983	0.141	0.757
Q43	0.749	44.6667	31.885	0.462	0.727
Q44	N of Items	45.7000	29.390	0.396	0.732
Q45	9	46.4333	24.047	0.687	0.671
Q46		44.8667	30.602	0.675	0.706
Q47		46.3667	32.999	0.101	0.787
Q48		46.9000	24.162	0.632	0.684
Q49		47.0667	24.202	0.692	0.671
Q50		44.7000	35.114	0.188	0.754
Q1	Cronbach's Alpha	228.6333	480.654	0.319	0.937
Q2	0.937	229.1667	475.661	0.263	0.937
Q3	N of Items	228.8000	478.234	0.334	0.936
Q4	41	229.6333	454.792	0.570	0.935
Q5		229.2000	478.579	0.229	0.937
Q6		228.7333	485.582	-0.041	0.938
Q7		228.9000	475.748	0.422	0.936
Q8		229.3000	468.769	0.647	0.935
Q9		229.5000	459.500	0.648	0.934
Q10		229.8333	452.489	0.605	0.934
Q11		231.6333	451.482	0.461	0.936
Q12		229.5000	459.845	0.639	0.934
Q13		229.7000	468.631	0.393	0.936
Q14		229.2000	468.648	0.609	0.935
Q15		229.2667	466.478	0.339	0.937
Q16		229.7667	458.185	0.578	0.935
Q17		229.9667	447.689	0.594	0.934
Q18		230.1667	446.075	0.694	0.933
Q19		230.8667	453.430	0.542	0.935
Q20		231.0000	442.414	0.598	0.935
Q21		229.9333	457.789	0.634	0.934
Q22		230.1333	448.395	0.759	0.933
Q23		230.3000	446.010	0.709	0.933
Q24		229.6667	457.264	0.561	0.935
Q25		230.5000	443.707	0.620	0.934
Q26		229.4000	470.179	0.586	0.935
Q27		229.4333	473.840	0.373	0.936
Q28		229.6333	464.171	0.584	0.935
Q29		230.2333	463.702	0.498	0.935
Q30		230.1333	460.395	0.651	0.934
Q31		231.4000	463.628	0.285	0.939

Q32		230.5333	462.257	0.381	0.937
Q33		229.6333	465.206	0.629	0.935
Q34		229.5333	464.947	0.709	0.934
Q35		229.5667	463.840	0.668	0.934
Q36		229.9333	450.133	0.614	0.934
Q37		229.8333	468.833	0.427	0.936
Q38		229.7000	465.941	0.667	0.935
Q39		229.1667	479.040	0.208	0.937
Q40		230.2333	452.116	0.556	0.935
Q41		229.6667	463.126	0.544	0.935
	Pilot 2				
	Reliability Statistics (section)	Item-Total Statistics			
		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	Cronbach's Alpha 0.792 N of items 7	39.3667	6.240	0.530	0.781
Q2		39.6000	5.421	0.616	0.752
Q3		39.5667	5.495	0.606	0.754
Q4		40.2333	3.771	0.517	0.836
Q5		39.8667	5.223	0.651	0.743
Q6		39.5000	5.845	0.491	0.774
Q7		39.6667	5.126	0.725	0.731
Q8	Cronbach's Alpha 0.793 N of Items 11	59.2667	28.202	0.647	0.763
Q9		59.3667	28.240	0.633	0.764
Q10		59.7667	24.530	0.592	0.760
Q11		61.0000	27.724	0.183	0.842
Q12		59.4667	29.775	0.595	0.773
Q13		59.3333	29.609	0.519	0.775
Q14		59.1667	29.040	0.681	0.766
Q15		59.2333	30.116	0.179	0.811
Q16		59.5333	28.602	0.538	0.771
Q17		59.5333	26.464	0.623	0.757
Q18		59.6667	27.885	0.603	0.764
Q19	Cronbach's Alpha 0.919 N of Items 14	74.1000	99.817	0.713	0.910
Q20		74.2667	101.444	0.550	0.920
Q21		73.5000	107.569	0.655	0.913
Q22		73.4667	104.120	0.883	0.906
Q23		73.4667	104.809	0.809	0.908
Q24		73.1333	108.257	0.824	0.910
Q25		73.8333	111.178	0.260	0.931
Q26		73.2000	109.062	0.817	0.910
Q27		72.9000	114.645	0.526	0.917
Q28		72.9667	110.585	0.644	0.914
Q29		73.3667	105.551	0.737	0.910

Q30		73.5667	102.530	0.818	0.907
Q31		74.4000	97.076	0.705	0.912
Q32		73.8667	103.361	0.706	0.910
Q33	Cronbach's Alpha	47.0667	36.547	0.797	0.888
Q34	0.904	47.1000	36.024	0.831	0.885
Q35	N of Items	47.1000	36.507	0.775	0.889
Q36	9	47.3667	34.585	0.600	0.902
Q37		47.1667	36.282	0.805	0.887
Q38		47.3000	34.424	0.850	0.881
Q39		46.8333	37.316	0.735	0.892
Q40		47.8667	31.913	0.498	0.935
Q41		47.0000	36.690	0.848	0.886
Q42	Cronbach's Alpha	42.7667	36.323	0.416	0.821
Q43	0.827	42.8000	39.545	0.351	0.828
Q44	N of Items	43.7667	33.013	0.600	0.801
Q45	9	44.3000	28.631	0.733	0.782
Q46		43.0333	35.413	0.635	0.803
Q47		46.9000	40.783	0.043	0.856
Q48		44.6000	26.593	0.831	0.765
Q49		44.7667	27.564	0.798	0.771
Q50		42.8000	39.131	0.483	0.823
Q1	Cronbach's Alpha	237.2333	555.978	0.193	0.955
Q2	0.955	237.4667	547.154	0.504	0.954
Q3	N of Items	237.4333	549.082	0.430	0.955
Q4	41	238.1000	540.024	0.354	0.955
Q5		237.7333	547.444	0.452	0.955
Q6		237.3667	552.378	0.304	0.955
Q7		237.5333	545.499	0.551	0.954
Q8		237.9000	540.852	0.529	0.954
Q9		238.0000	541.103	0.515	0.954
Q10		238.4000	524.869	0.557	0.954
Q11		239.6333	531.551	0.325	0.957
Q12		238.1000	543.955	0.581	0.954
Q13		237.9667	539.551	0.650	0.954
Q14		237.8000	541.131	0.654	0.954
Q15		237.8667	544.602	0.248	0.956
Q16		238.1667	536.902	0.607	0.954
Q17		238.1667	528.626	0.662	0.953
Q18		238.3000	528.907	0.808	0.953
Q19		239.0333	512.102	0.695	0.953
Q20		239.2000	514.097	0.572	0.955
Q21		238.4333	528.047	0.651	0.953
Q22		238.4000	520.386	0.869	0.952
Q23		238.4000	524.386	0.742	0.953

Q24	238.0667	529.720	0.803	0.953
Q25	238.7667	534.461	0.306	0.957
Q26	238.1333	531.085	0.808	0.953
Q27	237.8333	542.764	0.539	0.954
Q28	237.9000	535.197	0.621	0.954
Q29	238.3000	523.321	0.738	0.953
Q30	238.5000	518.466	0.777	0.952
Q31	239.3333	500.506	0.773	0.953
Q32	238.8000	518.717	0.706	0.953
Q33	238.1333	531.085	0.757	0.953
Q34	238.1667	529.937	0.766	0.953
Q35	238.1667	530.144	0.760	0.953
Q36	238.4333	524.599	0.587	0.954
Q37	238.2333	527.771	0.831	0.953
Q38	238.3667	524.033	0.790	0.953
Q39	237.9000	531.334	0.776	0.953
Q40	238.9333	512.547	0.552	0.955
Q41	238.0667	529.582	0.862	0.953

Appendix L

Questionnaire for the Main Survey

Part I Telecollaborative competence

(Attitudes and beliefs)

1. I think culture plays an intrinsic role in foreign language education.
2. I'm willing to look for compromise with the partner-teacher in relation to task design, exchange structure and other issues.
3. I'm interested in trying out new telecollaborative tasks and new online tools which may be proposed by students or other-teachers.
4. I'm willing to deal with new messages, texts and questions in contact classes or tutorials as they emerge during the online exchange.
5. I accept that the teacher is the sole authority on the target culture and language.
6. I'm interested in learning with students about new aspects of L2 language use and cultural products and practices from their exchange partners.

(ICT/Digital competences)

7. I can choose the appropriate online communication tools (e.g. email, blogs, wikis, Skype) to fit both the everyday online practices of the students as well as the project's aims.
8. I have a basic working knowledge of current (e.g. Web 2.0) communication tools and their pedagogic affordances and constraints.
9. I can explain the use of the chosen tools to students or provide them with online or third-party support for learning how to use them.
10. I have a basic working knowledge of web management systems (e.g. Moodle) to run online exchanges.
11. I can organize and structure real-time student interaction taking into account the particular affordances and technicalities of synchronous tools such as videoconferencing, chat etc.
12. I can interact appropriately online with my partner-teacher and, if necessary, with the participating students, attending to online communication norms (e.g. responding to emails in a timely manner, using appropriate register etc.)
13. I can model social presence and online identity for my students and help to create an online community of trust and learning.
14. I can instruct my students on how to use online tools autonomously – tools which help them

resolve language difficulties (e.g. online dictionaries, Google translator, multimedia authoring tools).

15. I can develop in students a critical understanding of online tools – the interests they serve, the type of communication they promote etc.

(Organizational competences)

16. I can use my own professional contacts to locate possible partner-teachers in distant locations.

17. I cannot establish and explain clearly to possible partner-teachers my plans and expectations related to a possible exchange.

18. I can design the structure of an exchange (i.e. aims, minimum participation requirements, language use) which reflects the interests, L2 proficiency and level of electronic literacy of my own students.

19. I can negotiate effectively with the partner-teacher the structure and organizational technicalities of the exchange which take into account both institutional contexts (calendars etc.) as well as the needs and interests of both sets of participants.

20. I can employ various strategies to “match” learners from the different institutions and to create effective partnerships and exchange groups.

21. I can maintain a good working relationship with the partner-teacher throughout the exchange, identifying problems as they arise.

22. I can alter the logistics of the exchange to adapt to developments and problems as they arise (e.g. low levels of participation, access to technology problems etc.)

23. I can articulate to my virtual partner-teachers the learning objectives and pedagogical beliefs that lie behind my proposed tasks.

24. I can apply my experiences of online exchanges to avoid repeating mistakes and to innovate my practice.

25. I can apply my knowledge of the educational context in which the partner class is working in order to structure the exchange and avoid problems.

26. I have knowledge of the common causes of organizational and intercultural problems in online exchanges and can apply a series of techniques and strategies to deal with these problems.

27. I’m aware of how to evaluate the strengths and weaknesses of my online exchange.

28. I can articulate the relevance and the added pedagogical value of telecollaborative exchanges to colleagues and superiors in order to support their use throughout the institution.

(Pedagogical competences)

29. I can identify tasks for the online exchange which meet at least some of the objectives of the participating classes' curricula.
30. I can support students in discerning and reflecting upon culturally contingent patterns of interaction in follow-up classroom discussions.
31. I can apply my knowledge of the culture and language of the partner class to organize culturally and linguistically rich tasks for the exchange.
32. I cannot design tasks which are attractive and relevant for students and which serve to develop culturally and linguistically rich interaction.
33. I can design tasks which support the activities of collaborative inquiry and the construction of knowledge.
34. I can integrate appropriate assessment procedures and rubrics which accurately reflect the activities which students carried out during their exchange.
35. I can explain clearly to students what is expected from them during an exchange – deadlines, performance objectives, learning outcomes etc.
36. I can integrate seamlessly and effectively the content and themes of the telecollaborative exchange into my contact classes (when they exist).
37. I can provide learning support for learners either through scaffolded guidance (in the classroom or in online tutorials) or through the provision of reflective tools, such as learning logs or journals.

Part II Understanding of intercultural competence (IC)

The following statements refer to participants' understanding of IC. Please read the statements below and, on a scale from 1 to 6, indicate how much you agree or disagree with each of them. 1 means *completely disagree*, and 6 means *completely agree*. N/A means the statement is *not applicable* to you.

38. I have heard about ICC.
39. I have a clear idea about what ICC is.
40. I have a clear idea about what ICC is composed of.
41. I have heard about IC.
42. I have a clear idea about what IC is.

43. I have a clear idea about what IC is composed of.
44. IC/ICC development should be one of the major objectives of foreign language education.
45. What do you think are the components of IC? _____

Part III Personal profile

This part collects some information on participants' profile and experiences to identify their influences on their telecollaborative competence and IC understanding. Please answer the following questions.

46. The university you work at.
47. Your gender. Male, Female, or _____.
48. Your level of education. Bachelor / Master / Ph.D. and above
49. How many years of teaching experience do you have? 0-40
50. Have you ever participated in any telecollaborative project?
51. What students do you teach? Undergraduates in English-related majors (such as English, business English, English teaching) / Undergraduates in non-English majors / Postgraduates in English-related majors / Postgraduates in non-English majors
52. What overseas experiences do you have? Tourism / Business trip / International conference / Visiting scholar / Study abroad / Work abroad / None; How many times? 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and more; How long on average for each time? 1 month and less, 1-3 months, 3-6 months, 6-12 months, 12 months and more
53. How many times have you received teaching training or attended workshops of IC/ICC? 0-10
54. How many times have you ever received teaching training or attended workshops on telecollaboration? 0-10

Appendix M

The Internal Reliability of the Questionnaire after Modification

	Pilot 1				
	Reliability Statistics (section)	Item-Total Statistics			
		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	Cronbach's Alpha 0.868 N of items 7	39.1000	5.955	0.431	0.663
Q3		39.2667	5.513	0.461	0.644
Q4		40.1000	2.852	0.608	0.630
Q5		39.6667	5.057	0.464	0.633
Q6		39.2000	5.752	0.396	0.659
Q7		39.3667	5.344	0.488	0.634
Q50		39.3000	5.734	0.261	0.683
Q8		Cronbach's Alpha 0.856 N of Items 9	46.6333	34.447	0.574
Q9	46.8333		30.006	0.801	0.821
Q10	47.1667		29.385	0.593	0.840
Q12	46.8333		30.764	0.714	0.829
Q13	47.0333		32.378	0.519	0.846
Q14	46.5333		33.430	0.685	0.839
Q16	47.1000		32.990	0.379	0.860
Q17	47.3000		28.217	0.563	0.848
Q18	47.5000		27.845	0.680	0.830
Q19	Cronbach's Alpha 0.878 N of Items 13		65.5000	69.362	0.639
Q20		65.6333	67.206	0.578	0.871
Q21		64.5667	73.702	0.613	0.867
Q22		64.7667	70.323	0.720	0.860
Q23		64.9333	66.064	0.846	0.851
Q24		64.3000	71.390	0.654	0.864
Q25		65.1333	67.913	0.595	0.868
Q26		64.0333	79.895	0.451	0.876
Q27		64.0667	81.789	0.218	0.882
Q28		64.2667	77.306	0.487	0.873
Q29		64.8667	73.982	0.607	0.867
Q30		64.7667	75.978	0.545	0.870
Q32		65.1667	74.351	0.398	0.879
Q33		Cronbach's Alpha 0.843 N of Items 9	46.6333	22.585	0.784
Q34	46.5333		22.878	0.829	0.809
Q35	46.5667		23.771	0.586	0.826
Q36	46.9333		21.582	0.438	0.853
Q37	46.8333		24.144	0.432	0.840
Q38	46.7000		22.838	0.830	0.808
Q39	46.1667		25.523	0.401	0.842

Q40		47.2333	20.254	0.540	0.840
Q41		46.6667	22.299	0.622	0.820
Q43	Cronbach's Alpha 0.829 N of Items 6	26.0333	28.378	0.357	0.842
Q44		27.0667	24.202	0.481	0.825
Q45		27.8000	19.338	0.773	0.760
Q46		26.2333	27.151	0.564	0.819
Q48		28.2667	19.444	0.712	0.777
Q49		28.4333	19.289	0.797	0.754
Q1	Cronbach's Alpha 0.938 N of Items 38	214.6667	404.713	0.292	0.939
Q3		214.8333	402.626	0.308	0.938
Q4		215.6667	382.092	0.538	0.937
Q5		215.2333	402.461	0.229	0.939
Q6		214.7667	408.599	-0.023	0.940
Q7		214.9333	399.651	0.434	0.938
Q50		214.8667	403.913	0.195	0.939
Q8		215.3333	393.195	0.660	0.937
Q9		215.5333	384.326	0.667	0.936
Q10		215.8667	378.533	0.604	0.936
Q12		215.5333	384.602	0.659	0.936
Q13		215.7333	392.340	0.421	0.938
Q14		215.2333	392.806	0.633	0.937
Q16		215.8000	385.476	0.535	0.937
Q17		216.0000	374.207	0.592	0.937
Q18		216.2000	372.028	0.708	0.935
Q19		216.9000	380.093	0.527	0.937
Q20		217.0333	370.171	0.583	0.937
Q21		215.9667	382.723	0.653	0.936
Q22		216.1667	375.523	0.741	0.935
Q23		216.3333	372.299	0.715	0.935
Q24		215.7000	382.631	0.567	0.937
Q25		216.5333	371.361	0.603	0.937
Q26		215.4333	394.737	0.587	0.937
Q27		215.4667	397.430	0.399	0.938
Q28		215.6667	389.264	0.583	0.937
Q29		216.2667	387.995	0.519	0.937
Q30		216.1667	385.661	0.655	0.936
Q32		216.5667	387.151	0.387	0.939
Q33		215.6667	389.678	0.648	0.936
Q34		215.5667	389.702	0.720	0.936
Q35		215.6000	388.869	0.671	0.936
Q36		215.9667	376.240	0.617	0.936
Q37		215.8667	393.844	0.417	0.938
Q38		215.7333	390.547	0.681	0.936
Q39		215.2000	402.510	0.223	0.939

Q40		216.2667	378.892	0.542	0.937
Q41		215.7000	388.424	0.540	0.937
	Pilot 2				
	Reliability Statistics (section)	Item-Total Statistics			
		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	Cronbach's Alpha 0.769 N of items 7	39.3333	5.885	0.542	0.753
Q3		39.5333	5.154	0.617	0.722
Q4		40.2000	3.545	0.500	0.809
Q5		39.8333	4.971	0.619	0.717
Q6		39.4667	5.430	0.538	0.738
Q7		39.6333	4.930	0.664	0.710
Q50		39.6000	5.421	0.432	0.752
Q8		Cronbach's Alpha 0.861 N of Items 9	48.4333	18.668	0.745
Q9	48.5333		19.085	0.659	0.841
Q10	48.9333		16.547	0.539	0.869
Q12	48.6333		20.378	0.627	0.848
Q13	48.5000		20.259	0.540	0.852
Q14	48.3333		19.678	0.732	0.839
Q16	48.7000		19.666	0.513	0.853
Q17	48.7000		17.597	0.642	0.842
Q18	48.8333		18.833	0.618	0.844
Q19	Cronbach's Alpha 0.912 N of Items 13	69.2667	77.444	0.712	0.902
Q20		69.4333	79.013	0.542	0.914
Q21		68.6667	84.299	0.656	0.905
Q22		68.6333	81.757	0.854	0.898
Q23		68.6333	81.895	0.810	0.899
Q24		68.3000	84.907	0.829	0.901
Q25		69.0000	87.655	0.249	0.929
Q26		68.3667	85.551	0.828	0.902
Q27		68.0667	90.409	0.546	0.910
Q28		68.1333	86.740	0.665	0.905
Q29		68.5333	82.740	0.726	0.902
Q30		68.7333	80.064	0.808	0.898
Q32		69.0333	80.723	0.700	0.902
Q33		Cronbach's Alpha 0.944 N of Items 9	37.9333	87.582	0.896
Q34	38.0667		83.789	0.853	0.933
Q35	38.0667		87.030	0.715	0.941
Q36	38.1667		87.523	0.763	0.938
Q37	38.0333		87.551	0.894	0.933
Q38	38.3667		81.206	0.795	0.937
Q39	37.7000		88.424	0.849	0.935
Q40	38.7333		83.099	0.613	0.953

Q41		37.8667	87.568	0.923	0.932
Q43	Cronbach's Alpha 0.858 N of Items 6	26.8667	29.775	0.274	0.883
Q44		27.8333	22.902	0.680	0.828
Q45		28.3667	19.620	0.767	0.810
Q46		27.1000	26.369	0.556	0.853
Q48		28.6667	18.230	0.838	0.794
Q49		28.8333	18.971	0.811	0.800
Q1	Cronbach's Alpha 0.956 N of Items 38	221.5333	460.533	0.190	0.957
Q3		221.7333	454.271	0.428	0.956
Q4		222.4000	446.800	0.333	0.957
Q5		222.0333	452.516	0.462	0.956
Q6		221.6667	457.402	0.293	0.956
Q7		221.8333	450.833	0.557	0.956
Q50		221.8000	451.752	0.524	0.956
Q8		222.2000	445.890	0.558	0.955
Q9		222.3000	447.045	0.512	0.956
Q10		222.7000	432.976	0.540	0.956
Q12		222.4000	449.352	0.591	0.955
Q13		222.2667	445.168	0.665	0.955
Q14		222.1000	446.507	0.675	0.955
Q16		222.4667	443.499	0.595	0.955
Q17		222.4667	435.085	0.676	0.955
Q18		222.6000	435.283	0.827	0.954
Q19		223.3333	420.299	0.700	0.955
Q20		223.5000	423.086	0.559	0.957
Q21		222.7333	435.030	0.652	0.955
Q22		222.7000	428.631	0.856	0.953
Q23		222.7000	432.217	0.731	0.954
Q24		222.3667	436.516	0.807	0.954
Q25		223.0667	442.064	0.286	0.959
Q26		222.4333	437.151	0.832	0.954
Q27		222.1333	447.775	0.566	0.955
Q28		222.2000	440.717	0.647	0.955
Q29		222.6000	431.490	0.720	0.954
Q30		222.8000	426.166	0.782	0.954
Q32		223.1000	426.093	0.717	0.954
Q33		222.4333	437.151	0.780	0.954
Q34		222.4667	436.533	0.775	0.954
Q35		222.4667	436.189	0.786	0.954
Q36		222.7333	433.444	0.555	0.956
Q37		222.5333	434.533	0.841	0.954
Q38		222.6667	431.057	0.801	0.954
Q39		222.2000	437.683	0.790	0.954
Q40		223.2333	423.289	0.516	0.957

Q41		222.3667	436.033	0.879	0.954
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Appendix N

Histograms and Normal QQ Plots of Variables whose Absolute Skewness and Kurtosis Value are Greater than 1

Figure P1

Histogram of ICT for Male Participants

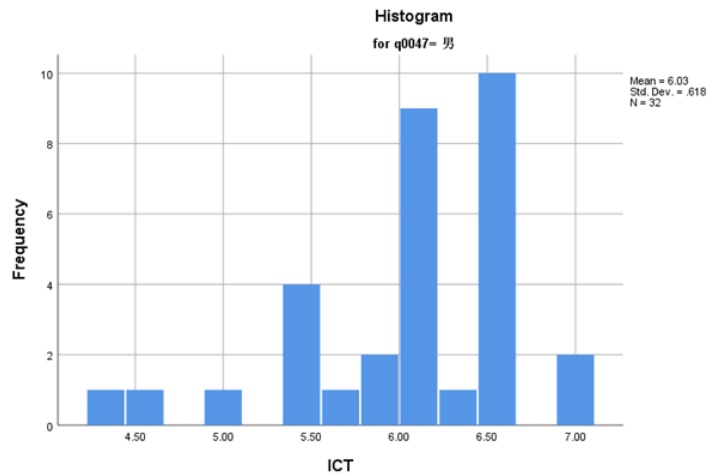


Figure P2

Normal QQ Plot of ICT for Male Participants

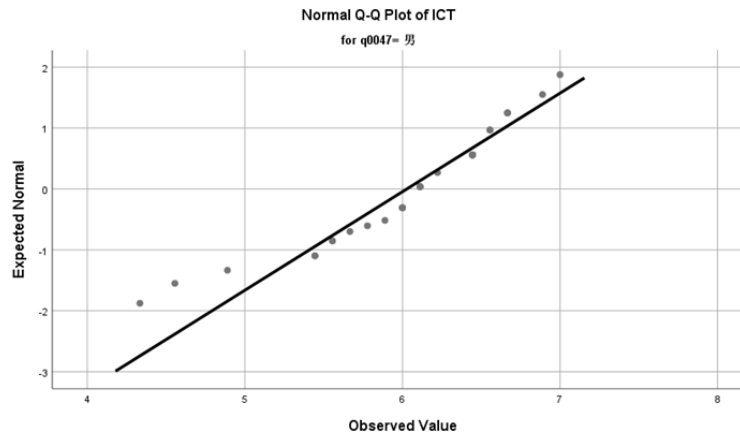


Figure P3

Histogram of ICT for Participants with Doctor's Degree and Above

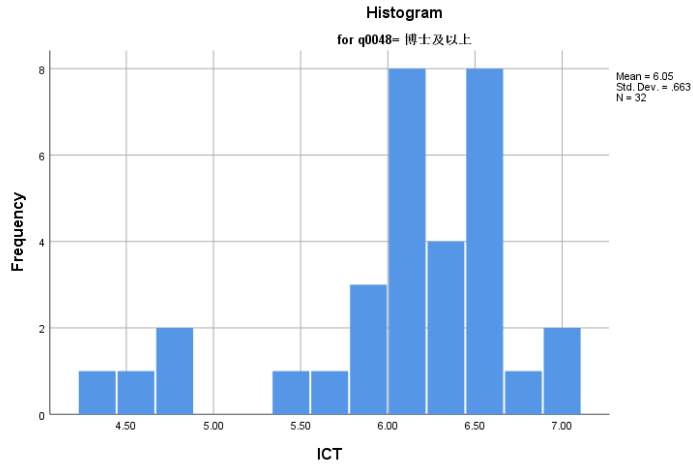


Figure P4

Normal Q-Q Plot of ICT for Participants with Doctor's Degree and Above

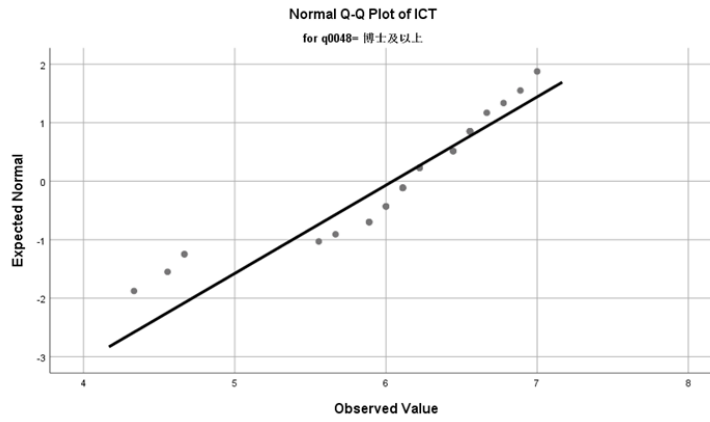


Figure P5

Histogram of ICT for Participants who Had IC Training

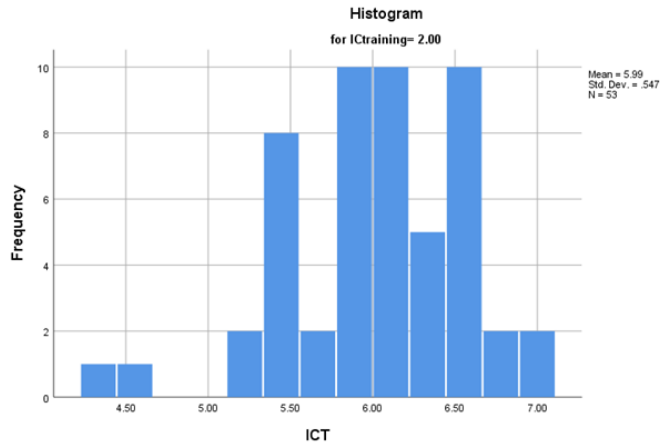


Figure P6

Normal QQ Plot of ICT for Participants who Had IC Training

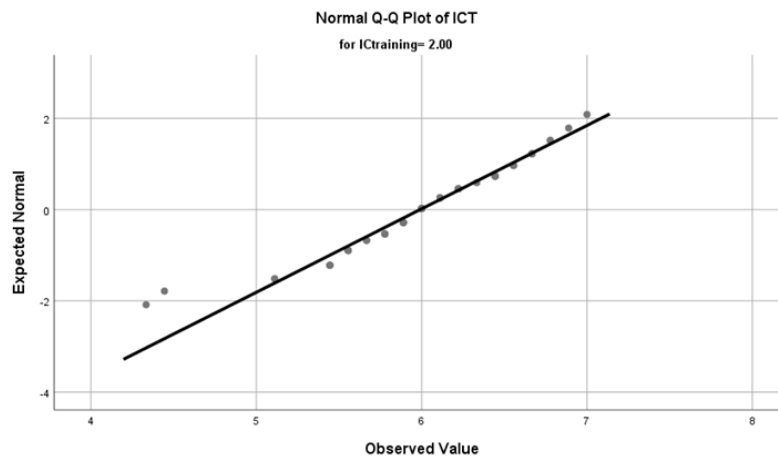


Figure P7

Histogram of IC for Participants with Doctor's Degree and Above

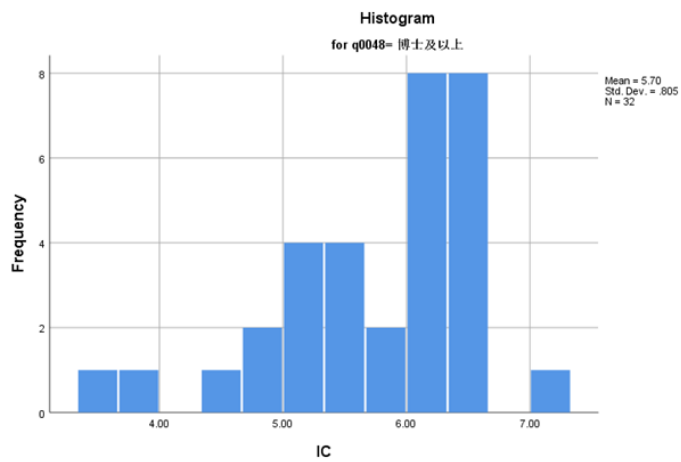


Figure P8

Normal QQ Plot of IC for Participants with Doctor's Degree and Above

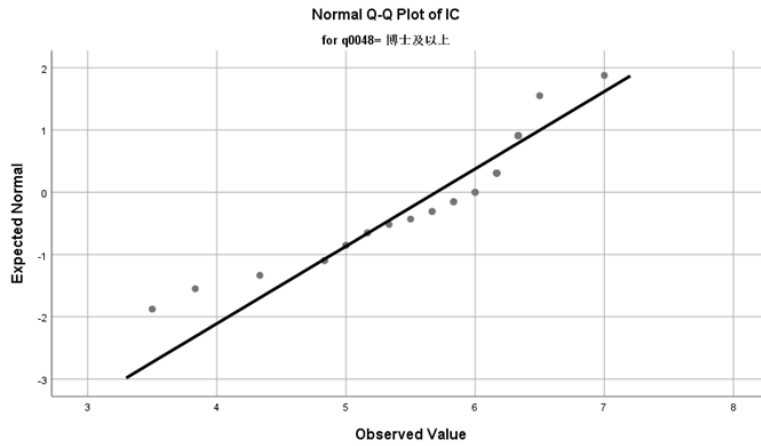


Figure P9

Histogram of IC for Participants who Had Participated in Telecollaborative Projects

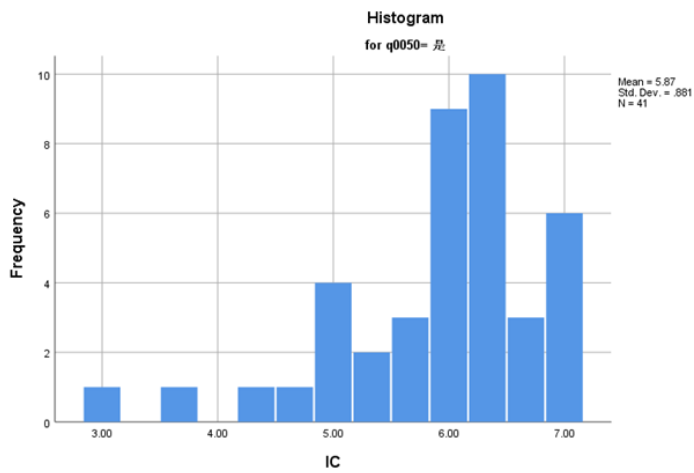


Figure P10

Normal QQ Plot of IC for Participants who Had Participated in Telecollaborative Projects

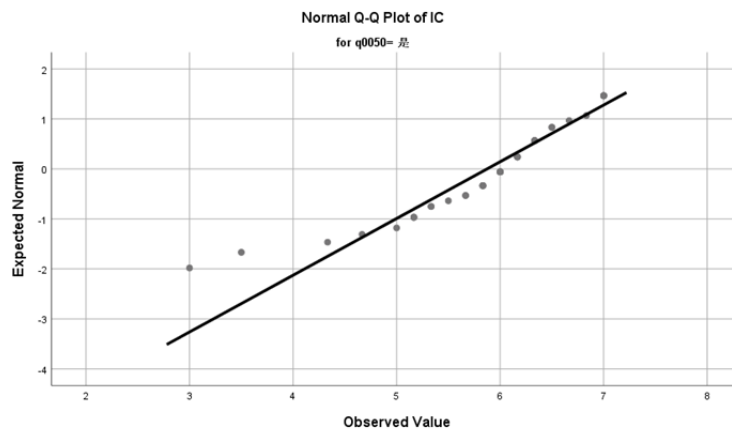


Figure P11

Histogram of IC for Participants who Had Participated in Non-Academic Activities Overseas

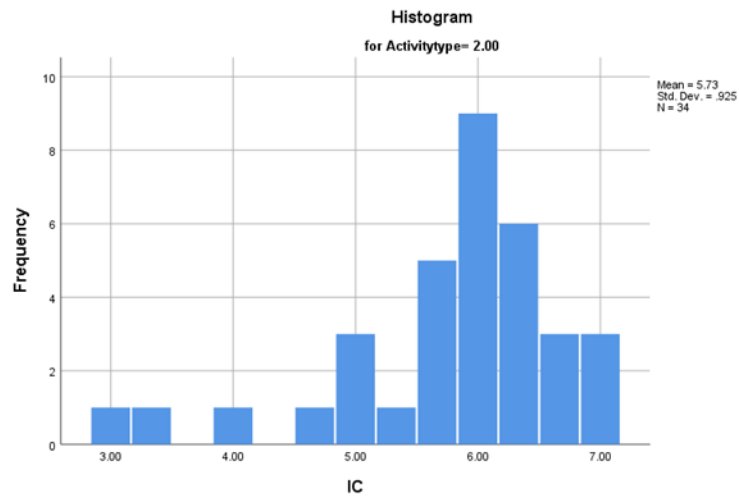


Figure P12

Normal QQ Plot of IC for Participants who Had Participated in Non-Academic Activities Overseas

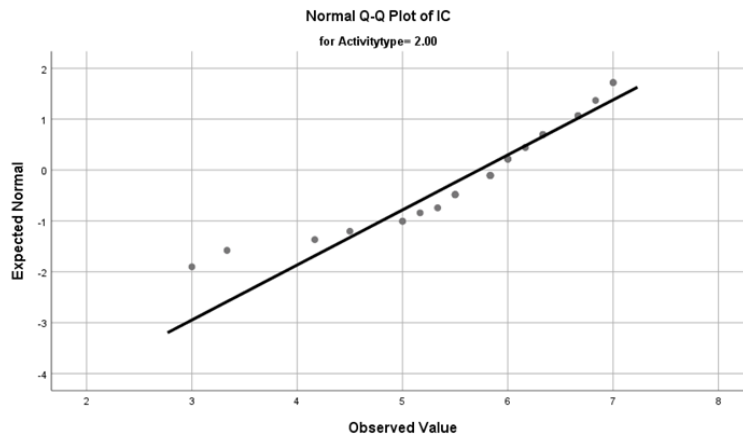


Figure P13

Histogram of IC for Participants who Had Been Overseas Twice and Less

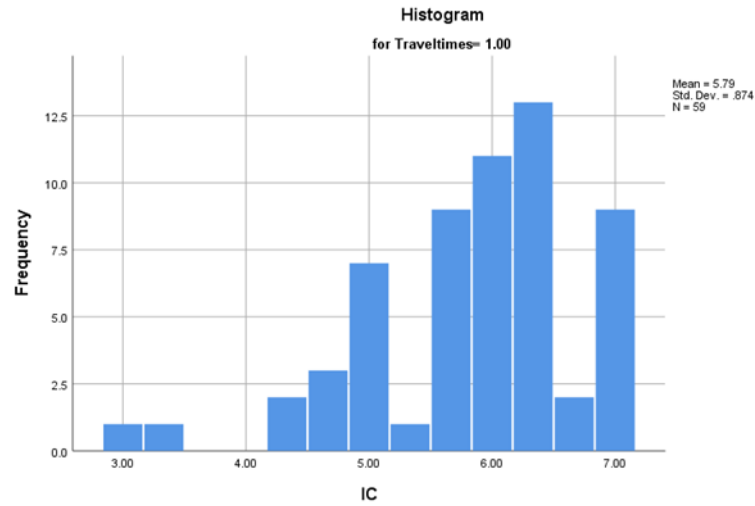


Figure P14

Normal QQ Plot of IC for Participants who Had Been Overseas Twice and Less

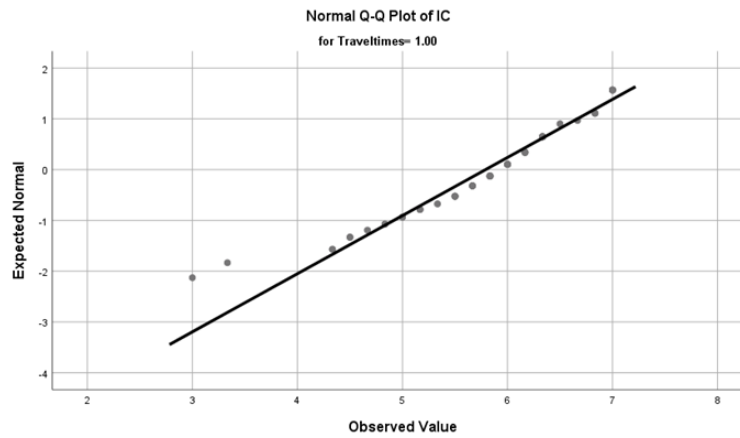


Figure P15

Histogram of IC for Participants who Had Been Overseas for Three Months and less

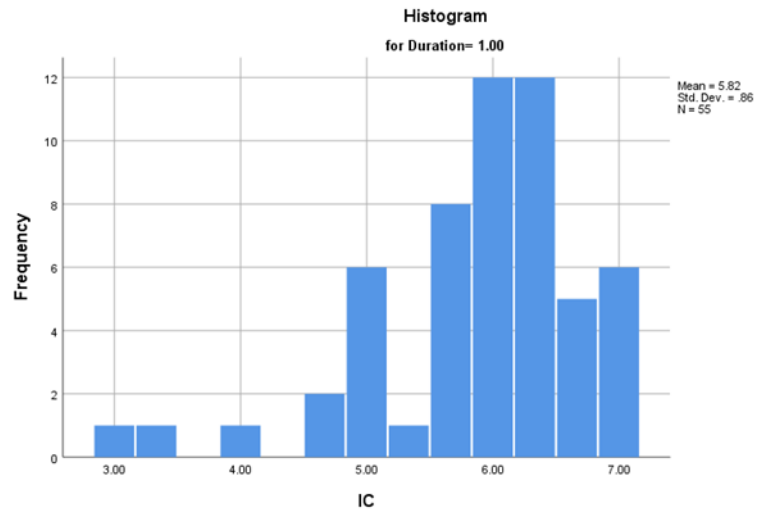
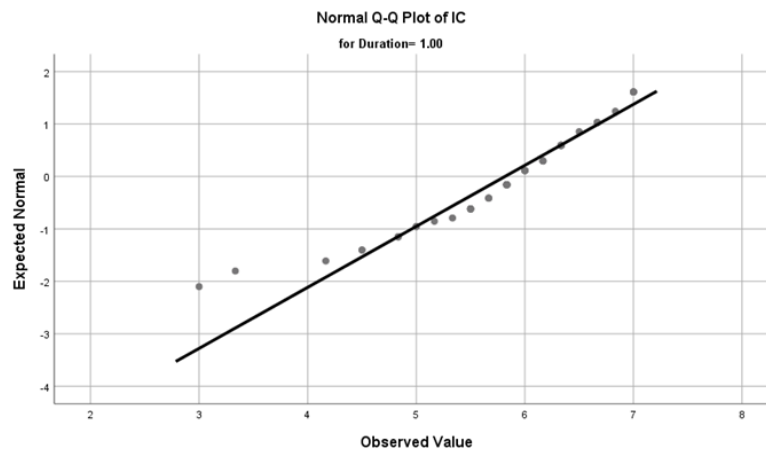


Figure P16

Normal QQ Plot of IC for Participants who Had Been Overseas for Three Months and less



Appendix O

Interview Questions Protocol

Interview number: Participant: Time: Date: Place:

This is an interview for detailed information about your suggestions to improve EFL teachers' IC understanding and telecollaborative competence. Do you agree to participate in this interview? Have you signed the consented form?

Thanks very much for agreeing to participate in this interview. Please note that your answers are strictly confidential and anonymous.

IC education

1. Please tell me about your understanding of IC (what is it, components, etc.)
2. Do you think IC should be added to college English teaching? Why or why not?
3. Have you included intercultural teaching in your English teaching? If yes, how did you do that? If no, what stops you from doing it?
4. What do you need to improve your intercultural teaching?

Telecollaboration

5. Have you heard of telecollaboration? If yes, you know what is it? If no, explain it to the interviewee.
6. Have you ever participated in a telecollaborative project in any way? If yes, please describe your experiences.
7. How do you think of using telecollaboration in college English education?
8. Have you used telecollaboration in English teaching? If yes, how did you do that? If no, what stops you from doing it?
9. What can be improved in the previous telecollaborative competence? What do you need to achieve the improvement?

Overseas experiences

10. Have you had overseas experiences? If yes, please tell me about them.
11. What impact does the overseas experiences have on your understanding of the foreign country/culture? How?
12. What impact does the overseas experiences have on your pedagogical competence/ICT competence? How?

Training

13. Is there any trainings or workshops of IC, CMC, or telecollaboration available to you? If yes, how you could get access to it?
14. Have you ever participated in any training? If yes, please describe it/them. If no, why?
15. What impact does the trainings and workshops have on your IC understanding, or organizational competence/ ICT competence/pedagogical competence? How?
16. What else do you think may influence your telecollaborative competence and understanding of IC?

Thank you for your valuable ideas and time!

Appendix P

Certificate of Ethics Approval

07/06/2022

Université d'Ottawa

Bureau d'éthique et d'intégrité de la recherche

University of Ottawa

Office of Research Ethics and Integrity

CERTIFICAT D'APPROBATION ÉTHIQUE | CERTIFICATE OF ETHICS APPROVAL

Numéro du dossier / Ethics File Number	S-05-21-6793
Titre du projet / Project Title	Intercultural Communicative Competence and its Development via Computer-Mediated Communication: The Role of EFL Teachers in Chinese Universities
Type de projet / Project Type	Thèse de doctorat / Doctoral thesis
Statut du projet / Project Status	Renouvelé / Renewed
Date d'approbation (jj/mm/aaaa) / Approval Date (dd/mm/yyyy)	23/06/2021
Date d'expiration (jj/mm/aaaa) / Expiry Date (dd/mm/yyyy)	22/06/2023

Équipe de recherche / Research Team

Chercheur / Researcher	Affiliation	Role
Limin LIU	Faculté d'éducation / Faculty of Education	Chercheur Principal / Principal Investigator
Emmanuel DUPLAA	Faculté d'éducation / Faculty of Education	Superviseur / Supervisor
Douglas FLEMING	Faculté d'éducation / Faculty of Education	Co-superviseur / Co-supervisor

Conditions spéciales ou commentaires / Special conditions or comments

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07/06/2022

Université d'Ottawa

Bureau d'éthique et d'intégrité de la recherche

University of Ottawa

Office of Research Ethics and Integrity

Le Comité d'éthique de la recherche (CÉR) de l'Université d'Ottawa, opérant conformément à l'*Énoncé de politique des Trois conseils* (2014) et toutes autres lois et tous règlements applicables, a examiné et approuvé la demande d'éthique du projet de recherche ci-nommé.

L'approbation est valide pour la durée indiquée plus haut et est sujette aux conditions énumérées dans la section intitulée « Conditions Spéciales ou Commentaires ». Le formulaire « Renouvellement ou Fermeture de Projet » doit être complété quatre semaines avant la date d'échéance indiquée ci-haut afin de demander un renouvellement de cette approbation éthique ou afin de fermer le dossier.

Toutes modifications apportées au projet doivent être approuvées par le CÉR avant leur mise en place, sauf si le participant doit être retiré en raison d'un danger immédiat ou s'il s'agit d'un changement ayant trait à des éléments administratifs ou logistiques du projet. Les chercheurs doivent aviser le CÉR dans les plus brefs délais de tout changement pouvant augmenter le niveau de risque aux participants ou pouvant affecter considérablement le déroulement du projet, rapporter tout événement imprévu ou indésirable et soumettre toute nouvelle information pouvant nuire à la conduite du projet ou à la sécurité des participants.

The University of Ottawa Research Ethics Board, which operates in accordance with the *Tri-Council Policy Statement* (2014) and other applicable laws and regulations, has examined and approved the ethics application for the above-named research project.

Ethics approval is valid for the period indicated above and is subject to the conditions listed in the section entitled "Special Conditions or Comments". The "Renewal/Project Closure" form must be completed four weeks before the above-referenced expiry date to request a renewal of this ethics approval or closure of the file.

Any changes made to the project must be approved by the REB before being implemented, except when necessary to remove participants from immediate endangerment or when the modification(s) only pertain to administrative or logistical components of the project. Investigators must also promptly alert the REB of any changes that increase the risk to participant(s), any changes that considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project or the safety of the participant(s).

Safaa LAMHOUEB

Coordonnateur de l'éthique / Ethics Coordinator

Pour/For **Barbara GRAVES** Président(e) du/ Chair of the **Comité d'éthique de la recherche en sciences sociales et humanités / Social Sciences and Humanities Research Ethics Board**

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Appendix Q

The Results of Independent Samples Test on Major Dependent Variables

Table R1

The Independent Samples Test of University Type and Major Dependent Variables

Dependent variables	University type	<i>M</i>	<i>SD</i>	<i>CI (MD)</i>	<i>t (df)</i>	<i>P (2-tailed)</i>
Attitudes & beliefs	Key	6.39	.47	-.18, .19	.06 (93)	.95
	Non-key	6.38	.41			
ICT competences	Key	5.86	.63	-.41, .11	-1.15 (93)	.25
	Non-key	6.01	.58			
Organizational competences	Key	5.35	.67	-.49, .08	-1.43 (93)	.16
	Non-key	5.55	.65			
Pedagogical competences	Key	5.55	.57	-.47, .02	-1.86 (93)	.07
	Non-key	5.78	.56			
Telecollaborative competences	Key	5.71	.49	-.37, .05	-1.48 (93)	.14
	Non-key	5.87	.49			
IC understanding	Key	5.79	.79	-.35, .40	.12 (93)	.91
	Non-key	5.77	.89			

Table R2

The Independent Samples Test of Region and Major Dependent Variables

Dependent variables	Region	<i>M</i>	<i>SD</i>	<i>CI (MD)</i>	<i>t (df)</i>	<i>P (2-tailed)</i>
Attitudes & beliefs	South	6.39	.47	-.17, .20	.16 (93)	.87
	North	6.37	.34			
ICT competences	South	5.97	.57	-.24, .27	.09 (93)	.93
	North	5.95	.66			
Organizational competences	South	5.49	.65	-.27, .29	.08 (93)	.94
	North	5.48	.70			
Pedagogical competences	South	5.76	.57	-.10, .39	1.21 (93)	.23
	North	5.61	.58			

Telecollaborative competences	South	5.83	.48	-17, .26	.42 (93)	.68
	North	5.79	.52			
IC understanding	South	5.70	.85	-.58, .15	-1.16 (93)	.25
	North	5.91	.87			

Table R3

The Independent Samples Test of Gender and Major Dependent Variables

Dependent variables	Gender	<i>M</i>	<i>SD</i>	<i>CI (MD)</i>	<i>t (df)</i>	<i>P (2-tailed)</i>
Attitudes & beliefs	Male	6.30	.46	-.30, -.06	-1.30 (93)	.20
	Female	6.42	.41			
ICT competences	Male	6.03	.62	-.16, .36	.77 (93)	.44
	Female	5.93	.59			
Organizational competences	Male	5.56	.53	-.18, .39	.73 (93)	.47
	Female	5.45	.72			
Pedagogical competences	Male	5.76	.48	-.17, .33	.66 (93)	.51
	Female	5.68	.61			
Telecollaborative competences	Male	5.85	.42	-.16, .27	.53 (93)	.60
	Female	5.80	.53			
IC understanding	Male	6.01	.67	-.01, .72	1.93 (93)	.06
	Female	5.66	.92			

Table R4

The Independent Samples Test of Education Degree and Major Dependent Variables

Dependent variables	Education degree	<i>M</i>	<i>SD</i>	<i>CI (MD)</i>	<i>t (df)</i>	<i>P (2-tailed)</i>
Attitudes & beliefs	Master	6.36	.44	-.28, .09	-1.06 (90)	.29
	Ph. D.+	6.46	.40			
ICT competences	Master	5.90	.57	-.41, .12	-1.10 (90)	.27
	Ph. D.+	6.05	.66			
Organizational competences	Master	5.44	.65	-.46, .12	-1.18 (90)	.24
	Ph. D.+	5.61	.67			

Pedagogical competences	Master	5.62	.54	-.47, .03	-1.73 (90)	.09
	Ph. D.+	5.84	.63			
Telecollaborative competences	Master	5.76	.48	-.38, .05	-1.50 (90)	.14
	Ph. D.+	5.92	.51			
IC understanding	Master	5.78	.89	-.29, .46	.45 (90)	.65
	Ph. D.+	5.70	.81			

Table R5

The Independent Samples Test of Teaching Years and Major Dependent Variables

Dependent variables	Years of teaching	<i>M</i>	<i>SD</i>	<i>CI (MD)</i>	<i>t (df)</i>	<i>P (2-tailed)</i>
Attitudes & beliefs	>15	6.44	.41	-.06, .29	1.34 (93)	.18
	≤15	6.33	.45			
ICT competences	>15	5.96	.65	-.25, .25	-.00 (93)	1.00
	≤15	5.96	.56			
Organizational competences	>15	5.51	.70	-.22, .32	.37 (93)	.71
	≤15	5.46	.63			
Pedagogical competences	>15	5.70	.61	-.23, .24	.00 (93)	1.00
	≤15	5.70	.54			
Telecollaborative competences	>15	5.84	.54	-.16, .24	.39 (93)	.70
	≤15	5.80	.45			
IC understanding	>15	5.59	.85	-.71, -.02	-2.11 (93)	.04
	≤15	5.95	.84			

Table R6

The Independent Samples Test of Telecollaboration experiences and Major Dependent Variables

Dependent variables	Telecollabo ration exp.	<i>M</i>	<i>SD</i>	<i>CI (MD)</i>	<i>t (df)</i>	<i>P (2-tailed)</i>
Attitudes & beliefs	Yes	6.41	.41	-.13, .23	.55 (93)	.59
	No	6.36	.44			
ICT competences	Yes	6.05	.58	-.09, .40	1.25 (93)	.22
	No	5.90	.61			

Organizational competences	Yes	5.64	.71	.00, .54	-2.02(93)	.05
	No	5.37	.60			
Pedagogical competences	Yes	5.81	.63	.05, .41	1.53 (93)	.13
	No	5.63	.52			
Telecollaborative competences	Yes	5.92	.53	-.02, .38	1.79 (93)	.08
	No	5.74	.45			
IC understanding	Yes	5.87	.88	-.18, .53	.98 (93)	.33
	No	5.70	.84			

Table R7

The Independent Samples Test of Students and Major Dependent Variables

Dependent variables	Students	<i>M</i>	<i>SD</i>	<i>CI (MD)</i>	<i>t (df)</i>	<i>P (2-tailed)</i>
Attitudes & beliefs	Non-English	6.38	.47	-.15, .88	-.19 (93)	.16
	Mixed	6.39	.39			
ICT competences	Non-English	5.91	.52	-.34, .15	-.79 (93)	.43
	Mixed	6.01	.67			
Organizational competences	Non-English	5.38	.60	-.47, .06	-1.53 (93)	.13
	Mixed	5.59	.71			
Pedagogical competences	Non-English	5.66	.52	-.32, .14	-.77 (93)	.44
	Mixed	5.75	.62			
Telecollaborative competences	Non-English	5.76	.44	-.32, .08	-1.16 (93)	.25
	Mixed	5.87	.53			
IC understanding	Non-English	5.66	.96	-.58, .11	-1.35 (93)	.18
	Mixed	5.89	.73			

Table R8

The Independent Samples Test of Overseas Activity and Major Dependent Variables

Dependent variables	Overseas activity	<i>M</i>	<i>SD</i>	<i>CI (MD)</i>	<i>t (df)</i>	<i>P (2-tailed)</i>
Attitudes & beliefs	Academic	6.40	.43	-.14, .23	.52 (93)	.61
	Others	6.35	.42			

ICT competences	Academic	6.00	.53	-.16, .35	.72 (93)	.47
	Others	5.90	.70			
Organizational competences	Academic	5.52	.63	-.19, .38	.68 (93)	.50
	Others	5.43	.72			
Pedagogical competences	Academic	5.74	.58	-.15, .34	.75 (93)	.46
	Others	5.64	.56			
Telecollaborative competences	Academic	5.85	.47	-.12, .30	.81 (93)	.42
	Others	5.76	.53			
IC understanding	Academic	5.80	.82	-.29, .44	.42 (93)	.67
	Others	5.73	.93			

Table R9

The Independent Samples Test of Overseas Duration and Major Dependent Variables

Dependent variables	Overseas duration	<i>M</i>	<i>SD</i>	<i>CI (MD)</i>	<i>t (df)</i>	<i>P (2-tailed)</i>
Attitudes & beliefs	≤3 mons	6.31	.40	-.36, -.01	-2.09 (93)	.04
	>3 mons	6.49	.45			
ICT competences	≤3 mons	5.90	.64	-.39, .10	-1.16 (93)	.25
	>3 mons	6.04	.54			
Organizational competences	≤3 mons	5.41	.66	-.46, .09	-1.35 (93)	.18
	>3 mons	5.59	.66			
Pedagogical competences	≤3 mons	5.59	.54	-.49, -.03	-2.26 (93)	.03
	>3 mons	5.86	.59			
Telecollaborative competences	≤3 mons	5.73	.49	-.39, .01	-1.91 (93)	.06
	>3 mons	5.93	.48			
IC understanding	≤3 mons	5.82	.86	-.25, .46	.57 (93)	.57
	>3 mons	5.72	.86			

Table R10

The Independent Samples Test of Overseas Trip Times and Major Dependent Variables

Dependent variables	Overseas trip times	<i>M</i>	<i>SD</i>	<i>CI (MD)</i>	<i>t (df)</i>	<i>P (2-tailed)</i>
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Attitudes & beliefs	≤2	6.38	.39	-.20, .16	-.24 (93)	.81
	>2	6.40	.49			
ICT competences	≤2	6.03	.67	-.06, .39	1.45 (92.06)	.15
	>2	5.86	.45			
Organizational competences	≤2	5.54	.75	-.15, .40	.90 (93)	.37
	>2	5.41	.49			
Pedagogical competences	≤2	5.70	.64	-.25, .23	-.10 (93)	.92
	>2	5.71	.45			
Telecollaborative competences	≤2	5.84	.55	-.13, .28	.72 (93)	.47
	>2	5.77	.38			
IC understanding	≤2	5.79	.87	-.32, .40	.23 (93)	.82
	>2	5.75	.84			

Table R11

The Independent Samples Test of IC Training and Major Dependent Variables

Dependent variables	IC training	<i>M</i>	<i>SD</i>	<i>CI (MD)</i>	<i>t (df)</i>	<i>P (2-tailed)</i>
Attitudes & beliefs	No	6.39	.40	-.16, .20	.22 (93)	.82
	Yes	6.37	.46			
ICT competences	No	5.92	.66	-.31, .18	-.55 (93)	.58
	Yes	5.99	.55			
Organizational competences	No	5.45	.73	-.34, .20	.50(93)	.62
	Yes	5.52	.61			
Pedagogical competences	No	5.70	.60	-.23, .24	.02 (93)	.99
	Yes	5.70	.55			
Telecollaborative competences	No	5.80	.54	-.24, .17	-.35 (93)	.73
	Yes	5.83	.46			
IC understanding	No	5.51	.88	-.82, -.14	-2.80 (93)	.01
	Yes	5.99	.79			

Table R12

The Independent Samples Test of Telecollaboration Training and Major Dependent Variables

Dependent variables	Telecollaboration train	<i>M</i>	<i>SD</i>	<i>CI (MD)</i>	<i>t (df)</i>	<i>P (2-tailed)</i>																																														
Attitudes & beliefs	Yes	6.43	.42	-.09, .26	.99 (93)	.32																																														
	No	6.34	.44				ICT competences	Yes	5.93	.65	-.32, .17	-.57 (93)	.57	No	6.00	.55	Organizational competences	Yes	5.44	.72	-.37, .17	-.73 (93)	.47	No	5.54	.60	Pedagogical competences	Yes	5.70	.61	-.24, .23	-.04 (93)	.97	No	5.71	.54	Telecollaborative competences	Yes	5.80	.52	-.24, .17	-.35 (93)	.73	No	5.83	.47	IC understanding	Yes	5.64	.82	-.61, .09	-1.49 (93)
ICT competences	Yes	5.93	.65	-.32, .17	-.57 (93)	.57																																														
	No	6.00	.55				Organizational competences	Yes	5.44	.72	-.37, .17	-.73 (93)	.47	No	5.54	.60	Pedagogical competences	Yes	5.70	.61	-.24, .23	-.04 (93)	.97	No	5.71	.54	Telecollaborative competences	Yes	5.80	.52	-.24, .17	-.35 (93)	.73	No	5.83	.47	IC understanding	Yes	5.64	.82	-.61, .09	-1.49 (93)	.14	No	5.90	.88						
Organizational competences	Yes	5.44	.72	-.37, .17	-.73 (93)	.47																																														
	No	5.54	.60				Pedagogical competences	Yes	5.70	.61	-.24, .23	-.04 (93)	.97	No	5.71	.54	Telecollaborative competences	Yes	5.80	.52	-.24, .17	-.35 (93)	.73	No	5.83	.47	IC understanding	Yes	5.64	.82	-.61, .09	-1.49 (93)	.14	No	5.90	.88																
Pedagogical competences	Yes	5.70	.61	-.24, .23	-.04 (93)	.97																																														
	No	5.71	.54				Telecollaborative competences	Yes	5.80	.52	-.24, .17	-.35 (93)	.73	No	5.83	.47	IC understanding	Yes	5.64	.82	-.61, .09	-1.49 (93)	.14	No	5.90	.88																										
Telecollaborative competences	Yes	5.80	.52	-.24, .17	-.35 (93)	.73																																														
	No	5.83	.47				IC understanding	Yes	5.64	.82	-.61, .09	-1.49 (93)	.14	No	5.90	.88																																				
IC understanding	Yes	5.64	.82	-.61, .09	-1.49 (93)	.14																																														
	No	5.90	.88																																																	

Appendix R

The Descriptive Statistics of Individual Items in the Survey

	N		Mean	Std. Deviation	Variance	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis	Minimum	Maximum	Percentiles		
	Valid	Missing										25	50	75
Q01	95	0	6.7895	0.45883	0.211	-2.094	0.247	3.778	0.490	5.00	7.00	7.00	7.00	7.00
Q02	95	0	6.5895	0.59241	0.351	-1.139	0.247	0.322	0.490	5.00	7.00	6.00	7.00	7.00
Q03	95	0	6.4211	0.64542	0.417	-0.669	0.247	-0.534	0.490	5.00	7.00	6.00	7.00	7.00
Q04	95	0	6.4211	0.73772	0.544	-1.508	0.247	3.656	0.490	3.00	7.00	6.00	7.00	7.00
Q05	95	0	5.4316	1.62201	2.631	-0.853	0.247	-0.406	0.490	1.00	7.00	5.00	6.00	7.00
Q06	95	0	6.4316	0.75305	0.567	-1.518	0.247	2.512	0.490	4.00	7.00	6.00	7.00	7.00
Q07	95	0	6.3263	0.70624	0.499	-0.932	0.247	0.976	0.490	4.00	7.00	6.00	6.00	7.00
Q08	95	0	6.2316	0.84366	0.712	-1.767	0.247	4.885	0.490	3.00	7.00	6.00	6.00	7.00
Q09	95	0	5.8632	1.02740	1.056	-1.042	0.247	1.633	0.490	2.00	7.00	5.00	6.00	7.00
Q10	95	0	5.4632	1.27838	1.634	-1.274	0.247	1.307	0.490	2.00	7.00	5.00	6.00	6.00
Q11	95	0	6.0105	0.95086	0.904	-1.311	0.247	2.302	0.490	3.00	7.00	6.00	6.00	7.00
Q12	95	0	6.2737	0.69101	0.477	-1.212	0.247	4.043	0.490	3.00	7.00	6.00	6.00	7.00
Q13	95	0	5.9263	0.77517	0.601	-0.291	0.247	-0.351	0.490	4.00	7.00	5.00	6.00	6.00
Q14	95	0	5.9474	0.99326	0.987	-1.357	0.247	2.700	0.490	2.00	7.00	6.00	6.00	7.00
Q15	95	0	5.6105	0.87877	0.772	-0.586	0.247	0.510	0.490	3.00	7.00	5.00	6.00	6.00
Q16	95	0	4.9474	1.24087	1.540	-0.649	0.247	0.224	0.490	2.00	7.00	4.00	5.00	6.00
Q17	95	0	3.9263	1.65826	2.750	0.291	0.247	-1.121	0.490	1.00	7.00	3.00	4.00	5.00
Q18	95	0	5.7053	0.98795	0.976	-1.741	0.247	4.917	0.490	2.00	7.00	5.00	6.00	6.00
Q19	95	0	5.5789	1.05769	1.119	-1.287	0.247	2.005	0.490	2.00	7.00	5.00	6.00	6.00
Q20	95	0	5.4894	1.02878	1.058	-0.570	0.247	0.560	0.490	2.00	7.00	5.00	6.00	6.00
Q21	95	0	5.8316	0.83351	0.695	-0.573	0.247	0.572	0.490	3.00	7.00	5.00	6.00	6.00
Q22	95	0	5.8000	0.73802	0.545	-0.474	0.247	0.286	0.490	4.00	7.00	5.00	6.00	6.00
Q23	95	0	5.9474	0.79048	0.625	-0.962	0.247	2.502	0.490	3.00	7.00	6.00	6.00	6.00
Q24	95	0	5.9368	0.68121	0.464	-0.128	0.247	-0.254	0.490	4.00	7.00	6.00	6.00	6.00
Q25	95	0	5.8421	0.80313	0.645	-0.711	0.247	1.057	0.490	3.00	7.00	5.00	6.00	6.00
Q26	95	0	5.5368	0.86061	0.741	-0.679	0.247	1.000	0.490	3.00	7.00	5.00	6.00	6.00
Q27	95	0	5.4105	1.15312	1.330	-1.371	0.247	1.787	0.490	2.00	7.00	5.00	6.00	6.00
Q28	95	0	5.3789	1.10298	1.217	-1.289	0.247	1.168	0.490	2.00	7.00	5.00	6.00	6.00
Q29	95	0	5.7474	0.87481	0.765	-1.135	0.247	2.776	0.490	2.00	7.00	5.00	6.00	6.00
Q30	95	0	5.8085	0.80261	0.644	-0.642	0.247	0.923	0.490	3.00	7.00	5.00	6.00	6.00
Q31	95	0	5.7684	0.76426	0.584	-0.455	0.247	0.118	0.490	4.00	7.00	5.00	6.00	6.00
Q32	95	0	4.7263	1.60744	2.584	-0.546	0.247	-0.843	0.490	1.00	7.00	3.00	5.00	6.00
Q33	95	0	5.7368	0.80173	0.643	-0.750	0.247	1.622	0.490	3.00	7.00	5.00	6.00	6.00
Q34	95	0	5.6947	0.66961	0.448	0.011	0.247	-0.223	0.490	4.00	7.00	5.00	6.00	6.00
Q35	95	0	6.2211	0.71725	0.514	-0.533	0.247	-0.245	0.490	4.00	7.00	6.00	6.00	7.00
Q36	95	0	5.7368	0.77474	0.600	-0.765	0.247	1.203	0.490	3.00	7.00	5.00	6.00	6.00
Q37	95	0	5.8842	0.86126	0.742	-1.304	0.247	4.195	0.490	2.00	7.00	5.00	6.00	6.00
Q38	95	0	6.7263	0.47135	0.222	-1.339	0.247	0.567	0.490	5.00	7.00	6.00	7.00	7.00
Q39	95	0	5.9158	1.13609	1.291	-1.922	0.247	5.189	0.490	1.00	7.00	6.00	6.00	7.00

Q40	95	0	5.1053	1.44011	2.074	-0.821	0.247	0.134	0.490	1.00	7.00	5.00	5.00	6.00
Q41	95	0	6.5474	0.78236	0.612	-2.951	0.247	12.725	0.490	2.00	7.00	6.00	7.00	7.00
Q42	95	0	5.4737	1.38258	1.912	-1.375	0.247	1.966	0.490	1.00	7.00	5.00	6.00	6.00
Q43	95	0	4.8842	1.52889	2.338	-0.786	0.247	-0.135	0.490	1.00	7.00	4.00	5.00	6.00
Q44	95	0	6.6000	0.59071	0.349	-1.506	0.247	2.898	0.490	4.00	7.00	6.00	7.00	7.00

Appendix S

Questionnaire for the Main Survey in Chinese

教师远程协作能力与对跨文化能力理解的调查

一、欢迎参加本次调查。您的参与对我们非常重要！

亲爱的老师：您好！

本次问卷是对您远程协作能力和您对跨文化能力理解的调查。本次问卷搜集的信息将用于本人博士学位论文的相关研究。您可在五分钟左右的时间完成本次调查。您的参与是完全自愿的。您可在任何时候退出调查，这不会对您造成任何不良影响。据我所知，该研究不存在风险。本次调查的数据将会被安全地存储在受密码保护的文件或服务器中五年。五年后，数据将会被销毁。本调查是严格保密和匿名的，不会有未经授权人员（包括您的领导和其他同事等）获取您的数据。

衷心感谢您对本次调查的支持！

刘丽敏

（加拿大）渥太华大学教育学院、（中国）XXX 大学外国语学院

二、远程协作能力

外语教师的远程协作能力指外语教师能使用在线交流工具，通过协作任务或项目来培养身处不同地区学习者的外语和跨文化能力。负责另一地区学生协作任务或项目完成的教师为您的合作教师。以下是关于教师远程协作能力的问题，请阅读问题后选择您的观点（从“非常赞同”到“非常不赞同”）。如未曾参与过远程协作项目，请预估您在远程协作项目中的立场，作出回答。

1. 文化在外语教学和在线交流中发挥着重要作用。
2. 我愿意在任务设计、活动组织等问题上与合作教师进行协商。
3. 我愿意尝试由学生或合作教师提出的新的远程协作任务或新的在线工具。
4. 我愿意在线下辅导课中处理线上交流中出现的新讯息、新文本和新问题。
5. 我认为教师是英语文化和语言的唯一权威。
6. 我有兴趣与学生一起向他们的交流伙伴学习英语的语言使用及文化的新知识。
7. 我能根据学生日常网上交流和项目的需要选择适当的网络交流工具，如：电子邮件、博客、维基百科、微信等。
8. 我对当前的通讯工具（如：微博、维基、QQ、微信、抖音、视频会议软件等）及其对教学的作用有基本的了解。
9. 我能帮助学生学会使用交流项目所需的网络工具。

10. 我对在线课程管理系统（如：Moodle、Blackboard、超星、中国大学 MOOC 等）具有基本的了解，能用它们来组织在线交流活动。
11. 我能根据视频会议、聊天等同步工具的特点和技术细节组织实时学生交流。
12. 我能遵守线上交流规范（例如：及时回复电子邮件、使用适当的注册信息等），与合作教师、必要时与参加活动的学生进行适当的在线互动。
13. 在建立社交形象和网络身份方面，我能成为学生的榜样，帮助创建一个可以信任的线上学习社区。
14. 我能指导学生自主使用在线工具（例如：在线词典，谷歌翻译器，多媒体创作工具等），来帮助他们解决语言困难。
15. 我能培养学生对在线工具的批判性理解，例如这些工具对谁有利、能促进什么类型的沟通等。
16. 我能通过自己工作上的朋友找到可能的远程合作教师。
17. 我无法确立自己对于一个未来交流项目的计划和期望并向合作教师清楚地解释这些。
18. 我能设计反映自己学生的兴趣、英语水平和电子读写水平的交流活动的具体方案，如：活动目标、参加的最低要求、语言使用等。
19. 我能与合作教师协商项目的整体安排和组织细节，以满足双方的制度背景（校历等）以及双方参与者的需求和利益。
20. 我能采用多种策略将来自不同学校的学习者分组、建立有效的伙伴关系。
21. 我能在整个交流过程中与合作教师保持良好的工作关系，并及时发现问题。
22. 我能就项目发展的需要或出现的问题（例如：学生参与率低，网络工具的技术问题等）调整组织工作。
23. 我能向合作教师阐明我提出的教学任务背后的教学目标和教学理念。
24. 我能运用曾经的线上交流经验，避免重蹈覆辙，创新我的实践。
25. 我能利用我对合作班级所处的教育环境的了解，组织交流活动，避免问题。
26. 我了解线上交流中出现组织问题和跨文化问题的常见原因，并能运用一系列技巧和策略来应对这些问题。
27. 我知道如何评估我的线上交流项目的优缺点。

28. 我能向同事和上级阐明远程协作交流的重要性和教学价值，以促进它在全校范围内的推广。
29. 在线上交流项目中，我知道什么样的教学任务能满足参与班级课程大纲中的至少一些目标。
30. 我能帮助学生在项目后续的课堂讨论中分析和反思文化对线上互动的影响。
31. 我能运用自己对合作班级的文化和语言的了解来组织文化和语言内容丰富的任务。
32. 我无法设计出对学生有吸引力且相关的任务来促进富含文化和语言内容的互动。
33. 我能设计出有助于协作探究和知识建构的任务。
34. 我能用适当的评价方法和规则，准确反映学生在交流过程中的活动。
35. 我能清楚地向学生解释在交流过程中他们需要做什么，例如：截止日期、表现目标、学习成果等。
36. 我能将线上远程协作的内容和主题无缝、有效地整合到我的线下课堂中。
37. 我能通过（在课堂或线上辅导教程中的）辅助性指导或使用反思性工具（如让学生写学习日志或日记等）为学生提供学习支持。

三、对跨文化能力的理解

以下是关于外语教师对跨文化能力理解的问题，请阅读问题后选择您的观点（从“非常赞同”到“非常不赞同”）或填空。请不要查阅任何资料，根据实际情况选择即可。

38. 我听说过跨文化交际能力。
39. 我清楚地知道跨文化交际能力是什么。
40. 我清楚地知道跨文化交际能力有哪些具体组成部分。
41. 我听说过跨文化能力。
42. 我清楚地知道跨文化能力是什么。
43. 我清楚地知道跨文化能力有哪些具体组成部分。
44. 跨文化能力/跨文化交际能力的培养应当是外语教育的重要目标之一。
45. 您认为跨文化能力有哪些组成部分？请在下面的文本框中列出。

四、背景信息和个人经历

以下是关于您的背景信息和个人经历的问题，用于研究它们对于远程协作能力和对跨文化能力理解的影响。请如实填写。

46. 您现在工作的院校
47. 您的性别 男；女；其它
48. 您的最高学位 学士；硕士；博士及以上
49. 您从事教学工作有多少年了？
50. 您是否参加过远程协作的教学项目？ 是；否
51. 您在过去的一年内给什么学生上课？（可多选）

英语相关专业的本科生（如英语专业、商务英语专业、英语教育专业等）；非英语专业本科生；英语相关专业的研究生；非英语专业研究生；外国留学生；其它（请说明）

52. 您有何种海外经历？（请对每一项都做出选择。如次数为0，则时长也请选0。）
- 旅游；出差；参加国际会议；访问学者；海外求学；海外工作
- 几次？1；2；3；4；5；6；7；8；9；10次及以上
- 每次平均多长时间？1个月及以下；1-3个月；3-6个月；6-12个月；12月及以上

53. 您参加过几次关于跨文化（交际）能力的教学培训或工作坊？0-10次
54. 您参加过几次关于远程协作的教学培训或工作坊？0-10次

本次问卷结束后，我们还将进行后续访谈以获取您对如何提高我国高校英语教师远程协作能力和对跨文化能力理解的宝贵见解。访谈的时长为半小时左右，可在任何您方便的时间通过网络进行。您可自愿参加，也可在任何时候退出访谈。如愿意参加访谈，请在下方文本框内留下您的联系方式。收到后，我将第一时间与您联系，给您发送同意书并与您商讨访谈的具体时间。衷心感谢您对本次学术研究的无私支持！非常期待聆听您的真知灼见。

55. 您的联系方式（电子邮箱、电话号码、QQ号码或其它）

本次调查到此结束，再次感谢您对该调查的无私支持。请检查是否漏填后再提交。成功提交后系统将会显示得分，谢谢！祝您工作顺利！

Appendix T

Coding Table of the Responses to Item 45

No.	Attitudes	Knowledge	Skills	Critical Cultural Awareness	Language	Others
1			文化理解	批判思维	语言交流	人际关系
2		本族语文化, 目的语文化				
3		对另一个文化的了解, 了解民族特性, 文化特性, 当地情况			外语能力	
4				社会意识	语言习惯	行为习惯
5	情感		认知			行为
6	同理心	文化背景			语言能力, 沟通能力	
7		跨文化知识	技能	跨文化意识		
8	对文化的接受度				语言能力, 沟通能力	
9					交际能力	社交能力
10				文化意识	语言能力, 沟通能力	
11		跨文化知识			语言能力, 交际能力	
12		习俗差异领悟力			表达能力, 沟通力	领导力, 协作力
13		双语文化知识			运用双语文化知识进行实际交流的能力	
14	开放包容的精神与合作的态度		文化理解能力, 文化整合能力		多语言能力	
15				跨文化意识, 跨文化批判能力	交际能力	
16			理解多文化		掌握多语言, 具备跨文化交际能力	具有国际化视野
17					表达能力	
18			协调能力		口语能力, 沟通能力	
19	能包容并接受不同文化		能与本族文化产生联系			适应新的文化环境
20		社会文化知识			语言——指掌握语法知识; 功能——指听、说、读、写四方面的能力; 语境——选择与所处语境相适宜的话语; 交际者之间的关系——根据对方的身份、地位、社会场合, 说出合乎自己身份的话语; ——语言这其中后三个方面综合起来就是一片——语言得体性。交际能力的培养也就是使学习者在与对方交流中, 根据话题、语境、文化背景讲出得体、恰当的话。	
21	情感	知识	技能			
22		文化知识			语境意识, 交际能力、沟通技巧	
23					language application ability	

24		熟知两国或多国文化	能解决跨文化交际中的矛盾			
25		了解异国文化传统知识	不同跨文化场景处理技能	跨文化交际意识		
26					communication	collaboration, creation
27	情感		认知			行为
28	动机和意愿	知识结构				行为能力
29		了解两种文化的差异	遇到文化问题可以及时处理		流利使用对方语言	
30	文化共情能力				语言沟通	
31	文化自信	文化常识			母语功底, 外语表达能力, 交流技能	
32	文化好奇心, 文化尊重	文化知识积累			语言能力, 交际能力	入乡随俗
33			理解文化差异, 处理文化冲突等能力			
34		能知晓基本的文化常识, 避免文化冲击造成的影响。			能有效地进行跨文化交际, 避免跨文化交际中的误读	
35		风俗习惯的了解, 社会方方面面的认识			语言的理解	
36	情感		认知			行为
37	empathy, open mind to learn new things, do not judge	knowledge about different cultures		cultural awareness,		proper behaviors in different cultural occasions
38					沟通, 交流	
39		文化自知和他知				
40		文化知识			语言能力	
41		跨文化知识			跨文化交际策略	跨文化交际行为
42					与不同文化背景的人进行有效交流的能力	
43		社会文化知识			跨文化语言能力, 跨文化语用能力	
44	情感		认知			行为
Total	14 responses	23 responses	15 responses	7 responses	30 responses	15 responses

Appendix U

Sample of NVivo Analysis

Understanding of foreign language learning

[<文件\Transcription 01>](#) - § 2 references coded [1.52% Coverage]

Reference 1 - 0.99% Coverage

学以致用，语言的基本属性即用来交流，准确而有效沟通是基本要求

Reference 2 - 0.53% Coverage

传播先进文化，则是外语人的高追求

[<文件\Transcription 02>](#) - § 2 references coded [5.04% Coverage]

Reference 1 - 1.90% Coverage

我觉得因为本身我们是学英语或者说学翻译专业的。本身就是在接触中国文化以及英语的母语 或者我们说西方文化这种欧洲文化

Reference 2 - 3.14% Coverage

现在可能大学里面的一些趋势是更多的在强调用英文来传播或者说讲述中国文化。它确实是有在更多的在强调文化大文化这个概念 但是更多的是从东方向西方传播的这个方向。过去可能是更多的学习西方的内容。

[<文件\Transcription 05>](#) - § 1 reference coded [5.08% Coverage]

Reference 1 - 5.08% Coverage

如果中国以后真的在世界上的作用越来越大的话，应该也要到使学生不仅成为中国人，而且最好能成为一个世界人。对，为中国服务的世界人。培养这样子应该是更好的。就是在尊重各国文化的前提下，发出中国声音，讲好中国故事，帮助西方国家理解中国、接受中国。我觉得西方国家根本就不理解。我们对西方的了解远比他们对我们了解更多，所以我希望以后的学生应该具有这种让西方国家的学生更了解中国的这种责任。

[<文件\Transcription 10>](#) - § 2 references coded [1.07% Coverage]

Reference 1 - 0.88% Coverage

语言的本质功能就是交流，特别是英语，对于中国的学生来说，它是作为一门外语。那么，我们学生的学习目标之一就是学会使用这门语言进行跨文化的交流。

Reference 2 - 0.18% Coverage

语言的本质功能就是交流的工具。

[<文件\\Transcription 11>](#) - § 1 reference coded [1.14% Coverage]

Reference 1 - 1.14% Coverage

一个是我觉得学习语言的目的最终可能是要用于交际或者是交流，那么交际和交流的对象很可能和你是不一样的文化背景，说不一样的语言。所以怎么样更好得让双方处在一个比较好的contacts里面，能够互相理解，是需要一点跨文化交际能力的。

[<文件\\Transcription 18>](#) - § 2 references coded [0.46% Coverage]

Reference 1 - 0.32% Coverage

因为最终语言可能都是要处于真正投入到真正的实际运用当中。

Reference 2 - 0.14% Coverage

肯定是要加上语境在里面的

[<文件\\Transcription 29>](#) - § 1 reference coded [2.39% Coverage]

Reference 1 - 2.39% Coverage

高等教育阶段的英语教学不应脱离跨文化交际情境。英语究其根本是一门连接不同文化的桥梁，是沟通交流的工具，脱离了跨文化交际情境的英语教学实际应用的效果一定是非常有限的。

[<文件\\Transcription 30>](#) - § 1 reference coded [1.09% Coverage]

Reference 1 - 1.09% Coverage

因为语言和文化是密不可分的。学生如果是只是掌握一些语言的知识而没有跨文化与别人进行交流，跨文化的知识和跨文化交际的操作实践和能力的话，那么这样的学习是很不完整的。而且也会影响到学生今后使用外语与国外的友人或者是将来在他的工作或者是在交流中会影响到他的真实情境中的使用。

Appendix V

Results of Interview Data Coding

Theme	Subtheme	Category	Code	File	References		
IC education	IC understanding	<u>General understanding</u>	Uncertainty of the concept		2	4	
			<u>Characteristics of IC</u>		1	1	
			<u>IC VS. CC</u>		1	1	
		IC components	Language	L1		4	4
				L2+		2	2
			<u>Communicative competence</u>		4	4	
			Cultural knowledge (CK)	C1		3	4
				C2		4	4
				Cultural difference		2	2
			<u>Ability to transmit C1</u>		3	3	
			Attitudes (A)		3	3	
			Critical thinking		2	3	
			Others		3	8	
			<u>Relationship between L & C</u>		3	3	
		<u>Relationship between A & CK</u>		1	1		
		Reasons to integrate IC in FL teaching	<u>Social context</u>		4	5	
			<u>Understanding of FL teaching</u>		8	12	
			<u>Problems in English learning and teaching</u>		6	11	
			<u>Effect of IC teaching</u>		2	2	
	<u>Research interest & IC teaching</u>			4	7		
	IC teaching	<u>Understanding of IC teaching</u>	<u>Attitudes towards IC teaching</u>		9	19	
			<u>Relationship between IC and FL teaching</u>		1	1	
		Teaching practice	Course setting		4	5	
			Teaching objectives		3	5	
			Teaching method		7	22	
			Teaching content		9	16	
			Results		2	3	
			Examples		4	5	
		Influencing factors	<u>Favorable</u>		3	3	
			Unfavorable		8	33	
		Problems	Inappropriate teaching method		4	5	
Teacher				1	1		

		Suggestions to improve IC teaching	Teaching		6	9	
			Teacher		5	10	
			Intercultural communication		4	5	
			University level		1	2	
Telecollaboration (TC)		Understanding of TC	Familiarity with TC		9	11	
			What is TC		8	15	
		Understanding of using TC in teaching	Factors	Attitudes		8	12
				affordances		5	9
				Preconditions		4	10
			Favorable		3	3	
			Unfavorable		4	7	
		Suggestions		1	7		
		Telecollaboration practice	Results		2	6	
			Favorable factors		1	4	
			Problems in teaching		1	4	
Impact of using telecollaboration			1	1			
Tips			1	5			
Attitudes of the school			2	2			
Overseas experiences	Descriptions	Basic descriptions	Place		9	16	
			Duration/Time		8	16	
			Activity		9	27	
	Effects	Short-term experiences	Effect on culture understanding	Yes		7	13
				No		1	1
			Effect on pedagogical competence (PC)	Yes		4	11
		No		2	2		
		Long-term experiences	Effect on culture understanding	Yes		5	7
				No		1	1
			Effect on PC	Yes		4	15
		No		0	0		
		Effect of different durations		4	7		
		Other effects		2	2		
		Training		Participation	Accessibility	IC training	
TC training						3	4
Participation	IC training					2	2
	TC training					0	0
Willingness to participate				2	3		
Reasons				8	21		
Training practice	Participation experiences				4	5	
	Effects				6	10	
	Suggestions		1	1			
Data for critical		Understanding of IC	Understanding of culture		1	2	

analysis	<u>Understanding of FL teaching</u>	<u>Teaching objectives</u>		2	2
	<u>Understanding of IC teaching</u>	<u>Relationship between L and C teaching</u>		3	4
		<u>students</u>		2	2
		<u>Power effect on IC teaching</u>		1	1
	<u>Training practice</u>	<u>Factors of training effect</u>		1	1
	<u>Others</u>	<u>Foreigners' understanding of China</u>		2	3

Note: Emerging codes and categories are underlined.