

**Mobile devices supporting international students to overcome language and  
cultural difficulties during study abroad**

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## Abstract

Sociocultural theory (SCT) emphasises the role of mediation in learning. International students find themselves in a vicious cycle, experiencing difficulties when engaging with native speakers and local environment which might provide the mediation necessary to help them gain intercultural communicative competence (ICC). Mobile technologies provide alternative mediational tools that might help students to break this cycle. This study aims to explore international students' use of mobile devices in the mediation of difficulties encountered during study abroad. Two main research questions that need to be answered are:

- RQ1. What difficulties did international students report that they experienced during a one-year study abroad?
- RQ2. What solutions did international students report that they implemented to overcome their difficulties during their study abroad? What role (if any) did mobile devices play in dealing with students' difficulties?

Eight Chinese international students who were doing one-year taught master's courses in the UK participated in the study. Each student was asked to keep a diary of their everyday difficulties and their solutions for four weeks. In the diary, participants were asked to record the nature of their difficulties, the situations, their solutions, and the mediational tools that they employed. Moreover, in order to explore issues raised in the diaries further and check the interpretation of the data, students were asked to attend a weekly interview. The content analysis approach was applied to examine the students' difficulties according to a framework of ICC, and their solutions and the use of technologies, especially mobile devices, based on SCT and cognitive tools. The results indicated that the students had difficulties in every dimension of ICC, and solved the difficulties by communication, self-efforts, finding references and critical cultural thinking. Mobile devices mediated the problem solving and cognitive process as searching tools, social tools, information providers, presenting tools and capture tools.

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**Author's declaration**

I hereby declare that this thesis and the work presented in it are my own and have been generated by me as the result of my own original research since the official commencement of this degree program. I confirm that where I have consulted the published work of others, it is always clearly attributed. This work has not, in whole or in part, previously been published and has never been submitted for award at this, or any other, university.

## **Chapter 1: Introduction**

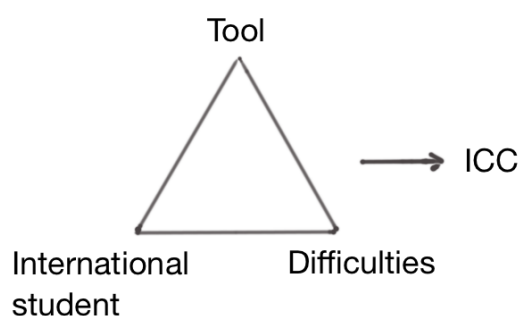
### **1.1 Motivation**

Every year a large number of international students travel thousands of miles for educational purposes, and this number is increasing steadily. For example, over 4.5 million students were enrolled in tertiary education outside their countries of domicile in 2012, increasing from 4.1 million in 2010 (OECD, 2014). Of these, 425,260 international students were registered at universities in the UK for the academic year 2012-2013, accounting for 18.2% of all university students in the UK (HESA, 2014). In 2014-2015, the number of international students in the UK increased to 436,880, 19.3% of the total number of UK university students (HESA, 2016). These figures indicate that today people are engaging in study abroad more than ever.

Previous studies have demonstrated that students' reasons for choosing to study abroad vary and include language skills, different cultural experience, academic knowledge/degree, social success, future career and family well-being (Bodycott, 2009; Pope, Sánchez, Lehnert, & Schmid, 2014). Specifically, learning the target language and experiencing a new culture are the most frequently cited reasons (Bodycott, 2009; Li, 2012; Mendelson, 2004; Pope et al., 2014; Spencer-Oatey & Xiong, 2006). Research on study abroad also suggests that the authentic context of language and culture facilitates international students to achieve their aims in language gain and international experiences, as it provides a lively target language speaking and culture environment (Engle & Engle, 2004; Ife, 2000; Kinginger, 2011; Llanes & Munoz, 2013).

During study abroad, international students are living in another language speaking context, a new cultural environment, and an unfamiliar educational system. They usually suffer from problems generated by language and cultural differences in various aspects of the host country (Gu & Maley, 2008; Kim, 2011; Lin & Scherz, 2014; Ryan & Carroll, 2005; Spencer-Oatey & Xiong, 2006). The difficulties may cause them to fail to express and receive appropriate authentic meanings in language and behaviour during intercultural communication, and may cause problems such as misunderstanding, misbehaviour, and culture shock (Li, 2012; Gu & Maley, 2008; Spencer-Oatey and Xiong, 2006; UKCOSA, 2004; Hofstede, Pedersen, & Hofstede, 2002). These difficulties set barriers for international students to further adapt to the target language and culture. Many

researchers suggest international students communicate with native speakers of the target language and become involved in the local communities of their target culture, so that they could adapt to the local environment (Allen & Dupuy, 2012; Gallagher, 2013; Mendelson, 2004). However, it can be a vicious circle for international students where their difficulties, especially language and cultural, are obstacles to intercultural communication, which is an essential approach to obtain language and cultural gains. A mediator is missing between international students and the new knowledge of the target language and culture.



**Figure 1. Study abroad triangle (developed from the SCT classic triangle)**

One possible theory that could be used to break this circle is Vygotsky's sociocultural theory (SCT). In this theory, the tool mediates international students (the subject) and their difficulties (the object). The outcome of the study abroad triangle is intercultural communicative competence (ICC), which refers to an individual's knowledge and ability to interact with people who speak another language and come from a different culture (see Figure 1). The tool for learning new knowledge, specifically ICC in the thesis, could be a teacher, an experienced peer, a book, a language, learning strategies or a computer (Lantolf & Thorne, 2006). Previous studies have demonstrated that an experienced person (Li, 2012; UKCOSA, 2004), a module on intercultural communication (Pedersen, 2010; Trede, Bowles & Bridges, 2013), and online learning or computers (Comas-Quinn, Mardomingo & Valentine, 2009; Demouya & Kukulska-Hulmea, 2010; Sweeney, 2013) can act as mediators to facilitate international students in gaining ICC. However, these sorts of mediational tools may not be always available to help in different contexts where international students ask for immediate guidance to deal with confusion or struggles. Another kind of mediational tool is needed by the students to offer support whenever difficulties occur in intercultural communication. Due to the unplanned nature of these

difficulties, the mobility of the tools may be the major required characteristic.

Mobility is the primary advantage of mobile devices. Thus, mobile devices meet a key requirement of mediational tools for learning in intercultural contexts. They could accompany with learners, capture uncertain moments, and provide background information about various contexts (Comas-Quinn et al., 2009; Demouya & Kukulska-Hulmea, 2010; Sweeney, 2013). Numerous functions and applications in mobile devices enable the device to act as a mediational tool for providing hidden information about a particular context to international students, anytime and anywhere.

Before the last decade, the benefits of mobility were limited by technology; mobile devices were not as powerful and influential as researchers assumed and discussed in their literature reviews. Learners in previous studies did not learn as ubiquitously as expected in various contexts and did not receive abundant solutions to their problems through the use of mobile devices in various learning situations (e.g., Alvarez, Alarcon & Nussbaum, 2011; Comas-Quinn et al., 2009; de la Fuente, 2014; Ducate & Lomicka, 2013). However, today, smartphones and tablet computers are as powerful as desktop computers and can gain access to the Internet wherever they are. It is time to explore the potential of mobile devices to enhance their ability to solve language and cultural difficulties (i.e., language and cultural learning) in intercultural communication.

In summary, international students are a significant group of people in higher education. Some researchers have previously been concerned with the challenges these students face during study abroad. However, few studies have discussed the potential benefits of mobile devices in mediating the relationship between international students and their difficulties. As mobile technology is developing rapidly, this is the right time to explore international students' use of mobile devices in solving their difficulties.

## **1.2 Aims and research questions**

The thesis aims to explore international students' difficulties during study abroad and their use of mobile devices in solving the difficulties. It is necessary to understand the types of difficulties that international students encounter during study abroad before examining their use of mobile devices to remedy these difficulties. The research questions that guide this research are:

RQ1. What difficulties did international students report that they experienced during a one-year study abroad?

RQ2. What solutions did international students report that they implemented to overcome their difficulties during their study abroad? What role (if any) did mobile devices play in dealing with students' difficulties?

In relation to the research questions, researchers have realised that international students are usually confronted with difficulties in lingual, cultural and academic areas (Kim, 2011; Lewthwaite, 1996; Lin & Scherz, 2014; Liu, 2013; Spencer-Oatey & Xiong, 2006). Some of the researchers provided learning strategies and suggestions to international students, educators or other university staff from the researchers' perspectives. However, the researchers did not summarise a framework to categorise the types of difficulties in the three areas, and seldom investigated international students' reactions to their difficulties and their ways of finding solutions. The significance of this study is to contribute valuable insight on international students' difficulties and their solutions, especially their use of mobile devices, during study abroad, specifically from the students' perspective.

The research questions were answered through a qualitative case study. The case study asked international students to record their everyday difficulties in diaries and interviews for four weeks. Compared with previous studies on international students' difficulties, this study followed the students in the first few months of study abroad for a short period of time, when culture shock usually presents, according to literature (e.g., Chien, 2016; Liu, 2013; Ward, Okura, Kennedy, & Kojima, 1998). International students in this study were free to report any difficulty they encountered, and each issue of difficulty was distinguished separately. This was different from previous studies using surveys, interviews or focus groups where international students were asked questions about particular types of difficulties, and then provided examples. The advantage of this study is exploring the original incidents that international students experienced with in-depth information about the students' thoughts, step-by-step reactions and the contexts. It provided a closed view of international students' daily lives. The collected data showed international students' learning process, mediational tools they selected, the roles of the



tools in the process, and even the outcomes in each issue.

### **1.3 Structure of the thesis**

This thesis has been organised in six chapters. Chapter 1 has presented the background and rationale of the present study, introduced the aims and research questions with the significance of the study. Also, briefly overviewed the structure of the thesis.

Chapter 2 reviews and critiques the literature on international students' difficulties and ICC during study abroad and the possible support available in the mobile world. To understand the difficulties international students face, it begins by presenting an overview of study abroad and the difficulties that international students would encounter while participating. Having difficulties in intercultural communication implies the student lacks some knowledge or abilities necessary to ICC, as such, to cope with these they are encouraged to develop ICC skills. It is convenient for international students to learn the language and culture of the host country from the everyday context, as they are living within it. Then, Chapter 2 introduces a theory for learning new knowledge in the social context, namely SCT. For learning effectively in the social context, international students require extra support from mediational tools, such as detailed information, translation, background knowledge and other sources, which may be not always available to them. Mobile devices, such as smartphones and tablets, are potential tools to provide this extra help to the international students, at any time and in any place. In this way, mobile devices may facilitate international students to overcome their difficulties during study abroad.

Chapter 3 introduces the methodology utilised in this study in detail. It explains the case study of the thesis on Chinese international students studying in a UK university for a one-year master's program using mobile devices. Chapter 3 discusses the present study as a qualitative study applying the diary-interview method. The participants, design and procedure of the study, and content analysis approach are also set out.

Chapter 4 presents the results of the data analysis, which answered the two research questions. The reported difficulties of international students are analysed and categorised with in-depth quotes as evidence. Then, the students' solutions are examined according to the roles of mediational tools and the use of mobile devices is highlighted.

Chapter 5 is devoted to with-in case analysis. It will describe and analyse the individual

cases. Four individual cases were selected out of the eight according to the high frequency of reported difficulties or solutions in particular categories. The correlation between the difficulties, the solutions, and the sociocultural contexts will reveal some particular issues of the four individual cases.

Chapter 6 discusses international students' difficulties from their own perspectives and their preferred solutions to each type of difficulty. The meaning of mobile devices to international students is also covered in this chapter.

Chapter 7 is the conclusion. It is a summary of the findings of the present study, and also provides the implications brought from it for the knowledge of study abroad and suggestions for future researchers and international students.

## **Chapter 2: Literature review**

This chapter presents the rationale for exploring international students' difficulties, the corresponding solutions, and their use of mobile devices during study abroad. Researchers have discussed some aspects of study abroad, for example international students' aims, gains and competence in study abroad, as many people have joined or intend to participate in study abroad programs in recent decades. Over the same period of time, mobile technology has developed rapidly, so other researchers have focused on the use of mobile devices in education, such as Mobile Learning (m-learning) and Mobile-Assisted Language Learning (MALL). The present study seeks to combine the lenses of study abroad and mobile learning to inspect international students' use of mobile devices during study abroad. Moreover, as the social context of the host country is the environment where international students encounter and solve their difficulties with or without mobile devices, Sociocultural Theory (SCT) is adopted as the theoretical framework used to investigate international students' difficulties and solutions, especially the mediational role of mobile devices.

The following review represents the literature relevant to this research study, namely international students and their difficulties, Intercultural Communicative Competence (ICC), SCT, and mobile learning. Specifically, this chapter is organised according to these four sections.

### **2.1 International students and their difficulties**

In the following sections, we will review international students' aims of study abroad, the language and cultural difficulties experienced, and suggestions for overcoming difficulties found in previous research.

#### **2.1.1 International students and their aims of study abroad**

Research on study abroad has investigated international students in a number of contexts, and the definitions of international students vary according to these different contexts. This thesis adopted the perspective of research on worldwide study-abroad issues where international students are defined as people who have crossed the borders of nations or territories for educational purposes (OECD, 2013; Ryan & Carroll, 2005; UNESCO Institute

for Statistics, 2016). In the UK context, “international students” refers to all students who come to study from outside the UK, including EU and non-EU students (Bohm et al., 2004; Gu, Schweisfurth, & Day, 2009).

International students leave their home countries for various study-abroad programs. In terms of the time-length, study abroad includes short-term (summer, or eight weeks or less), mid-length (half a year or less), and long-term (one academic or calendar year or more) sojourns (Institute of International Education, 2016). Considering the level of education, researchers have examined international students enrolled in vocational training schemes, language (and culture) classes, and undergraduate and postgraduate programs (Allen & Herron, 2003; Amuzie & Winke, 2009; Jackson, 2008; Lin & Scherz, 2014; Pedersen, 2010; Wang, Harding, & Mai, 2012).

According to the definition of international student, the primary aim of most study abroad is academic achievement. However, many studies have revealed that academic achievement was not the only goal of study abroad. International students also aim to develop language skills, experience a different culture, prepare for their future careers and develop personal competence through study abroad (Bodycott, 2009; Mendelson, 2004; Pope et al., 2014; Sánchez, Fornerino, & Zhang, 2006; Yang, Webster, & Prossera, 2011). Bodycott (2009) found international students from China expected to have a higher quality education, gain intercultural experiences and improve their employability; while the parents of these students consider the educational opportunity, employability benefits and family well-being. Bodycott's data was collected from 251 Mainland Chinese parents and 100 students who attended an international education exhibition or workshop. Specifically, the international students and parents in Bodycott's study considered academic achievement, employability, intercultural competence and language ability prior to departure, even before deciding to study abroad. Yang et al. (2011) drew a similar conclusion that international students aimed to develop personal competences, intercultural competences, and disciplinary/career competences according to a pre-departure survey with 180 Chinese international students (81% from Hong Kong). The results indicated that the students emphasised personal competence and intercultural competence, and language learning was the least important goal for them. Moreover, Sanchez, Fornerino, and Zhang (2006) compared the motivations of international students from the U.S., France and China during

study abroad. They found the motivations of the three groups all included searching for new experiences of another culture, improving social status, and searching for pleasure in an exotic environment. It demonstrated that the crucial aims of international students were intercultural experiences and family well-being during study abroad. In a study by Pope et al. (2014), after study abroad, international students from a U.S. university reviewed their preliminary factors of study abroad and they were, from the most important to the least, gaining new experiences, language, social or educational success, individual growth, career success, and family well-being. The American students ranked intercultural experiences and language development before academic achievement and employability. The four studies reviewed above agreed that international students mainly consider intercultural experiences, professional knowledge, language improvement, and career and personal competence, although the orders of the aims were different. The common findings of these studies showed that the aims of study abroad are similar around the world, regardless of the geographical or cultural distance. In other words, international students' aims of study abroad generally contain academic achievement, the target language improvement, intercultural experiences, and individual development.

Research supports the notion that international students have opportunities to fulfil their aims of study abroad, namely gaining academic knowledge, target language proficiency, intercultural competence and individual abilities, through immersing themselves into and experiencing the target culture in the social context (Briggs, 2015; Mendelson, 2004; Pedersen, 2010; Snow & Byram, 1997). International students mainly pursue their academic goals through attending formal learning activities with teachers and peers, such as lectures, seminars, examinations and homework. However, the non-academic aims, such as language, cultural and individual improvement, usually require international students to learn informally, such as through self-directed learning, learning from daily activities and social communication (Mendelson, 2004; Amuzie & Winke, 2009). They usually do not receive the same support for these from the universities as they do academic issues, unless their courses are on related topics such as those on linguistics and intercultural communication. For example, an international student registered on a physics course in the UK may learn the knowledge of physics in the English language, but he or she may not have classes such as English in a physics degree, so he would have no

formal training in English for daily use, local cultural behaviours, or independent living skills. Furthermore, the academic culture in the host environment, such as feedback, group discussion, and assessment, are also new to international students, and are not always taught directly in the class (Abasi & Graves, 2008; Lin & Scherz, 2014; Tian & Lowe, 2013). Therefore, this thesis emphasises the language development and intercultural experience, including the untold academic culture, which is less supported by formal learning.

### **2.1.2 Difficulties during study abroad**

Although the definition of international students does not mention their native languages or the target culture, research on study abroad often discusses international students as non-native speakers of the target language (Allen & Dupuy, 2012; Bain, 2007; Marlina, 2009). In other words, international students are usually language learners of the target language and newcomers to the target culture in the study abroad context. Students do not have as much knowledge of the target language and culture as the local people of the host country. International students' language ability may limit the efficiency of their interaction in the target culture, and their cultural knowledge may not be sufficient to direct their behaviours to meet the standards that are generally appreciated in the target culture. Moreover, according to the aims of their study abroad, international students usually expect to improve their abilities in the target language and gain experience of another culture, as they believe that they can learn the language and culture from native speakers in their original environment (Yang et al., 2011; Amuzie & Winke, 2009). They immerse themselves in the new environment with all of their senses (Snow & Byram, 1997), and they will find something unknown, which often challenges international students' knowledge and abilities. Therefore, international students usually encounter language and cultural difficulties during study abroad.

A few previous studies on study abroad have been concerned with the types of difficulties international students face. They generally agree that they consisted of language and cultural difficulties (Gu & Maley, 2008; Kim, 2011; Lewthwaite, 1996; Lin & Scherz, 2014; Liu, 2013). Some studies separated cultural issues into sociocultural difficulties (Kim, 2011; Lewthwaite, 1996; Lin & Scherz, 2014), academic culture difficulties (Gu & Maley, 2008; Lewthwaite, 1996; Liu, 2013; Lin & Scherz, 2014), membership and

identity challenges (Kim, 2011), independent living problems (Gu & Maley, 2008; Lewthwaite, 1996), and the possession of limited strategies to solve problems (Kim, 2011). These various opinions on international students' difficulties reflect researchers' interpretation of study abroad issues in particular contexts, such as classroom context and university context. There was no consensus on the structure of international students' difficulties in study abroad contexts, especially on the categories of culture-related issues. Therefore, this thesis will review the literature with a simple structure, namely language difficulties and cultural difficulties.

### **2.1.2.1 Language difficulties**

Only a small number of studies have directly emphasised international students' language difficulties during study abroad and suggest a framework through which to view them (Allen & Herron, 2003; Kim, 2011; Lewthwaite, 1996; Lin & Scherz, 2014; Liu, 2013). More studies on study abroad have revealed language difficulties through international students' reports when they were originally intended just to demonstrate their language gains (Gu & Maley, 2008; Mendelson, 2004; Nagy, 2008; Shi, 2011; Spencer-Oatey & Xiong, 2006).

Some researchers have suggested examining language difficulties in the four language skills (i.e., listening, speaking, reading and writing). Lin and Scherz (2014) summarise that international students' linguistic challenges include understanding lectures, participating in classroom discussions, developing language skills in social-academic contexts, and time consumed in reading and writing. It implied that international students have difficulties in the four language skills and language learning skills within the academic and social situations. Liu (2013) partially agrees that international students encounter challenges in speaking, writing, and reading the target language during study abroad (inc., academic and social contexts). Specifically, in the first two months of study abroad, international students claimed that they attempted to adapt in listening and speaking of the target language (Liu, 2013). Moreover, some researchers suggested communication, especially involving listening and speaking skills, is the significant challenge international students face. International students in Allen and Herron's (2003) study reported their biggest challenges were oral communication in the target language within social contexts, such as carrying on conversations, making plane or

train reservations, speaking and understanding language on the telephone. Kim (2011) suggested a similar finding that international students had communicative difficulties in academic contexts, for example misunderstanding other people's questions and challenges in expressing one's thoughts in the target language. It is necessary to notice that the above studies have discussed insufficient language skills and a variety of situations where international students confronted with language difficulties. Although international students in different studies reported their problems with unfamiliar accents, grammar, vocabulary, and meanings in particular situations (Kim, 2011; Lin & Scherz, 2014; Liu, 2013), few studies have covered students' difficulties according to these categories of language knowledge.

Language difficulties decrease the effectiveness of communication with other people in the target language, such as in daily communication, class interaction, and group discussion. Lin and Scherz (2014) suggest that language difficulties are burdens for international students in social and academic conversations, especially when native speakers speak fast and use slang or idioms. Language difficulties in listening, such as a lack of ability to understand fast speech styles and colloquial language, are barriers for international students to obtaining messages from others and their surroundings; while speaking difficulties, for example lack of vocabulary and grammar knowledge, are obstacles to expressing their thoughts in the L2 and to achieving the goal of learning activities, as the learning process is mediated by the L2 (Kim, 2011). Also, language difficulties slow international students' reading and writing of academic works (Lin & Scherz, 2014). International students usually spend extra time and effort in academic reading and writing to overcome language difficulties. An international student in Spencer-Oatey and Nagy's (2006) study reported that language difficulties in reading also affect his comprehension of letters in daily life. He was frustrated in trying to distinguish between important and junk mails. This problem made him very anxious, especially when letters came from the bank (Spencer-Oatey & Xiong, 2006). The inefficiency of intercultural communication discourages international students from participating in further intercultural engagement, because they sometimes receive impatient or negative reactions from professors and the English-native speaking students (Kim, 2011).



### 2.1.2.2 Cultural difficulties

Before reviewing cultural difficulties, we need to know the definition of culture and the categories of culture. In second language acquisition (SLA) and study abroad research, culture refers to a system of attitudes, behaviours and symbols appreciated by a group of people who share the same living space, history and common imaginings (Kramsch, 1995; Shiraev & Levy, 2010). It is socially acquired knowledge, which provides the rules and structures of doing everything and allows adaptation to the social life of a particular group of people, from how to earn a living to how to show respect (Hofstede, Hofstede, & Minkov, 2010; Samovar, Porter, & McDaniel, 2010). Holliday (1999) proposes the taxonomy of culture, which distinguishes *large culture* and *small culture*. *Large culture* is related to ethnic groups, nationality, and international entities; while *small culture* is attached to small social communities and activities where individuals share similar behaviours, regardless of the features of the ethnic group, nationality, and international entities, and organisational culture such as academic culture and employment culture (Holliday, 1999; Roberts, 2009). The large culture for international students is the local culture and their own national culture. For example, Chinese students are from Chinese culture or Confucius culture (Clark & Gieve, 2006; Feng, 2009). The small culture for international students may be the academic culture, vocational culture and other small group cultures.

Cultural differences usually exist between two groups of people, such as national and academic cultures. Cultural difficulties, which are generated from cultural differences between two cultures, are usually encountered when a sojourner is traveling or living in an unfamiliar country. International students as sojourners usually confront with cultural difficulties during study abroad, because of the cultural distance between their cultures and the target one (e.g., culture of the host country, culture of another interlocutor or item from another country, and academic culture of the host country).

From the large culture perspective, researchers have proposed the measurement of cultural distances between nations. Hofstede et al. (2010) suggest six dimensions of national cultures for assessing cultural distance between nations. The six dimensions include power distance, individualism/collectivism, indulgency/restraint, uncertainty avoidance, masculinity/femininity, and long/short-term orientation. The index of the six dimensions illustrates the cultural differences that may cause cultural difficulties.

- (1) **Power distance** is the extent that an individual of a group within a country expects and accepts inequality because of the power differences. For example, China is a Confucian-heritage country where the unequal relationship among people is accepted and appreciated (Clark & Gieve, 2006; Hofstede et al., 2010). It means that China is a large-power-distance country where a parent, a teacher, or a boss is superior to a child, a student, or a subordinate. In the classroom, the teacher is the authority and the conversation starter in teacher-student interactions (Hofstede et al., 2010). On the contrary, the UK and the majority of the North and Northwest European countries and the Anglo world (e.g. Finland, Germany, United States, and Australia) are small-power-distance countries, where people tend to minimize inequalities among people (Hofstede et al., 2010). In the societies of these countries, people are supposed to treat each other equally; in educational settings, students are welcome to ask questions, and even argue and criticise the words the teacher says (Hofstede et al., 2010). Chinese international students are usually evaluated as silent, passive and uncooperative students by teachers in small-power-distance countries (Marlina, 2009; Ping, 2010; Tung, 2016; Wang, 2016). An Asian international student revealed a possible reason for the silence was that the teacher-student relationship was 'distant, formal and serious' in her culture, so she would not approach professors for help in the US university (Lin & Scherz, 2014, p.23).
- (2) **Individualism/collectivism** is the loose or tied relationship between individuals within a nation. In other words, it is the power of the group, such as a family, a university, and a social community (Hofstede et al., 2010). If the individual of a society values his or her interests over the interests of his or her group, the society is individualist. Otherwise, it is a collectivist society. People from collectivist countries prefer to maintain harmony and avoid confrontation in social communication via giving others face and avoiding losing their own face (Shi, 2011). 'Face', or 'mianzi' in Chinese, is a significant concept for

collectivists in social environments, especially for Chinese people. It refers to the public image of a person according to the comments of a community (Shi, 2011). Face is lost when a person or someone closely related to him fails to meet the essential requirement of his status (Ho, 1976), and it is given to someone by offering honour and showing respect (Hofstede et al., 2010). For the sake of face, people from collectivist countries might hide the truth, if the truth may make them or others lose face. On the contrary, people from individualist countries are raised and educated to always tell the truth, even if it may hurt someone (Hofstede et al., 2010). China is a particularly collectivist country, while the UK is individualistic (Hofstede et al., 2010). When a Chinese international student lives in the UK, he may worry about some issues that make him or others lose face, such as linguistic mistakes, Chinglish accent and wrong or no answer to a question in the classroom (Wang, 2016), but his British classmates may not care about the faults. For saving 'face', Chinese international students usually dislike group discussion which is often used in British education, because it is an activity to challenge others' opinions, threaten each other's face and even break the harmony of the group (Wang et al., 2012).

- (3) **Indulgency/restraint** is the degree to which the individuals of a nation prefer to enjoy life and have fun, or be regulated by strict social norms (Hofstede et al., 2010). Compared with people from indulgent cultures (e.g., UK, US and New Zealand), people from restrained countries (e.g., China, India and Pakistan) work hard but feel more pessimistic, and believe that leisure and having friends are less important (Hofstede et al., 2010). This characteristic of Chinese people may be one of the reasons that Chinese international students were less involved in local activities and making friends with local people (Lewthwaite, 1996; Lin & Scherz, 2014; Spencer-Oatey & Xiong, 2006; UKCOSA, 2004).
- (4) **Uncertainty avoidance** is the level of the tolerance for the ambiguous and

unpredictable situations by members of a country (Hofstede et al., 2010). Geert Hofstede suggests that students from strong uncertainty-avoidance countries believe their teachers are experts on the subjects who can answer all their questions. On the contrary, students from weak uncertainty-avoidance countries accept the teacher admits his limited knowledge in the subject (Hofstede et al., 2010).

- (5) **Masculinity/femininity** is the degree to which the gender roles of a country are clearly distinguished or not. For example, in a masculine country, men are supposed to make money for the family while women do the housework. People from masculine cultures may hold the stereotypes of men and women. In the educational area, Geert Hofstede suggests students from masculine cultures intend to compete openly with peers while those from feminine cultures have no such intentions (Hofstede et al., 2010).
- (6) **Long/short-term orientation** is the extent to which people of a country expect to gain a reward for pragmatic virtues in the future or immediately. China is a particularly long-term orientated country where people appreciate perseverance, thriftiness and hard work; but the UK, the US and Canada are short-term orientated countries (Hofstede et al., 2010).

The last four dimensions like the other two dimensions (i.e., power distance and individualism/collectivism), have influence on people's thoughts and behaviours. However, they are rarely reported in previous studies on study abroad. The conflicts between cultures in the four dimensions may not be obvious in study abroad research. Therefore, difficulties related to the four dimensions may be discovered in future studies.

There are also many specific cultural differences between two nations in the six cultural dimensions, such as food and nonverbal behaviours (Byram, 1997; UKCOSA, 2004; Spencer-Oatey & Xiong, 2006). These are detailed differences in daily life, which make sojourners feel it is difficult to communicate with local people and people from other nations. Ethnic food is a key representation of most cultures (Bochner, 1977). Some

international students in study abroad research did not like the local food, and even claimed it was a challenge to adjust to it (Gu & Schweisfurth, 2009; Kinginger, 2013; Lombard, 2014; Nagy, 2008). International students usually miss their ethnic food during travel or living abroad, especially when they feel homesick (Lewthwaite, 1996; Mendelson, 2004). In terms of behaviours, sojourners often automatically interpret and act according to their own cultural background (Byram, 1997; Hofstede et al., 2002; Liu, 2013). For instance, nonverbal behaviours (e.g., gestures, facial expression and personal appearance) are imitated and learnt for communication with unspoken messages in one's own culture unconsciously. It is usually used and interpreted according to one's own culture in intercultural communication (Hofstede, et al., 2002). The nonverbal behaviours are seldom taught (Byram, 1997), especially out of classroom and during study abroad. It requires international students to notice the differences, and learn the meanings of non-verbal behaviours in their daily interaction. For example, the hand sign with index and middle fingers up while the others clenched means victory worldwide. However, in some Asian countries, youngsters use it as a photography pose without a particular meaning, while in the UK, the 'V' hand is a rude gesture.

Apart from the large culture of the target country, the small cultures, especially academic culture, are significant for international students. A small culture is related to the national culture but is not a sub-culture of the target culture. The difficulties with an academic culture impede international students' academic achievement, which is one of the aims during study abroad. A large majority of international students were concerned and even worried about their academic performance before and during study abroad (Gu et al., 2009; UKCOSA, 2004). The academic expectation and criteria of assessment are not transparent for international students who are newcomers to the target academic culture (Kim, 2011). Some studies on study abroad revealed academic discourse challenges such as difficulties in the new style of class interaction, assessment, feedback, interpretation of plagiarism and other's academic culture (e.g., Abasi & Graves, 2008; Amuzie & Winke, 2009; Kim, 2011; Liu, 2013; Tian & Lowe, 2013). In Kim's (2011) study, international students reported their difficulties in understanding the unspoken requirements of an essay in the target academic culture. It demoted international students' performance in assessments, even though the students thought the course was easy to

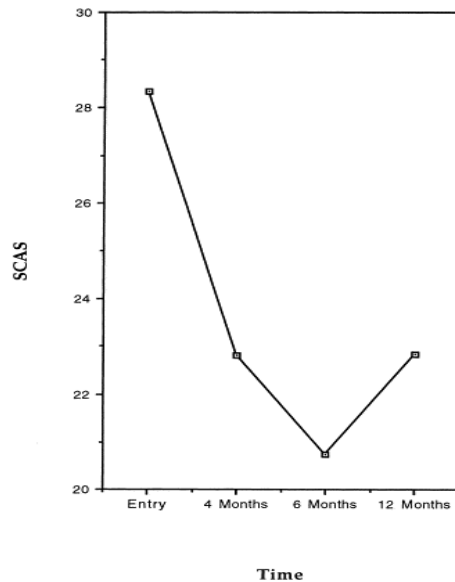
understand (Kim, 2011). International students in Spencer-Oatey and Xiong's (2006) study also agreed that *writing up papers that can earn you good grades* was one of the *greatest difficulties* during study abroad. Moreover, Tian and Lowe's (2013) study realised that understanding feedback was a challenge for some international students, which was an important teacher-student communication in the British education. International students were expected to understand thoroughly and give proper reactions as local students would, such as revising their writing according to the feedback (Tian & Lowe, 2013). However, the Chinese international students were confused about British academic feedback in the first term, as it was different from the feedback given in China. Tian and Lowe's (2013) study showed that Chinese international students adapted to the feedback gradually, and finally appreciated the value of the critical feedback and communicated with their tutor effectively through feedback. In the process of adaptation, the participants reported that they suffered from cognitive, psychological and affective difficulties, such as learning the new rules for academic success, low self-esteem, and feeling sad (Tian & Lowe, 2013).

International students as sojourners are suggested to be aware of the cultural differences reviewed above, and many other specific cultural differences beyond the review, such as understandings of jokes and humour, expectations for time, starting and maintaining social relationships, dealing with physical closeness and touching in social or small cultural settings (Lin and Scherz, 2014; Spencer-Oatey & Xiong, 2006). The awareness requests international students learn the knowledge of the target culture, so that they could behave, react and interpret the cultural behaviours accordingly in the target sociocultural environment. Otherwise, the sojourners will experience culture shock, when they have to adjust to an unfamiliar social system where previous knowledge of living is no longer effective (Hofstede et al., 2002; Jandt, 2010; Samovar et al., 2010).

Culture shock is a psychological status of distress when individuals encounter cultural differences in intercultural contact (Hofstede et al., 2002; Ward, Bochner, & Furnham, 2005). The development of culture shock is usually suggested as a U-curve or a J-curve. Black and Medenhall (1991) conducted a chronological review of experimental studies of cross-culture adjustment in the 1950s-1980s. Twelve out of eighteen articles support the 'U-curve' hypothesis, but some studies indicate that a 'J-curve' pattern of adjustment also exists, which is an upward-sloping pattern of adjustment in which sojourners gradually

adjust to the new environment over time without the initial honeymoon stage.

(1) The U-curve contains five phases, including honeymoon, disorientation, irritability and hostility, adjustment and integration, and biculturalism (Hofstede et al., 2002). The first phase is called honeymoon or euphoria, where the newly arrived person starts to experience the foreign culture with excitement and hopefulness as a tourist. However, the person's thoughts and behaviours are still based on his first culture (Hofstede et al., 2002; Samovar et al., 2010). Disorientation is the second phase, where the individual experiences some difficulties and misunderstandings in adaptation and communication, and is overwhelmed by the requirements of the new culture (Hofstede et al., 2002; Samovar et al., 2010). In the disorientation stage, the individual may blame himself and feel desperate. This kind of negative emotion will reach the bottom at the irritability and hostility phase, because the individual seriously suffers homesickness and believes that he has less adequate knowledge of the new culture than of the familiar one (Hofstede et al., 2002). When the ability to function in the new culture increases, the individual may find solutions to some difficulties and realise the advantages and disadvantages in two cultures (Hofstede et al., 2002), as the experiences of the new culture are fairly compared with one's own culture (Alred, Byram, & Fleming, 2002). This process happens in the adjustment and integration phase where interpersonal communication and social activities are less stressful and predictable (Samovar et al., 2010). The final stage is biculturalism, where the person understands the key elements of the new culture, and feels comfortable to live and communicate within both cultures (Hofstede et al., 2002; Samovar et al., 2010). Ward and her colleagues conducted a one-year longitudinal study on cross-cultural transition. Their findings support the U-curve hypothesis and identified the first half year was the time when sojourners confronted with various difficulties and frustrations (Ward et al., 1998; see Figure 2)



**Figure 2. Sociocultural adjustment score (SCAS) over time (Ward et al., 1998, p.284)**

(2) Other researchers support the J-curve hypothesis with their observation and interviews (Biddle, 1979; Brown & Holloway, 2008; Ward, Bochner, & Furnham, 2001). They suggest the emotion of sojourners is to the bottom at the beginning of stay in an unfamiliar culture. Although the sojourner's new life may raise positive moods such as excitement and enjoyment, they are overwhelmed by the intensive negative moods (Biddle, 1979; Brown & Holloway, 2008; Ward et al., 2001). Chien's (2016) study demonstrated the academic adjustment of postgraduate international students started at low point and increased gradually during study abroad.

No matter which shape of culture shock the researchers suggested, sojourners, or namely international students in this thesis, usually suffer from culture shock for a period of time after their arrival. Researchers conducted studies to trace the level of culture shock and found that sojourners could not adjust to the target culture in the first few months, and even some studies observed the rate of adaptation as decreasing in the first half-year of living abroad (Chien, 2016; Ward et al., 1998). This implies that international students commonly encounter difficulties during study abroad, especially the first few months after arrival (Liu, 2013).

### **2.1.3 Suggestions for overcoming difficulties**

For overcoming the difficulties in study abroad, researchers usually suggest international



students learn and practice the knowledge of the target culture through intercultural contact (Allen & Dupuy, 2012; Gallagher, 2013; Mendelson, 2004). With the language and cultural knowledge of the target culture, international students would overcome the difficulties, decrease the culture shock level and improve their language proficiency (Bacon, 2002; Elola & Oskoz, 2008; Liu, 2013). Liu's (2013) study indicated that the international students who aim to overcome language difficulties needed to make efforts to engage in the local environment through adapting to listening and speaking, learning appropriate language use, translating into Chinese, acquiring new concepts and transferring already learned knowledge (Liu, 2013). From the large culture perspective, international students are advised to learn to understand other students from others' cultural perspectives, rather than simply complain about the cultural and attitudinal differences in intercultural communication. The decrease of ethnocentrism and the increase of tolerance may benefit international students when contacting people from other cultures (Wang et al., 2012). In academic culture, research suggests international students change their attitudes towards the teacher-student relationship, become involved in learning activities, and learn to make use of the target academic culture for their learning achievement (Amuzie & Wink, 2009). Especially for the students from high power distance countries (e.g., China, Korea and Japan), awareness that teachers are equal in power within low power distance countries (e.g., the UK, the US, and Australia) is important. They are expected to participate in in-class interactions and contribute to group discussions. Through interactions and discussions, the international students not only gain the knowledge of a subject, but also knowledge of academic culture for overcoming academic difficulties (Kim, 2011).

On the contrary, if international students are reluctant to overcome challenges in intercultural communication, they might confront with more barriers in further communications. Hofstede and his colleagues revealed that intercultural sojourners prefer to stereotype, namely categorising people into different patterns based on one's previous experience (Hofstede et al., 2002). The stereotypes prevented sojourners from interpreting behaviour accurately (Hofstede et al., 2002). For example, Chinese people should be good at math, and British people should always carry an umbrella with them. However, these stereotypes are not always the truth. In intercultural contacts, some international students often use smiles and nods to cover their embarrassment that they did not understand the

speaker (Gu and Maley, 2008). They intended to avoid losing face and language difficulties. Researchers found that if an international student avoided asking questions or even pretended to understand everything, it would make the other interlocutor (e.g., native speakers and teachers) feel uncomfortable in the intercultural communication (Gu and Maley, 2008; Kim, 2011). If the international student cannot find a way to overcome the language difficulty, specifically listening difficulty, soon enough, the conversation may have to change topic or even stop (Gu and Maley, 2008; Kim, 2011). It may leave an unpleasant experience of intercultural communication for both the international student and the native speaker, and even neither of them would be interested in intercultural communication (e.g., Gu et al., 2010; Spencer-Rodgers & McGovern, 2002; UKCOSA, 2004). In other words, hiding ignorance would not solve the existing difficulty, but create new problems.

As reviewed above, researchers have come to agreement on participating in intercultural communication for overcoming language and cultural difficulties during study abroad. However, international students usually complained that they have limited opportunities to contact native speakers of the target language, especially after class (Lin & Scherz, 2014; Spencer-Oatey & Xiong, 2006; UKCOSA, 2004). Many Chinese international students in the UK reflected in an interview that they had few chances to communicate with British students, as there were no British students in their classes (Spencer-Oatey & Xiong, 2006). Most of 45 American students in Spain made a similar comment that they spent less time with local people than expected, but more time with other American students in the program (Mendelson, 2004). Asian students in New Zealand also reported few chances to be involved with local students (Lewthwaite, 1996). Alternatively, they were more satisfied with interaction with other international students. The Chinese students intended to mix with Asian students, especially other Chinese students, more than with Europeans, because of less cultural difference and more confidence in speaking English (Spencer-Oatey & Xiong, 2006). International students showed their preference to join student clubs or societies of their own nation (Lewthwaite, 1996). The results from various studies infer that many international students were reluctant to face the cultural distance and tried to avoid language and cultural difficulties.

#### **2.1.4. Section summary**

This section has reviewed the definition of international students, and their aims of study abroad. Then, the discussion focused on international students' difficulties during study abroad; only a small number of studies on study abroad have explored international students' difficulties and their solutions during study abroad (e.g., Gu & Maley, 2008; Kim 2011; Lewthwaite, 1996; Lin & Scherz, 2014). The studies concerning the difficulties and solutions have proposed some structures for international students' difficulties. However, these structures were unlikely sufficient for exploring the variety of international students' problems during study abroad. The insufficiency limits the researchers, international students and educators in understanding the real situations and challenges of international students during study abroad. A new structure or perspective is required to sort out various kinds of problems that international students encounter during study abroad. In terms of this, the next section will discuss intercultural communicative competence, which was originally designed for guiding and assessing international students' ability to communicate in intercultural contexts (Byram, 1997; Deardorff, 2009).

### **2.2 Intercultural communicative competence**

This section will discuss the definition of intercultural communicative competence (ICC), specifically explaining the relationship between ICC, communicative competence (CC), and intercultural competence (IC). And then, models of ICC are presented in detail with CC and IC.

#### **2.2.1 Definition of intercultural communicative competence**

Previous research on ICC has used several phrases to describe it, such as cross-cultural adaptation (Lewthwaite, 1996), intercultural sensitivity (Bennet, 1986), and intercultural competence (Deardorff, 2006). Some researchers regarded the notion of ICC as equal to the concept of intercultural competence (IC), however language-related competence, namely communicative competence (CC) is not included (e.g., Fantini, 2000; Schnabel, Kelaca, van de Vijver & Seifert, 2015). For example, Bennett's Developmental Model of Intercultural Sensitivity, Deardorff's intercultural competence model and the following studies by other researchers did not include language competence as a dimension of their

models (Bennett, 1986; Deardorff, 2006; Marx & Moss, 2011; Pedersen, 2010). However, other researchers suggest that language competence should always be a part of ICC, as ICC is a cluster of competences for communicating within an intercultural context (Byram, 1997; Fantini, 2000; Lussier, 2007; Sercu, 2004). A successful intercultural communication is an effective contact primarily, which usually requires the efficacy of communication in a language and the politeness to deliver the information within another culture (Byram, 1997). In other words, competence in language and culture are two groups of essential abilities for intercultural speakers to communicate within an intercultural context. This thesis adopts the later view that ICC is an umbrella term that consists of communicative competence and intercultural competence.

In the concept of ICC, *Intercultural* presents the context of ICC, which refers to interaction among people beyond national boundaries with concern for the issues of national, ethical, or belief differences that may affect the creation of meaning (Arasaratnam & Doerfel, 2005; Bennett, 2010). *Communicative* shows the purpose of ICC is communication. Communication is the process in which the message and ideas are exchanged and understood between the information producer and the receiver (Arasaratnam & Doerfel, 2005). Intercultural communication happens when a message is produced in one culture and conveyed to another culture (Samovar & Porter, 2011). *Competence* is the core concept of the term ICC. It refers to a cluster of knowledge, skills and dispositions that allow a person to produce acceptable behaviours and interpret others' performances based on a specific language or culture in a certain context (Lehmann, 2007; Milroy & Gordon, 2003). In language learning and intercultural communication areas, the competence has been expressed as 'can-do' statements by a person (Byram, 2012). The statements usually relate to the cognitive, affective and behavioural approaches of the person, which reflect his knowledge, attitude and skills (Gertsen, 1990; Root & Ngampornchai, 2012; Portera, 2014).

Based on the combination of the three words of ICC, ICC literally means an individual's knowledge, attitude and skills to communicate effectively and appropriately in intercultural situations. To review the definitions of ICC, it is also necessary to cover the concepts named as IC, as mentioned at the beginning of this section, ICC and IC were considered similar or the same concepts in some previous studies. Byram (1997) suggests

ICC refers to “a person’s ability to relate to and communicate with people who speak a different language and live in a different cultural context” (p.1). Byram’s definition highlights the language and cultural differences between interlocutors. Deardorff (2004) defined IC as “the ability to communicate effectively and appropriately in intercultural situations based on one’s intercultural knowledge, skills, and attitudes” (p. 194). Deardorff’s definition stresses the efficiency and appropriateness of the cross-cultural communication, and also specifies that the components of competence are knowledge, skills and attitudes. It does not directly claim that language-related competence is not part of ICC. Rathje (2007) suggests that the goal of ICC is to achieve the aim of the communication in an intercultural situation by decreasing misunderstandings. She points out that the fundamental objective of ICC is to have a successful communication, namely to accomplish a task with acceptable manners in an intercultural situation. Fantini (2000) suggests more objectives of ICC, including the success of the communicative task, the development and maintenance of the intercultural relationship, and the efficiency and appropriation of communication. From international students’ perspectives, their ICC may need the knowledge, skills and attitudes in language and culture to fulfil the tasks in a new social context, contact and maintain relationships with other people, and exchange messages effectively with others in an acceptable way.

There is no consensus on the components of ICC. As claimed at the beginning of this section, some researchers admit that ICC or the same concept with the name of IC always implies CC (Fantini, 2000; Lussier, 2007; Sercu, 2004). It implies that ICC includes linguistic competence, sociolinguistic competence and pragmatic competence. However, these researchers no longer consider CC the focus of ICC, but only pay attention to the culture-related competences (i.e., IC) that come into discussion in about three decades. It likely becomes a trend that language and cultural gains become two separate branches of research on study abroad. This thesis viewed ICC from both language and cultural dimensions, and the following sections will review the literature on CC and IC.

### **2.2.2 Communicative competence**

Communicative competence (CC) refers to the knowledge and ability to communicate successfully in and regulate communicative behaviour in particular contexts (Vorweg, 2015). It was initially coined by Hymes (1972) to refer to the knowledge of grammar rules

and appropriate usage of language in daily social interaction. It implies that CC primarily contained grammatical competence and sociolinguistic competence, which was used by Hymes (1992) to argue with Chomsky's grammatical model. Canale expanded CC by adding strategic and discourse competence (Canale & Swain, 1980; Canale, 1983). He proposed that CC included grammatical competence, sociolinguistic competence and discourse competence (Canale & Swain, 1980; Canale, 1983). They are the knowledge of basic grammatical principles, the use of language to communicate in social contexts, the ability to write and speak according to the principle of discourse, and the application of communication strategies to ensure successful communication (Canale & Swain, 1980; Canale, 1983). van Ek (1986) distinguished two more components from the CC group, namely sociocultural and social competence. Sociocultural competence is the ability to function in several cultures, and social competence is the knowledge of differences in social customs, confidence, empathy and motivation to communicate with others (van Ek, 1986).

The above frameworks of CC are based on general language studies and second language teaching. Byram (1997) critically reviews these CC frameworks in study abroad and intercultural contexts. He refines van Ek's communicative ability model to adjust to the intercultural communication via replacing 'native speaker' with the concept of 'intercultural speaker.' Byram (1997) cites linguistic, sociolinguistic and discourse competence as part of CC in his ICC model, while the other three competences of van Ek's model are merged in intercultural competences. The Common European Framework (CEF, Council of Europe, 2001) developed Byram's model. As the understanding of language and culture/society is developing in the research area, the CEF (Council of Europe, 2001) broadens discourse competence to pragmatic competence. The following parts will discuss linguistic competence, sociolinguistic competence and pragmatic competence.

#### **2.2.2.1 Linguistic competence**

Linguistic competence, also known as grammatical competence (Hymes, 1972; Canale & Swain, 1980), refers to using the knowledge of grammatical rules to produce and receive meaningful utterances (Byram, 1997; Council of Europe, 2001; Usó-Juan & Martínez-Flor, 2008; van Ek, 1986). The grammatical rules are based on the standard version of a

language that native speakers of the language would commonly use to formulate meaningful utterances in isolation (Byram, 1997; Council of Europe, 2001; van Ek, 1986). In other words, linguistic competence is concerned with the grammatical rules of a language that may not change according to the social and cultural context. The CEF (Council of Europe, 2001) agrees with the research on CC in SLA (e.g., Celce-Murcia, Dörnyei, & Thurell, 1995; Kinginger, 2009; Lehmann, 2007) in that linguistic competence includes the knowledge and ability to use the vocabulary, grammatical resources, the organisation of meaning, and the perception and production of sound in a language. It elaborates by stating that linguistic competence is reflected in the language speaker's use of grammatical forms, such as lexical items, syntactic patterns, semantic features and phonological forms. Alternatively, some researchers (e.g. Paige, Cohen, Kappler, Chi, & Lassegard, 2004; Roskvist, Harvey, Corder & Stacey, 2014; Watson, Siska & Wolfel, 2013) have explored international students' linguistic competence or language ability from the language proficiency perspective, namely listening, speaking, reading and writing skills. The four language skills may be efficient to measure students' language ability. However, they do not have the advantage to find the original reasons for international students' linguistic problems, such as vocabulary shortage, grammar mistakes, and pronunciation errors. Therefore, this thesis prefers to consider linguistic competence as grammar forms, including vocabulary, grammar and phonology.

Ability with vocabulary, or lexical competence, is often suggested as the heart of CC (Meara, 1996; Coady & Huckin, 1997). It is the knowledge of vocabulary and the ability to use words (Council of Europe, 2001; Marconi, 1997), for example recognising a word from spoken and written language, and understanding the word's meaning. Language learners, such as international students, may show their lexical competence through the size of their vocabulary, and the knowledge of words in orthography and meanings (Zareva, Schwanenflugel & Nikolova, 2005). Learners with limited lexical competence may not be able to understand the language. Also, semantic competence is the ability to organise words according to the relationship of word meanings such as synonym, antonym, and hyponym (Council of Europe, 2001). In a communication or an intercultural communication, semantic competence usually works along with lexical competence to indicate the meaning of words. Therefore, lexical competence and semantic competence are combined as the

ability with vocabulary in this thesis.

Grammatical competence, as a sub-category of linguistic competence, refers to the narrow concept that is the knowledge and ability to apply the grammatical rules of phrases and sentences to express and comprehend meanings in a language (Council of Europe, 2001). Language learners with grammatical competence have the knowledge of morphology and syntax, which are usually taught in a language classroom. For example, the '-s' at the end of nouns represent a plural, and a sentence, at least, consists of a noun and a verb. Language learners, including international students, without grammatical competence may have difficulties in decoding the phrase and sentence structure that may cause misunderstanding of the meaning of the message.

Phonological competence is the ability to produce and receive the distinctive meaningful sounds of a language (Council of Europe, 2001). It also contains the ability of orthophony and orthography (Lehmann, 2007). Language learners, especially international students, with phonological competence may have the ability to speak and understand the standard pronunciation of a language. Otherwise, they may have difficulties in expressing their thoughts through speech, and in comprehending the meaning of a continuous sound while listening.

International students, especially those who are registered to undergraduate and graduate programmes, have a certain level of linguistic competence prior to studying abroad. Their linguistic competence is usually taught by teachers in a language classroom, and assessed by language examinations that educational institutions approve, such as IELTS and TOEFL. The requirement of a certain level of linguistic knowledge by universities likely raises international students' awareness of linguistic competence more than other language-related competencies, namely sociolinguistic competence and pragmatic competence. International students often report a lack of knowledge of pronunciation, sentence structure, and vocabulary in many studies (e.g., Liu, 2013; Nagy, 2008; Spencer-Oatey & Xiong, 2006).

#### **2.2.2.2 Sociolinguistic competence**

Sociolinguistic competence refers to the mastery of particular language forms in social contexts (van Ek, 1972; Council of Europe, 2001; Kinginger, 2009). It emphasises the



diversity of language forms in a variety of social relationships. Compared with linguistic competence, sociolinguistic competence stresses authentic language rather than standard language rules (Lehmann, 2007). Sociolinguistic competence includes dialect and accent, linguistic markers of social relations, and expressions of folk-wisdom (Bachman, 1991; Council of Europe, 2001). The aspects of sociolinguistic competence are the language traits of a speaker, and reflect the diversity of language forms in various social contexts.

Dialect and accent are the particular form and pronunciation of a language that is commonly used in a specific geographic region or social group (Bachman, 1991). The competence of dialect and accent is the ability to understand the language with regional or social traits. The competence of dialect is the sensitivity to the appropriateness of the language forms in a specific language use context (Bachman, 1991). For instance, students are expected to use academic expressions in their assignments rather than Internet slang. The competence of accent requires language learners speak in an acceptable way and understand the pronunciation of other language users, including native and non-native speakers (Moubarik, 2003). For example, people in York may speak in a Yorkshire dialect, who may pronounce 'bus' /bʌs/ as /bus/. Chinese language learners may have a Chinese accent when speaking English, and may not be able to produce the sounds /ð/ and /θ/ appropriately. If a Chinese student with limited dialect and accent competence asks a York resident about directions to a bus stop, they may have difficulty understanding each other.

Linguistic markers of social relations are usually related to factors such as relative status and closeness of the relation. For example, the formal form to address a teacher in the UK is Miss., Mr., Dr., or Prof. and followed by the teacher's surname, while the informal form is the first name only. In the UK, students usually use the informal form to address the teacher in casual circumstances, such as in-class interaction, e-mail contact, and daily greetings. In China, teachers generally prefer to be addressed with positions (e.g., Professor or Teacher) after their surnames by students and colleagues, such as *Li Laoshi* (surname + *teacher* in Chinese) in both formal and informal circumstances. If a student calls a teacher's full name or uses only their given name without the position, it is an impolite behaviour. The uses of linguistic markers of social relations are different in the UK and China. The difference shows that to develop international students' competence in the

linguistic markers of social relations, they not only need to have knowledge about linguistic markers, but also the different uses of markers between the target culture and his own.

Expressions of folk wisdom, such as proverbs and idioms, are cultural references (Bachman, 1991; Council of Europe, 2011). This aspect of sociolinguistic competence is the ability to interpret culture related expressions. It usually requests that the listener has knowledge of the target culture in order to understand the implied meaning of the expression. For example,

A: I hear John didn't do too well on his final exam.

B: Yeah, it turned out to be his Waterloo.

(Bachman, 1991, p.97)

The symbolic meaning of 'Waterloo' in this dialogue is "a major and final defeat with awful consequences for the defeated" (Bachman, 1991, p.97). Without knowledge of English and world history, a language learner may not understand the meaning of the second utterance.

According to these three aspects, an individual with sociolinguistic competence should have knowledge of various language forms and sociocultural norms to use the forms in particular contexts.

### **2.2.2.3 Pragmatic competence**

Pragmatic competence refers to the ability to organise the language, to perform communicative functions, and to use the patterns of social interaction for particular social purposes (Council of Europe, 2001; Roever & Al-Fahtani, 2015). It consists of discourse competence and functional competence.

Discourse competence refers to the selection and sequencing of utterances to achieve coherence and cohesion for a particular purpose in a special context (Byram, 1997; Council of Europe, 2001; Celce-Murcla et al., 1995). It includes coherence and cohesion, logical ordering, style and register and rhetorical effectiveness (Council of Europe, 2001). Coherence is concerned with the sentences within a discourse sequence that are related, which reflects the quality of the utterance; and cohesion is the way that words are referred

to within the utterance (Celce-Murcla et al., 1995; Kinginger, 2009). They relate to the meaning and verbal relations within the text and conversation structure. In this way, discourse competence also determines the logic of writing and speaking in a particular context. The ability to use formal and informal style and register in utterance is also included in discourse competence. For example, academic writings and personal letters request different styles and registers. One of the essential contexts requiring strict coherence and cohesion from international students is the academic context. International students are required to think, write and speak in an academic way, such as participating in group discussion with peers, writing an assignment or presenting orally in the classroom. In this way, discourse competence is essential for international students, especially in the academic context.

Functional competence refers to the ability to use spoken and written language to communicate for a particular purpose of language users (Council of Europe, 2001). It concerns the awareness of various language forms to achieve different communication purposes, such as asking a question, making an argument, and giving a suggestion. For example:

*Jack is talking to his housemate Sarah about another housemate, Frank.*

Jack: “Do you know where Frank is, Sarah?”

Sarah: “Well, I heard music from his room earlier.”

*What does Sarah probably mean?*

- a. Frank forgot to turn the music off.
- b. Frank’s loud music bothers Sarah.
- c. Frank is probably in his room.
- d. Sarah doesn’t know where Frank is.

(Roever, 2006, p.238)

In this example, Sarah did not answer the question directly, but implied her thoughts in her reply. To understand Sarah’s intention requires the listener has pragmatic competence.

Moreover, functional competence also concentrates on the practices of politeness conventions for diverse aims (Celce-Murcia et al., 1995; Council of Europe, 2001). Politeness conventions are the knowledge and ability to show positive politeness, negative politeness and impoliteness, such as concerning other's well-being, avoiding face-threatening behaviour, and showing dislike (Council of Europe, 2001). Sometimes politeness hides behind the literal meanings of language expressions. It may cause misunderstanding and embarrassment through word-by-word translation.

Accordingly, CC in this thesis consists of linguistic, sociolinguistic and pragmatic competences.

### **2.2.3 Intercultural competence**

IC generally refers to the knowledge, skills and attitudes of communicating appropriately and effectively with people from another culture, regardless of language differences (Byram, 1997; Deardorff, 2006; Lussier, 2007; Rathje, 2007). The definition clarifies the major components of IC, namely knowledge, skills and attitudes. IC is necessary for the interaction between people with different cultural backgrounds, even for people sharing the same L1. Some researchers have conducted studies on IC of international students in the same L1 countries, such as American students in the UK (Pedersen, 2010; Marx & Moss, 2011).

Researchers present their understanding of IC with various models which are derived from knowledge, skills and attitude components. IC in Byram's ICC model consists of 'five *savoirs*,' including attitudes (*savoir être*), knowledge (*savoirs*), skills of interpreting and relating (*savoir comprendre*), skills of discovery and/or interaction (*savoir apprendre/faire*), and critical cultural awareness (*savoir s'engager*) (Byram, 1997). Fantini (2000) agrees on the competence of attitudes and knowledge, but he merges all the skills as one component. He highlighted that (inter)cultural awareness occurs after the attitude, knowledge and skills are developed (Fantini, 2000). When these three elements work together, it will produce intercultural awareness. Lussier (2007) considers the two models, and proposes a three-competence model: intercultural cognitive competence (knowledge), intercultural procedural competence (know-how), and intercultural being (affective and psychological factors). She suggests cultural awareness and critical cultural awareness are

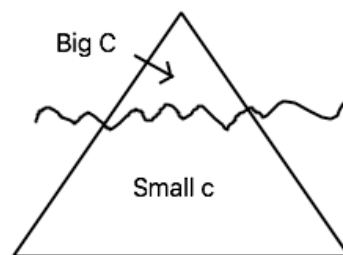
sub-categories of intercultural being (Lussier, 2007). On the other hand, Deardorff (2006) develops another popular model that stresses the development of IC. Apart from the commonly agreed attitude, knowledge and skills, it contains desired internal outcomes and desired external outcomes (Deardorff, 2006, 2009). Although the model does not display critical cultural awareness in any category directly, its desired internal outcome group includes an ethnorelative perspective (Deardorff, 2012). Accordingly, most researchers agree that IC consists of knowledge of the target culture, the open attitude towards the exotic culture, a variety of skills to interpret, relate and interact with the new culture, and critical thinking about one's own culture and the new culture (Byram, 1997; Byram, Nichols, & Stevens, 2001; Deardorff, 2006; Fantini, 2000; Imahori & Lanigna, 1989; King & Baxter Magolda, 2005; Lussier, 2007; Ting-Toomey, 1999; Ting-Toomey & Kurogi, 1998). Knowledge and attitude are usually regarded as the pre-conditions of other competences; the skills are the abilities to adapt to the new culture; and the critical awareness is often viewed as the outcome of intercultural communication. Therefore, the following sections will start with knowledge competence and attitude competence, and then discuss the relevant skills and critical cultural awareness.

### **2.2.3.1 Knowledge competence**

Knowledge competence from the intercultural perspective specifically refers to acquiring some aspects of culture (Byram, 1997). Culture is the fundamental concept within the knowledge competence. The definition of culture and the dichotomy of *large culture* and *small culture* were presented in an earlier section (see Section 2.1.2.2). The dichotomy of *big C* and *small c* culture needs to be clarified before reviewing knowledge competence.

Kroeber and Kluckhohn (1952) reviewed more than 160 definitions of culture published in 1871-1951. They found researchers defined the concept of culture from seven principal perspectives, namely descriptive, historical, normative, psychological, structural, genetic and incomplete definitions (Kroeber & Kluckhohn, 1952). The variety of perspectives reveals that researchers perceive culture from different angles for different purposes. Traditionally, the concept of culture is interpreted in two ways. From the humanity perspective, culture emphasises the material products that represent a social group, such as masterpieces and high-valued artefacts. It is often called big C culture,

which represents the symbolic reflections in the history, social institutions and arts (Brembeck, 1977; Kramsch, 1995; McCarthy & Carter, 1994; Moran, 2001; Thornbury, 2006). From the social science perspective, culture refers to a common system of standards that is possessed by members of a discourse community who share a social space, a specific historical period and imaginings (Kramsch, 1998; Triandis, 1994). The system may remain in its members, even though the members leave the community (Kramsch, 1998). It is also known as small c culture, which refers to the practices of a culture, hidden behind its members' thoughts and behaviours, such as customs and lifestyle. Small c is more difficult to observe and understand than big C (Brembeck, 1977). The dichotomy of small c and big C culture is usually figuratively described as an iceberg (Brembeck, 1977): big C is the visible tip above the water, while 'small c' is the invisible but larger bottom hidden under water (see Figure 3).



**Figure 3. Big C & small c (Brembeck, 1977)**

Some researchers apply the dichotomies of culture to study knowledge competence in ICC (or IC). CEF (Council of Europe, 2001) adopts the dichotomy of big C and small c, and named the categories knowledge of the world and sociocultural knowledge. Knowledge of the world embraces the common facts and knowledge of the globe, such as knowledge of geography, institutions, and technology. Sociocultural knowledge contains the knowledge of everyday living, living conditions, interpersonal relationships, body language, social conventions, ritual behaviours, and values, beliefs and attitudes in relation to a variety of social factors (Council of Europe, 2001, p.102-103). Lussier (2011) also considers big C and small c in her conceptual framework of IC with cognitive knowledge, namely knowledge competence. The cognitive knowledge is composed of three aspects: 1) the humanistic approach, which is big C, the knowledge associated with collective memory; 2) the anthropological approach, which refers to small c, the knowledge of daily life,

specifically behaviours and thoughts of a culture; 3) the sociocultural approach, which focuses on the knowledge of culture based on the sociocultural context. Compared with the CEF, small c is separated from the sociocultural approach that includes knowledge of the society and communities in the target culture, the interpersonal relationship between communities of the target culture and the thoughts of communities such as classes, gender, political and religious groups, regional cultures and minorities (Lussier, 2011). Accordingly, the knowledge of the sociocultural approach is possessed by a community or a small group of people in the target culture, namely small culture. Considering small culture in knowledge competence is a significant improvement in study of ICC. However, in Lussier's model, the sociocultural approach likely overlaps with small c in some parts, as daily behaviours may be also the action that occurs in communities and groups. It is not convincing that large culture, as the opposite category from small culture, is excluded from the framework. Therefore, a complete framework of knowledge competence may need to consider both big C & small c and large culture & small culture.

In studies of ICC in study abroad contexts researchers usually suggest international students follow and learn the target culture during study abroad, so they can develop their knowledge competence and adapt to the local life (Simpson, Sturges, & Weight, 2009; Spencer-Oatey & Xiong, 2006; Wang et al., 2012). International students as sojourners usually hold the standards of their own cultures before they acquire new knowledge. It is often necessary for them to acquire the target culture, and find the differences between the target culture and their own. In this way, international students distinguish cultures from the large culture paradigm. It may also be beneficial for international students to pay attention to the differences between large culture and small culture, and among small cultures within the large culture paradigm. The various aspects of the cultural knowledge may reduce the conflicts between an international student and local people or other international students.

#### **2.2.3.2 Attitude competence**

Attitude competence refers to giving up ethnocentric attitudes and realising that other's culture behaviours are also possible and naturally correct actions (Byram, 1997; Council of Europe, 2001). It is often regarded as the pre-condition or the foundation of intercultural competence (Byram 1997; Deardorff, 2006) and is psychological and affective adaptation

to the target culture (Lussier, 2011). An unbiased attitude is significant to successful intercultural communication, as both positive and negative prejudices may lead to misunderstanding (Byram, 1997). The attitudes may influence the accepting and learning of information encountered in an intercultural interaction, especially the attitudes of openness, respect, and evaluation (Byram 1997; Deardorff, 2006).

Openness is usually the first attitude required in the development of intercultural competence and is the ability to recognise ethnocentric views (Byram, 1997). International students with such attitude may be curious and interested to become involved in the target culture, and to withhold their judgement from their own cultural background (Byram 1997; Deardorff, 2006). Interviewees in Trede et al.'s (2013) study on intercultural competence courses reported that even in a minimal and informal intercultural preparation course, they were asked to be "open-minded and appreciative" (p.449).

Respect for other cultures generally requires international students to be ready for new information and a new way of life (Byram 1997; Deardorff, 2006). International students with a respectful attitude may be able to identify the cultural differences and regard 'unusual behaviour' as a possible reasonable reaction in a given situation. On the contrary, if an international student holds an ethnocentric perspective, he is in the Denial or Polarization stages of intercultural competence development (Hammer, 2012). Hammer (2012) suggests that people in the Denial stage may not recognise the cultural distinctions within different cultures, so that they would be unable to interpret and react properly to the new culture.

Evaluation is the willingness to question their own values and suspect what they usually believe (Byram, 1997). It could be the beginning of critical thinking about culture, namely the precondition of critical cultural awareness. An international student with an evaluation attitude may be able to mediate between controversial understandings (Byram, 1997).

Alternatively, some literature also refers to attitudes in intercultural competence as intercultural sensitivity. They view attitude from a developing perspective and provide the procedure of development, including denial, defence, minimisation, acceptance, adaptation and integration (Bennett, 1986). The openness, respect and evaluation are the essential requirements that an international student needs to move to the next stages.



Moreover, attitude competence has affective and cognitive influence on the international student. Such influence is independent from a particular language, as attitude does not require language ability (Byram & Zarate, 1996). It likely also distinguishes it from the knowledge of a specific culture. In other words, attitude competence could be acquired in one cultural context, and then transferred to another culture. A qualitative study by Pederson (2010) suggests that previous intercultural experience and pedagogy enhance the development of students' intercultural sensitivity (incl., ethnocentric orientations and ethno-relative orientations), namely attitude competence.

### **2.2.3.3 Skills of intercultural competence**

Skills of IC generally refer to the use of knowledge, especially cultural knowledge, in an intercultural interaction. Researchers hold different opinions on the skills required in IC. Byram (1997) suggests that the skills of IC include interpreting and relating (or *savoir comprendre*) and discovery and/or interaction (*savoir apprendre/faire*). The CEF (Council of Europe, 2001) partially adapts Byram's (1997) model and includes "ability to learn (*savoir apprendre*)" and "skills and know-how (*savoir faire*)" (p.104-107). Lussier (2007) only considers "the process of acquiring '*savoir-faire*'" (p.319), which includes the development of practical language skills, the practice of language and cultural knowledge in real life (*savoir faire*), and the ability to interpret cultural messages and mediate conflicts from cultural misunderstandings (*savoir comprendre*). Deardorff (2012) lists the skills as "observation, listening, evaluating, analysing, interpreting, and relating" (p.46). The list likely refers to *savoir apprendre* and *savoir comprendre*. As the various models of IC have concerned *savoir comprendre* (skills of interpreting and relating), *savoir apprendre* (skills of discovery) or *savoir faire* (skills of interaction), the three skills are discussed in the following parts.

**1) Skills of discovery (*savoir apprendre*)** refer to the ability to identify and observe new knowledge and cultural practices in everyday intercultural interactions and to integrate the new information into the existing knowledge framework (Byram, 1997; Council of Europe, 2001). Deardorff's model presents four skills of discovery, including observation, listening, evaluation, and analysis (Deardorff, 2012). An international student with these skills may observe and engage in the target culture, and relate and develop cognitive

construction in the target language on the foundation of their knowledge in their L1. The CEF (Council of Europe, 2001) suggests skills of discovery mainly include language and communication awareness, general phonetic skills, study skills and heuristic skills.

Language and communication awareness is the ability to discover and learn new language expressions and language in use from real life communication based on the knowledge of a language and language rules, and incorporating the new knowledge with the existing knowledge of the language (Council of Europe, 2001). International students with language and communication awareness may be able to 'pick up' new words and expressions from daily interaction, and create or add a new label in their cognitive construction. For example, international students in Liu's (2013) study reported that they prefer to interpret the knowledge they learned in their L2 to their L1, especially in the first few months of study abroad. This may be because the international students have already acquired the knowledge in their L1, or it is easy to understand the new knowledge in the L1 knowledge system (Liu, 2013). This action is not as simple as a word-by-word translation, but a way to build the conjunction between specific knowledge in the L2 and the cognitive construction in L1.

General phonetic skills are the abilities to distinguish, produce and recognise unfamiliar sounds (Council of Europe, 2001). In a language or an IC teaching or assessing environment, the general phonetic skills are distinguishable from phonological competence of linguistic competence in CC through in-class tasks and activities. In a real life intercultural activity for international students, however, general phonetic skills are similar to phonological competence. Especially for observers or researchers, it is difficult to identify the two categories of competence. As phonology and phonetics have already been considered in CC, general phonetic skills are not taken as one of the discovery skills.

The CEF suggests that study skills refer to the "ability to make effective use of the learning opportunities created by [the] teaching situation" (Council of Europe, 2001, p.107). This definition is not suitable for the study abroad context; learning happens anytime and anywhere during study abroad, as international students are immersed in an environment full of lively learning materials (Snow & Byram, 1997). A concept of study skills from the study abroad perspective may consider the ability to discover and acquire new knowledge from a great number of real life situations with cultural impressions, and to assimilate the

knowledge into the cognitive construction.

On the contrary, heuristic skills are to deduce possibilities from acquired knowledge and study skills. They are the ability to solve problems that are brought by new experiences. The ability to use new technologies is one of the skills, which has become popular with the increased prevalence of PCs, mobile phones and tablet computers. Unlike the other skills, study and heuristic skills do not always become attached to a particular language or the knowledge of a specific culture; they are learning skills that are transferable to another cultural context. For example, if an individual knows how to find support online in one context or culture, s/he is likely also able to find other information online in another context/culture.

**2) Skills of interpreting and relating (savoir comprendre)** refer to the ability to interpret and explain another culture in one's own culture (Byram, 1997; Byram et al., 2001). Deardorff (2012) also suggest that interpreting and relating skills are essential components of IC. The skills require intercultural speakers to be able to identify ethnocentric points, recognise the reason for misunderstandings, and mediate the conflicts between cultures (Byram, 1997; Byram et al., 2001). In other words, skills of interpreting and relating usually demand international students have sufficient knowledge of a particular area in the target and their own cultures. Identifying ethnocentric points is the ability to use the knowledge to find the differences between cultures. Recognising the reason of misunderstandings is the ability to compare the cultures and figure out the source of conflicts. The abilities to identify and recognise manipulate the results of cultural message decoding. The success of identification and recognition may decide the level of comprehension of specific cultural differences (Byram, 1997). Mediating the conflicts between cultures or misunderstandings is the ability to negotiate (Lussier, 2007). The result of an intercultural negotiation may further influence the efficiency of intercultural interaction.

**3) Skills of interaction** are abilities to apply knowledge, attitudes and other intercultural skills in intercultural communications (Byram, 1997; Sercu, 2004). Byram (1997) points out the direct assessment of skills of interaction is likely impossible, as the evidence occurs in daily activities, where it is difficult to collect data without disturbing the natural interaction. Therefore, Byram's model relies on indirect evidence, such as students'

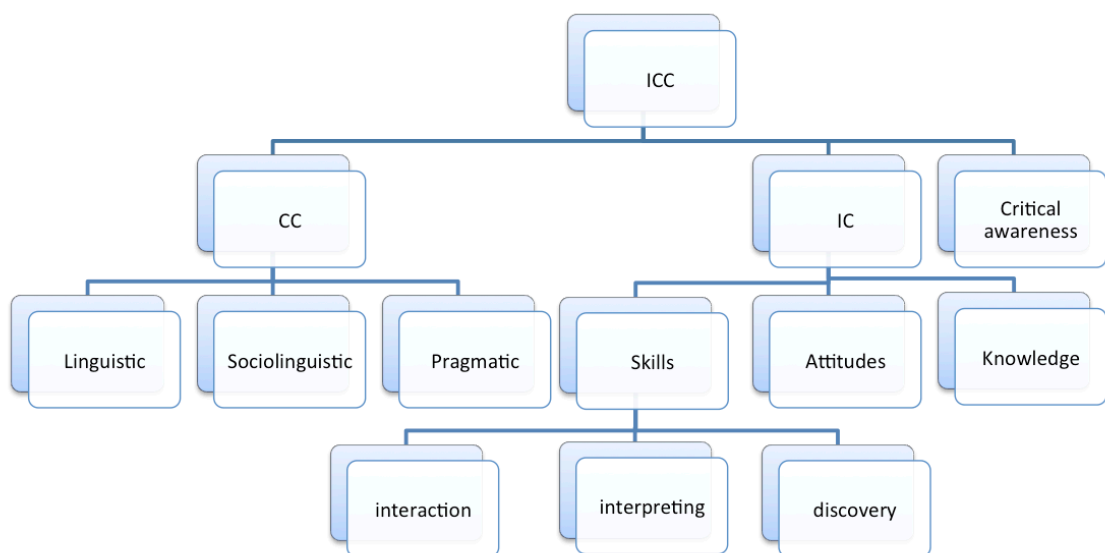
skills of negotiating, interpreting and relating. As skills of interaction are practised in a variety of circumstances, the CEF uses the situations, namely small culture, to categorise the sub-groups under skills of interaction. Accordingly, skills of interaction are grouped as social skills, living skills, vocational skills and leisure skills (Council of Europe, 2001). Social skills are the ability to behave according to the conventions of the large culture; living skills are the ability to complete personal daily activities, such as cooking, shopping, and finding directions; vocational skills are applied in employment circumstance requiring specialised knowledge and behaviours to take or maintain a job; leisure skills are the ability to relax and spend spare time (Council of Europe, 2001). As academic culture or circumstances are one of the contexts, where international students are usually engaged, academic skills are unavoidable as part of the structure. Academic skills, in accordance with the definition of other interactive skills, are the ability to fulfil academic requirements and effectively participate in academic culture.

#### **2.2.3.4 Critical cultural awareness**

Critical cultural awareness is the ability to evaluate one's own and others' cultures critically considering perspectives, practices and cultural products (Byram et al., 2001; Sercu, 2004). Holmes and O'Neill (2012) found that international students started to acquire critical cultural awareness via self-evaluation according to the target culture. In this way, the student may obtain greater knowledge of self and of other cultures.

Critical cultural awareness holds a controversial position within IC. Researchers argue about where to put it; in attitude competence as a higher achievement of one's cultural perspective, or in outcomes of ICC development as a further improvement of ICC. Deardorff (2011) argues that critical thinking skills are significant in being able to evaluate and learn new knowledge of other cultures, but Deardorff's model does not display critical cultural awareness directly in any category. Sercu (2005) claims to categorise critical cultural awareness and intercultural attitudes under the umbrella of 'attitude' as they are related to one's general disposition toward other cultures. Lussier (2007) agrees to combine "the psychological and affective dimensions of learning" (p.321) as existential competence or intercultural being category. The sub-categories are cultural awareness, critical appropriation and transcultural interpretation. Among these, the first is often called

attitude competence in other models, while the last two are aspects of critical cultural awareness that may be achieved after cultural awareness. However, Byram et al. (2001) suggest that the awareness requires intercultural speakers to realise how their perspectives are influenced by their values. In other words, when international students realise that there is another way of dealing with a certain issue, they may recognise in retrospect why people from different cultures treated it variously, or what factors influenced their behaviour. It likely implies that critical cultural awareness is a further step of intercultural competence, as it requires a certain level of cultural knowledge and analytical skill. Fantini (2000) supports this opinion and especially emphasises that (critical cultural) awareness is superior to attitude, knowledge and skills of IC. The CEF develops this opinion to an extreme way where critical cultural awareness is no longer an independent category, but a further step of each dimension. It is named as intercultural awareness in knowledge competence, intercultural skills and know-how in skills of interaction, intercultural personality in attitude competence, and language awareness and phonetic awareness in skills of discovery (Council of Europe, 2001). This thesis agrees with Fantini's (2000) opinion that the development of critical cultural awareness is based on the other knowledge, attitude and skills in IC.



**Figure 4. The model of ICC adopted in this thesis**

#### **2.2.4 Section summary**

This section presented ICC and discussed the differences between models of ICC. The

thesis basically adopted Byram's model of ICC with concern for the frameworks of CEF, Deardorff and Fantini. Therefore, the model of the thesis embraced CC and IC. CC contains linguistic competence, sociolinguistic competence, and pragmatic competence, while IC consists of knowledge, attitudes and skills. Also, skills include the skills of interpreting, skills of discovery, and skills of interaction (see Figure 4). Researchers suggest that international students develop their intercultural competence through intercultural experience and post self-reflection while living abroad, travelling, and meeting people from other cultures (Byram, 1997; Fleming, 2009). It means that international students usually learn new competence in the social context. Therefore, a theory of learning in social situations, namely sociocultural theory, will be discussed in the next section.

### **2.3 Sociocultural Theory**

International students' difficulties during study abroad may prompt them to learn new knowledge about the target language and culture in the target sociocultural contexts. Sociocultural theory (SCT) is usually adopted in psychology, education and SLA areas to analyse learners' development of mental functions in sociocultural activities with mediational tools. Thus, SCT is taken as the theoretical framework of this thesis to explain the relationship between international students, their difficulties (or goals) and tools for learning in social contexts.

SCT suggests that individual mental functioning is mediated by cultural artefacts, activities, and concepts in social interactions (Lantolf, 2000; Lantolf & Thorne, 2006; Ratner, 2002; Vygotsky, 1978). It highlighted the impact of social interactions on the cognitive development of individuals with mediational tools. SCT is not a single theory, but a cluster of theories developed by a group of researchers according to Vygotsky's theory on children's cognitive development from social interaction. The following sections will introduce Vygotsky's SCT and the concepts of it through later researchers' interpretations, namely sociocultural context, mediation, mediational tools and Zone of Proximal Development.

#### **2.3.1 Vygotsky's SCT**

Vygotsky's theory is based on observations of child development from a psychological and

educational perspective. Vygotsky (1978) suggested that the development process of a child includes elementary processes and higher psychological functions. In an observation of Vygotsky's experiments, when a child tried to get candy that was beyond his reach, he stretched his hand and made grasping movements with his fingers. His movement was biological behaviour, which was defined as the elementary processes of development. When the child attracted his mother's attention with his movement and received help, his behaviour was regarded as body language, namely signs, in this development activity. When the child communicated his problem with signs in the sociocultural context, his mediated behaviour was called a higher psychological function, and the series of actions was called the higher mental processes (Lantolf, Throne, & Poehner, 2015; Vygotsky, 1978).

Higher mental process is the focus of SCT, which refers to the interaction with tools and signs in psychological activity. Vygotsky (1978) further argued that the development of higher mental processes begins after an external activity bringing internal changes, when the sign-using reaction occurs in the social activity. Within the higher mental process, "every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (and the objects in the social context), and then inside the child" (Vygotsky, 1978, p.57). In other words, a child develops his/her competence (e.g., knowledge, attitudes, and skills) in a sociocultural context where he/she is involved in social activities. He/she may encounter new challenges and overcome them through interacting with other people or with available tools firstly; and then, acquire new knowledge and skills after an internal cognitive process such as memory, analysis, and critical thinking. Again, take the boy attempting to grasp a candy beyond his reach as an example. The challenge for him is to get the candy that is stored outside of his biological ability. To overcome the difficulty he could ask other more capable people for help with symbolic tools such as speech, noise and body language, or use physical tools such as a stool or a stick to extend his ability. His reactions for solving the problem take place in the social context. After this activity, the boy would think of a strategy or learn to overcome similar difficulties internally. It means the boy's ability developed from what he could do to what he could do with support. Vygotsky (1978) coined such potential abilities of children as *Zone of Proximal Development (ZPD)*, and the help from more capable

individuals as *scaffolding* (see Section 2.3.5).

Vygotsky's theory contained two primary concepts, namely interaction in sociocultural contexts and interaction with mediational tools. SCT researchers further explore and apply SCT beyond pre-school children's cognitive development to the broader education area, applied linguistics and second language acquisition (SLA).

### **2.3.2 Sociocultural contexts**

The sociocultural context is a crucial aspect of SCT, as people often acquire and regulate their behaviours in sociocultural contexts. For example, humans are born with the ability to cry and laugh, but we will learn ways to cry and laugh in appropriate manners in and for various sociocultural contexts. According to Vygotsky's SCT, humans obtain sociocultural behaviours through interaction in sociocultural contexts. Interaction in sociocultural contexts includes communication between individuals and the mutual effects between people and cultural artefacts (Lantolf & Appel, 1994; Lantolf & Thorne, 2006; Vygotsky, 1978). In other words, the personal development of higher mental functions occurs in social activities where concepts are exchanged between individuals and cultural artefacts are created and used to convey concepts among people. SCT researchers suggest that individuals are usually involved in social activities for life, and use various tools to mediate their relationships with other people, the world and themselves in sociocultural contexts (Lantolf, 2000; Lantolf & Thorne, 2006). Within applied linguistics research, SCT emphasises the impact of meanings influenced by social and cultural contexts on the development of higher mental functions and processes (Lantolf & Thorne, 2006). Researchers argue that the meanings of words are not always fixed in social contexts, as language users may shift or even create meanings of words for their communicative purposes (Lantolf & Thorne, 2006). The sociolinguistic and pragmatic meanings of words and phrases are usually different from their linguistic meanings. For example, *break a leg* is an English idiom in theatre used to wish an actor/actress *good luck*; learners may need to know the context when acquiring the meaning of such a group of words.

Applied linguistics and SLA suggest language learners develop their language competence through communicative activities, such as dialogues and writings for communicative purpose (e.g., TV advertisements and posters) (Lantolf & Thorne, 2006). A



communicative activity is a setting of the social world which contains the source of learning (Lantolf et al., 2015). When language learners participate in communicative activities, they are exposed to learning materials, namely the target language, within a sociocultural context, where language embodies the visual and audial source of meanings (van Lier, 2000). Social activities ensure the target language is a mediator for language learners to interact with other people and their surroundings (Kurata, 2011). According to SCT, it is a necessary social and cultural situation for SLA.

A significant number of studies have regarded SLA outside of the classroom and involved in the social interactions of daily life. Some researchers suggest that an effective method for language gain is to use the target language for a great deal of time in the target sociocultural contexts (Pellegrino, 1998). International students, as language learners, have an advantage in learning a target language and culture, as they are physically immersed in the target language-speaking and culture-using environment (Snow & Byram, 1997). This means that they are exposed to the pool of the target language and cultural knowledge, and apply it for use in everyday social activities. When international students encounter difficulties during study abroad, they would attempt to ask for help and find tools to aid them in overcoming their difficulties. They will do as the little boy in Vygotsky's experiment did, but in a more complex way, as the problem is much more complicated than grasping a candy.

### **2.3.3 Mediation**

Mediation is one of the fundamental concepts of SCT, and refers to the process through which mediational tools are applied to master the physical, psychological and social worlds (Lantolf & Thorne, 2006). Vygotsky (1978) suggests human beings do not contact the natural and social world directly but associate them with the use of tools and signs. Mediation plays an essential role in sociocultural activities, especially in the development of higher mental processes (Donato & MacCormick, 1994). The psychological processes are organised and mediated by three cultural factors, including activities, concepts and artefacts (Lantolf, 2006; Ratner, 2002). The cultural factors are components of a culture (Ratner, 2002).

Activities refer to human actions, such as making products, raising children, and

drawing a picture (Ratner, 2002). In the education area, teaching, apprenticeship, and play are examples of activities. Vygotsky and other researchers on Activity Theory argued that social activities were superior to other cultural factors in the influence on culture, as people live and fulfil personal goals via social activities (Cole & Engeström, 1993; Ratner, 2002). The activities for L2 learners could be communicative activities with artificial social contexts in the language classroom, such as role-plays and dialogues. They also could be social activities in real life communication with native speakers, such as shopping, group discussion, attending an event in the target culture. From this perspective, study abroad experience is the integration of social activities with the target language in the target culture. It includes communicative activities with native and non-native speakers and interactive activities in various social contexts, such as the classroom, shops, online social networks, and the community of a particular practice.

Concepts refer to understanding the meaning of people and things within a community, such as the system of law, customs, and routines (Brown, Ash, Rutherford, Nak-Agawa, & Campione, 1993; Lantolf, 2006). For instance, learners pick up meanings of concepts and understanding them in the social and cultural contexts, whilst the concepts may influence learners' thoughts and language use (Harasim, 2012). In the SLA area, the concepts could be grammar rules, idioms, and terminologies. In the study abroad context, apart from the linguistic concepts, they could be the cultural norms of the host country. The concepts, namely the language and cultural norms, direct international students' practices in the study-abroad context.

Both tools and signs are artefacts, which are created by human society throughout human history and changing along with the social and cultural development of the society (Vygotsky, 1978). Human use artefacts to regulate and mediate the relationship between people, between people and the outside environment, and between people and their own inside mental world (Lantolf, 2006; Lantolf & Thorne, 2006). Artefacts are also known as mediational tools (detailed in Section 2.3.4).

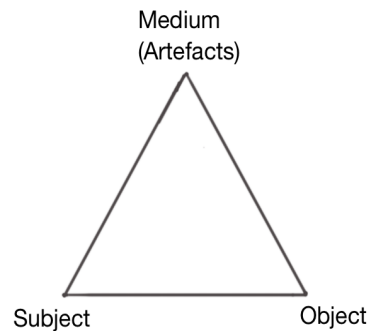
#### **2.3.4 Mediational tools**

Mediational tools consist of physical and psychological tools, namely tools and signs, which are distinguished in the aims of mediation. Physical tools are artefacts that are

designed or used for achieving a certain goal of human activity under specific cultural and historical conditions (Vygotsky, 1978; Lantolf & Appel, 1994), such as computers and vehicles. They are externally oriented and aimed at conquering nature (Vygotsky, 1978). The psychological tools, namely sign systems, contain aspects such as language, music, and number systems, as well as mnemonic techniques and diagrams (Vygotsky, 1978; Lantolf & Appel, 1994). They are internally oriented, and aim to mediate the higher mental activities, such as problem solving and the logic of thoughts (Vygotsky, 1978; Lantolf, 2000; Lantolf & Thorne, 2006). If a child intends to knock a nail into the wall, he may accomplish this goal with a physical tool such as a hammer, a psychological tool such as asking somebody to help through speech or learning from another's behaviour through observation and imitation.

In study abroad research, researchers have examined the use of psychological tools and physical tools. Researchers usually highlight the mediational function of language in the language and cultural gains in the target social environment (Li, 2012; Llanes, Tragant, & Serrano, 2012; Magnan & Back, 2007; Hernandez, 2010). They suggest using the L2 to communicate with native speakers and non-native speakers to benefit international students' language proficiency and cultural knowledge. On the other hand, few researchers have noticed the physical tools, especially new technologies, for language and cultural learning during study abroad. Elola & Oskoz (2008) proposed the use of online blogs for enhancing the development of intercultural competence in the study-abroad context. In fact, the application of new technologies, such as computers and mobile devices, for language learning has been studied for over two decades, for example, Computer/Mobile-Assisted Language Learning and Computer Mediated Communication for SLA.

According to Vygotsky's SCT and other relevant research, Cole and Engeström (1993) propose a simple triangle structure, usually known as the classical mediational triangle, to present the cultural-historical approach, which describes the relationship between the learner (subject), the learning target (object) and mediational tools (see Figure 5). The cultural-historical approach illustrated is the basic structure of individual human cognition (Cole & Engeström, 1993). The triangle directly shows the subject-performed, tool-mediated and object-oriented activity framework (Engeström, 2001).



**Figure 5. The classical mediational triangle (Cole & Engeström, 1993, p.5)**

In the SLA context, language learners are the subjects, the knowledge of target language (and culture) is the object, and tools could be language, learning strategies, technologies, and social and cultural activities. Donato and MacCormick (1994) examined language learners' development of language learning strategies in the culture of a classroom. The language learners were asked to keep a portfolio about their self-assessment. The portfolio in this study mediated the learner's development of their language learning strategies, so it is a psychological mediational tool. Moreover, in studies on computer/mobile-assisted language learning and computer-mediated communication, the technologies were applied to mediated learners' cognitive processes. The computers and mobile devices are physical mediational tools.

### **2.3.5 Zone of Proximal Development**

Vygotsky (1978) explained a child's mediated mental development of SCT with Zone of Proximal Development (ZPD), which showed the distance between one's actual development level and the potential development level. The cognitive development area of a child contains three parts: the actual development level, ZPD, and development beyond one's present reach.

The actual development level is the current achievement that the child can attain independently, while the out of reach is what the child cannot achieve even with support (Vygotsky, 1978). The ZPD is the area between the actual development level and the level beyond their capabilities. This refers to the potential development level of an individual, which are the abilities to solve problems with the teacher's guidance and collaboration with peers (Vygotsky, 1978). Vygotsky named the help from more capable adults and peers as *scaffolding* (van der Veer & Valsiner, 1991). For example, a child intends to knock a nail

into the wall. His capability could be using his bare hands and using a tool such as a hammer. If his hands are not strong enough and no hammer is available, he would ask an adult for help or communicate with peers. Then, he would learn to use other possible tools, such as a big stone or a staple gun. As Vygotsky's scaffolding likely only includes support from more capable individuals, it is usually applied for research and activities in classroom settings (de Guerrero & Villamil, 2000). When an individual is solving a problem in his ZPD area with mediators, his/her development of mental functions or learning occurs (Harasim, 2012; Lantolf & Thorne, 2006). In other words, the cognitive developmental process is to extend the zone of mature abilities via learning the potential ability with support from more capable individuals and mediators.

Ohta (2005) criticises two weaknesses of Vygotsky's ZPD in that the learning setting is assumed to be a classroom with teachers' instruction, and the impact of literary sources on learning are overlooked in the definition. Learners are not always children with low literacy; many learners in life-long learning and L2 learning are adolescents and adults. They obtain certain levels of literacy and have the ability to learn dynamically with self-direction. For example, international students in higher education could learn the target language in a language classroom, and also practice and learn in daily conversations with native and non-native target language speakers. Therefore, the learning settings could be in and out of the classroom, and more capable persons are not restricted to teachers and peers (Ohta, 2005). Moreover, *scaffolding* is not only limited to the support from more capable individuals, but also could be offered by any mediational tools including artefacts, concepts and activities (Brown et al., 1993; Ohta, 2005). For example, an adult could learn new knowledge through reading books, and searching for information online. The adult may also practise in social activities and use concepts to direct his behaviour and learning in social contexts. It implies that mediational tools could also provide scaffolding in social contexts, especially mediational tools.

Therefore, in study abroad contexts with adult international students, the adapted definition of ZPD refers to the distance between the actual intercultural level that is determined by one's ICC without assistance, and the level of potential intercultural development that could be achieved collaboratively with more capable people and mediational tools. In this thesis, mediational tools not only mediate international students'

understanding of the target language and culture, but also provide scaffolding for their language and cultural learning. When international students encounter difficulties, it means they have competence limitations in a particular area, which requires capability in the ZPD or even beyond their ability and potentiality. Thus, international students usually attempt to find a tool or a more capable person to provide external information and help, so that they could overcome the difficulties.

### **2.3.6 Section summary**

SCT highlights the significance of sociocultural contexts, mediation, and ZPD in the cognitive process. The present thesis pays special attention to mediational tools that mediate the relationship between adult learners or international students to the objects or difficulties in sociocultural contexts, and also play the role of scaffolding in the ZPD. The classical mediational triangle clearly illustrates the relationship between international students, mediational tools and learning goals. In this thesis, SCT provides a theoretical framework to understand international students' use of different tools for learning the target language and culture and adapting to life in study abroad. The next section will review mobile devices as possible mediational tools, because they have been used to mediate the learners' cognitive process in various social contexts by researchers in recent decades.

### **2.4 Mobile devices in study abroad**

Mobile devices are usually described as small handheld computing equipment. Researchers have noticed the potential of mobile devices as mediational tools for learning, and developed research areas such as Mobile Learning and Mobile-Assisted Language Learning (MALL). Mobile technologies have been applied for mediating the teaching and learning process (e.g., Demouy & Kukulska-Hulme, 2010; Ducate & Lomicka, 2013; Jones, Edwards, & Reid, 2009; Pérez-Sanagustín et al., 2012). The majority of studies have highlighted the use of mobile devices in formal learning with teachers in or out of the classroom. However, few studies emphasise the benefits of mobile devices in learning out of classroom or without teachers' instruction, although researchers have gradually raised awareness of mobile devices in informal learning, self-directed learning and lifelong learning (e.g., Clough, Jones, McAndrew, & Scanlon, 2008; Prieto et al., 2016).

This section aims to review the evidence of the potential of mobile devices as mediators, as seen in previous studies. Particular attention will be paid to mobile devices mediating language and cultural learning and even ICC development in real-life sociocultural activities. The following sections will firstly review the characteristics of mobile devices that are defined and realised up to present. Then, the usage of mobile device as explored in previous studies will be presented. Finally, whether the suggested use of mobile devices in literature is also appropriate for supporting international students in the sociocultural contexts of the host country is discussed.

#### **2.4.1 Mobile devices**

A mobile device generally refers to any type of portable computing equipment. It is difficult to define the concept of mobile devices, as they keep developing new capabilities every year. The term mobile device used to refer to a handheld device (Trinder, 2005). However, now it is becoming lighter, thinner and even wearable like accessories such as smart watches and smart glasses. Thus, 'handheld' is no longer a precise word to define a mobile device. The range of mobile devices is from feature phones with fixed functions (e.g., telephoning and Short Messaging Service) to smartphones that are compatible platforms for numerous applications (apps). It also includes the latest wearable devices, tablet computers, and the disappearing older devices such as PDAs and MP3 players (Pegrum, 2015). The family of mobile devices keeps growing and evolving. The more powerful and multi-functional devices gradually replace those with fewer functions. Therefore, this thesis is interested in powerful, wireless, portable computing equipment with a wide range of hardware functions (e.g., GPS, Wi-Fi, 3G, and camera) and associated with a variety of apps according to the users' preferences (McQuiggan, Kosturko, McQuiggan, & Sabourin, 2015). That is to say smartphones and tablet computers. When reviewing previous research, less powerful mobile devices with weak Internet wireless connections are also presented, as they possess one or some particular features that represent these smart mobile devices.

#### **2.4.2 Mobile learning**

Mobile learning, also called m-learning, used to be defined simply as learning via mobile

devices, but this definition does not show the specialities of mobile learning or the various learning contexts in daily life (Sharples, Arnedillo-Sanchez, Milrad, & Vavoula, 2009). Sharples et al. (2009) emphasised the mobility of learners by suggesting the key research area in mobile learning is “how the mobility of learners augmented by personal and public technology can contribute to the process of gaining new knowledge, skills and experience” (p.235). Kukulska-Hulme and Shield (2008) considered the use of mobile tools and the ubiquity of learning, and suggest it is “learning mediated via handheld devices and potentially available anytime, anywhere” (p.273). As the capabilities of mobile devices keep increasing, the concept of mobile learning may be developed along with new functions. Thus, the added values of mobile devices to cognitive process are relevant in recent research on mobile learning.

The concept of affordance has been adopted in the research on mobile learning to examine the perceived and actual utilities of mobile devices for learning purposes (Churchill, Fox, & King, 2015; Klopfer & Squire, 2008). In this thesis, this term is applied to interpret the properties and added values of mobile devices for learners, especially international students, to mediate their daily activities and particular difficulties in sociocultural contexts. The principal affordances of mobile devices have been discussed in previous research including mobility, connectivity, individuality, context sensitivity, and accessibility.

#### **2.4.2.1 Mobility**

The crucial affordance of mobile devices is mobility, which distinguishes mobile devices from other computer technologies. The mobility had been considered the primary added value to learning, since the beginning of research on mobile learning. The focus of researchers' interpretation of mobility was from the mobility of devices to the mobility of learning, and then from various contexts of learning to available information. In other words, researchers have shifted their attention from the fact of mobility to the effects and consequences of mobility (Kukulska-Hulme, 2009). Sharples and his colleagues suggest the concept of mobility in mobile learning should consider the mobility of technology, mobility in physical space, mobility in social space, mobility in conceptual space, and learning dispersed over time (Sharples, Milrad, Arnedillo-Sánchez & Vavoula, 2009).



Mobility of technology is the physical and functional features of the mobile devices. Unlike other heavy computing devices such as desktop computers, mobile devices are light, thin and wireless. They can be held by hand or worn on users. Now, they are often taken with users at any time and to any place. Most functions of mobile devices are not limited by location, as they have Internet access through 3G or Wi-Fi, and relatively long battery life. Mobility of mobile devices was the focus of early research in mobile learning. Early research projects with a broader perspective of mobile learning were conducted with pen tablets and personal digital assistants (PDAs) beginning in the mid-1990s, for example HandLeR (Kukulska-Hulme, Sharples, Milrad, Arnedillo-Sánchez & Vavoula, 2009). The HandLeR (Handheld Learning Resource) project explored the concept of mobile and contextual learning in different scenarios, including outside of the classroom, on a field trip and in professional training through interviews and questionnaires (Kukulska-Hulme et al., 2009). Although HandLeR was limited by the technology of mobile devices between 1998-2002, it coined the general requirements of technologies to support learning in real-world contexts, including “highly portable, individual, unobtrusive, available anywhere, adaptable, persistent, useful and intuitive to use” (Sharples, 2000, p.2). “Highly portable” and “available anywhere” are the two main criteria for the mobility of technology. Mobility of technology is the fundamental feature of mobile devices. In the study-abroad context, international students as mobile users could bring mobile devices along with them ubiquitously. If international students have problems or experience confusion, they could use mobile devices to search for solutions and related information at any time and in any place.

Mobility in physical space focused on the variety of contexts where the learners and mobile users move around to grasp new knowledge from their daily lives (Sharples et al., 2009). It is guaranteed by the mobility of technology that makes learning in an ever-changing context possible (Klopfer & Squire, 2008). MOBILearn was a worldwide research project exploring mobility in physical space to informal learning (at museum), problem-based learning (in emergency First Aid procedures) and workplace learning (in a business project) assisted by mobile technologies in real world activities (MOBILearn, 2013). It demonstrated that mobile devices could provide information and instructions about the current situation of the user through human-device interactions (Kukulska-Hulme,

et al., 2009). The result of MOBIlearn shifted the focus of mobile learning from the mobility of devices to the mobility of learning (Kukulska-Hulme, et al., 2009), namely mobility in physical space. For international students, the physical space is usually the different places in the host country; it is always changing from the classroom to the venues of events, from accommodation to shopping centres. Mobile devices could provide support for international students in various settings and situations.

Mobility in social space refers to the variety of social groups where the mobile users or learners engage with people from different social and cultural communities and contexts, such as family members, friends in different social groups, classmates and teachers (Sharples et al., 2009). The social space likely refers to the community of small cultures. Mobility of social space regardless of the physical space where learning occurs to focus on the community of people involved in the social contexts. The social space for international students could be academic small culture, student societies with particular shared hobbies, accommodation with housemates, landlords or porters, and online social groups. People that international students encounter in social spaces are often from diverse cultural backgrounds. In the multiple social contexts, mobile devices could navigate informal learning, authentic learning and cultural-related practices across social groups and contexts to mediate learners' cognitive processes in the social environment (Prieto et al., 2016).

The mobility in conceptual space, known as mobility of contents, is often highlighted as a speciality in studies of mobile learning (e.g. Botha, Vosloo, Kuner, & Berg, 2009; Kukulska-Hulme, 2009; Liu, 2009). It stresses the variety of the learning topics and themes (Sharples et al., 2009). Previous studies have explored mobile learning in language, culture, science, technology, engineering, mathematics and other topics and themes (e.g., Jones, Scanlon, & Clough, 2013; Prieto et al., 2016; Song & Fox, 2008). As mobile devices usually connect to the Internet, they could offer references on numerous topics for the users and learners.

Learning dispersed over time indicates that the learning experiences of mobile users could occur in both formal and informal learning contexts (Sharples et al., 2009), with or without the teacher and other more capable individual's instruction. In the classroom, mobile devices act as multimedia tools to assist teaching, while out of the classroom they

could mediate students' learning in social contexts. The cognitive processes do not have to pause when the class is over. Learners could continue learning with the assistance of mobile devices after class and continue to accumulate knowledge on a particular subject.

Therefore, mobility of technology ensures mobility in physical and social spaces, while the connection to the Internet ubiquitously supports mobility in conceptual spaces. Mobility in the above aspects offers mobile users/learners the opportunity to gain new knowledge over time.

#### **2.4.2.2 Connectivity**

Mobile devices, especially smart ones, offer powerful connectivity through a variety of channels. Connectivity of mobile devices could support access to relevant information about the context where the learner is involved (Clough et al., 2008). Mobile devices often achieve this through the Internet with Wi-Fi or mobile telecommunications technology (e.g., 4G and 3G), and receive information from the websites, apps and connection between devices (France et al., 2015). Apps are downloaded onto the mobile and work as the gateway to certain information in particular knowledge areas. For example, browser apps are used for searching for information, and dictionary apps for looking up words and phrases. Moreover, the connectivity between devices is often built up by wireless connections and new models of sharing data, such as cloud computing. A mobile user could contact another user or device through synchronous interaction (e.g., Bluetooth and telephone conversation), and asynchronous communication (e.g., emails, blog entries and text messaging) (Clough et al., 2008). Last but not least, as mobile devices are usually in standby model rather than turned-off, they are usually ready to provide access to information at any time and place. In other words, the connectivity of mobile devices is often available and convenient to access.

Connectivity builds a common network for people to share data and exchange information (Klopfer & Squire, 2008). A considerable amount of information is available from the online network in different forms such as texts, graphs, audios and videos. A mobile user could access the network ubiquitously and receive information, as he/she requires. For example, a learner could download audio learning materials from a podcast, locate oneself with a map app, and search for references on a mobile device (Clough et al.,

2008). Moreover, the connectivity supports spontaneous interaction and cooperation among mobile users (Kukulska-Hulme & Traxler, 2005). Mobile users could make contact for daily social communication via typing, chatting, videoing, and other functions, which could be a situation for informal learning. For example, a language learner may improve his/her language ability through chatting on mobile devices. He/she could encounter new words and expressions when chatting with others in the target language via text messaging and other chatting apps such as WhatsApp, WeChat, and Skype. The user of the chat could communicate with text, photos and voice-instant messaging. Synchronous chat contains many features that face-to-face communication may have, such as comprehension checks, self-correction, and communication strategies (Levy & Stockwell, 2008). However, it is less face-threatening than face-to-face communication since users can check spelling and grammar before sending the message, and use a dictionary when they encounter unknown words. In addition, the identity of a learner/user is hidden behind a pseudonym, so that shy learners can be more willing to participate in online communication and show different opinions than they would be likely to in face-to-face communication (Levy & Stockwell, 2008; Watson, Wilson, Drew & Thompson, 2016). It is a face-saving way to communicate online in the L2, supported by the connectivity of mobile devices.

For international students, the connectivity of mobile devices could provide the source of referential information to solve their confusion and difficulties, and the technical support for collaborative learning, such as group discussion and presentations (Clough et al., 2008), and even contact with their family and friends in their home country.

#### **2.4.2.3 Individuality**

Kukulska-Hulme and Traxler (2005) suggest a concept of a more personal learning environment with mobile devices. Various apps are available online, and could provide academic or learning support. The mobile users and learners could choose any app that they think would benefit their cognitive process. In this way, the individuality of mobile devices would create a personal learning environment to complement and facilitate formal learning and other learning with technological support, and to respond to learners' immediate learning and practice requirements (Clough et al., 2008; Kukulska-Hulme &

Traxler, 2005). Moreover, “personal” is also included in Sharples’ (2000) general requirements for technologies to support learning in a real-world context.

In mobile learning, the user and learner are the same person, who is the centre of the learning context. The user of mobile devices is free to choose the types of mobile devices, preferred apps, and time and place to use them as mobile devices could be tailored for every individual. For example, a user is able to subscribe to any podcast channel according to his preference. Interesting resources can be manually downloaded from the Internet or delivered automatically to subscribers’ digital devices, such as the computer or smartphone (Abdous, Facer, & Yen, 2012). However, previous studies on mobile devices usually required participants to use a particular mobile device and a specific program or application for a pre-determined task. They overlooked the ability of mobile devices to meet users’ personal preferences and needs.

In the study abroad-context, international students confront with various language and cultural difficulties while living in the target culture. These difficulties are usually diverse and in different situations. A unified guidebook or a particular app may not help in this situation. Thus, a mobile device with mobility and connectivity is likely beneficial for international students to manage their learning processes according to their needs and the sociocultural contexts where learning occurs.

#### **2.4.2.4 Context sensitivity**

Context sensitivity of mobile devices provides an opportunity for users/learners to capture the information from daily activities and environments for learning. It is different from mobility in physical space because context sensitivity focuses on the process of gaining learning materials from the context while mobility emphasizes the ever-changing learning contexts. Context sensitivity refers to the user/learner not only as a knowledge receiver, but also a knowledge seeker. Being sensitive to the social contexts with assistance from mobile devices, the learner’s ability for self-directed learning, informal learning and lifelong learning could be enhanced. The user/learner is responsible to find their gap in knowledge of the social practices and learn the new knowledge.

Beaudin, Intille, Tapia, Rockinson and Morris (2007) proposed context sensitivity for vocabulary learning with a mobile device and the many triggers attached to objects in a

house. In their study, when the participant was walking and touching an item with a sensor in the house she heard the English name of the item and its translation in Spanish. Beaudin et al.'s (2007) study revealed that as the context-sensitive interactions for learning vocabulary were involved in daily routines, the learners did not regard the learning activity as a burden. The learning material became the background information of the learners' world. Although Beaudin et al.'s (2007) experiment was conducted in a house with a complicated mobile system design, it indicated the context sensitivity of mobile devices. As mobile technology has developed, some apps are able to translate words or provide the names of objects in a photo into a chosen language. Some games and mapping apps (e.g., *Pokémon Go* and *Google Maps*) have been designed to rely on context sensitivity to strengthen the link between the virtual and the physical worlds.

According to a recent search, context-sensitive mobile apps for learning in various contexts are not yet available. A learner may have to convey real-life information to the virtual world via mobile devices manually. For instance, students in the LCM@UTSA project captured photos and video clips of their everyday surroundings that were related to the learning topics, and brought the materials to an afterschool club for informal learning with some guidance (Prieto et al., 2016). Moreover, a learner may post comments, opinions, diaries and other personal thoughts to his personal blog. The contents may originate from what the learner has read, seen or watched in a situation. They could be in the form of text, pictures, audio or video clips, whichever the learner prefers, on his homepage and his followers or friends on the online social network could see them on their own pages. Comas-Quinn et al. (2009) conducted a study on group blogging that indicated the context sensitivity of mobile devices. Eight volunteers from a group of approximately 100 Spanish as Foreign Language students in Spain participated in this study on mobile blogs. They were asked to capture the pictures, sounds or situations happening around them when they visited the city centre; these could be interesting, puzzling or shocking experiences for them. They captured the materials through their own mobile devices, including mobile phones, digital cameras, and MP3 recorders, and then sent or uploaded them to the cultural blog for sharing with other group members (Comas-Quinn et al., 2009). The study indicated that situated culture learning assisted by mobile devices offered learners the opportunity to capture learning materials from the real-life context.

#### **2.4.2.5 Accessibility**

Accessibility is a relatively new affordance. It refers to transferring information from one 'sense' to another via mobile devices (France et al., 2015). It is initially designed to enable more people (e.g. the disabled or elderly) to access mobile devices and applications (Díaz-Bossini & Moreno, 2014). However, the transformation of information offers more accessibility and search methods for all users, even those without prior access issues. For example, a person can use voice recognition to take notes in text, and search with a picture for related textual information. Some functions such as *Siri* from *Apple*, *Google Image Search*, and some music search apps show the accessibility of mobile devices. Users of mobile devices may search for information with a photo, a melody, or a few words captured from daily activities. In other words, the accessibility of mobile devices could interpret the confusing information from the context to something (e.g., texts, images, or sound) that the user/learner could understand. For example, when an international student does not understand the dishes listed on a restaurant menu, he/she could search for the name of the dishes online and look at pictures of similar dishes. According to a recent search, there is no study on accessibility in mobile learning as yet.

The five principal affordances of mobile devices (i.e., mobility, connectivity, individuality, context sensitivity, and accessibility) provide the learners/users a mobile learning experience that meets their personal requirements with ubiquitous connection to external information about the situation where learning occurs, so that they could obtain new knowledge that is input and output in various forms (e.g., texts, images, and audios) from everyday interaction in social contexts. In short, mobile devices with affordances could mediate cognitive processes in social contexts. Therefore, a mobile device could be regarded as one type of mediational tool for learning from the SCT perspective.

#### **2.4.3 Mobile devices as mediational tools**

In SCT, mediational tools consist of physical and psychological tools, and mobile devices are physical mediational tools used to facilitate the cognitive process (see Section 2.3.4). The framework of mediational tools came out before mobile devices and computers, so the classification of cognitive tools is adopted to understand the mediational role of mobile

devices. Cognitive tools refers to computational devices that support the cognitive process, such as mobile phones, laptops and desktop computers (Jonassen, 1992; Jonassen & Reeves, 1996). Kim and Reeves (2007) suggest that computer-based cognitive tools strengthen the user's cognitive power in the efficiency of knowledge acquisition, the extension of thinking ability, and the acceleration of decision-making. Briefly speaking, the cognitive tools are able to mediate learning. Therefore, they could be regarded as a subsection of physical tools, and mobile devices as computing equipment are one type of cognitive tools. The characteristics and typologies of cognitive tools are applicable to mobile devices.

Technologies including mobile devices perform the mediation of learning through facilitating the learning activities rather than directly mediating learning (Jonassen, 1992). In other words, the tool users do not learn directly from the tools, but to apply the tools to manage the information they are about to learn, so that the knowledge could be acquired easily. It is the same way that people use physical tools. For example, we read books to learn knowledge. We obtain the knowledge from the authors through reading; the books are the carriers of authors' knowledge, they cannot acquire the knowledge instead of us. Jonassen and Reeves (1996) regard technologies, specifically computers, as cognitive tools that are intellectual partners supporting learning with higher order thinking (Lewis & Smith, 1993), because users may tailor the function of technologies for particular data analysis, information access, and idea presentations.

As mobile devices are relatively new cognitive tools, the framework of mobile devices as cognitive tools is developing. The following sections will review the typologies of cognitive tools which often emphasise computers first, and then present the model of mobile cognitive tools.

#### **2.4.3.1 Typologies of cognitive tools**

The different aspects that cognitive tools mediate decide their roles and functions in mediation. Jonassen and Reeves (1996) suggested the functions of cognitive tools contained semantic networks (i.e., concept map), expert systems (i.e., a pre-designed function for a specific knowledge), database (i.e., record-keeping system) and spreadsheets (i.e., electronic accounting systems). Their view of computer-based cognitive



tools was limited by the capacities of the devices that existed in the 1990s. They seemed to list the functions of software rather than the potential abilities of tools to support learners' cognitive processes. The learners with such cognitive tools were likely restricted to using them in a computer room and using simple programs to challenge complex learning aims. In other words, the mobility of devices was not considered in Jonassen and Reeves's (1996) framework.

Kim & Reeves (2007) reviewed different typologies of cognitive tools before 2000. They present some examples, such as Jonassen and Carr's classification which emphasizes characteristics of tools, including semantic organization tools (e.g., databases), dynamic modelling tools (e.g., *Microsoft Excel*), visualization tools (e.g., *Microsoft PowerPoint*), knowledge construction tools (e.g., *Mind Tools*), and socially shared cognitive tools (e.g., online forums); and Lajoie's categorisation depending on the pattern of cognitive paradigm, containing the tools supporting knowledge construction (e.g., search engines and tutorial software) and the tools supporting information representation (e.g., *Prezi* and *Microsoft PowerPoint*) (Kim & Reeves, 2007). Kim & Reeves (2007) drew the conclusion that classifications developed before 2000 "do not seem to well-characterize computers specifically as cognitive tools in ways that imply their usage in real contexts" (Kim & Reeves, 2007, p.227). This implies that the typologies of cognitive tools before 2000 did not include the functions and patterns for learning in social contexts.

Iiyoshi, Hannafin and Wang (2005), however, enrich and develop the roles of cognitive tools for student-centred learning, especially computers. The roles include information seeking, information presentation, knowledge organisation, knowledge integration, and knowledge generation. Information seeking tools are used to support information retrieval from a database or a large resource, such as a *Google Search* (Iiyoshi et al., 2005). Compared with the former typologies, this role shifts the focus of the database from record keeping to the ability to search and select relevant information. Information presentation tools are used to facilitate information displays through selecting and relating the representation that may enhance the interpretation, such as concept maps and *Microsoft PowerPoint* (Iiyoshi et al., 2005). Information presentation tools include semantic networks and semantic organizational tools in other typologies. Knowledge organisation tools are used to enhance knowledge management via categories or calculating the information to

be learnt (Iiyoshi et al., 2005). They include spreadsheets and other data analysis and information managing tools. Knowledge integration tools are used to help in linking new knowledge to the previously acquired knowledge, which facilitates knowledge construction (Iiyoshi et al., 2005). Last but not least, knowledge generation tools are used to assist in higher order thinking, so that the acquired knowledge generates new knowledge (Iiyoshi et al., 2005). The category of knowledge generation tools is a new component of typology, but supports higher order thinking and was regarded as a feature of cognitive tools in early definitions. Knowledge generation tools have been overlooked for many years. They are applied for reflecting the generation processes of a learner and offering strategies to manage the knowledge of the learner (Iiyoshi et al., 2005). Iiyoshi et al.'s (2005) model indicates the capabilities of cognitive tools rather than elaborating upon the functions of software running on the devices as the former typologies reviewed in above paragraphs did. Therefore, this thesis agrees that technologies as cognitive tools are categorised as information seeking, information presentation, knowledge organisation, knowledge integration, and knowledge generation.

#### **2.4.3.2 Framework of mobile devices as cognitive tools**

Mobile devices, as a type of technology, generally carry out similar functions as and could adopt the typology of cognitive tools.

Patten, Sánchez, and Tangney (2006) propose a functional framework of mobile devices according to their roles for teaching with PDAs (see Figure 6). The framework consists of administration (e.g., calendars and apps for contact), referential (e.g., dictionaries and e-books), interactive (e.g., quizzes with answers), microworld (e.g., The Sims and other models of virtual world games), data collection (e.g., notes, recorders), location awareness (e.g., museum guides and Google maps), and collaboration (e.g., Wikis and Blackboard) functions. The functional framework reflects some general features of cognitive tools. The referential function parallels the information seeking ability of cognitive tools, and data collection and interactive functions reflect part of information presentation, knowledge organisation. Also, the framework lists the speciality of mobile cognitive tools, namely collaborative, location awareness, administration, and microworld functions. However, it overlooks other properties of general cognitive tools, especially

knowledge integration, and knowledge generation dimensions. It might be limited by the functions of the PDAs used in the study.

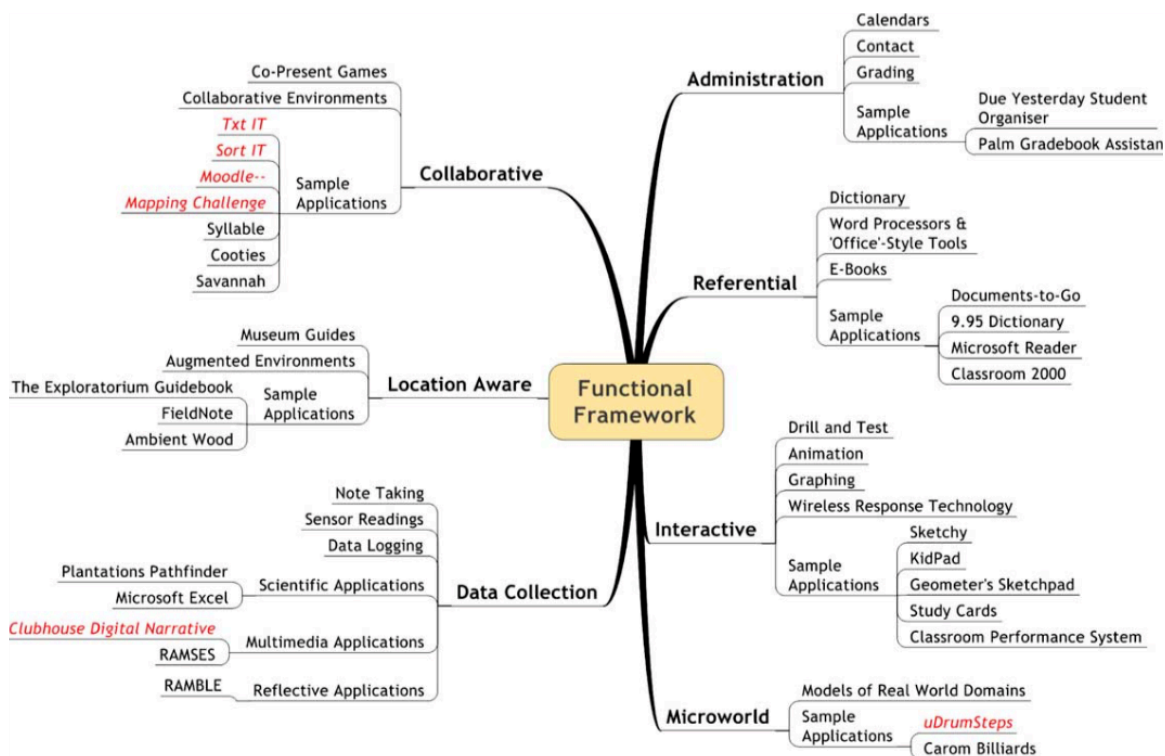


Figure 6. Functional framework of PDAs (Patten et al., 2006, p.296)

Clough et al. (2008) restructure Patten et al.'s functional framework of PDAs to adapt to informal learning and more powerful mobile devices, namely new PDAs and smartphones. The informal mobile learning framework contains referential, location aware, data collection, and administrative functions that are in Patten et al.'s framework. It also considers reflective and constructive functions. Reflective functions refer to where learners reflect on whatever has happened to them for cognitive purposes. Learners could use reflective functions individually, collaboratively through interactions with their surroundings and other people. It expands interactive and collaborative functions in Patten et al.'s framework, and reflects knowledge integration and knowledge generation dimensions of general cognitive tools. Constructive function supports the activities where learners construct their knowledge independently or in a group. This function is similar to knowledge generation in general cognitive tools.

The comparison of the above functional frameworks shows that the number of functions is continuing to increase. New functions bring new functional dimensions of technologies, specifically mobile devices, in mediating the cognitive process. A fixed

functional framework could benefit researchers in looking into what mobile learning could facilitate at the moment, but is unlikely to foresee the functions of mobile technologies in the near future. Therefore, it could be reliable to examine the mobile cognitive tools from their affordances that are relatively stable until the next breakthrough in mobile technology.

Churchill and Churchill (2008) developed a framework based on affordances of mobile devices, including multimedia-access tools, connectivity tools, capture tools, representational tools, and analytical tools. Multimedia-access tools are used to convey multimedia resources ubiquitously (Churchill & Churchill, 2008) and are similar to referential tools in functional frameworks. Most computer devices have equivalent features, but without mobility. Connective tools are applied for collaborative activities or contacting more capable individuals to provide guidance (Churchill & Churchill, 2008). Capture tools refer to the data collection function of Patten et al.'s framework. Representational tools empower learners to illustrate and organise their thinking and knowledge construction (Churchill & Churchill, 2008), meaning they work like the constructive function in Clough et al.'s framework. Analytical tools facilitate learners in analysing information that they obtained from various resources and in different forms, such as SPSS and NVivo (Churchill & Churchill, 2008). Churchill and Churchill's (2008) framework likely cover most of the affordances of mobile devices that could benefit the cognitive process, but some functions for personal life or learning management are not included, such as administration tools and context-sensitive tools.

According to the reviewed typologies of cognitive tools and frameworks of mobile cognitive tools, the models that indicate the mediational role of mobile devices in learning may need further development to match changes in the technology area.

#### **2.4.4 Study abroad with mobile devices**

With the affordances and functions, mobile devices could capture and interpret new knowledge when it happens based on the user's requirements. Thus, they may support international students in learning the target language and culture for developing students' ICC through daily activities. Many researchers have noticed the advantages of mobile devices in language learning such as studies in MALL, and some have discussed the benefit specific for cultural learning, but there are a limited number of studies on

intercultural competence for international students.

Intercultural learning during study abroad is often independent learning, because international students often encounter knowledge in daily activities without a tutor. Independent learning, also known as self-directed learning or autonomous learning, refers to learners working in isolation from teachers or other learners where they are under their direction (Benson, 2001). Mobile devices in such situations may act as external help to provide information about meaning, context, and background knowledge. As mobile devices may facilitate language and culture learning, they could facilitate international students to overcome their language and cultural difficulties throughout study abroad.

#### **2.4.4.1 Mobile-Assisted Language Learning**

Researchers took the advantage of functions and affordances of mobile devices, and have conducted studies to explore the potential of the technology. Many studies have indicated that the learners use mobile devices to achieve language learning goals through communicating on social networks, listening to podcasts, and discussions with classmates (e.g., Ducate & Lomicka, 2013; Dashtestani, 2016; Lee, 2009). Most MALL studies focus on linguistic competence, and imply authentic language learning materials may benefit students' sociolinguistic and pragmatic competence.

Researchers have proposed that some functions or apps of mobile devices may support language learning, such as e-dictionaries, email and podcasts. Levy and Steel (2015) explore the use of the electronic dictionaries for language learning in and out of the classroom during a formal language course. In total, 587 English learners who spoke ten different languages participated in a survey on electronic dictionary use while studying abroad at an Australian university (Levy & Steel, 2015). The learners revealed that mobile devices offered faster and easier access to dictionaries than other forms of electronic dictionaries, such as translators, e-dictionaries and web conjugators (Levy & Steel, 2015). Email is one of the popular functions of mobile devices and it could represent the group of apps for interpersonal communication, including synchronous and asynchronous tools on mobile devices, such as iMessage, WeChat and Skype. Learning and practising a language through email and other communicative apps could be accomplished at any time and in any place. Beatty (2010) suggests that email provides many opportunities to support

language learning such as checking spelling and grammatical errors, communicating with native speakers and others, and sharing news and information. Furthermore, podcasts are a technique for independent learning and collaborative learning with other peers. Podcast users in Lee's (2009) study subscribed to fresh and authentic materials for learning a foreign language, and also recorded and published their own talks to share with others. The podcast subscription and Internet connection ensure the users are able to catch up with current affairs, new technologies, news of big-budget films and pop stars within the target language culture.

For exploring the use of mobile devices in developing linguistic competence, some researchers tried to establish a lively language context for learners to become immersed with the use of mobile devices. Beaudin et al. (2007) have explored the use of mobile devices to learn the vocabulary of a foreign language in a home setting. The participants would listen to English and Spanish phrases associated with the use of those objects via built-in sensors and mobile devices. They learned the language from their living background. The simple and playful interactions encourage the motivation of the learners, and expose the users to a foreign language-use context (Beaudin et al., 2007). This study imitated a type of living condition and implied mobile devices, as context-sensitive and always-on systems, would benefit language learning, especially vocabulary learning, in a language use context such as living in the target language country. However, an artificial language context seems inconvenient for benefit to the majority of language learners. The furniture of the house seemed to limit the vocabulary of the context. If a language learner lives in a natural authentic language context, such as studying abroad, the learner may have an opportunity to learn more vocabulary. For example, language learners in the study of Levy and Steel (2015) appreciated the mobility of mobile devices, which met their needs to learn vocabulary in various contexts and look up words wherever they went. The natural language context likely provides more linguistic information than the artificial. Moreover, mobile devices may benefit language learning in listening and speaking. Hwang, Shih, Ma, Shadiev and Chen (2016) carried out an experiment with pre- and post- tests to find the differences between the English language achievements of paper-pen learning and mobile learning. The learners in the experimental group practised English speaking and listening with peers in mobile games, and shared records of their performance and gave comments

to each other. The results of the study indicate that students who learned through mobile games with situational context could learn and remember more words, and master their speaking and listening skills better than the control group. Although most studies still mainly focus on linguistic competence, they also implied that the participants were exposed to authentic language learning materials that might be associated with accents, words from popular web culture and other sociocultural and pragmatic language. However, at present, no MALL studies especially focused on sociolinguistic or pragmatic competence have been identified.

MALL has limitations and barriers in developing language competence. Dashtestani (2016) conducted a survey in Iran with 345 EFL learners who had mobile devices. This study found that the students often employed mobile devices for non-academic purposes, rather than academic. The results of the study indicated that the learners realised the opportunity of mobile devices to support their English learning ubiquitously, but they experienced some barriers including expensive tools, the limited number of wireless networks, low levels of mobile literacy, and not many English teaching/learning apps (Dashtestani, 2016). Dashtestani (2016) suggests the barriers are the reasons that learners do not commonly use mobile devices for academic nor EFL learning purposes. However, a lack of an English-speaking context may be the fundamental problem in unsuccessful mobile learning for English. Compared with other studies, the Iranian learners did not have a target language speaking context in either the real world or virtual world, because they did not live in an English-speaking country, nor have the ability and support to become involved in an English virtual environment. Alternatively, the study revealed that the learners usually employed mobile devices for non-academic purposes such as listening to music, searching the Internet, contacting their friends, and browsing social networks. If the learners could use English resources and communicate in English, they might have more opportunity to learn and practice their language. Hence, international students, who immerse themselves in the target language and culture likely have more chance to learn the language than the learners who have no or limited access to the language context.

#### **2.4.4.2 Mobile learning for cultural learning**

The number of studies conducted on mobile-assisted cultural learning is limited. However, some studies mentioned the support of mobile devices for cultural learning along with language learning. Most studies stressed exposure to authentic culture and the gain of cultural knowledge.

The knowledge of the target culture could be learned with mobile devices along with language. Lee conducted two studies on blogs: a 10-statement survey on a 5-point Likert scale with 33 American and Spanish students (Lee, 2009), and a study of 16 American students who lived in Spain for two years for studying Spanish (Lee, 2011). Learners having blogs on mobile devices could post any detailed differences between cultures whenever they found the culture confused or inspired them. The surveys found that blogs could reflect intercultural issues and offer students opportunities to study the target language and culture independently. In other words, blogs may provide authentic intercultural resources for students to learn various cultural aspects. Moreover, email has also been suggested as a cultural learning channel. O'Dowd (2003) argued that email exchange may provide cultural information such as identity and beliefs, and grow awareness of different perspectives on the cultural products and practices.

#### **2.4.5 Section summary**

International students have various choices to learn a language and culture with mobile devices, as mobile devices could provide various learning environments via different functions and affordances, as detailed above. The flexible learning environment extends the potential for language and cultural learning in new situations and contexts (Comas-Quinn et al., 2009). Moreover, the mobility and various functions of mobile devices increase the frequency with which students participate in the target culture (Kukulska-Hulme, Traxler & Petit, 2007). No matter which affordances and functions are employed to enhance learning, mobile devices may provide opportunities to communicate with native speakers and external information about situations. Also, as they are often at hand, mobile devices could mediate learning. Therefore, international students may benefit from using mobile devices for overcoming language and cultural difficulties during study abroad.



## **Chapter 3: Methodology**

The primary aims of the present study were to explore international students' difficulties during their study abroad and the solutions they applied in solving them, while also examining the mediational role of mobile devices in overcoming these difficulties. This chapter addresses the research methodology and design that were employed to achieve these aims. It begins with presenting the research questions and the context. Then, it explains the rationale for the adoption of an interpretivist research paradigm and case study research approach. After introducing the participants, it discusses the qualitative diary-interview method and the design of the instruments. Later sections present the the procedures of data collection, the coding schedule and manual for data analysis, the trustworthiness and ethical considerations.

### **3.1 Research questions and context**

#### **3.1.1 Research questions**

Previous studies on study abroad have addressed some of difficulties that international students usually encountered during study abroad, such as language, cultural, academic and independent living difficulties (Gu & Maley, 2008; Kim, 2011; Lewthwaite, 1996; Lin & Scherz, 2014; Liu, 2013). However, they did not examine the difficulties from the perspective of a shortage of ICC, or investigate the applied solutions or mediational tools from international students' perspectives. Moreover, the research on mobile devices highlights the mobility of learning and learning in social contexts (Beaudin et al., 2007; Sharples et al., 2009), but not many studies have considered mobile learning in the study-abroad context where learners are naturally immersed in a sociocultural learning situation. Therefore, the present study aimed to answer the following research questions:

- RQ1. What difficulties did international students report that they experienced during a one-year study abroad?
- RQ2. What solutions did international students report that they implemented to overcome their difficulties during their study abroad? What role (if any) did mobile devices play in dealing with students' difficulties?

### 3.1.2 Research context

This study selected Chinese international students as the target group, because Chinese students make up a considerable proportion of the international student population. More than .4 million Chinese students have gone abroad for higher education every year since 2013 (National Bureau of Statistics of China, 2016). For example, 86,045 Chinese students came to the UK for a higher education qualification in 2014-2015 (HESA, 2016), nearly 20% of all the international students in the UK. In other target countries for study abroad, such as the US, Canada and Australia, the numbers of Chinese international students were also considerable according to Institute of International Education's Project Atlas (2016). The large proportion of Chinese international students has drawn many researchers' attention to examining Chinese students' language learning and cultural adaption (Gu & Maley, 2008; Liu, 2013; Sanchez et al., 2006; Shi, 2011; Spencer-Oatey & Xiong; Tian & Lowe, 2013).

The UK is one of the popular destinations for Chinese students, so it was chosen as the social context of the present case study. In the UK social context, Chinese international students used a foreign language, namely English, to study and communicate with non-Chinese people. Also, they are usually expected to follow the British culture, such as social norms and rules, to live in the local society and interact with other people. However, there are significant differences between Chinese and UK cultures according to Hofstede's culture dimensions (see Table 1). The language and cultural differences between the UK and China have caused international students difficulties during study abroad (Lin & Scherz, 2014; Liu, 2013; Spencer-Oatey & Xiong, 2006).

**Table 1. China and UK comparison in culture dimensions**

China	UK
Large power distance	Small power distance
Collectivism	Individualism
Restraint	Indulgent
Weak uncertainty avoidance	Strong uncertainty avoidance
Masculinity	Femininity
Long-term oriented	Short-term oriented

Students in one-year master's programmes were the focus of the study, because one-year study abroad usually requires international students to adapt to the target language and culture as soon as possible, so that they could turn their focus to their

challenging academic aims. Furthermore, the present study was conducted in the first few months of study abroad, as it was the time when the students might pass the honeymoon stage and confront with culture shock and language difficulties (Liu, 2013) (see Section 2.1.2.2).

### **3.2 Interpretivism**

To answer the two research questions, an interpretivist research paradigm was adopted to understand international students' experiences in the study-abroad context. The researcher of the present study realised her role in the interpretivist study, as will be discussed in the following sections.

#### **3.2.1 Interpretivist research paradigm**

A research paradigm or worldview refers to the core beliefs that guide the research, including philosophical assumptions, epistemologies, ontologies and research methodologies (Creswell, 2007). According to the nature of this study that aimed to understand a social phenomenon, a qualitative interpretive paradigm was adopted as the research paradigm. The interpretivist paradigm considers the "internal reality of participants" to examine the meaning of the social phenomena (Saini & Shlonsky, 2012, p.178). To examine the appropriateness of the paradigm in this study, it will be discussed from epistemological and ontological perspectives.

Epistemological assumption refers to the theory of knowledge (Bryman, 2012), considering the relationship between the researcher and the research subjects, whether or not the empiricist views of natural science is suitable for social research (Creswell, 2007; Bryman, 2012). From the view of epistemological assumption, interpretivism is a typical paradigm for a study without a definite hypothesis prior to data collection (Cohen, Morrison, & Manion, 2011). For examining a social phenomenon, the researcher in an interpretivist study usually collects and analyses data, and then elaborates upon the concepts or theory from the collection of individual behaviours or attitudes (Cohen et al., 2011). Using mobile devices, such as smartphones and tablet computers, is a new trend in the social world, so is learning language and culture through mobile devices. Moreover, in research on study abroad and mobile learning, the types of international students' difficulties and the use of

mobile devices during study abroad are new themes that have seldom been discussed in previous studies. Studies about new and uncharted areas, like the present study, could adopt an interpretivist paradigm to understand and interpret the new social phenomena and then reveal a concept or theory. Therefore, interpretivism was believed to be appropriate for the present study.

An ontological assumption deals with the nature of reality (Creswell, 2007) that is whether the social world is external to individuals or involves individuals in the fashioning process (Bryman, 2012). From the view of an ontological assumption, interpretivism views individuals as actors in the social world, who are not always simply reacting to the social situation but choosing an action after thinking (O'Reilly, 2009). It is a paradigm that understands the social world through the individuals' perspective (Lather, 2006; Robson, 2011). Unlike positivism where the social world influences individuals, interpretivism views the individuals' thoughts as significant (Benton and Craib, 2001). This study holds the view that individual international students may encounter various kinds of difficulties during study abroad, and they consciously choose different solutions and mediational tools to overcome their difficulties. An international student's perspective of his/her study-abroad experiences are the fundamental evidence to reflect the types of his/her difficulties and his/her preference in use of mobile devices for overcoming difficulties during study abroad. Thus, interpretivism is adopted in this study, as it is appropriate to fulfil the aims of the current study. More specifically, it allowed the investigation of study abroad experiences from students' perspectives and their understanding of the study abroad.

### **3.2.2 Role of the researcher**

A researcher in an interpretivist qualitative study is "the primary instrument for data collection and analysis" (Merriam, 2014, p.15). The researcher of the present study has noticed the interpretation of the phenomena in an interpretivist research was usually affected by the researcher's knowledge and previous experiences (Anderson, 2010). The researcher has acknowledged her personal limitations in data interpretation, and controlled them through member checks and peer debriefing. Moreover, it is necessary to provide a reflexive account.

As a Chinese international student, the researcher first came to the UK for a one-year

taught master's course four years ago. She shared the language and cultural background as well as similar study abroad experiences with the target research population. The researcher worked with a student union for one year during the doctoral program where she represented and organised activities for postgraduate students, most of whom were international students. The researcher has developed her ICC through the four-year study abroad experience.

### **3.3 Case study**

Based on an interpretive research paradigm, a qualitative exploratory case study was adopted in the present study. Case study refers to an empirical inquiry that explores a contemporary phenomenon in its real-life context via a thick description from multiple research methods such as diaries, interviews, observations and documents (Merriam, 1988; Yin, 2003; Creswell, 2007; Bryman, 2012). It is usually associated with interpretive qualitative research in applied linguistics on learning processes, outcomes, and factors of individual learners when researchers intend to learn a language or integrate into a new community (Duff, 2008). Case study was employed in the present study, because its characteristics match the study in the following considerations.

Firstly, a case study focuses on a contemporary situation, event, or phenomenon, which is difficult to separate from its real-life context (Merriam, 1988; Yin, 2003). The consideration of context is paramount in such a study, as an individual cannot understand a phenomenon without the context where it occurs (Friedman, 2012; Merriam, 1988). In the present study, the contemporary phenomena were study abroad and using mobile devices in daily activities. The sociocultural context of the host country is significant to international students' study abroad experience. They chose solutions for their difficulties and mediational tools according to the situation they were involved in. A case study would provide details of the study abroad context with its numerous intertwined variables, such as the role of language, culture and technology. Thus, the case study approach was deemed suitable.

Secondly, a qualitative case study usually provides a thick description, including detailed and in-depth qualitative data and intensive analysis (Merriam, 1988; Bryman, 2012). As this study was exploratory, it was also important to adopt a case study to

facilitate an in-depth understanding of students' study abroad experiences and perspectives in the social and cultural contexts. Therefore, careful attention was paid to every possible issue they experienced while studying abroad. To collect such information, students' diaries about their study abroad were regularly collected over one month during their study abroad.

### **3.4 Participants**

#### **3.4.1 Sampling**

This study combined the criterion and convenience sampling strategies to recruit participants (Miles & Huberman, 1994; Mertens, 2010). The students who met the criteria of the study were welcome to participate in the study voluntarily.

Criterion sampling requires the participants meet all the criteria set up by the researcher, which is usually useful to assure the quality of samples (Miles & Huberman, 1994; Mertens, 2010). In the present study, the following criteria were established:

- 1) The participants had to be Chinese international students who spoke English as a foreign language.
- 2) They had to be doing a one-year master's course in the UK.
- 3) It had to be their first time living in the UK.
- 4) They had to have mobile devices such as smartphones and tablet computers.

All the participants of the current study met these criteria and agreed to participate in this study voluntarily. Moreover, the study also used convenience sampling, which is a sampling strategy where participants volunteer to be involved in a study (Creswell, 2005). The participants could be whoever replies to the recruitment email or advertisement and stated their interest and availability to attend this study. In the present study, if an individual met all the requirements of the participants and wanted to join the study voluntarily, he/she was eligible to be involved as a participant.

**Table 2. Collected diary entries and interview records**

<b>Name</b>	<b>Diary</b>	<b>Interview</b>	<b>Total</b>
<b>Emma*</b>	20	4	24
<b>Ben</b>	19	4	23
<b>Chloe</b>	19	4	23
<b>Lily</b>	21	4	25
<b>Frank</b>	21	4	25
<b>Sophie</b>	20	4	24
<b>Julie</b>	20	4	24
<b>Total</b>	160	32	192

\* All the participant's names in this thesis are pseudonyms.

According to Duff (2008), a case study typically involves four to six focal participants. Thus, following this advice, the present study recruited eight participants in case of drop out during the study. After the four-week data collection period, none of the eight participants dropped out. In total, 160 diary entries were collected and 32 interviews were held (see Table 2). There were only two students who did not complete all the required diaries: Ben did not hand in a diary on Monday of the third week, and Chloe failed to submit one on the Thursday of the first week. The two participants claimed in the follow-up interviews that they had no difficulties on those days. On the other hand, Lily sent an extra diary on the Saturday of the first week, and Frank was also enthusiastic to report an issue in a diary on the Saturday of the third week. However, since all the students participated in all the required weekly interviews, the students' experiences were then carefully recorded through the interviews.

### **3.4.2 Participants' background information**

Eight Chinese students, two males and six females, met the criteria of sampling and volunteered to participate in this study (see Table 3). They were all 22 or 23 years old. Their IELTS scores were between 6 and 7, which indicated that the students were competent or good English users. This, according to the International English Language Testing System (IELTS), meant that they had the ability to use the language effectively but with a few mistakes in accuracy, appropriacy and understanding in some situations (IELTS, 2015). In other words, the students had the ability to use English for study and communication but their English was still developing to achieve a native like proficiency.

Six of the students arrived in the UK in July 2014 for their pre-sessional courses (in order to meet the language requirement of their departments), and the other two came to the UK in September 2014. The students were registered in six different one-year taught master's programmes that started at the end of September 2014. Five students (i.e., Emma, Chloe, Lily, Sophie and Hanna) continued their undergraduate studies into more specific areas or related topics, but the other three (i.e., Ben, Frank and Julie) changed to entirely new subjects (see Table 3).

**Table 3. Students' background information**

<b>Name</b>	<b>Sex</b>	<b>Age</b>	<b>IELTS*</b>	<b>Arrival</b>	<b>Master's Course</b>	<b>Bachelor's Course</b>
<b>Emma</b>	F	23	6.5	Sept.	Engineering Management	Engineering Mechanic
<b>Ben</b>	M	22	7	July	Education	Media and Journalism
<b>Chloe</b>	F	22	6.5	July	TESOL	English
<b>Lily</b>	F	22	6.5	July	TESOL	Education
<b>Frank</b>	M	22	6	July	Comparative & International Social Policy	Computer Science
<b>Sophie</b>	F	23	6	July	International Business & Strategy Management	Human Resource Management
<b>Julie</b>	F	23	7	Sept.	Education	International Business
<b>Hanna</b>	F	23	7	July	Project Analysis Finance & Investment	Finance

\* Overall score of IELTS

### **3.5 Diary-interview method**

This qualitative case study adopted the diary-interview method to collect qualitative data. It involved students' weekly diary writing followed by an interview. A follow-up interview with a student was particularly important, as it allowed the researcher to discuss students' diary entries further and to obtain new insights into their study abroad experiences. The rationale for using diary and interview in this study is explained in more detail below.

#### **3.5.1 Diaries**

In the present study, diaries were used to collect data of the type of difficulties students



experienced while studying abroad and the ways they solved their difficulties. This study considered adopting diaries because of the following five advantages of diary study.

Firstly, a diary is a self-completion of personal life. The present study is interested in the difficulties that international students encountered every day, and their solutions and thoughts about those difficulties. A diary could provide information about external issues that happened to an individual (Silverman, 2011; Nezelek, 2012). The contexts that the participants recorded are the thick description of the way that the person makes sense of his/her daily life (Silverman, 2011; Nezelek, 2012). In other words, the international students of this study would record what occurred in their surroundings, which could reflect their interpretation about their study abroad experiences. Moreover, a diary is a research instrument to collect detailed internal information of a person, including one's thoughts, internal activities, related experience and other aspects of daily life (Sheble & Wildemuth, 2009; Corti, 2003). Particularly, a diary could offer insight into learning processes and mediational tools, which is unlikely to be available from the researcher's perspective (Mackey & Gass, 2005). The insight was what the researcher of this case study is interested to know. In this study, international students wrote their interpretation of their issues and highlighted special details that influenced their thoughts. It was beneficial for this case study to obtain an individual's external and internal facts through investigation of the international students' perspective.

Secondly, a diary is also used to collect the naturalistic data (Gass & Mackey, 2007). A diary could record personal activities and the situations where the activities occur through the lens of the diary keepers without the researcher's disturbance. It means the international students of this study could use the diary to report whatever they thought was significant or difficult without the effects of the researcher's thoughts. The naturalistic data enables the researcher to learn facts about the participants with minimum interruption to their personal views. In this way, the present study minimised the Hawthorne effect.

Thirdly, another strength of a diary is recalling recent experiences and reducing retrospective bias (Ohly, Sonnentag, Niessen, & Zapf, 2010). A diary study could provide an individual's social, psychological, and physiological processes in everyday situations, so that the record-keeper does not have to think back to events that happened a long time ago (Alaszewski, 2006; Bolger, Davis, & Rafaeli, 2003), as whatever happens between

experience and the record of it might affect the expression of the record (Nezlek, 2012). International students are usually confronted with various issues each day. For collecting the data, an everyday interview with several students was unlikely applicable with only one researcher. If having an interview once a week without any daily record, the students may forget some issues and significant details. Also, an individual's thoughts on one issue are usually influenced by other issues and experiences that happen afterwards. For example, a student had difficulty on Monday, and solved the difficulty with his own efforts or another's help on Tuesday. On Sunday when the student came to the interview, he or she might forget the difficulty or the details of the situation, or even no longer regard it as a trouble. The impact of other factors possibly obscures the fact of a particular issue or mixes one's initial thoughts with the final reflections. For reducing forgetting and other impacts, a regular record is beneficial in this study to shorten the students' retrospective periods and ensure the validity of data.

Fourthly, a diary as a regular record may make issues distinct from each other (Nezlek, 2012). Nezlek (2012) suggests when reviewing multiple experiences in a distant past, people are inferior in their ability to focus on differences between those experiences than the distinctions they record when providing immediate reports. A participant may generalise or summarise his difficulties that were similar in his understandings, but might be different in some aspects. For example, a participant confronted with two problems in reading academic articles on different days. One was caused by new academic knowledge and terms, while the other was related to a lack of vocabulary. If the difficulties were reported on two days, the records were distinguished from each other. However, with a weekly interview or questionnaire, the participant might combine the two difficulties as one problem with academic reading and the special situation of each difficulty might not be clearly reflected. As the present study concerned the contexts and corresponding solution of each difficulty, a diary study is superior to other instruments in terms of reporting the circumstances.

Finally, keeping diaries is much more flexible than other instruments such as questionnaires and interviews. Participants could arrange the time of keeping diaries according to their personal schedules within the period requested by the researcher (Mackey & Gass, 2005). Participants may find the right time for themselves, such as

immediately after the occurrence of each difficulty, or at the end of the day before bedtime. The flexibility of time may guarantee the quality of data and the trustworthiness of data, as participants do tasks when they are available, and the issues they intend to report are fresh to them. Moreover, the flexibility of time decreases the interruption from the research task in the participant's life. It would be beneficial for minimising the dropout rate of participants and missing data, and ensure the validity of the study (Cohen et al., 2011).

Apart from the advantages, the limitation of a diary study is that the quality of diary study may be affected by respondent conditioning, incomplete recording of information and under-reporting, inadequate recall, insufficient cooperation and sample selection bias (Corti, 2003). Therefore, a diary study usually requires an additional research tool to fill these possible gaps.

### **3.5.2 Interviews**

In this study, weekly interviews are selected as complements of the diary study to overcome the above limitation (Corti, 2003; Robson, 2011). This study adopted weekly individual interviews because of the following five aspects.

Firstly, a personal interview is usually applied to collect additional data such as participant background information along with a diary study (Corti, 2003). The present study concerned the participants' personal information, education background and previous living or travelling abroad experience. However, the questions for these data were not addressed in the diary sheet. Having an interview to ask about this information was necessary for this study.

Secondly, the interview provides a chance for participants to provide more information to make up for the incomplete recording and under-reporting (Corti, 2003). As a diary is a personal record, the participant might omit some details or even issues that were significant for the research. Having an interview will help the researcher to understand more information about the participant's records. Organising interviews once a week rather than only once at the end of the study is useful for shortening the time of recalls, namely collecting data before the participant forgets them, this aims to guarantee the creditability of the study.

Thirdly, in this study, the interview is employed as a second data collection instrument

and a tool for meaning checks after a diary study. It crosschecks the interpretation of the diaries for avoiding researcher bias in finding understanding (Robson, 2011). The interview provides an opportunity for the participants to explain and clarify their records, so that the misunderstanding or misinterpreting could be reduced. With a follow-up interview, the validity of the study could be confirmed.

Fourthly, the interview is a chance to remind the participants about the requirements of the diary study. As the diary is usually done in self-completion form, it is important to ensure that the participants know what, why, when they need to do what they are expected and regularly check their understanding through personal contact in a study that lasts an extended period of time (Robson, 2011). The interview is an intermediate visit during a study, when the researcher offers a regular reminder to preserve the quality of diaries till the end of the study (Corti, 2003). According to the pilot data collected in the present study, the participants might forget some information provided in the introduction, and the understanding of the topics related to the study was unconsciously narrowed or broadened by the participants' various comprehensions of the research. An interview is an opportunity to re-inform the requirements of the study for participants. Moreover, interviews also remind the participants of their engagement of the study, so they would not drop out the study due to forgetting it. In addition, it seems polite to inform participants about the finish of the study face-to-face.

The standards of an individual interview are applied rather than a focus group or a group interview regarding data validity and data protection. An individual interview may explore a clear view of students' perceptions with less influence from their peers, so that individual thoughts are mainly from their own experience and attitudes, avoiding group effects (Bryman, 2012; Cohen et al., 2011). Furthermore, an individual participant's behaviour and records are less likely to be influenced by other participants' views after an individual interview. Last but not least, the participant's diary as personal record may contain some private issues and personal feelings that the participants may not want to share with others (Corti, 2003).

In summary, this study employed the qualitative diary-interview method to collect data due to the concerns discussed above. The diary was semi-structured for everyday data entry, while the interview was unstructured with individual participants for weekly

crosschecking.

### **3.6 Instruments design**

As this study adopted the diary-interview method, the diary sheet, interview outline and a face sheet were designed. Before applying the instruments for data collection, they were piloted and modified according to the results of these pilot studies.

#### **3.6.1 Pilot study**

A pilot study was conducted to practice and examine the procedures of the study and modify the research instruments, so that the instruments could collect data to answer the research questions in this study.

Eight Chinese international students were recruited for the pilot study in the last week of February 2014. It took about five days from sending a soliciting email to the administrators of academic departments to receipt of eight replies stating interest in participating. Another four students were not involved in this pilot because their emails were received after a sufficient number of participants had already been found. One student dropped out before the instruction of the study. Finally, seven students attended the induction of the pilot, and completed the two-week pilot in March 2014. Therefore, the pilot study indicated that one-week would be sufficient for recruiting more than six participants, and that dropout could occur. Also, an induction was necessary for a study where the participants would sign the consent form and learn how to keep a diary, according to the study requirements.

The seven students were asked to complete a diary sheet on the computer every week, and were invited to attend an interview at the end of the pilot study. The diary sheet was designed as a semi-structured diary with six-question instructions above the blank diary sheet (see Appendix A). It was intended to let students write a personal diary that would answer all or some of these questions. In fact, the students usually answered the six questions in the diary with one or two sentences rather than one piece of personal diary. Moreover, as it was a weekly diary and monthly interview, it was found that the students could not report their difficulties elaborately or provide details about the social contexts where issues occurred. However, the detailed information was essential for an interpretivist

qualitative case study. The results of the pilot demonstrated that a weekly diary could collect data about international students' difficulties, solutions and the use of mobile devices, but the details of the students' experiences were missing.

Moreover, some students complained that they were not quite sure what they were asked to write with instructions on the top the diary sheet in the pilot study. It revealed that the open diary format was not specific or clear for the participants. It could be a reason that the students recorded responses in various orders. The variety of orders was not convenient for data analysis (Mackey & Gass, 2005). Therefore, the diary sheet was re-designed with short and specific questions to guide diary keepers to write about their difficulties with personal perspectives and contextual details.

The study was re-designed to collect diaries every weekday (namely from Monday to Friday) and interviews were arranged for Sundays. The diary sheet was modified to make students interested in keeping a record, to make the questions easy to understand, and to encourage enthusiasm to provide the details about the reported issues (see Appendix B).

Another pilot study was conducted to test the revised semi-structured diary sheet with five students from the first pilot study and another nine participants were recruited via online social networks. All the students were asked to complete the new diary sheet for one day. An additional question was added at the end of the diary, as follows:

‘Which type of diary you prefer, this semi-structured format or the former unstructured one? And why? (If you haven't seen the unstructured diary, please leave some comments about the semi-structured one.)’

All five return participants agreed that the new diary sheet was better than the old, because they claimed they felt more confident to give more details when they read the clear and specific questions. Eight out of nine newcomers also said that the form was straightforward, and they felt comfortable and confident when writing their diaries. After the second pilot, the new semi-structured diary was adopted as the diary instrument to collect the data.

### **3.6.2 Diary sheet design**

The diary sheet was designed to collect data about the students' daily difficulties, their attempts to solve each difficulty, and whether they used mobile devices to help them with

their difficulties. The diary sheet was designed according to the results of the two pilots above. The questions in the diary sheet for the main study were revised mainly in the structure of the diary sheet, the tone and length of questions, and the position of questions.

On the first page of the diary sheet for the main study (see Appendix B), questions were about general information of the student's one-day experience, including their emotional status, and a brief summary about the difficulty(ies) he/she encountered on one day. These questions aimed to facilitate the students to reflect upon what had happened on the day. The overview question about students' difficulties on one day was asked before the participants move to detailed reflection on the following pages, namely:

What difficulty (-ies) did you experience today? (Appendix B)

The equivalent part of this question in the first pilot study asked about language and cultural difficulties separately:

1. What language difficulties did you experience in the last week when interacting in the English-speaking environment? This includes interacting with people who speak English (e.g., native and other non-native speakers) and interacting with objects (e.g., signs, menus, and web-pages).
4. What cultural difficulties did you experience in the last week when interacting in the English-speaking environment? (Appendix A)

In the pilot, some participants divided their diaries into language and culture sections in the first week, according to the questions. From the second week, all the participants structured their diaries according to the events, types of difficulties or chronological order. Asking students' difficulties without pre-determined types made the record more like a personal diary, and the contents seemed to be less edited and the original information about the students' experiences was retained. Also, the students in the pilot study reported specific types of language and cultural difficulties based on their interpretation, sometimes with bias. The students might overlook some difficulties related to language and cultural differences between two cultures without realising. For example, some students kept records many times about their shortage of vocabulary, but seldom reported other language problems. It implied that they might omit other types of difficulties that were raised by language or cultural problems. Therefore, in the main study, the question was

changed to ask in a general way. This change was beneficial for the study to collect naturalistic data about the actual experiences of international students rather than the facts that had been filtered by the participants.

On the following pages of the main study diary sheet, the questions asked about the nature of each difficulty, the situation where the difficulty occurred, the solution, their use of mobile devices, the reasons for their reactions, and the results of the issue. All the questions were revised to be shorter and more straightforward than those in the first pilot study, as the effectiveness of comprehension was considered. According to the first pilot, the questions were in academic tone with several modifiers, which might confuse the participants, taking the questions about difficulties as an example (see the above excerpt). The students of the first pilot study likely did not fully understand the long questions since some participants' diaries reported their general feelings without particular examples that had happened to them in that week. In regard of this, the questions were simplified into short and less complex phrases so that the questions were easier for participants to understand and provide relevant records. Moreover, to lead the participants to keep records with detail, some continuous sub-questions and hints in italic were added. Thus, these questions about difficulties were revised as follow:

**What difficulty(-ies) did you experience today?**

*For each difficulty please complete the table below.*

<b>Difficulty 1:</b>
<b>Nature of the difficulty:</b>
<b>Situation in which you encountered the difficulty:</b> <i>When, where, with whom, what, how</i>
...

(See Appendix B)

Simplification and constant sub-questions were also applied in the revision of the other questions for the main study. These short but in-series questions inducted the students to retrospect their difficulties of the day and the ways that they made decisions and carried out solutions.



The position of the question(s) about mobile devices was changed. In the first pilot study, the questions were two of the six main questions. Participants would read all the six questions before keeping their diaries.

3. Did you use any mobile applications to solve your language difficulties when interacting in the English-speaking environment? If yes, please list the details.
6. Did you use any mobile applications to solve these cultural difficulties when interacting in the English-speaking environment? If yes, please list the details. (see Appendix A)

On the reflection of the participants in the pilot study, putting the questions at the same level as the key questions about difficulties and solutions at the beginning of the diary sheet likely suggested that the participants should use mobile devices in their solutions. For pleasing the researcher, some participants paid special attention to mobile devices and tried to use the devices to overcome their difficulties even using a mobile device was not their first intention. That is to say, the positions in the pilot study might affect participants' natural use of mobile devices in problem-solving process and raise 'Hawthorne effect'. In order to avoid the effect and elicit the participants' real experiences to obtain more valid data, the mobile-related questions were listed at the end of the diary sheet after the question about solutions (see Appendix B). In this way, the students reported about their reactions, thoughts and solutions in detail before they moved on to the specific question about their use of mobile devices. If their reported issues did not involve mobile devices, they unlikely went back to the top questions to re-select or edit their reported difficulties and solutions according to their use of mobile devices. Furthermore, in this question, "mobile application" was used rather than "mobile devices", because the report about apps could not only confirm that the student applied the mobile device but also reflect the ways that the student's use of the device. In other words, it could make the student report details about the functions and the ways they applied the device. Additionally, this question was also simplified and added a following-up question (i.e., "why?") from the question of the pilot study.

Therefore, with the above considerations, the diary sheet was re-designed and piloted again before the main study.

### 3.6.3 Interview design

The follow-up weekly interview was unstructured and lasted for 25-30 minutes according to the first pilot study. It mainly consisted of two sections; in the first section, the interviewee was asked about the reported issues in his/her diaries of the week. It aimed to check details that the researcher did not understand or was unsure about, and also to gain elaboration on the recorded issues. The following questions served as probing questions:

1. You mentioned...in your diary. What do you mean by this?
2. Could you tell me what happened?
3. Would you please give more details / examples?
4. How do you solve this problem?
5. Why do you think so?

In the second section, the interviewee was asked to talk about other difficulties, confusions, unusual experiences and the solutions that he/she might have not initially recorded in the diary but would like to talk about in the interview.

The participants had the freedom to choose the language (i.e., English or Chinese) that they preferred to use in the interview as well as in their diaries. The language freedom was offered to reduce the language barriers to attaining quality data. In the first pilot study, the interviews were in English, and later followed by informal conversation in Chinese. It was found that the participants could speak in English but that they would provide more detailed information in Chinese. Welch and Piekkari (2006) agreed that interviewees would provide accurate and authentic answers that “exhibit more subtle nuances” (p.46) in their native language during the interview; and they would feel close with the interviewer and make the interview go smoothly. The interviewees would be “more relax[ed] and open” to express their “deeper emotions” (Welch & Piekkari, 2006, p.46). To ensure the accuracy and authenticity of the reports in the present thesis, the students were often asked to elaborate upon their issues. When they were unable to explain themselves in one language, they were encouraged to shift to the other language. For example, in this study, the international students could explain their feelings more accurately in Chinese, while clarifying what they learned in the British context more precisely in English. Thus, when

conducting interviews in the main study, the participants were allowed to choose any language they were comfortable with.

### 3.6.4 Face sheet design

A face sheet (see Appendix C) was designed to collect general background information about the participants in the first interview. The questions in the face sheet aimed to elicit student information about their study abroad aims, intercultural communicative experiences before study abroad and the use of mobile devices.

### 3.7 Procedure

The present study started at the beginning of November 2014, the second month of the new academic year. The participants for this study were recruited by email sent to the postgraduate administrators of academic departments in the University of York. The email contained the criteria of participants and the researcher's email address (see Appendix D). The administrators might forward the email to the one-year taught master students. Then, the volunteers would contact the researcher via email. Eight participants were enrolled within seven days.

After the recruitment, the students were invited to attend an induction for the study. At first, the volunteers were asked to confirm they meet all the criteria required of participants. Then, the volunteers were informed about the guidance of the study and asked to read the research participants' information sheet (see Appendix E), including the timetable of the study (see Table 4) and a tutorial on using the diary sheet, and the email reminders from the researcher. After the explanation of the study, they were asked to sign the Participant Consent Form (see Appendix F) to confirm their place in the study, if they would like to volunteer.

**Table 4. Research procedures**

<b>Time</b>	<b>Activity</b>
<b>Week 0</b>	Recruitment (Monday-Saturday) & Induction (Sunday)
<b>Week 1</b>	Diary (Monday-Friday) & Interview (Sunday)
<b>Week 2</b>	Diary (Monday-Friday) & Interview (Sunday)
<b>Week 3</b>	Diary (Monday-Friday) & Interview (Sunday)
<b>Week 4</b>	Diary (Monday-Friday) & Interview (Sunday)

After the induction, the data collection period of the study formally began. The participants were asked to hand in their diaries via email on weekdays for four weeks. The reminder would be sent via email to the participants who did not hand in their diary before 11 pm each day. This decision was based on the pilot study where some participants started to forget to keep a diary after the first submission. The time slots for the interviews were posted on a Doodle poll and sent to the participants five days in advance. Moreover, a reminder email with the selected slot was sent to participants one day before the interview. Finally, the fourth interview marked the formal end of the data collection.

### **3.8 Data Analysis**

The diary entries and interview transcripts were in English and Chinese as they were collected. The data was coded in the reported language, so that the meanings of the students' words were kept as original as it could be. The Chinese data was not translated into English until it was quoted in the thesis. Moreover, to distinguish the original English excerpts from the translated ones in the thesis, an asterisk (\*) was added at the end of Issue No. of the English reports.

Context analysis was adopted to analyse students' diary entries and interviews. Content analysis refers to an approach that is applied to analyse data seeking items that fall into predetermined categories of a systematic framework or categories summarised from the literature review (Bryman, 2012; Krippendorff, 2013). Miles and Huberman (1994) suggest that having a conceptual framework and research questions are effective approaches to the heavy loads of data. As the data of the study came from 192 diary and interview records with rich descriptive texts on international students' daily issues, the content analysis approach was appropriate to deal with the complex details with a systematic structure.

In this study, a predetermined list of codes derived from the conceptual framework of this study and a list of research questions, was implemented to analyse the data (Miles, Huberman, & Saldanã, 2014). The coding schedule and coding manual are explained in detail below.

### 3.8.1 Coding schedule

A coding schedule is a form, which is often applied to enter data coding in content analysis (Bryman, 2012). The predetermined coding schedule of this study is developed according to SCT and the research questions. The columns named students, nature of difficulty, device and solution paralleled to subject, object, tool and outcome of SCT. Difficulty in ICC and role of the tool were the two columns that provided details for answering research questions. Other categories, namely issue number and notes, were also included for distinguishing each issue and displaying related additional information. In this way, the coding schedule was as follows (see Table 5).

**Table 5. Coding schedule**

Student	Issue No.	Nature of difficulty	Difficulty in ICC	Situation	Solution	Device	Role of the tool	Notes

### 3.8.2 Coding manual

A coding manual was designed with options for each column in the coding schedule. The coding manual is an instruction for the coder, which contains the possible categories under each column (Bryman, 2012). It was required to reflect as many categories as possible (Bryman, 2012). The coding manual for this study was based on the taxonomy of each concept in the literature review, and some come from the patterns of the data. In this way, the coding manuals were developed as follows:

- 1) *Student* was the column for students' names. The students' names presented in the thesis were pseudonyms. The participants were named as Emma, Ben, Chloe, Lily, Frank, Sophie, Julie and Hanna.
- 2) *Issue No.* was coded with the initial of the student's pseudonym, the type of the record (i.e., *D* for diary and *I* for interview), the number of the week, the abbreviation of the day, and the number of the issue on the date (if applicable). For example, CD-W2TUE1 represented the first issue reported by Chloe in a diary on Tuesday of the second week. Moreover, the English record had an asterisk at the end of its issue number.
- 3) *Nature of the difficulty* represented the fundamental problem of the reported issue.

It was summarised according to participants' records, and rewritten in short phrases and condensed sentences.

**Table 6. Coding manual of difficulties**

<u>Difficulties</u>	
Communicative	Intercultural
Linguistic	Knowledge
Sociolinguistic	Attitude
Pragmatic	Skills of interpreting
	Skills of discovery
	Skills of interaction

- 4) *Difficulty in ICC* was coded to categorise the competences that the student mainly needed to overcome the reported difficulties (see Table 6). It reflected the nature of the difficulties in an abstract way. ICC is generally coded according to Byram's ICC model. In the literature review part, we discussed that pragmatic competence replaces discourse competence in the ICC model as the understanding of ICC developed. Also, critical cultural awareness was often reported as a way for the students to gain further understanding of their difficulties rather than a must-have competence to overcome the difficulties. Therefore, pragmatic competence was included in the coding manual of ICC, but critical culture awareness was not. That is to say, the coding manual of ICC included linguistic, sociolinguistic, pragmatic, attitude, knowledge, skills of interpreting, skills of discovery, and skills of interaction. Skills of discovery and interaction were coded separately rather than combined as they were in Byram's model, because the problems about them did not always occur along with each other in the students' reports. Apart from ICC, some reported difficulties were related other knowledge, abilities or skills, such as new academic knowledge, social skills among Chinese people and independent living skills. As these difficulties were not the focus of this study, they were listed in *Notes*.
- 5) *Situation* category showed the setting where and with whom the students encountered the difficulty according to students' reports. The coding manual contains the possible circumstances and interlocutors (see Table 7). The coding manual of situation aimed to cover the possible places that international students

went and the people that international students interacted with. 'Online' is listed with other real-world places, because it is a situation where a person may neglect the real-world settings and enjoy the interaction in the virtual world. Online and other places of the real world in the manual are where international students may encounter difficulties relating to various aspects of their life during study abroad.

**Table 7. Coding manual of situation**

<u>Situation</u>	
Where	With whom
Classroom	Alone
Library	With Chinese people
Other places on campus	With English speakers
Off campus	With other internationals
Dorm	With a mixed group
Online	Unknown
Unknown	

The options in *With whom* were distinguished according to the language they used to communicate and the differences between cultural backgrounds. 'With English speakers' is determined to be one of the categories rather than 'with English native speakers', 'with local people' or 'with English non-native speakers', because it was difficult for an international student to figure out whether a professional English speaker was a native, a local or neither. It was found in the diaries and interviews of the study that participants preferred to categorise people into Chinese and foreigners. They reported the nationality of a person if they could tell from other's physical appearance, accent, the language in use or other characteristics. Otherwise, they called all the non-Chinese people 'foreigners.' This phenomenon was also highlighted in Spencer-Oatey and Xiong's (2006) study that Chinese participants did not clearly distinguish between local and international students, and they usually referred to both groups simply as 'foreigners'. Therefore, the 'English speaker' category was more applicable than other potential codes to cover both English native speakers and English professional speakers. 'With other internationals' describes the situation that the students could tell the nationality of the individuals in the context who were

non-Chinese international people.

- 6) *Solution* was initially summarised with phrases that would represent the students' attempts to overcome their difficulties. And then, the data showed some patterns, including critical cultural awareness, communication, self-effort, finding references, and doing nothing. Finally, the patterns were used as themes to code the data.
- 7) The codes for types of *devices* were deducted from the participants' reports, mainly including 'computer' (e.g., desktop and laptop) and 'mobile device' (e.g., smartphone and tablet computer).

**Table 8. Role of the tool**

Role of the tool	Examples
Search tools	Search engines, dictionary apps and online database
Social tools	E-mails, Facebook, WeChat
Service providers	Online stores, ticket booking websites
Presenting tools	PowerPoint, PDF readers
Capture tools	Camera, and recorder

- 8) The coding manual for *role of the tool* listed various functions of devices that the students applied to overcome their difficulties. Initially, the column was filled as the students reported. After the first cycle of coding, the codes were developed according to the patterns in the data. The devices usually acted as search tools, social tools, service providers, presenting tools and capture tools (see Table 8). Search tools include search engines, dictionary apps and online databases. Social tools contain text messages, e-mail, online social networks and apps with messages or social functions (e.g., iMessage, Facebook, and WeChat). Service providers referred to the apps or websites that offer particular services, such as online stores, online appointment/booking websites. Presenting tools represented the functions of the devices for information display, such as PowerPoint, Google Calendar and apps for reading PDF documents. *Capture tools* were those that the students employed for keeping a record, such as video/audio recording apps and camera apps.



- 9) The *Notes* column was prepared for the information that does not fit in the coding schedule or coding manuals, and for further explanation of the data.

### **3.8.3 Data analysis procedure**

The data analysis procedure followed two cycles, as suggested by qualitative researchers (Clayton & Thorne, 2000; Cohen et al., 2011; Mertens, 2010; Miles et al., 2014). The first cycle was to fill the coding schedule with the participants' diaries and interview records:

- 1) Read the diary entries and interview transcripts, and fill the coding schedule with related categories of the coding manual. Compare and contrast the diaries and corresponding interviews to check the credibility of the data at the first stage of data analysis.
- 2) Create new codes when the coding manual did not cover the category from the diaries and interview.

The second cycle aimed to find patterns from the completed schedules, develop the coding schedule and manuals, and re-fill the data in the modified coding instruments.

- 1) Find patterns in the codes through merging and separating codes. Then, structure the final list of coding manual, and define the codes and check the codes with the final list.
- 2) Refill the coding schedule with the new coding manual.
- 3) Invite another researcher to read part of data and coding manual to avoid researcher's bias.
- 4) Conduct within-case analysis to understand every participant's experiences of study abroad.
- 5) Transfer the data to numbers and calculate the frequency of each category for cross-case content analysis.
- 6) Last, organise the data and findings, and then write up.

Since the follow-up interviews were designed to complement the data obtained from

students' diaries, the interviews were, therefore, analysed along with the diaries of the same week.

### **3.9 Trustworthiness**

Trustworthiness of a qualitative study addresses four key qualitative criteria, such as credibility, transferability, dependability and confirmability (Bryman, 2012). The following sections explain how these criteria were ensured in the current study.

The data credibility was confirmed in four ways. First, credibility requires the researcher to keep an appropriate distance from the phenomenon where the researcher can also be involved in the community of interest for observation (Mertens, 2010; Bryman, 2012). In this study, the researcher was an international student like the participants, and used to be a member of the research target population. She was a Chinese student who came to the UK for a taught master's course four years prior. The international community and the former experience provided an inner perspective of the study, to some extent. The researcher did not have a close relationship with the participants, nor live in the same group, as she was not a friend to any participants personally before or during the study. In this way, the researcher kept distance from the participants so that she would not affect the credibility of the data. Moreover, triangulation was another approach used to ensure credibility. This refers to crosschecking the information collected from different sources (Mertens, 2010). In this study, the diaries were compared and contrasted with transcripts of the interviews, thus complementing each other and providing a more complete picture of students' study abroad experiences. Thirdly, the researcher used member checking to clarify the meaning of the reported diary entries with participants (see p.97, first section of interview design), and applied peer debriefing techniques with another researcher to analyse data through peer debriefing (see p.104, stage 3 of second cycle in data analysis procedure) (Mertens, 2010). Fourthly, as the researcher is part of the instrument in a qualitative study, a researcher log was kept for monitoring any changes in developing interpretations and the research process throughout the study (Mertens, 2010).

Transferability requires the researcher to offer a thick description so that readers of the study could make a judgement on the degree of similarity between the study site and the receiving context (Bryman, 2012; Mertens, 2010; Thomas & Magilvy, 2011). In this study,

excerpts of the analysed data were provided to support the presented and discussed results.

To ensure dependability, that is, whether the same results would be obtained if the study were repeated (Shenton, 2004), peer checking with another researcher was arranged. The dependability of this study could be high if “another researcher can follow the decision trail used by the researcher” (Thomas & Magilvy, 2011, p.153), including the aims of the study, the sampling approach, research design, coding schedule and manual, and the special techniques to ensure credibility.

Confirmability, including descriptive and interpretive validity, means that the data and interpretation are not imagined, selected or distorted by the researcher (Cohen et al., 2011; Mertens, 2010; Bryman 2012). It requires qualitative research to be reflective and sensitive to the themes and results of the study (Thomas & Magilvy, 2011). The data can be tracked to its source, and the logic of interpretation can be explained (Mertens, 2010; Bryman, 2012). As this study adopted convenience sampling, the participants participated in this study based on their own wish and were comfortable to share their personal experiences for the research purpose. Thus, the students would like to provide naturalistic data. Also, the member check was conducted every week in the interviews with the participants to enhance the logic of the data interpretation. Moreover, the design of the diary research instrument ensured the data came from a natural setting, which was also the target study context. In this way, the data described the participants’ everyday lives and met the descriptive validity (Cohen et al., 2011). The data is coded according to SCT and the model of ICC, so that data are related to their source in comprehensible logic, which guaranteed the interpretive validity.

Thus, given the applied quality checking techniques, it is argued that the results of this study are trustworthy.

### **3.10 Ethics**

Participants were recruited through written invitations by e-mail. An induction was then held to explain the details of the study, and to provide subjects an opportunity to sign the Participant Consent Form.

The participants were assured that all information would be kept confidential, and

electronic data would be stored in password-protected files in a password-protected computer. Participants' names were changed, and the reference list used to identify participants was held in another password-protected file. All electronic data were destroyed after the successful completion of the research.

In addition, the students were instructed that if they changed their mind during the study, they were required to email the researcher before the next data collection date. If the participants decided to drop out after the data collection, they were asked to contact the researcher within seven days after the last interview, so that the researcher would delete all information that they had provided.

## Chapter 4: Results

This chapter will present the general information about the students who participated in the present study. Then, it will answer the research questions in section 4.2 and section 4.3, with detailed data as reported by the Chinese international students. As a reminder, the research questions are:

RQ1. What difficulties did international students report that they experienced during a one-year study abroad?

RQ2. What solutions did international students report that they implemented to overcome their difficulties during their study abroad? What role (if any) did mobile devices play in dealing with students' difficulties?

### 4.1 General information about the students

The background information of the international students will be reported in the following parts, including their aims for study abroad, their expectations and real life, and their former intercultural experiences prior to study abroad. The information will facilitate the understanding of the students' performance, such as their difficulties and attempts to solve the difficulties, in the later data analysis.

#### 4.1.1 Aims of study abroad

The students were asked about their aims of study abroad in their first interview. The students reported that their principal purposes were to gain academic achievement, English language skills and intercultural experience (see Table 9).

**Table 9. The students' aims of study abroad**

	Emma	Ben	Chloe	Lily	Frank	Sophie	Julie	Hanna
Academic achievement	x		x	x	x		x	x
English language Proficiency		x	x	x	x	x	x	
Intercultural experience	x		x			x	x	

x: means a student claimed that he/she had the particular aim of study abroad

Academic achievement was one of the most reported aims in this study. Six students reported their goals of study abroad included to obtain a master's degree, to learn

knowledge of a particular subject, and to learn within another environment. Chloe, Frank and Hanna claimed directly that their purpose was “to get a master’s degree” (CI-W1SAT; FI-W1SAT; HI-W1SAT\*). Emma, Lily and Julie emphasised the knowledge they would gain through the courses.

I want to learn the logical thinking and basic theory (from the master’s course). I haven’t learned them systematically before. (EI-W1SAT)

(I aim) to be trained well as an English teacher. (LI-W1SAT\*)

To learn the knowledge of education, and to conduct in-depth research. (JI-W1SAT)

The goals of the three students were knowledge of particular subjects, which would enhance their employability. The six students pointed out academic aims directly and usually listed them as the first aim of their study abroad in the interviews. It showed that the students realised the significance of academic aims in study abroad.

The development of English language ability is the other most reported aim. Six students reported that they intended to improve their English language proficiency during study abroad (see Table 9). Ben claimed that “English improvement [was his] only aim’ of study abroad” (BI-W1SAT). Chloe, Lily and Julie reported that improving their English proficiency was one of their goals of study abroad. They specified their focus on particular language skills:

(I hoped that) [A]ll my listening, speaking, reading and writing skills could improve. (CI-W1SAT)

(My aims are to) learn English and speak really fluently... Speaking, I really want to achieve. I only got 6 at speaking part (of IELTS). (LI-W1SAT\*)

Listening and speaking skills are expected to improve. (JI-W1SAT)

Speaking ability was repeated in the three quotations, which showed that the students paid special attention to improving their speaking skill. However, Frank was not confident in improving his English speaking, but believed that his “listening and reading would develop a lot” (FI-W1SAT):

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\* The asterisk (\*) marks the records that were reported in English.

I find foreigners have a strong comprehension. Sometimes in communication, you don't need to give a sentence, but a few words with bad pronunciation. They will understand you. So I doubt my speaking could improve after one-year abroad. (FI-W1SAT)

Although the four excerpts did not show a trend of language aims, they implied that English language skills have been considered as aims of study abroad. Sophie also mentioned that English improvement was an aim she was concerned with, but "it [was] for having an opportunity to work in an international company" (SI-W1SAT). As the students reflected upon some particular aspects of language development in the interviews, they likely had some understanding of their language aims.

Intercultural experience was another aim of study abroad that was reported by four students. The students intended to experience another culture, especially local culture, during study abroad. For example, Julie chose the UK as the destination of her study abroad, because "[she liked] British culture and cities" (JI-W1SAT). Other students regarded study abroad as a chance to travel to another country and experience a different culture.

Being abroad is a good experience of traveling and studying. I can see a different life of other people. I can join some local activities or church events. To experience local culture, to open my eyes, and to enrich the experience of my life. (CI-W1SAT)

Certainly, [I'd like] to adapt to the foreign culture when I'm in the UK... I hope I could travel a lot to experience different culture. (EI-W1SAT)

I think for me as a girl, study abroad is for broadening my view. I don't have to learn something. Just come out to see what the outside world looks like. (SI-W1SAT)

Their responses reflect that the students the aim of intercultural experience was significant. They used words 'British culture,' 'local culture,' 'foreign culture,' and 'outside world' to refer to the culture(s) they aimed to become involved with. It implied that the international students not only consider the culture of the UK but also the cultures of other nations. However, the students used vague expressions to explain their cultural aims, such as 'a different life,' 'a foreign culture,' and 'outside world.' The students did not figure out particular aspects of culture they prefer to experience. Moreover, they repeated the word

'experience,' which implied the students aimed to immerse themselves in a new environment and to feel a different lifestyle rather than to acquire knowledge of the culture or even become a member of the local community. In other words, the competence to communicate in intercultural contexts, namely ICC, was more significant for the international students than only learning knowledge of British culture. On the other hand, the academic culture, as a small culture, was reported as an aim of study abroad.

Some people say study abroad, especially for master and doctor degrees, is different from study in China... In [Chinese] undergraduate... you don't learn anything except something you memorise for the exams. It is not a [positive] attitude towards academics. However, during study abroad, you will read papers to understand and imitate others' academic thoughts, and develop your new thoughts. This is the academic attitude and approach I will get. (FI-WISAT)

Frank was the only student who mentioned academic cultural aims in this study. His words reflected that he had the awareness of differences in academic cultures. He interpreted the British academic culture through comparison with the Chinese academic culture, with which he was familiar.

According to the reports, the students' principal aims of study abroad were academic achievement, English language proficiency, and intercultural experience. The students were often concerned about academic and language aims with particular interests. However, they rarely aimed for specific intercultural experiences.

#### **4.1.2 Expectations vs. real life**

Before departure, the students had heard about study abroad and life in the UK. They built up their diverse expectations according to this limited information. After arrival, their social communities and course pressure were the main issues that they felt contradicted their expectations.

##### **4.1.2.1 Unexpected social community**

All the eight students paid attention to the social communities they were involved with, especially on the nationality of the members. The communities they reported included classmates, housemates, groups of friends, student societies, and religious communities.



Sophie, Hanna and Frank expected to live in an international group:

I thought I would be surrounded by foreigners (SI-W1SAT)

I imagine there are more internationals... The fact is I spend too much time with my classmates who are Chinese. (HI-W1SAT\*)

Before coming here, I thought my classmates and flatmates were all foreigners. We could communicate about different cultures, know their cultures. We could talk about everything such as polity, military, life and experiences. (FI-W1SAT)

They used the words 'foreigners' and 'internationals' to refer to non-Chinese people, implying that the students were supposed to have intercultural communication with not only the local British people but people from other cultural backgrounds. After arrival, they found "all my friends are Chinese" (SI-W1SAT), and they "spend most of [their] time with Chinese people" (FI-W1SAT). Their remarks revealed that they did not have as many opportunities to communicate with 'foreigners' as they thought they would. Some of them even preferred to stay within the Chinese community.

Frank listed three reasons that he was not enthusiastic to join the international community, which made his social communication different from his expectation:

Firstly, there are not many foreigners around. Secondly, foreigners rarely communicate with Chinese. They may have short conversation when they see you in the kitchen. But they won't ask you to go out to play. Thirdly, something you thought is easy to communicate, actually it's not. It's not about the English expression but the different ways of humour. (FI-W1SAT)

Accordingly, Frank suggested the barrier for intercultural communication would be the mix of students in the courses and living areas, the low willingness for intercultural communication on both sides (i.e., Chinese and non-Chinese), and cultural differences. In other words, the non-diverse social environment, negative attitudes towards intercultural communication, and limited knowledge of cultural and pragmatic competence are three possible barriers for intercultural communication. Hanna's comments added another possible reason for the low intercultural communication:

Before I came here, I thought I could understand English, what are the local people talking about. But when I come here, sometimes I really cannot understand what they are talking about. They speak fast. (HI-W1SAT\*)

Hanna showed that she was confident with her English before, but now felt limited in her ability to understand an English speaker. She pointed out that language was an expected barrier for her in intercultural communication. Therefore, the possible barriers that prevented the students from international communication were insufficient language and cultural competence, namely intercultural communicative competence.

Ben also realised some barriers of intercultural communication, so he made some efforts to change his situation:

On my course, there are many Chinese students... [Study abroad] provides you an environment, but you're still surrounded by Chinese... I try my best not to involve with Chinese students... I would rather read books in the library than attend Chinese students' activities. (BI-W1SAT)

The excerpt inferred that Ben regarded the engagement with students from his own nation as a barrier to intercultural communication.

However, Chloe and Julie reported that they had noticed the Chinese dominated social community before their departure:

Some people said that many Chinese people went abroad. There must be many Chinese during study abroad. I was disappointed then, but now I quite like this place... In fact, there is not as many Chinese as they said. The Chinese students I meet here are really nice (CI-W1SAT)

I thought I would spend most of time with Chinese people... In my department, most students are Chinese. I may know some foreign friends through day trips and students' societies. (JI-W1SAT).

Chloe and Lily showed positive attitudes towards the social community that lacked diversity.

Lily provided an explanation that might represent the reason for positive attitudes:

I cannot only have western friends, coz I have to go back [to China]. So why not have Chinese friends as well. We'll keep in touch for a long time. (LI-W1SAT\*)

Lily's thoughts revealed an advantage of the involvement in the co-national community.

According to the eight students' reports, they had different anticipations for the social communities they would be involved in. However, the fact for most of them was that they stayed within the Chinese community. They would have had to make some effort to

participate in the international community or the English-speaking community.

#### **4.1.2.2 Unexpected course pressure**

Four students considered the course pressure, but they held two contradicting opinions.

Emma and Ben overestimated the pressure of their courses:

[Before departure], I thought I would be lonely, living in a room by myself, cooking by myself, working hard, and having heavy course pressure. Later, I find the course pressure is not as heavy as I thought... Not as miserable as I thought. (EI-W1SAT)

At the beginning, I thought study abroad would be hard. Students would take a nap in cafeteria, and work hard at night in the library. But when I come here, it is not like that. (BI-W1SAT)

Emma and Ben anticipated that study abroad meant loneliness and tiredness, while the fact for them was a more leisurely life. Alternatively, Julie and Frank reported that the course was harder than they anticipated:

In my imagination, the life would be cosy. Having afternoon tea, seeing the beautiful scenery... while reading books... [Now] I find the course is difficult, not easy as I imagined. (JI-W1SAT)

A post on the Internet introduced the life and study during study abroad. It said students could ask questions when the teacher was teaching in the classroom. The (teacher-student) communication created the spark of thoughts. In fact, when the teacher is speaking, it is difficult to follow and read PPT. (FI-W1SAT)

Julie reflected that she underestimated the level of difficulty of the content. On the other hand, Frank was frustrated that he desired to become involve in a heated discussion with the teacher in the classroom, but instead often struggled to follow the learning materials.

The students also reported other unexpected issues, such as room conditions, the weather and natural environment and food problems. The distance between their expectations and the facts unveil some difficulties in language and culture.

#### **4.1.3 Previous experience of intercultural communication**

The students' experience of intercultural communication before study abroad varied. All of them had attended some classes and activities with English native speakers in their

undergraduate universities. Three students (i.e., Chloe, Sophie and Ben) who had intercultural interaction in the classroom reported, for instance:

I<sup>1</sup>: Did you have any experience to communicate with non-Chinese people in English before study abroad?

C: Yes. There are international students in [my] university [in China]. Sometimes we talk. And foreign teachers. We talk, but not much.

I: Do you think the communication with them is helpful?

C: No. Because we didn't say much. (CI-W1SAT)

I: Did you have any experience to communicate with non-Chinese people in English before study abroad?

S: ...We had classes taught by foreign teachers everyday....

I: Do you think it is useful?

S: Not much.

I: Why?

S: I didn't communicate with the teachers. And didn't understand their teaching much. And didn't listen to them carefully. I just prepared for exams. (SI-W1SAT)

The students claimed that they did not benefit much from the classes taught by English native speakers before study abroad, as they rarely had conversations but instead listened to the teachers. The other five students in this study reported more chances for intercultural communication prior to departure. For example, Lily and Julie had friends in China who were English native speakers.

In my university, we have two British teachers. One is my boyfriend now, so we've been together for one year in China... We just [have] basic communication. He teaches me a lot of culture... Another is a British girl. She comes from Newcastle, and has [a] strong accent. I felt that when I studied with her, my accent was changing gradually. (LI-W1SAT\*)

I: Did you have any experience to communicate with non-Chinese people in English before study abroad?

J: Yes. My mum's best friend married a foreigner... Her child is my friend. We usually communicate in English. My university [in China] has foreign teachers.

I: Do you think it is useful?

J: Yes. My thoughts are not traditional (Chinese). It is affected by western culture. (JI-W1SAT)

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<sup>1</sup> "I" stands for the interviewer. The other capital letters are the initial of participants' pseudonyms.

Lily and Julie reported that they had frequent intercultural communicative experience before they studied abroad. They learned some aspects of the English language and culture from their friends through intercultural communication, although they were in China then. Moreover, Frank and Emma also had experience travelling abroad before studying abroad.

I: Did you have abroad experience before coming to the UK?

F: Yes. I went to Australia for one month during my first year of high school, and travelled to America for nearly one month.

I: Do you think the experiences have any effect on your study abroad?

F: Yes. Early in Australia, I felt it was beautiful abroad... I'd like to live there... Later, I went to America, and found it was different from Australia, not like a farm. It was my first time to realise that different countries look different. I also found...the academic atmosphere was great... (FI-W1SAT)

I've been to Thailand and Cambodia. That was the time that I started to actually use English. I suddenly found English was very useful. I could use it for travelling. Then, I met a handsome German boy in a hostel in Thailand. But I found my English was not good enough, so I couldn't communicate in-depth. Since then, I decided to learn English harder. (EI-W1SAT)

The travel experience provided a good impression of the English language and culture to Frank and Emma. The students who had intercultural communication experience out of the classroom (i.e., Emma, Lily, Frank, Julie and Hanna) reported that they often held positive intercultural attitudes and awareness of cultural differences (i.e., attitude competence of ICC) before study abroad.

#### **4.2 International students' difficulties during study abroad**

The model of ICC is applied to categorise the difficulties that international students faced during study abroad. In another word, this study examines international students' difficulties during study abroad from the perspective of ICC. If an issue requires a student to have a particular competence to overcome it, it is coded as a difficulty in competence. For example, a student reported an issue in vocabulary, which required him to have linguistic competence to solve it. In this case, the problem is coded as a difficulty in linguistic competence. However, critical cultural awareness, although one dimension of ICC, was not applied to code the students' difficulties, because critical thinking about a

cultural factor usually happens when an international student has sufficient knowledge on a particular aspect of the culture(s) to evaluate the target culture and his own. It means critical cultural awareness is a further step after an international student has no difficulty with a particular aspect of the target culture. If a student has a problem to think critically it is often because of limited knowledge competence, skills of interpreting and other ICC. Therefore, critical cultural awareness is considered in solution, namely in answering the second research question. In this way, the difficulties are categorised as difficulties in linguistic competence, sociolinguistic competence, pragmatic competence, attitude competence, knowledge competence, skills of interpreting, skills of discovery, and skills of interaction.

The eight categories of difficulties are not mutually exclusive. Some difficulties may relate to one or more competencies, as the difficulties required more than one competence to be overcome. Alternatively, some difficulties relate to no aspects of ICC specifically, such as independent living skills and new knowledge of disciplines. Difficulties in independent living skills, such as cooking, room cleaning and time management, are the problems that may occur for anybody who lives on his/her own, no matter whether it is in study abroad or at home. Difficulties in new knowledge learned in courses may also happen to anyone who learns in any language and culture. Thus, difficulties in independent living skills and new subject knowledge are not concerns of this study.

The eight categories of ICC are applied to code students' difficulties according to the above conditions. In total, 230 issues were reported by the eight students are about difficulties of study abroad within four weeks and 167 of the 230 issues were difficulties with ICC, the focus of this study (see Table 10). Among the issues concerning this study, the three most frequently reported difficulties are in linguistic competence (48 reports), skills of interaction (40 reports), and attitude competence (28 reports) (see Table 11). The following sections will report the students' difficulties in the eight dimensions of ICC.

**Table 10. Students' reported difficulties**

	Emma	Ben	Chloe	Lily	Frank	Sophie	Julie	Hanna	Total
ICC difficulties	21	22	25	23	28	16	15	17	167
Other difficulties	6	1	1	9	5	9	8	24	63
Reported issues	27	23	26	32	33	25	23	41	230

**Table 11. Students' difficulties in ICC**

Difficulties	Emma	Ben	Chloe	Lily	Frank	Sophie	Julie	Hanna	Total
Linguistic	12	3	9	2	5	8	3	3	45
Sociolinguistic	1	2	1	1	0	1	0	0	6
Pragmatic	1	5	0	0	5	1	3	0	15
Knowledge	2	1	2	6	5	1	2	0	20
Attitude	3	1	5	6	5	2	2	4	28
Skills of interpreting	3	1	4	2	5	0	0	5	20
Skills of discovery	9	3	6	6	1	4	3	4	36
Skills of interaction	2	9	4	4	6	3	4	1	33

\* Not mutually exclusive

#### 4.2.1 Difficulties in linguistic competence

The difficulties in linguistic competence were the most frequently reported issues among the eight categories of difficulties in ICC. These refer to the problems of applying grammatical rules to produce and receive messages in the target language. In this study, we focused on difficulties in the use of English grammatical rules. The English grammatical rules usually consist of phonetics, phonology, morphology, syntax and semantics. However, the students were not linguists, most of time they were not able to find the particular linguistic reasons for their difficulties professionally. The students reported their difficulties in linguistic competence mainly from lexical, phonological and grammatical aspects.

**Table 12. Difficulties in linguistic competence**

Difficulties	Frequency
Lexical difficulties	23
Phonological difficulties	16
Grammatical difficulties	7
In total	46

The international students reported that their linguistic difficulties usually occurred in the classroom or off campus, with English speakers or when they were alone. The classroom and off campus were usually the contexts where the students communicated with people in English. When the students were alone, English was the language of their reading materials and homework. This implied that linguistic difficulties could be encountered not only in social communication with other people, but also when the international students were doing their homework. In other words, linguistic difficulties decreased international students' efficiency in daily communication and academic

performance.

#### 4.2.1.1 Lexical difficulties

Lexical difficulties are the issues caused by new words or an unfamiliar meaning of a word in a particular context. They were reported in various contexts, such as the classroom, reading academic articles, shopping and attending a job interview, where the students were learning, making decision or pursuing a particular aim. This implied that the students reported lexical difficulties when the meanings of words mattered in these contexts. Moreover, lexical difficulties were the dominant problems among linguistic difficulties of this study, which included 23 records that were reported by seven of the eight students (see Table 12). The high frequency of reports and the large proportion of the samples imply that lexical problems were a common issue for the international students.

It was not a surprise to find that the students reported a significant number of lexical difficulties, because the students were also English as foreign language learners, who usually encounter new words in language learning and language use. In total, 18 of 23 records from seven students reported difficulties with new words. The problems all focused on the meanings of the words. The most frequently reported situations were off campus and in the classroom. In the two contexts, international students usually encountered new experiences and new knowledge in the use of English, including some concepts already known but not known in English, when communicating with English native speakers, non-natives, and even items labelled in English. In these circumstances, they had to understand the messages in English, as their L1 (i.e., Chinese) was not provided to assist their comprehension. For example:

- B: A native speaker used some words I didn't understand. I took out my iPad, and asked him to type on it. I found out it was words used in daily speech. I haven't learned them before.
- I: Why didn't you know the words in daily speech?
- B: Because I read academic articles every day.
- I: What were the words?
- B: I can't remember. For example, when I go to a supermarket, I don't know how to say 'dasuan' (garlic in Chinese) in English, but I know that vegetable is 'dasuan'.  
(BI-W2THU1)

If it (the content of SPSS class) were taught in Chinese such as mean and root, I would say 'oh, that's it'. But it was in English. It's just an example. I haven't recited these words before. It made the content more difficult to understand. First of all, I need to know what



the meanings of these words are. (CI-W3WED)

Ben reflected that he was not familiar with daily vocabulary. Although he knew the items and the use of them, he did not notice their English expressions. His communication with an English native speaker on one topic was interrupted when Ben asked the meaning of a word. This implies that shortness of vocabulary might affect the fluency of an intercultural conversation. Chloe reported a similar difficulty, but in mathematics. She had never learned the English names of mathematic terms, even though she understood the meaning of the terms in Chinese. In this case, Chloe was confused about some knowledge she already knew. The limitations in vocabulary were a barrier for Chloe to understand the teaching context and further develop her knowledge. The two examples indicated that the insufficient vocabulary distracted international students from the topic of conversation to the meaning of a particular word. In an intercultural communication, an international student may not have a chance to ask the meaning of a word as Ben did, but may be confused about part of the conversation for a while like Chloe. Difficulties of a lack of vocabulary prevented international students from understanding other English speakers and having a fluent intercultural communication, especially in face-to-face interaction.

Moreover, the students reported trouble in identifying the appropriate meaning of a word in a particular context, such as in the subjects of academic writing, business, and statistics. Four students in six records claimed that they noticed the importance of context in understanding a word. This implied there was a difference between meaning of a word that the student used to know and the meaning in a specific context. It was a challenge for the international students to select the right meaning of a word in a particular context.

I learned some terms about academic integrity. I got the meanings until I looked them up in the dictionary. But, I don't understand what is 'personalise,' even after checking in the dictionary. (FI-W3WED4)

C: I find looking up words in the dictionary is useless. Maybe because the knowledge we are learning is deeper. Before, I could understand a sentence by looking up words in the dictionary. But now, in this way, I can only know the words' meanings, but not the meaning of the sentence.

I: An example, please.

C: I can't give you an example. When I read a paper, there is a sentence with three words I didn't know. Even though I look[ed] [them] up in the dictionary, I don't know the sentence's meaning. Because it is in context. There is a link...among the three words. The three words as a group have a combined meaning that is different from their individual meanings. (CI-W3WED)

Frank and Chloe encountered difficulties while reading English, specifically academic English. Both of them claimed a dictionary was not helpful for them to find a particular meaning of a word in a specific context. They could not find the correct meanings of words for a particular context from the reference books. Therefore, the unfamiliar meanings made the words new to them. In this way, the meaning in context set barriers to the international students in intercultural communication as the new vocabulary may do.

#### **4.2.1.2 Phonological difficulties**

Phonological difficulties are problems in producing and receiving meaningful sounds in utterances. Sixteen records from five students in this study were related to phonological difficulties in listening (ten records) and speaking (eight records) during intercultural communication. The phonological difficulties usually happened in the classroom and while having conversations with English speakers, where English was used for receiving and producing messages.

The reported difficulties in listening were the lack of ability to catch the meaningful words in a string of speech. They may lead to misunderstanding, an embarrassment of both interlocutors, and even the failure of communication. For instance:

I love watching films, but without subtitles I was confused. (ED-W2TUE)

I: What was the reason?

E: Half of the reason was language... It was fiction. The language used was difficult to understand.

I: What was the language problem?

E: I don't know how to explain. I just couldn't catch the information from sentences. (EI-W2TUE)

H: My English is not very good. Sometimes they were laughing, but I wasn't. It made me feel that we were not the same kind of people. The most terrible was that I didn't laugh with them.

I: What do you think was the main reason?

H: They spoke too fast. Their key point, I didn't get it clearly. If I had caught the keywords, I might know the general idea. Sometimes it's too fast. I can't get it. (HI-W4SAT1)

The reasons for the phonological difficulties in listening are varied. According to the examples above, the students could not always identify the reasons. When they were asked in the interviews, the students gave possible reasons such as their English language ability,

and the speaker's intonation, stress, liaison and speaking too fast to follow (see the excerpt below).

- H: Two (British) girls spoke fast. They were using their own English. I had to adapt to their intonation, so that I could understand them. For example, they couldn't understand my English, because I was using my tone... I often don't understand what the British [are] talking about.
- I: What's the reason that you don't understand?
- H: The English they spoke didn't sound like English, the English I've learned... They have their own intonation, different from standard BBC.
- I: Is it their accent?
- H: ...Maybe the words they use, maybe the stress, or punctuation, liaison.  
(HI-W2TUE2)

The phonological difficulties during listening could happen for a word, a sentence, or the entire conversation. The difficulties impeded the students' ability to interpret the utterance into meaningful information. Non- or mis-interpreting of the utterance may settle the student in a confused or even embarrassed situation in intercultural communication according to the three excerpts above.

Alternatively, the other eight phonological difficulties related to the pronunciation problems of the international students in speaking English. The students (i.e., Emma, Frank, Sophie, Hanna) reflected that their difficulties in speaking usually occurred to relatively long and complex words, such as 'characteristics' (EI-W3FRI3), terminology in science and mathematics (EI-W4WED; SI-W3FRI1), and vowels in some word, for example, 'fair' and 'fire' (HI-W2SAT1). As the students did not produce the sound of words clearly or properly in the reported conversations, their listeners could not understand their intentions thoroughly. It usually led to misunderstandings in intercultural communication. For example,

[I may have problems with] some words, if I use them the first time. For example 'characteristics': actually my pronunciation was correct, but I thought it was wrong. I kept repeating the words. It made the locals confused about what I was saying.  
(EI-W3FRI3)

I spoke out a correct answer [in the classroom]. When the teacher asked me why, I couldn't express myself clearly. Because there were some mathematic terms I didn't know how to pronounce. I also couldn't explain the meanings. I felt embarrassed.  
(SI-W3FRI1)

The excerpts showed that the phonological difficulties in speaking were blocks in intercultural communication, as the international students with such difficulties had limited

capacity to contribute to the interaction. The difficulties might even lead to embarrassment and unwillingness to communicate in international students.

Accordingly, phonological difficulties often happen in oral intercultural communication. The difficulties in both listening and speaking affect the efficiency of communication. International students with phonological difficulties may blame themselves for the barriers of the conversation as inferior language users.

#### **4.2.1.3 Grammatical difficulties**

Grammatical difficulties include problems in morphology and syntax. Four students reported seven records on grammatical difficulties, but they did not provide explicit evidence to show whether the difficulties related to morphology or syntax. Grammatical difficulties were often areas of concern for the students, when they were alone. More specifically, this was the time when international students were studying alone, such as preparing a presentation or writing an assignment. In the records, the student usually pointed out that they had 'a grammar problem' directly.

When writing a literature review, I always worry about my grammar. It makes me write very slowly. (ED-W4TUE)

I: Why did you worry about your grammar?

E: Because my English is bad, especially my grammar. I'm really worried about it. Every sentence I write, I feel there is a grammar problem. So I will check it...in Google. (EI-W4TUE)

In IELTS speaking section, I didn't know which tense was used to describe a picture. (BD-W2FRI)

The reports of the students reflected that the students were often concerned about their grammatical difficulties in academic areas, especially in writing. It might be because the grammatical problems would decrease the scores of their academic performance, such as essays and examinations. Only Chloe reported a grammatical difficulty in daily communication:

I participated a voluntary activity to help local primary school students... I found that children seemed can't understand me. When talking to adults, they may guess the meaning from a few words I say, even the grammar is wrong. But children can't do the same. (CI-W1SUN)

Chloe's explanation showed that a grammatical problem influenced the communication with

children, but not with adults. It might be one of the possible reasons that international students did not report other grammatical issues occurring in everyday intercultural communication. Frank mentioned a similar phenomenon:

I find foreigners have a strong comprehension. Sometimes in communication, you don't need to give a sentence, but a few words with bad pronunciation. They will understand you. (FI-W1SAT)

These excerpts imply that grammatical accuracy was not always necessary for message exchanges in daily communication. Adult native speakers may be tolerant to international students' grammar mistakes. Therefore, grammatical difficulties were regarded seriously by the international students in academic writing, rather than in casual intercultural communication.

#### **4.2.2 Difficulties in sociolinguistic competence**

Sociolinguistic competence is the ability to deal with the language affected by the social factors. Difficulties in sociolinguistic competence were reported six times in the study. The accent and dialect difficulties were the principal problems reported by five students.

International students in this study indicated that they had difficulty in understanding others in intercultural conversations. People from different parts of the UK and the world have a variety of accents and preference of dialect. It was a challenge for international students to adapt to unfamiliar ways of pronunciation and expressing English. The students reported their difficulties in accent and dialect prevented them from understanding English native speakers and non-native speakers in conversations. Emma and Ben pointed out that English native speakers' accents sounded different from the 'standard' English that was learned by them or used in the classroom.

E: All the people there were English native speakers... They spoke too fast, and different from the language that the teacher uses in the classroom.

I: In what way?

E: They had accents, and spoke in an informal way. It was like the different between what we give a formal speech and what we chat with friends in Chinese. So I almost couldn't understand what they were talking about. (EI-W1FRI3)

B: ...I try to talk to them (British students in Tennis Club). They spoke a lot, with a strong accent. When they spoke to each other, it was difficult for me to involve. When I talk to them, they will reply. But I can't understand clearly.

I: What is the main reason that you don't understand?

B: Their accent. What we have listened in China is their standard or general English. Many English native speakers have accents. Now I've adapted a little, such as North England accent and Scottish accent. But some people, I don't know where they come from. It is not easy to understand them. (BI-W1THU1)

Emma and Ben specified the problems were in understanding English accents. Emma noticed that native speakers spoke with dialects and accents in casual chat among themselves. Ben had awareness of accents, and realised the diversity of English accents. His some achievement of accent adaptation showed that it was possible for international students to overcome difficulties in accent and dialect gradually. Moreover, the accent and dialect difficulties in reading English literature also could be problems, even though the student was unlikely to realise it was a problem caused by diversity of language forms.

A novel called *Sound and Fury* is hard to read... The words and sentences are different from what we read in academic papers. In this novel, it uses 'you is...' that is wrong in academic writing... And many words have spelling mistakes, but they are just typed in this way. I think the novel is a special case. I can't read it any more. (BI-W3FRI)

Ben's report revealed that international students might not be familiar with the way that English literature was applied to display personality characteristics, such as social class, ethnic groups, and the level of education, through the variety of language forms. The 'incorrect' use of language became a barrier for Ben to fully engage in the novel.

As the students were living in a multicultural UK society and studying in an international university, they had an opportunity to meet people from various countries whose first language were not English. The students reflected that the accents of English non-native speakers were also difficult to understand. Their accents were often influenced by their first language, and they were different from any English accents that were taught in an English classroom or spoken by English native speakers.

I asked workers on the street such as cleaners and helpers about directions. Most of them were not British. They looked like Indian and black people. I didn't understand them very much, but they were very nice and friendly. (CI-W2SAT)

One of my lectures is from South Korea. Her spoken English is not standard, so I cannot understand most of the lecture. (SD-W2MON\*)

Accordingly, the accents and dialect of both English native and non-native speakers raised troubles for international students, as they were distinguished from the English that

the students were taught. International students need time and to make effort to adapt to the dialect and accents, so that they will be able to recognise meaningful words from everyday communication.

#### **4.2.3 Difficulties in pragmatic competence**

**Table 13. Difficulties in pragmatic competence**

Difficulties	Frequency
Discourse difficulties	9
Functional difficulties	4
In total	13

Pragmatic competence refers to the ability to tailor language forms according to the social context. Difficulties in pragmatic competence were generally gaps between the message of English linguistic forms and the listener or readers' comprehension or anticipation in intercultural communication. Pragmatic competence generally consists of discourse difficulties and functional difficulties. Four students reported thirteen issues related to difficulties in pragmatic competence. They paid high attention to pragmatic difficulties when they were studying alone on academic reading materials and writing an assignment. The international students were often the receivers of the messages that contained pragmatic meanings. Also, they were expected to be skilful pragmatic users in daily practice, especially in academic writing. The most reported difficulties in pragmatic competence were related to discourse competence (see Table 13).

##### **4.2.3.1 Difficulties in discourse competence**

Difficulties in discourse competence were usually reported as problems with following the logic of English by the Chinese international students in this study. The difficulties were related to coherence and cohesion. They were the most frequently reported pragmatic competence (nine records) in this study. The students had logic problems when they were reading and writing in English, especially in academic areas. The logic difference between Chinese and English writing is likely the fundamental problem for the students. For example, Frank reported his difficulty in reading and comprehending the rebuttal of an English academic article:

(I) Don't understand the reading material. (It is) not clear. (FD-W1THU)

I: What affected your understanding?

F: I feel the logic of English writers is strange. It is the same to their talking. One meaning, they will repeat again and again. Besides, I find when reading articles that: they firstly said Point A is right, but B doesn't agree with A. C disagrees with B. However, I support Point B. It is their common logic. They call it 'rebuttal'. It makes readers difficult to find writer's point... I was frustrated to read articles. I didn't know what the writer was talking about. (FI-W1THU)

Frank indicated two points where he did not appreciate the article, namely the repeat of the same opinion and the structure of the discussion. He encountered similar problems in daily intercultural communication and reading other articles. Frank's difficulties were problems in adapting to the different ways of expressing coherence and cohesion. The extract implied that Frank's understanding of coherence and cohesion was that the author's idea needed to put at an obvious place and not necessary to repeat it. However, according to Frank's words, most English speakers or writers Frank encountered kept repeating in different ways. Frank's example reflected a gap between the logic of English language use and international students' anticipation of the logic in use. Apart from Chinese-English discourse differences, Emma also realised the discourse differences between academic papers and articles in English language tests, as reported:

Reading is a big trouble...maybe because the sentences are too long. The expression (of the academic reading material) is not the same as what I read in the IELTS. I don't understand its (the reading material) meaning. I feel its logic is also different from ours (Chinese). (EI-W1THU)

The two examples showed that the logic differences between the two nations and the two cultures generated barriers for international students to comprehend reading materials in the target language and cultural contexts.

Moreover, the students also encountered discourse difficulties in writing essays. The problems were to practise the English logic of writing, which was new to the Chinese students, in the student's assignment. Julie reported:

I am very worried about my essay assignments. The biggest problem is my writing thoughts. I chose some evidence which my tutor assessed they were not linked to my topic... She (my lecturer) said my content was too vague and not clear. She even wrote three places about links to overall question is not clear. (JD-W4FRI\*)

I show the same writing to an English language tutor. She said my evidence could be



used in the essay, but I didn't present it in the right way. (JI-W4FRI)

Julie's discourse difficulty was that she did not know the expected way to present the evidence to argue coherently and cohesively the topic of her assignment in English. When she received the lecturer's comments about incoherence, she did not understand the problem. This difficulty set a barrier in her academic writing and would impact her academic performance in her course, which was the reason she worried about her discourse difficulty. Thus, she consulted an English language tutor who provided some suggestions. In this issue, Julie was aware of her problem in academic writing as her lecturer and her tutor pointed out it for her.

According to the excerpts above, the discourse difficulties were important challenges in academic areas. The international students realised the discourse differences between English and Chinese and between small cultures, to some extent. However, when applying a type of discourse to match a particular cultural context, international students would have problems to complete their tasks, especially in academic areas.

#### **4.2.3.2 Difficulties in functional competence**

Apart from the major discourse difficulties, the students recorded their problems in functional competence, namely obtaining the meanings behind the words or utterances. They considered difficulties in illocutionary force, reference, hedging and voice. The reported functional difficulties revealed the gap between the meaning of English forms and students' anticipation. The meaning of a word is unusually influenced by the context. If a student interprets a word only according to its literary meaning, he may find a distance between his understanding and the meaning of context or utterance. For example,

I booked a study room, but found a foreigner (non-Chinese) in there. I knocked at the door, went in and said 'sorry, I booked this room...' He looked confused and asked 'Really?' I was surprised because 'really' is translated as 'whether it is the truth? You booked it?' It seemed like he was saying 'I also booked the room', and 'how could it happen?'... Later, however, I found he finished packing his stuff... he explained that before he just wanted to confirm... I didn't understand his 'really?' His reaction was strange. (FI-W2THU)

'Really' as an exclamation in Oxford Dictionary is used to express interest, surprise, doubt or mild protest. Its meaning usually depends on the context. Frank as an English language

learner might have an inferior ability in evaluating the situation. Therefore, he did not learn the speaker's intention in that conversation. Also, the misunderstanding or meaning gap also occurred when a student was confused about what was referred to in an interaction. For instance,

I made a mistake when I filled in the form (at the Police Station for register). The form asked 'who funds your project' with answers 'company, personal, parents, guardians...' I didn't understand the question. A police officer explained to me. I asked did it mean who funds my master project? I didn't know why he didn't understand me. I repeated my question several times. My mind was still in a mess...(FI-W2WED2)

In this example, Frank was not sure about what 'project' referred to in the form. To Frank, the word 'project' was not often used to describe any of his situation, but his master's course might be an option. Frank's difficulty was in the gap between the reference and his anticipation. In addition, hedging and voice were reported as factors to cause intercultural difficulties. They were new terms of academic writing for the Chinese student, as a student claimed that she "just learned hedging this Friday" (JI-W2FRI1).

The mini-assignment I have written had a big problem in hedging and voice. (JD-W2FRI1)

J: The voice, formal and informal... I wrote in an informal way..., but I didn't know how to change it into formal... I wanted to express a certain claim, but it seemed that I need to use hedging. The direct way for native speakers sounded too sure. It was difficult for me to balance...whether my expression is acceptable... (JI-W2FRI1)

The report indicates that Julie had never learned hedging and voice in China. She acquired the definitions and functions of hedging and voice during study abroad, but she did not know how to apply them in practice. Therefore, the reported functional difficulties revealed the gap between the students' anticipation about the language meanings and the intentions or the requirements of the meanings in different contexts.

It was interesting to find, in this study, that the internal students usually reported pragmatic difficulties in academic reading and writing, but rarely mentioned them in social and cultural oral communication.

#### **4.2.4 Difficulties in knowledge competence**

Difficulties in knowledge competence refer to issues that confuse international students

who do not have sufficient knowledge about particular aspects of the target culture. As culture is the essential concept of difficulties in knowledge competence, the dichotomies of culture are applicable to categorise difficulties in knowledge. The reported difficulties in knowledge competence are to be categorised according to the cross-tabulation of “big C – small c” and “large culture – small culture,” and also considering their original cultures.

**Table 14. Reported difficulties in knowledge competence**

	Small culture	Large culture	Total
Small c	10	6	16
Big C	0	3	3
Total	10	9	19

The students reported seventeen difficulties in knowledge competence (see Table 14). The cultural knowledge difficulties have been encountered in almost all the contexts where the international students in this study reported involvement, especial off campus life, such as in an Italian restaurant, a local bar, and a match venue.

According to the dichotomy between big C and small c, the students recorded three problems in the products of culture, and fourteen in practices. On the other side, based on the dichotomy between large culture and small, six issues about national cultural knowledge, and eleven about sub-cultural were found.

#### **4.3.4.1 Difficulties in the norms of small culture**

The norms of small culture are in the *small c – small culture* category. The difficulties in the norms of small culture are the most frequently reported issues in this study. A difficulty in this category is attached to the knowledge of behaviours or understandings within a particular sub-culture. Six students reported ten issues in the academic culture and other daily-life small culture.

Six issues reflected difficulties about the small culture of academic culture, including the requirements of an assignment, the reference style, the procedure of applying for a PhD, the rules of book request and return in the university library, and the use of university equipment and fees. For example, Emma reported an academic difficulty about her assignment:

I haven't been taught how to write a literature review before... I don't know what a 'literature review' is... I've only written once in my bachelor thesis. I don't think it is

a standard one...The most difficult part for me is to find a starting point. (EI-W2FRI2)

The interview data shows that Emma had little knowledge and experience in writing a literature review. It implied that Emma might not have a clear idea about the definition, aims and requirements of the literature review. In other words, she was not familiar with the academic culture, especially that of the UK. Moreover, even within the local academic community, the culture of different disciplines may not be the same. Frank planned to apply for a PhD in Social Policy, but did not know how to do it. He asked his PhD friends in a science department, and also consulted his supervisor. Their suggestions were thoroughly different.

...I asked some PhD students in science departments. They said it was not difficult at all. When your supervisor asked whether you wanted to do a PhD, you said 'yes' and done. I think maybe it is only for science PhDs. However, my supervisor said that I needed to have a research proposal... and then the supervisor would decide whether to give you an offer... I feel that applying [for] a PhD is too hard to [be able to] come true. (FI-W1MON1)

The reported differences may be not the real truth about applying for a PhD, but they reflected distinctions between disciplines in the academic culture. In other words, they are the differences between small cultures within the target culture. Frank had a special habit that he would ask his peers and experienced individuals from different knowledge or cultural backgrounds when he confronted with some difficulties, which was a characteristic revealed in most of his diaries and interviews. However, he did not always go to the 'right' person who was familiar with a specific small culture with particular knowledge. In other words, finding a reliable resource and filtering the useful information were also challenges for Frank. It implies that international students also have difficulties in identifying the exact small culture in which the problem originates. The specialities in these types of small cultures usually confuse international students.

Within the daily small culture, such as online shopping and living in a hostel, international students usually consider convenience, price and safety. The knowledge of the small cultures would ensure these considerations. Chloe reported an issue about online shopping:

I'm not sure whether I was deceived. My friend shared a link on Facebook about UGG shoe sale. I found it was really cheap, so I bought a pair without a second thought. However, I haven't received the shoes for over half a month. I sent a request

to refund. The reply said that the item was lost in delivery. (CD-W3FRI2)

Chloe did not spend time checking the trustworthiness of the website, as she thought “the discount could be as much as it in Christmas sale” (C-W3FRI2). International students as Chloe are not familiar with the usual form of daily activities, so that they may regard the unusual objects, persons and behaviours as local culture. The ability to distinguish between genuine and fake in a new culture is often a difficulty.

#### **4.3.4.2 Difficulties with social norms**

The social norms are the small c in the large culture. Difficulties in this category are related to the behaviours or understandings that are widely accepted within the target culture. These problems are the second largest group found in this study (six records).

An international student may encounter unknown practices in daily activities sometimes, and he may realise cultural differences during these activities. For instance:

It (sending a parcel) is easy in China. I usually used [the name of a Chinese parcel delivery company]. I made a phone call, and then somebody came to my door and collected the parcel. However, in the UK, I didn't know where to go. I went to Royal mail. The staff said they only delivered parcels, but did not received ones... I didn't know that the post office accepted parcels. I thought it was only for letters. (JI-W1MON)

Sending a parcel is a common human activity. It is the same for British and Chinese people to go to a post office or contact a parcel delivery company. However, both the receiving and delivering services in China are called “China Post”, while, in the UK, they printed different names on their signs of store and the delivery vehicles, namely “Post Office” and “Royal Mail”. Julie “always see[s] the van of Royal Mail” (JD-W1MON), so she thought “it was the place for sending a parcel” (JI-W1MON) and went there. In other words, Julie picked up common sense of the local culture by observing others' behaviours and activities in daily life. The result of an observation may not always the fact of the target culture, which may be affected by some cultural bias and personal limitations, for example the stereotype that the post office and its delivery service must use the same name and logo. During the practice of sending a parcel, Julie gradually recognised the common behaviour of the UK and realised the differences between the UK and Chinese cultures.

International students sometimes intend to ignore something unknown, and to learn

knowledge until it becomes unavoidable. For example, Ben did not know what the white device on the ceiling was:

...It is on the ceiling (in the kitchen). I always thought it was a CCTV. There is another one in my bedroom. I wondered why to put a CCTV in a bedroom...On Wednesday morning, I forgot to turn on the cooker hood when cooking noodles...Suddenly the alarm ran. I didn't know why... It rang loudly, like an ambulance. It was horrible...I asked my housemate, and he told me it was a smoke alarm. (BI-W3WED2)

The quotation shows that Ben initially assumed the unknown device was CCTV, something familiar to him. Although its location did not make sense to him, even disturbing his privacy according to his interpretation, he likely preferred to ignore it and avoid enquiry. Ben kept silent until he had to face the problem, when it 'rang loudly'. This issue represents a group of difficulties where international students intend to leave the unknown unknown, until they have no choice but to solve it. Lily's problem in the meaning of visiting her boyfriend's parents is similar to this issue.

International students sometimes cannot find cultural differences when experiencing one, and they make their judgement according to their own cultural backgrounds and limited knowledge and experience of the target culture. They may conclude the difficulty as another's fault.

I bought an espresso at the coffee vending machine. The machine was broken... I only get 1/4 cup. I pushed buttons, but [it] didn't work. (FD-W2FRI1)

At first glance of this diary entry, it seems a simple problem that would happen to anyone, international students or locals, as the machine was broken. Frank believed it was a mechanical problem rather than a cultural one. However, 'espresso' is the key to this issue, as it is usually served with special small sizes in cafés. The vending machine only provided regular size cups, so the coffee Frank received was only 1/4 cup. Frank did not realise that this problem was caused by his shortage of knowledge in coffee and the vending machine, meaning he ordered just an espresso shot when he wanted a full cup of coffee.

#### **4.3.4.3 Difficulties in the products of large culture**

Difficulties in the big C of large culture refer to a lack of knowledge about products of a culture that include ethical or national cultures. The difficulties are usually related to

international students' insufficient knowledge about the world. The students confronted with these difficulties off campus.

Lily recorded an issue about insufficient historical and geographical knowledge of the Latin-American culture (i.e., large culture):

I was talking with my friends from Latin America. I didn't think I understand them very much. (LD-W4FRI\*)

They are the first guys I've met so far from Latin American. I actually don't know much about Latin American culture, history or things... They pointed at the picture hanging on the wall... It was a very famous person's portrait, so the pub was called Revolution... Revolution was from Latin America culture. I have no idea... They said they were from Santiago. I didn't know... I asked them for several times, but finally, I still don't know where do they come from. I felt a little embarrassed that I know little about the world. (LI-W4FRI\*)

According to the records, this intercultural communication with Latin American friends was not successful. The interview data provided in-depth self-reflection that Lily's difficulty was caused by "little knowledge of the world," especially Latin American culture, which made her feel "embarrassed" (LI-W4FRI). This issue demonstrates that studying abroad is not only an experience of the target culture (the British culture, in this study), but also a chance to explore the other cultures that are brought by other sojourners such as other international students and migrants. In addition, the cultures of other sojourner may bring some new knowledge and difficulties to international students. Moreover, reading menus of restaurants and bars was a challenge for international students who lacked knowledge used for interpreting menus.

This (distinguishing Italian noodles) is a difficulty that I always have. I usually don't understand the menus when I'm dining out. They don't order in meat dishes, vegetable dishes and special dishes. They have one page for wines. I often don't realise it is a wine menu until I finish reading it and finally find 'wine' on the title. Then I turned over, and find side dishes. A lot of dishes, and hard to choose. (CI-W4FRI)

I don't understand the differences in wines and cocktails. (FD-W3THU)

I looked at the menu on the wall (of a bar). I didn't quite understand it... The brands are hard to tell whether they are beers or not. I was confused... My friends order something black with almond taste, and coke with vodka. I realised that ordering wine is a skill. (FI-W3THU)

The display of menus in the UK is a product of the British culture. The two reported issues revealed similar problems were:

- 1) The students were not familiar with the structure of menus in British culture (e.g., wine, starters, main courses and desserts). They tried to read the menus the way they were used to (e.g., 'meat dishes, vegetable dishes and special dishes'). Therefore, it often took them some time to find the categories they intended to order from.
- 2) The names of dishes or wines did not make sense to the students. The students did not have links in mind between the names and the referenced items.

To solve the first problem, international students may need to learn knowledge of British menu displays via practice; while for the second, they may need to see images of the dishes and even to taste them for building up the necessary links. Both of these problems usually require practice in real life situations.

The students recognised their difficulties in the norms of small cultures (especially academic culture), social norms, and the products of large culture. Moreover, they have noticed that the culture of the host country was not the only sociocultural context where they were engaged during study abroad.

#### **4.2.5 Difficulties in attitude competence**

Difficulties in attitude competence are problems that may occur if international students hold ethnocentric attitudes and stereotypes about some aspects of the target culture and their own cultures. They consist of difficulties in curiosity and openness, and difficulties in suspending disbelief and interpreting from other's culture (see Table 15).

**Table 15. Difficulties in attitude competence**

Difficulties	Frequency
Curiosity and openness	19
Suspending disbelief	6
In total	25

International students in this study reported their problems in attitudes towards other cultures in various reported contexts, such as communicating with non-Chinese people, sharing cultural experiences with other Chinese international students, and making



decisions by themselves, on or off campus.

#### **4.2.5.1 Difficulties in curiosity and openness**

Curiosity and openness to a new culture are the underlying attitude competence, as it often the first step to outgrow an ethnocentric perspective. Difficulties with curiosity and openness refer to international students' reluctance to interact with a certain group of people. The reluctance reflected in the students' actions, including being nervous about the unknown, lacking confidence in intercultural practices, and an unwillingness to become involved in intercultural communication. The international students often reported their negative attitudes after communicating with English speakers in various contexts, as they were nervous to speak English and confront with unpredictable experiences. In addition, their bias about the target culture sometimes could be generated or enhanced by the stereotypes held by other people, including Chinese classmates, friends, and people from other countries.

“Nervous” and “not confident” repeatedly appeared in the students' records. Over half of the attitude difficulties (15 records) were about anxiety and differences in new cultural issues. The negative attitudes minimised the students' curiosity and openness to the target culture. The students usually showed their curiosity and openness to the new culture, and even realised the differences, initially. For example, they showed interest in joining local or international activities, realised something unknown was a small c culture for local people (e.g., EI-W3MON; CI-W2MON in the following excerpts). However, they were afraid of new experiences, not confident to try, or cared too much about their ‘face’ at the same time. The international students often felt nervous and showed a lack of confidence in behaviours when facing something unknown, especially something that may be vital. For example, Chloe reported her ‘email-phobia’:

...There are some emails that I don't understand. I firstly don't know what the capital letters (abbreviations) mean, and then I lost patience to read them. (CD-W2MON)  
Because they (abbreviations) are common sense to everybody except me... I am reluctant to open [the name of her university email service] email box... Especially, the emails entitled ‘Education Enquiries’ made me nervous. I'm afraid it asks me to attend an examination or hand in something. (CI-W2MON)

The new expressions and unpredictable issues prevent Chloe from opening her email and to enthusiastically become involved in intercultural communication. Other international

students also reported their anxiety in travelling to a new place, having a new course and using a new application. This implies that international students may suffer stress when encountering something out of their anticipation.

Moreover, the students' confidence problems were related to having a conversation with non-Chinese people in English. For example, Emma was enthusiastic to participate in intercultural communicative activities and practice her English at the same time, such as in the International Café and the College Christian Union. However,

When I was at 'International Café', I was not confident (to speak English). I was so worried about sentence structure and grammar that made others harder to understand me. (ED-W3MON)

...If a listener's facial expression shows any difficulty to understand me, I feel more pressure and harder to communicate. When we are getting know each other, the communication will become better. Secondly, if I meet British-born-Chinese, I find much easy and relax to communicate. It's my psychological problem. (EI-W3MON)

This negative emotion prevented her from joining in with more international activities. She also highlighted that the listener's confusing faces decreased her confidence, which made her more reluctant to communicate with other people in English. Frank also reported a similar issue where he was afraid of listeners' reactions that meant, 'say it again' (FIW2FRI1). Additionally, Emma made an interesting comment that Chinese appearance was less threatening to her in intercultural communication.

Some information provided by local people and experienced target-culture learners may mislead international student's understanding of the target culture. The rules and unspoken meanings of behaviours are different in contexts, as culture is dynamic rather than static (Paige, Jorstad, Paulson, Klein & Colby, 2003). This brought some issues to the students. The ambiguity between small c culture and the practices usually causes difficulties for international students. What the native speakers say and what they infer, expect, or accept maybe not always be the same in various contexts. For example, Lily intended to video record people in a pub for her module project, but her lecturer informed that "it might be difficult to get permission because people don't want to be videoed" (LI-W2MON\*). She held the point of view:

"I was not sure if we could do that because we thought British people cared [a lot] about their privacy and didn't want to be videoed, so we thought that would be a big challenge for us." (LD-W2FRI2\*)

This view set a barrier to the practice and made Lily nervous. After negotiation, however, the owner of the pub was generous to let Lily do so, as long as the video was “only for academic purpose” (LI-W2FRI2\*). This example shows that local people may provide small c culture to the international students as background information, but it also could be an obstacle during international students’ social practice. It even could lead to a failure in an intercultural communication, when the international student insists on the learned knowledge of the culture and disregards the context.

After several instances of intercultural communication, students’ judgement about another culture developed gradually. If students had some terrible experiences, they might prefer closeness to the new culture. Hanna was the only student of this study who reported low interest in intercultural communication after four months of study abroad, generated from her unpleasant experiences in intercultural communication. She complained of strange thoughts of non-Chinese people base on her “daily communication with her foreign flatmates” (HI-W3WEN2) for several weeks. She suggested it was “difficult to achieve something from an intercultural communication, even though the language was not a barrier” (HI-W3WED2). ‘Something’ in Hanna’s words refers to her predicted reactions that the other interlocutor would perform and the emotional comfort from others according to her further explanation and examples. Hanna believed that the contradiction between her anticipation and the meaning of the interlocutor’s words or behaviours was related to cultural variety:

“We (non-Chinese people and Hanna) are different kinds of people: coming from different ethnical groups, thinking in different ways, viewing facts from different perspectives, and educated in various backgrounds... We can communicate, but it’s hard to become friends. I think I can make a friend with ethnic Chinese... I don’t like to contact foreigners.” (HI-W3WED2)

Hanna’s comments reflect that she had awareness of the fundamental cultural differences between ‘foreigners’ and herself. To avoid this difficulty, she decided to be closed to the other cultures and stayed in the ethnic Chinese community.

The reported difficulties in openness to the target culture were influenced by international students’ confidence and willingness to communicate in English, the judgement about the culture as told by others, and their own previous intercultural communication experiences.

#### **4.2.5.2 Difficulties in suspending disbelief and interpreting from other's culture**

Suspending disbelief and interpreting from an other's culture demonstrate tolerance for a particular new cultural aspect, consider it as a possible reaction and interpret issues from the new cultural perspective. If international students have such difficulties, they may judge a cultural behaviour according to their own culture, former experience and stereotypes. This issue occurred for the international students in different contexts. For instance, Chloe evaluated the requirement of an academic essay:

“The tutor asked us to list over 35 references in my 5000-word essay. It made me mad. How can I read such numbers of books in two weeks?” (CI-W1FRI)

Chloe's words show that she did not agree with the requirements of the academic essay, and she thought it was an impossible mission for her, according to her own experience. This implies that disbelief after openness may be caused by insufficient knowledge on the academic culture (e.g., referring), so international students would still interpret cultural aspects according to their own culture. Moreover, misleading information prevented international students from suspending disbelief and accepting a new perspective of interpretation. For instance, Frank heard from a friend who had some experience of seeing a doctor in the UK:

Seeing a doctor in the UK is complicated. You need to register, make an appointment...My friend was too confused to make it. Therefore, I give up on seeing a doctor, unless it's very serious. (FI-W1TUE2)

Frank had a negative attitude towards the NHS in the UK, as a result of his peer's inefficient experience. Even though he tried to understand the procedure from the perspective of the UK culture, he did not have a trustworthy resource to refer to. A biased attitude may spread and affect other international students' view of the target culture. Therefore, insufficient knowledge about the target culture and biased information received from others were the key factors that made the international students harbour disbelief in the target culture and to interpret it based on their home culture.

The international students' difficulties in attitude competence originated from a lack of knowledge about the target culture, while the shortage of knowledge might raise misunderstandings and biases, and even the issue of closeness to the target culture. The international students might fall into this vicious circle if they refused openness and kept

interpreting other's behaviours according to their own beliefs.

#### 4.2.6 Difficulties in skills of interpreting

The skills of interpreting and relating are the ways that international students make sense of new ideas and experiences. The skills include identifying ethnocentric perspectives, finding misunderstanding, and mediating the presuppositions to avoid dysfunction (Byram, 1997). Such difficulties were highly reported about unpleasant interaction with English speakers in social contexts. The difficulties in the skills may appear, as an international student is unable to comprehend the appropriation of cultural behaviour. The student's comprehension may be influenced by insufficient knowledge, stereotypes, prejudices, and misleading information. The difficulties are analysed from three perspectives as suggested by Byram (see Table 16).

**Table 16. Difficulties in skills of interpreting and relating**

Difficulties	Frequency
Figure out misunderstandings	11
Identify ethnocentric perspectives	5
Mediate the presuppositions	4
Total	20

##### 4.2.6.1 Difficulties in finding misunderstanding

The difficulties in finding misunderstandings were usually caused by insufficient knowledge of the target culture. Limited information may prevent international students from finding problems that occurred in an intercultural communication. This is the most frequent reported category of difficulties in the skills of interpreting, which usually happened in face-to-face intercultural communication. Hanna reported an unpleasant conversation with a Romanian girl:

- H: ...I complimented Romania, [said] that it was great and the people established [the] Roman Empire. She was likely not interested in this topic. It's weird... I didn't know where's problem. She said something about 'conquer,' and she didn't want to talk to me. She didn't say bye when I got off the bus. What's wrong with her?
- I: Do you know that Rome and Romania are two countries?
- H: No. The words look similar. I know Rome is in Italy. Anyway, I don't want to be a friend of hers. (HI-W4SAT2)

Hana was trying to be polite and showing her interest in the culture of the Romanian girl. However, the casual chat ended up with a serious problem in that Hanna thought the Romanian girl was not friendly while the Romanian seemed to feel offense from Hanna. Both of them failed to find the misunderstanding part in the intercultural communication, or to continue the conversation to explain their thoughts directly. The records indicate that the failure to identify the misunderstanding could decrease the pleasure of an intercultural communication.

Moreover, the various levels of understanding of the culture may lead to different conclusions. If an international student cannot identify the misunderstandings, it would be difficult for him to solve the related problems. For example, Lily and Sophie both reported that they were asked to attend a face-to-face interview for their National Insurance (NI) Number, instead of the telephone interview that international students were commonly required to complete. However, they interpreted the same issue in two opposite attitudes:

I think I got very bad luck... They (my friends who have applied for NI number) said it was just by accident. Just bad luck. If you call them, it is just by random. (LI-W2MON\*)

The issue place of my VISA is the UK, so I need to attend a face-to-face interview. It is faster than the telephone interview... I didn't know the reason. Then, I learned it from the Career Services website. (SI-W3MON)

Lily and Sophie did not know the requirements of gaining a NI number. They tried to find the information from different resources, which offered two contradictory results. Sophie's explanation was from an official website, while Lily's was based on rumours shared among her friends. As their criteria were not the same, Sophie was able to find the misunderstanding while Lily blamed bad luck. The comparison implied the significance of trustworthy resources. It showed that a misleading resource might fail an international student in their ability to interpret cultural aspects.

Inability to find misunderstanding may be a serious difficulty for international students. When international students confront with such difficulties, they may not give themselves a second thought to continue the unpleasant intercultural conversation or to dig deeper into the issues they believed they already knew.

#### 4.2.6.2 Difficulties in identifying ethnocentric perspectives

Difficulties in identifying ethnocentric perspectives refer to an international student's problems in realising that one's own culture is not the only criteria with which to interpret behaviour. International students with this type of difficulty often insist on their personal comprehension and even do not consider the interpretation from other cultural perspectives. Such difficulties were reported three times in the classroom contexts, as the students disagreed with the teaching approach that the lecturers used. For example,

- B: The lecture was boring, so I was sleepy in the class. The teacher usually taught slowly. The session did not provide much [new knowledge]. We were only asked to discuss firstly, then watch a video, and he said a few sentences at last. Every time I feel speechless.
- I: What do you think a session should look like?
- B: In a normal session, the teacher should teach a lot of new knowledge, and you (the student) should keep notes quickly. The teaching content would be hard to understand. And you will rush to the library to borrow and read books after class. When I come to the UK, I found I don't need to pay much attention to understanding the taught content. I just sit there, no need to keep notes. (BI-W3WED1)

The excerpt reflected that Ben preferred to study in a teacher-oriented, rather than student-oriented, classroom. Teacher-oriented teaching approaches are usually used in Chinese education, while student-oriented approaches are often appreciated by UK educational institutions. As Ben held his opinion about an efficient and high quality session should be teacher-centred, from a Chinese educational cultural background, he showed his negative evaluation about a student-centred session in the UK educational context. He did not identify his ethnocentric perspective on teaching approaches, and reacted passively in the classroom. He failed to realise that student-centred classrooms also could be an effective teaching and learning environment, which might decrease his academic achievement.

In the social communication, outside of the classroom, the international students encountered "unfair" rules and regulations, when they kept hold of their interpretation and criticised the "unfairness." For instance:

- The contract is strict. Not reasonable. The contract says no; you cannot break the contract (to move out). There is no clause about paying the penalty and move out. (FI-W4TUE)

Frank' reflection showed his interpretation, being dissatisfied with the rules in the contract. He interpreted this issue from his belief that the contract should be flexible and applied according to different situations. Frank gave an example that if he wanted to move out, he could "pay twice as much as the deposit" rather than what the contract said, he could "pay all the rent of the [remaining contract]" (FI-W4TUE). However, the UK culture prefers to follow the rules strictly, rarely changed by the users of the rules. Frank thought it was unfair that the staff at the Accommodation Office refused to help him with this case, even though "the university accommodation was limited" at that time (FI-W4TUE). Frank in this issue paid more attention to his interest, but did not notice the strictness with which UK citizens followed their rules.

The difficulties in identifying ethnocentric perspectives were the barriers in the early stages of understanding another culture. If the international students could not put aside their beliefs and common sense in their culture and try to understand a social and cultural phenomenon of the target culture in its cultural background, they might show a biased attitude toward the phenomenon and draw a negative conclusion about the encountered issues and even the target culture.

#### **4.2.6.3 Difficulties in mediating the cultural conflicts**

Mediating is a higher level of interpreting and relating skill. It is the competence that an intercultural speaker obtains to ease or solve intercultural conflicts. The pre-condition of mediating the cultural conflicts requires an international student recognises the conflict, or, at least, where the problem might be. The international student may know the interpretations of one's own and target cultures, or have the sense that there is something wrong between understandings in an intercultural situation. An insufficient mediating ability is the main reason for difficulties in mediating cultural conflicts. Only four issues were reported in this category, and all were encountered by Hanna when she communicated with English speakers in her living area and in the classroom.

...The postman was a freak. I know it sounds mean. He wanted to HUG me! ... He said you looked miserable, and intended to give me a hug. It's so scary! ... Maybe it's cultural differences. I dislike anybody hugging me, especially a man. It's disgusting. If a woman does it, I would think she's overreacting. (HI-W1WED3)

In this example, Hanna realised the conflict between the interpretations of the two cultures;



the postman tried to cheer her up, but she was uncomfortable with a stranger's touch, especially a man. However, Hanna claimed that the postman's behaviour was not acceptable to her. Hanna's narrative reflected that she did not succeed to mediate the cultural conflict. This intercultural experience ended roughly and awkwardly. It revealed that the unsuccessful mediation between cultural conflicts could stop an intercultural conversation suddenly and leave one or more interlocutors feeling embarrassed. An embarrassing intercultural experience might prevent international students from further involvement with people from other cultures.

Difficulties in skills of interpreting could occur, when an international student holds a negative attitude and limited knowledge about the target culture. A student with such difficulties may refuse to recognise that the same behaviour could be comprehended differently in two cultures and both could be reasonable interpretations. To identify the gaps between two cultures is also a challenge for international students if they did not have a sufficient understanding about the target culture and their own. For mediating the cultural differences, both interlocutors in an intercultural interaction need to be open-minded and straightforward to explain their thoughts to each other.

#### 4.2.7 Difficulties in skills of discovery

**Table 17. Difficulties in skills of discovery**

Difficulties in skills of discovery	Frequency
Study skills	31
Heuristic skills	3
Language & communication awareness	2
In total	36

Skills of discovery are the ability to observe and acquire the cultural phenomena when engaging in intercultural interactions. In other words, they are the skills to learn from sociocultural practices. They are not merely equal to the general study skills of learning new knowledge. The difficulty in such skills may be in the lack of capacity to make efficient use of provided opportunities or tools to learn the culture in various social and cultural contexts. International students in this study reported a great number of difficulties in study skills, and small numbers in heuristic skills, and language and communication awareness (see Table 17).

#### 4.2.7.1 Difficulties in study skills

The reported difficulties in study skills mainly include problems with the UK academic small culture and concentration issues. The international students in this study often reported their difficulties in study skills when they were studying in the classroom, participating in-group discussion after class or writing an assignment alone.

1) **The difficulty in study skills of academic small culture** was the most frequent reported category in this study. The reports about such difficulties occurred in almost all circumstances in the academic small culture, such as collaborative learning, independent learning and in-class learning. Sixteen problems suggested difficulties in the study skills for the UK academic culture, including difficulties in participating in a group discussion, classroom interaction skills, writing skills, and reference finding skills.

The group discussion is commonly used in UK higher education. It usually takes a large proportion of class time and homework. The aims of using group discussion are typically to enhance students' engagement and enjoyment of the class, to let students brainstorm and think critically, and to enrich students' understanding of the topic. However, some international students may not have experience with group discussions before coming to the UK, for example students from teacher-centred classrooms, such as those most Chinese students are accustomed to. They may be not aware of the aims of a discussion or be able to obtain sufficient skills of learning through discussion with peers. For instance, Ben claimed that he could not learn much from group discussion, and provided his comments:

It (in-class group discussion) is not helpful to me, because it is with Chinese students. Firstly, if you discuss with foreigners, your accent, oral English and intonation may improve. You may subconsciously follow their way of speaking. Secondly, when discussing with foreigners, there will be differences in thoughts and culture. You may find new ideas. However, with Chinese students, we come from the same education system and mode. Your idea is the same to theirs. It's just like having a class with a foreign teacher in China that we sometimes use English, and sometimes in Chinese. It is meaningless. (BI-W3WED1)

Ben detailed explained his reluctance for group discussion. He expected to improve his English proficiency and to learn new ideas from different cultural backgrounds. However, he believed that there was no *more capable peer* in his group, such as an English native

speaker or native-like speaker, or people with non-Chinese perspectives, as they tended to be other Chinese students. His expectations were the side effects of a group discussion, but they were not the principal aims of a group discussion in his classroom. This reveals that Ben was not familiar with the objectives of group discussions, nor had the skills to learn new knowledge through peer cooperation. On the other hand, the international students, who have some awareness about the functions of group discussions or willingness to discuss, may encounter difficulties when having a discussion with other students who do not enjoy group discussions. Emma claimed that she had some previous experience of group discussions in her undergraduate degree, but she also had problems when discussing in her group now. Emma complained that her group members were reluctant to attend discussions. Two group discussions were cancelled in two weeks, as other members did not take the discussion seriously, for example:

We planned to do the discussion on Monday, but we didn't say the time. On Monday, after class, I asked one of the members, 'shall we have the discussion now?' She said, 'sorry, I can't. I have a society activity to attend...' Then, everybody left. (EI-W1MON1)

Nobody in the group but Emma was enthusiastic about the discussion. She was confused about how to make her group members attend the discussion. Moreover, when the group made up the cancelled meeting one day before the deadline of the group homework, Emma was disappointed as "nobody did the pre-reading except for me" (EI-W2THU1). Also, the efficiency of the discussion was low.

One member was stubborn if somebody disagreed with him...he would insist on his opinion. His behaviour distracted our discussion. (EI-W2THU1)

It was hard to let everyone express one's opinions. (ED-W1FRI1)

Emma was also frustrated that her ideas were not appreciated in the discussion, as other members "thought [they were] complicated" (EI-W2THU2). However, she reported that according to the teacher's feedback on the homework, one of the best samples was similar to her suggestion. The reports indicated that Emma's problems were not only in the attendance of group discussion but also in enhancing the efficiency of group discussion, such as negotiating and persuading skills.

Classroom interacting skills refer to a students' ability to become involved in

communication for learning in the classroom, especially answering a teacher's questions and continuous interactions. Chinese students were usually taught in a large-power-distance classroom before study abroad, where the students usually ask questions after the teachers provide permission in the classroom (see Section 2.1.2.2). However, in the UK, students were learning in a small-power-distance and student-centred circumstance, where they acquired knowledge through heuristic questions and discussions with the teacher and their peers. Thus, Chinese students may find it difficult to fit into this learning environment.

Every time he (the lecturer) asks a question, I can't answer it immediately, maybe because I've no idea, I don't get the point, or I don't know why he asks... It maybe relate to Chinese education. Chinese teachers rarely ask questions in the class. If they do so, they will ask, "Who can answer this question?" Unlike the teachers in the UK, they ask heuristic questions. You don't know what the expected answer was. (EI-W2THU2)

This excerpt showed Emma's difficulties in answering heuristic questions in the classroom, which was the type of questions that teachers in the UK prefer to ask. She suggested that she did not have any experience to be asked in an exploratory manner, so she struggled in answering them. This could be one of the reasons that many Chinese students are silent in the classroom during study abroad.

The international students usually worried about their ability to analyse the title and requirement of an assignment during study abroad, because writing an assignment was new to some international students (see Section 4.2.4.1) and the criteria for assessment in the UK academic small culture were different from that in China. They were concerned about this issue, as it usually influenced students' scores on assessments.

- I: Why do you think the title of the essay is difficult (as reported in your diary)?  
S: ... The title is complicated. It contains 2-3 sentences. Every sentence talks about a different point. I need to analysis every point thoroughly before writing the essay... I feel there is no relationship between these points...  
I: What confused you, the concepts or the relationship between them?  
S: The relationship.  
I: Any language problem?  
S: No. (SI-W2WED)

Sophie reported that she was not clear about how to construct her assignment to meet the requirements, because she could not find the relationship between the points. As this

problem did not involve language difficulties and the concepts, the fundamental difficulty was her skills of analysis of the assignment requirements, and discovering the logical links between topics.

I cannot make sure that whether my understanding of the title of one assignment was right... Although I started my working couples of days ago, I cannot be sure my writing idea and framework of the whole assignment were correct or not. (JD-W3FRI2\*)

Julie was not confident in her understanding of the title and the structure she planned. She did not realise that there was no unified correct opinion and structure for an assignment. The two quotations suggested that the international students were not clear about how to analyse an assignment title and meet the criteria of assessment that was usually not written directly in the requirements. The criteria were usually hidden behind lines of assignment requirements, which were example items of UK academic small culture. Moreover, as Chinese international students came from a culture that tried to avoid uncertainty, no standard answer to a question or a requirement of an assignment could make them panic.

The difficulty in finding and selecting references were another type of challenge in study skills. The limitations of skills revealed in students' reports were to look up a specific academic topic and to select the search results according to the aim of academic writings. Chloe reported her trouble was to find articles that could explain the topic of her presentation in depth.

The most difficult problem of this week is preparing for the group presentation... The articles I looked up were not various. I can only find papers that match the topic, but can't get further materials I need. I don't know where to start. (CI-W3FRI1)

This indicated that Chloe lacked search skills for academic purposes. On the contrary, Emma found too many papers to read, so that she did not have much time left to organise her ideas and prepare her presentation.

[Through copy & pasting my writing in Google] I found more relevant papers. I thought they were useful, and I read them. I was distracted. I was keeping searching and reading. I read too much, and the time ran out [to prepare for my presentation]. (EI-W4TUE)

The excerpt showed that Emma did not have sufficient selection skills for organising a

large amount of information. Moreover, Julie had another problem that her stance was wavering when she read various discussions from different perspectives.

Before I read [for writing an assignment], I thought about some contents may include, so that I could decide what to read. After reading, I found the authors' thoughts were divergent. Especially, they did many experiments with a lot of data... I didn't know how to deal with them. (JI-W1TUE2)

Julie's words demonstrated that she was led by the reading material, rather than managing the diverse opinions systematically. The three examples above revealed the international students' difficulties in lacking reference location and selection skills. One of the reasons for the limited skills was a lack of experience in preparing presentations and writing assignments, especially in English (see Section 4.2.4.1). The difficulties in reference location and selection affected students' performance, especially in assignment writing and presentations. Students with this kind of difficulty may spend an inefficient amount of time on locating and selecting relevant materials and balancing arguments.

2) **The difficulty in concentration** was the other category that was reported nine times by four students in this study. The challenges occurred either in a classroom or during independent learning. In the classroom, international students reported that they could not always concentrate on the lecturing.

Sometimes I was in the absence of mind. When the tutor said something, I thought it is easy to understand. But I focus for half an hour in a 2-hour course. I can't concentrate my attention all the time... (LI-W1THU1\*)

I feel that my mind is absent from the class. I don't know [why]. It is out of my control. Sometimes the lecturer mentioned some terms that were really hard to understand, and it related to mathematics and my mind is really out of range. (LI-W2THU\*)

Lily reported her concentration problem on Thursdays when she had a *Research Methods* module; she reported that the reasons for distraction were the length of concentration required for a class and the difficult concepts in new academic knowledge.

Wednesday is the busy day for me. Today I have three lectures to attend to. However, in class I always mind wandering for various reasons. Tired; no interest; language barrier... (HI-W2WED1)

Hanna reported a similar issue, and she provided the reasons directly, including physical

condition, attitude toward the learning contents, and language difficulties. The students had low motivation in the classroom because of physical, psychological and environmental barriers. This low motivation led to short-term concentration issues in the difficulties of study skills.

The students also reported a concentration problem outside of the classroom. They faced the difficulties when they did homework or pre-class reading in the library or their accommodation.

I went to the library, hoping to catch up the lectures. But some times were wasted in mind-wandering unconsciously. (HD-W1MON2\*)

...Because I was reading in English rather than Chinese... Just don't want to read. I forced myself to study. (HI-W1MON2)

Feel difficulty to keep focusing when I'm tired and sleepy. (HD-W3MON\*)

Hanna reported that she could not focus on the reading materials, as her brain was not in a study mode; she was influenced by language barriers and physical conditions. Moreover, in the self-study situation, international students may be distracted by their mobile phones.

I: You reported concentration issue. Why can you not concentrate on studying?

H: I have too much pressure on that day. I have an exam on Dutch, and two seminars on the next day. Especially the seminars, I didn't know what were they about... The homework was difficult. I couldn't be engaged. The pressure was at a high level. A little depressed. The two reasons were related. Thirdly, I didn't know why I always play my phone. It was terrible on that day. (HI-W4THU)

Hanna's report reflected that she was distracted by her mobile devices because she tried to avoid the pressure brought by her homework. Playing with her mobile phone affected her learning efficiency. This issue implies that Hanna did not have effective study skills to be able to avoid distraction.

I played [on] the phone in the library, instead of studying. (SD-W1FRI\*)

I kept chatting on WeChat (with Chinese friends) and refreshed the Moments... I just couldn't put my phone away or write attentively. (SI-W1FRI)

Sophie also experienced distraction from messaging and social network apps on her mobile devices. Chatting with Chinese friends online implied that she felt lonely or was

procrastinating. Both of the possibilities showed that she had low study skills in self-directed learning. As the international students were studying in a new academic context, they might experience more academic pressure than they did while learning in China. Sophie suggested her mobile phone decreased her learning efficiency, but also sometimes provided support, such as the dictionary and English language radio. Hanna also thought that the social app was helpful to ease pressure and negative feelings from her homework.

The international students' difficulties in study skills were generally raised by academic culture differences between China and the UK. The students would be frustrated to fit in the new academic culture. The British academic culture required them to learn new study skills, such as learning through communication with the teacher and their peers, skills for writing an academic assignment, and skills for maintaining concentration in the classroom and during self-study.

#### **4.2.7.2 Difficulties with heuristic skills**

Heuristic skills require learners to apply knowledge, skills and behaviours learned in previous practices to solve new difficulties in a specific situation. Only three issues were related to a lack of heuristic skills. Using new technologies is a heuristic skill. When solving problems with new technology in daily life, international students may encounter some challenges in their technology skills.

C: I don't like watching Google maps... I usually depend on my sense of direction, but it's easy to get lost. So I always ask other people.

I: Why don't you like Google maps?

C: Because I don't know how to read it. The arrow is always swinging. I can't figure out the way. (CI-W3MON)

I don't know. I didn't use Google maps before. Because there is a little triangle pointing which way you have to go. Every time I saw it, (I thought) is it the line of the road? I don't know which way is exactly the road. I can't keep asking people, is the road called blah blah... I didn't know that once you go, the dot would follow you. (LI-W1TUE3\*)

Chloe and Lily reported similar difficulties that they did not know how to read Google maps, which displays a traditional map with navigation. It was a new skill for them to use this mobile mapping service to find directions in a new place. Chloe and Lily had never learned how to use the mapping service. The issues about technology literacy required



international students to have heuristic skills, so they could learn from their acquired competence. International students without heuristic skills regarding new technologies may lack a way to help them to solve problems in the social and cultural interaction of a new environment.

The other reported heuristic difficulty was finding a book in the library. It is usually not a new skill for students who have been to a library. However, the index numbers codes were different from library to library. Ben reported his difficulty finding a book in English literature.

I can't find a literature book because the index number is incomplete. There should be letters after the numbers, but the online search didn't show anything. (BD-W2THU2)

He insisted that "my tutor have taught me how to search a book," and he could not be wrong. According to the index system of the library, the literature books are coded differently from books in other subjects. The books written by one author share the same index code, and are placed in alphabetical order based on the title of the books. However, Ben did not find a way to locate a particular book on the long shelves via searching, observing or thinking, but was overwhelmed by the large number of books with one index number.

With the limited number of reports, the pattern of difficulties in heuristic skills is not clear. However, a lack of heuristic skills could slow down international students' ICC development and adaptation to the target culture.

#### **4.2.7.3 Difficulties in language and communication awareness**

Language and communication awareness is sensitivity to the target language and language practices that ensures new knowledge is added to the existing knowledge construction based on one's own culture (Council of Europe, 2001). International students who have difficulties in language and communication awareness may find it hard to discover new knowledge from writings or dialogues, or that they are unable to link the new knowledge to knowledge learned in the L1. Emma and Lily reported their difficulties in this category:

I usually translate abstracts and introductions into Chinese when reading papers... and write down what I learn from the papers in the margins, because I can't remember [the new knowledge] in English. (EI-W3WED3)

Emma's difficulty is to remember new knowledge in English. She had difficulty in developing her knowledge framework, which was built up in Chinese, through gaining new knowledge in English. It was a problem for Emma to find an integration point between knowledge acquired in the L1 and the L2.

The class called Quantitative Research Methods, which deals with lots of numbers and some formula...I already know something about the course (in Chinese), such as mean. I know if I were in a mathematics class in China, I might find it really easy... (LI-W2FRI1\*)

Lily's problem is also in developing the knowledge framework in L2. However, this is combined with the difficulty in recalling the knowledge acquired in L1 with L2. Lily provided a further explanation with an example that she knew that *mean* is the average number in Chinese, but the lecturer used "very complicated symbols" and explained the concept with "your research" rather than "a mathematic problem" to deliver the concept, which made the recalling and linking process for the knowledge in L1 complicated (LI-W2FRI1\*).

The only two examples of this category reveal that international students may encounter difficulties in language and communication awareness, when they have problems acquiring new knowledge from the L2 and to add to their knowledge construction.

Difficulties in skills of discovery usually happened to international students when they were learning or capturing new knowledge from daily activities, including learning in the classroom, in self-direct learning and in learning in social activities. International students' lack of skills of discovery would decrease their efficiency in learning in various social and cultural contexts.

#### **4.2.8 Difficulties in skills of interaction**

The skills of interaction are the abilities that international students operate their intercultural competence, namely knowledge of the target and one's own cultures, attitudes towards differences and other intercultural skills in real life. The difficulties in them usually occur when international students are not sure about the appropriate ways to deal with something in the new cultural context. This may be caused by insufficient knowledge, a biased attitude towards the target culture, and a lack of skills for intercultural activities. International students in this study have reported difficulties in living skills, social skills, and vocational skills (see Table 18).

**Table 18. Difficulties in skills of interaction**

Difficulties in skills of interaction	Frequency
Living skills	20
Social skills	7
Vocational skills	6
In total	33

The reported difficulties happened in diverse sociocultural contexts. The students in trouble were alone, with Chinese peers, or with English speakers. The venues in which the difficulties occurred were varied, except for the classroom and the library. The reason might be that the skills of interaction emphasised skills in social interactions rather than academic interaction, and the academic interactions were coded as study skills in the skills of discovery.

#### **4.2.8.1 Difficulties in living skills**

Living skills cover every aspect of daily living activities, such as shopping, solving conflicts, and finding available services. Difficulties in living skills are usually caused by a lack of knowledge of the norms of the target culture and the different ways of dealing with particular issues between cultures.

International students sometimes did not know where to find something or some services such as a cash machine and their missing special delivery, which were common items or services in their own culture and the target culture.

I couldn't find an ATM. I went to [two names of food store], but didn't find one. I found a pharmacy shop and asked the cashier... She told me that I could buy something at a supermarket and ask for cash back. (FI-W2WED)

Frank intended to withdraw some cash, so he tried to find an ATM around food stores, which was standard according to his previous experience, but failed. He had this difficulty because he did not realise that cash back, a service available in the UK but not in China, was a way to withdraw money. Moreover, Ben reported his difficulty in finding the missing special delivery.

I found that I missed the special delivery. My passport and visa document are in the envelope. (BD-W1TUE)

Before I asked the staff in the Student Support Hub, I didn't know where to go (to

get the missing mail). (BD-W1WED)

Ben's problem was also due to limited knowledge of the routine in the target culture. Frank and Ben's experiences reflected that insufficient knowledge could set barriers for international students in social activities and could decrease the possible ways for international students to solve their difficulties in daily life.

International students may encounter some problems, because they do not get used to the local routines or practice in the way local people do, such as time management and online shopping.

I: Why you didn't know when and where to meet your supervisor?

B: ... I deleted that email by mistake. I received the email in Week 6, which was about supervision meeting on Week 10. I remembered it would be Tuesday, but forgot the time...

I: When you receive some information, how do you usually keep it?

B: I can remember in my mind. (BI-W4MON)

The transcripts suggest that Ben relied on his memory to remember every appointment and event, even those occurring weeks later. Ben did not use a calendar or a notebook to keep a record. It made him sometimes fail to recall the details of an arrangement. A similar problem also happened to Julie. Her bad time management caused two events to clash.

I: Let's talk about your report about the time clash of your visa appointment and a class.

J: A class used to be on Thursday. Since 24, it would be on Monday 24. When I booked an appointment for the visa, I didn't notice it and I booked on the same day.

I: How do you usually remember an event or a class?

J: Keep in mind. If it's important, I will write it down here and there. Not on a specific note. (JI-W2TUE)

Ben and Julie showed their troubles in schedule management, as they have not adopted a standard way to keep a record of their appointments.

Another difficulty in living skills that more than one student reported was the differences between Chinese and British website structures.

I: What was your difficulty when you booked an IELTS test?

B: ... The ways to book a test on the British website is different from that on the Chinese.

I: What is the difference?

B: On the Chinese website, we chose the venue, and done. However, on the

British, after login and register, it will send you an email with a link. Click the link and make a payment, and then you can book a place. I didn't know at first... (BI-W4FRI)

Ben explained that booking an examination place was a difficulty for him because the timing and the procedure to pay the fee were different on the Chinese and British websites. The differences confused him and made the process take extra time. Frank also encountered problems in reading British websites.

I found foreign websites, such as Amazon, are designed differently from Chinese online shopping habits. For example, when I applied for this master's course, I've already realised that it was very hard to find the information I wanted. (FI-W3TUE2)

Frank pointed out, in his interview, that the difficulty in understanding British websites was generated from the different habits of using online services.

During study abroad, the international students encountered many things and behaviours that did not fit with their habits developed from Chinese culture. Thus, international students had difficulties with living skills. The reported difficulties in living skills happened in various aspects of daily life. They happened randomly and unpredictably in social and cultural contexts.

#### **4.2.8.2 Difficulties in social skills**

Social skills are the abilities to become involved with and interact in social practices with an individual or a group of people from other culture(s), which require international students to alter their operations of social knowledge and skills to meet the appropriate behaviour in different circumstances. The difficulties in social skills are mainly in the estimation of the situation and the choices of proper reactions.

International students may have learned some norms of the target culture before or during study abroad, but the practice of the norms in real life activities may be not clear for them, especially in intercultural communication.

Anna was so nice. She gave me a Christmas gift. Unfortunately, I didn't prepare one for her. (ED-W4FRI2)

I: Who's Anna? Is she Chinese?

E: No. She is my language linker (A language linker is a English native speaker who volunteers to help international students improve their language and adapt to local life, usually provided by local communities, according to Emma's

interview EI-W3FRI).

I: How do you feel about it?

E: It's so touching. I didn't think she would give me a Christmas gift. We only meet once a week. Especially, since I've missed for two weeks. I feel so sorry. Even so, she gave me a gift. (EI-W4FRI2)

The underlined sentences imply that Emma thought she was not Anna's close friend and as such did not expect to receive a Christmas gift from her. The differences between anticipation and the fact likely made Emma excited and embarrassed in this situation. The example indicates that international students may have difficulties when evaluating the situation. As their judgements on the situation was not reliable, international students were not able to behave appropriately according to the social and cultural contexts.

The international students reported some unpleasant experiences in social interactions with English speakers. They sometimes felt it was difficult to become a member of a local community.

I went to [a name of a religious student union] of my college. I didn't understand what they were talking. It felt hard to be one of them because I didn't join the union from the start. It was Week 3 or 4 (end of October). They've already known each other. I felt it really difficult to [become] involved with them. Nobody came to talk to me. (EI-W3FRI3)

The example shows three possible reasons for the failure of engagement may be language barriers or unfamiliar topics, lack of interpersonal communication skills, and a cold welcome from the community. This implies that the difficulties in social skills may be caused by a combination of difficulties in ICC. Moreover, the international students also reported more serious issues, such as quarrels.

...We ate grapes that they did not sell in the café (of a hotel) while chatting. Three staff came to us and said we couldn't eat here. One of my friends was angry and asked the staff to show the rule list. A male staff suddenly raised his tone and said, 'you're lucky to stay here. If you insist on doing that, I'll kick you out...' We were all angry and argued with them. However, we put away the grapes, as we wanted to keep chatting there... I was angry, too, but I didn't know whether his words sounded rude because of the interpretation or they also meant rude in English (FI-W3SAT2)

The excerpt revealed international students' disadvantage in language and language use. The limitation likely prevented the student from interpreting the situation precisely. The students in this situation had to follow every word that the staff said, rather than getting a

hardcopy of the regulations. When international students are inferior in language or culture during intercultural communication maintaining equality in a conversation was a significant problem for them.

According to the reported difficulties in social skills, international students may be welcomed and treated coldly or even mistreated during study abroad. Although various difficulties may happen due to different treatments, the most significant starting point of the solution is to evaluate the situation correctly, and then to react appropriately.

#### **4.2.8.3 Difficulties in vocational skills**

Vocational skills are the abilities that are required in employment small culture. When international students intend to become, or are already involved in local employment small culture, they need to learn the rules (or culture) and skills to find or keep a position.

- I: Why you don't know how to write a CV to get a part-time job?
- L: I don't have any relevant experience. I don't want to be a waitress, especially in a Chinese restaurant. I think it is not useful for my future career... I want to get a part-time job as a shop assistant. I don't have any experience. I don't think I am qualified and competitive in job seeking.
- I: Are you worried about your previous skills in selling?
- L: I saw some advertisements put on the window of a shop says, a priority person should have relevant experience and also has to stay for a long time.
- I: Have you written a CV before?
- L: I don't think so. It is not what I did when I applied for a university. That was not for jobs. (LI-W1MON3\*)

This interview shows that Lily did not have CV writing experience for jobs in either Chinese or English, or relevant work experience in China and the UK. However, the recruitment of a job usually considers candidates' English language proficiency and working skills in the UK job market. Accordingly, Lily evaluated herself as a less competitive job hunter. She presented no confidence in finding a part-time job. Moreover, if an international student does not have difficulties in preparing CV or working experience, he/she might encounter some culture shock in the following processes. For instance:

- S: I went to a job interview at a hotel. The interviewer asked, 'Why did you think you are suitable for our company?' and 'Why does our company want to hire you?' My mind was blank at that moment. I forgot the English words I wanted to say.
- I: Did you prepare anything before the interview?
- S: [No], because my friend told me about the job that morning. I sent my CV, and

attended the interview in the afternoon. Also, I thought it's a serving-dish job, so I didn't expect to be such formal as recruitment for the company. I felt bad about the interview. (SI-W2THU)

Sophie reported that the job interview was far from her expectation. She did not prepare a word bank for a formal interview or the answers to typical questions of a job interview. Thus, she was shocked in the interview. Lily's and Sophie's job hunting experience indicated that international students in the first term of their study abroad would be concerned with how to find a position and obtain it. It was a challenge for them as they lack experience in almost every procedure of finding and keeping a position.

International students' difficulties in skills of interaction generally include difficulties in living, social and vocational areas, which require them to increase their relevant knowledge and skills in social practices.

#### **4.2.9 Section summary**

International students in this study have reported difficulties in various social and cultural contexts. The issues generally fell into difficulties in communicative competence and intercultural competence. They were raised by a lack of knowledge, skills and appropriate behaviours in language and culture according to the contexts. The academic challenges that have been discussed in previous research were categorised in pragmatic competence, communicative competence, and knowledge competence and skills of discovery in intercultural competence, because of this, academic problems varied.

#### **4.3 International students' solutions to overcome their difficulties**

One of the aims of this study was to identify the mediational tools that students employed to overcome their difficulties. In this study, these tools were explored inductively. That is to say, international students in this study reported their use of psychological tools and physical tools, and also doing nothing. Three broad categories of problem solving means were identified according to SCT. The psychological tools generally refer to language, signs and other symbolic tools. The international students applied psychological tools in communication, self-effort, finding references and critical thinking. Among them, critical thinking emphasised the critical cultural awareness, which is the consciousness to evaluate differences between cultures critically (Byram et al., 2001). The physical tools in



this study specifically referred to technologies including mobile devices and computers. The difficulties in *doing nothing* category are the issues that international students did not try any tools or any attempts to solve them. These solutions are presented in the table below (see Table 19). As the above table shows, a total of 167 difficulties in ICC were identified, but 134 (80%) of them were attempted to be solve. For solving their problems, the students sometimes applied more than one approach. In all, 71 (43%) of the solutions involved technologies (i.e. mobile devices and computers) to mediate the problem solving and also cognitive processes. On the other hand, the students sometimes did not show any intention to solve some problems. The students' attempts and non-attempts are analysed through cross-tabling with eight difficulty categories of ICC for exploring the ways that international students overcome their difficulties (see Table 20). The relationship between the students' ICC difficulties and the solutions will be revealed in the following sections.

**Table 19. Students' solutions**

Types	Frequency
Psychological tools	134
- via communication	66
- via self-efforts	43
- via finding references	40
- via critical thinking	18
Physical tools	71
Do nothing	33
Total difficulties in ICC	167

\* Not mutually exclusive

**Table 20. Difficulties in ICC & solutions**

Difficulties	Total	Communication	%	Own efforts	%	Find references	%	Critical thinking	%	Do nothing	%
Linguistic	46	16	35	9	20	16	35	3	7	11	24
Sociolinguistic	7	0	0	1	14	0	0	0	0	3	43
Pragmatic	12	6	50	3	25	6	50	1	8	1	8
Attitude	26	4	15	5	19	5	19	4	15	7	27
Knowledge	18	9	50	3	17	4	22	1	6	5	28
Interpreting	20	3	15	4	20	3	15	2	10	8	40
Discovery	33	8	24	11	33	8	24	3	9	7	21
Interaction	40	22	55	9	23	8	20	4	10	6	15

### 4.3.1 To communicate

Communication was the most reported solution applied by the students in this study. Learning, or solving problems in social and cultural contexts, through communication with more capable people is the first level of cultural development, namely the social level (Vygotsky, 1978). According to the analysis of difficulties, the reasons that the international students confronted with various ICC difficulties were insufficient knowledge of the target language and culture, negative attitudes towards others' cultures, and limited skills. All the students in this study reported that they had tried to obtain some information from communication with others, including English native and non-native speakers, in which they might gain new knowledge, decrease misunderstandings, and provide a guide to developing skills. In this way, the student could overcome some of their difficulties. They intended to solve over 50% of their difficulties in skills of interaction, knowledge competence, and pragmatic competence with communication (see Table 21). That is to say, when the international students encountered difficulties in daily practices, limited cultural knowledge, and inferred information in the social contexts. The difficulties were intended to be solved by communication, which showed some common features, such as the person that the students asked and the situation they were in. Moreover, international students often reported communicative solutions when they encountered difficulties off campus, with English speakers, or doing something alone.

**Table 21. Solving by communication**

Types of difficulties	No. of difficulties	Frequency	%
Skills of interaction	40	22	55
Knowledge competence	18	9	50
Pragmatic competence	12	6	50
Linguistic competence	46	16	35
Skills of discovery	33	8	24
Attitude competence	26	4	15
Skills of interpreting	20	3	15
Sociolinguistic competence	7	0	0

The students intended to solve their difficulties through communication, when they were on their own and realised that particular knowledge and skills were insufficient for them to come up with a solution. They would try to find somebody to help them. For solving the difficulties, the students attempted to communicate with someone, especially someone

who was believed by the students to be an experienced person. The experienced person could be a teacher, a peer with particular experience, an English native speaker, or a shop assistant. For example, when Frank “could not find any cash machine around” (FD-W2WED1), he went to a pharmacy nearby to ask for help.

...‘Is there a cash machine around here?’ I asked. ‘No, the nearest is about 15 minutes’ walk.’ She (the assistant) replied. ‘How can I get there?’ I asked. ‘You don’t have to. You could buy something cheap at the supermarket and ask for cash back.’ She said. (FI-W2WED1)

In this situation, Frank regarded the assistant as a more experienced person who could be familiar with the area. Frank solved his problem by learning the new cultural knowledge, namely cash back, from the assistant.

Another type of difficulty solved by communication often occurred when a student was having a conversation with a person from another cultural background or holding a different opinion. Briefly speaking, the difficulties happened in conversation, and were solved in the following information exchange in the same context. Through communication, they could understand each other’s perspectives or intentions, so that they could overcome cultural or knowledge barriers.

(Chloe helped her British flatmate buy some food from a store). When I came back from shopping...I texted to her that she did not need to give me the money for the food... She found me in the kitchen to give me the money. I didn’t want to take the money and told her that it wasn’t much and she didn’t need to pay me. However, she insisted. Okay, I took it. (CD-W4MON)

Chloe reported that she was not sure whether to accept the payment for something that cost a few pounds and that she bought for her British flatmate. Among her Chinese friends, “we did not pay, because we usually bought something for each other” (CI-W4MON). As her British flatmate insisted on paying, Chloe accepted the money and realised that “it could be cultural differences” (CI-W4MON). In this situation, Chloe used to have the Chinese value that small money, like two or three pounds, does not need repayment, while her British flatmate seemed to believe that every penny should be paid. The two contradictory values were a barrier in the interaction between Chloe and her flatmate. Through communication and negotiation, Chloe adapted to the values of her British flatmate, and both of them overcame the barrier. As for communicating for idea exchange,

a particular situation was collaborative learning, such as group discussion. Frank reported his difficulty in following the logic of English academic papers, namely a discourse difficulty.

I worked in the library to tide up the key opinions of the core reading materials. Although I looked up words in the dictionary, the papers were not easy to understand. [Then], I discussed the readings with my [Chinese] classmates. We exchanged our comprehensions of different papers we had read. Unity is strength. The unclear ideas become easy to understand after discussion. (FD-WITHU)

Frank claimed that looking up the words in the dictionary was not helpful in solving this discourse difficulty, but communication with his peers was a beneficial solution. It indicated that international students could gain new knowledge and clear understandings through arguments, negotiations, or persuasion with their peers. According to the two excerpts, cross-cultural understandings and new knowledge could come from intercultural communication and a group discussion with peers. Communication was an effective tool for an individual's cognitive development.

The students also reported that they often consulted anybody in the same situation with them. It might be because of the convenience to contact the person and explain the problem.

That device on the ceiling (of the kitchen), I used to think it was a monitor. There is another one in my bedroom. I didn't understand why they need a monitor there. I didn't know what was it until... it rang... I didn't understand why it rang loudly, like an ambulance. Very terrible. And shined. My housemates ran downstairs and turned it off. I asked him and was told it was a fire alarm. Then, I know why smoking is not allowed in the house. (BI-W3WED2)

The question about the unknown device was in Ben's mind for some time. Ben did not ask anyone until the particular moment of this reported issue. At that moment, Ben and his housemate were both involved in this situation, an opportunity for Ben to learn the knowledge of British household facilities. His British housemate was the person who had the knowledge and was available for Ben at the critical time and place. In another example, Lily did not know how to scan on the library printer:

I asked the helper in the library. He showed me, so I know how to get [something] scanned. It's free. But some of my friends still don't know it's free, so they have to copy all of it. (LI-W4MON\*)

The librarian was the right person to provide reliable and useful information to library users like Lily. If Lily did not ask the librarian, she may be unaware of the scanning service like her friends. Consulting a specific helper at a public place seems convenient for international students to explain the difficulty and find a solution. 'In the same situation' is likely the principal factor that the students choose to solve a problem through face-to-face communication with others.

According to the data, most difficulties in ICC could be solved to some extent by gaining more specific knowledge in intercultural communication or discussion with peers. To communicate with others is a direct and convenient solution for international students to overcome difficulties in a sociocultural context.

#### 4.3.2 To depend on self-effort

**Table 22. Solving by self-effort**

Types of difficulties	No. of difficulties	Frequency	%
Independent living	48	31	65
Skills of discovery	33	11	33
Pragmatic competence	12	3	25
Skills of interaction	40	9	23
Linguistic competence	46	9	20
Skills of interpreting	20	4	20
Attitude competence	26	5	19
Knowledge competence	18	3	17
Sociolinguistic competence	7	1	14

The students reported 43 difficulties that they intended to solve by themselves. They did whatever they thought might work to overcome the difficulties with their own efforts. According to students' reports, the students preferred to rely on their own ability, experience and efforts to overcome difficulties, especially with independent living skills and the skills of discovery (see Table 22). They have applied this type of solution in various circumstances, especially when they were off campus and alone. It was usually the time that external support was not available or was inconvenient to get. For solving the problems, the international students analysed, evaluated and thought critically about the issues, including the social and cultural contexts, their abilities, and previous experiences.

The independent living skill is not the focus of this study, because language and culture were not the barriers in these problems. In another word, the students might

encounter similar difficulties even if they were in their home countries. However, the difficulties are still presented, because 65% of independent living difficulties were attempted to be solved with one's own efforts. It was impossible to overlook one's own effort to solve the difficulties that were closely related to international students' everyday life. The difficulties might be caused by a lack of independent living skills or the new sociocultural context that might affect the students' living habits, physical and psychological health. Studying abroad was usually the first time Chinese students lived on their own for a long time (one year or more). Before living abroad, they often lived with their families or with a few people of the same gender in school or university accommodation (usually 4 or 6 people in one room). Emma and Hana claimed their helplessness and loneliness in their records, and mentioned that they had to do everything by themselves. Six of the students reported that they tried what they thought would benefit their problems when they encountered independent living problems, such as time management, weight control, food issues, and health problems. These problems were likely not challenging at all, but required some time and efforts, such as self-regulation and self-control, to overcome the difficulties. The students usually showed confidence that they knew the solutions to the problems. For example, they used an alarm to wake them up (e.g., ED-W1MON2), ate less to watch their weight (e.g., HD-W1WED1), and took medicine and had rest to recover from illness (e.g., SD-W3TUE). However, whether a solution was applicable in a particular context and whether they could regulate themselves were the factors that impacted the efficiency of the solutions.

The students also often tried to overcome difficulties in skills of discovery depending on themselves. In other words, they attempted to solve their study skills in social contexts, especially in academic small culture, with their self-efforts. Seven students recorded their attempts to develop their skills of discovery. When the students confronted with difficulties in skills of discovery, they intended to improve through practice. For instance, Sophie claimed that she was lost in the English reading materials of a module, so she did not know what she learned from this module and what to write in her essay. Her solution was as follows:

I will go to the library to take full use of my time to write my essay. It is only one way that I can do. (SD-W1THU\*)

- I: Why you decide to go to the library?  
S: Because there are many books that I can read whenever I need them.  
Secondly it is the atmosphere. I definitely won't work at home.  
(SI-W1THU)

Such difficulties require the development of one's discovery competence, which is unlikely to be achieved with the effort of one day. It requires long-term practice and persistence. When the students, such as Sophie and Hanna, had a concentrating problem during learning, they forced themselves to focus on study (SD-W1FRI, HI-W1MON2), building up their self-regulation. When Emma was confused about learning via group discussion in a less active group, she tried to encourage other group members to become involved in the discussion:

After class, I asked one of the members, 'shall we have the discussion now?'  
(ED-W1MON1\*)

After someone shared his/her opinion, I will give a compliment. (ED-W1FRI)

I planned the outline of the discussion, and led the group to answer each question.  
(ED-W2THU1)

However, none of Emma's attempts worked in her situations, as the motivation of other group members was low. An efficient group discussion needs every group member to make his/her own efforts and contributions. The students who had difficulties in skills of discovery intended to maximise their actual development level with their own efforts, so that they could adapt the skills of discovery they already had to a new learning context.

Some difficulties in remaining categories of ICC were also managed with the students' own abilities (see

Table 22). The students tried to achieve their goals by observing, reading, using critical thinking or other interactions with the subjects and the environment.

When I was in the post office, I found that all the sending items were packed. However, I couldn't find a box for packing. I heard that the stationary shop sold a package, so I went to it. (JI-W1MON)

Julie learned how to send a large parcel by observing other customers' behaviours and the parcels in their hands. It demonstrated that an international student could acquire sociocultural phenomena from looking at the surroundings and imitating others. It is a

learning process with the signs shown in other's behaviours.

According to the reports, the problems that were handled with students themselves were limited to the students' actual development level, as the students did not request much extra support, such as other people and new information. The international students could overcome some of their difficulties via self-effort, such as self-regulation and observing others and surroundings. However, the students still report them as difficulties frequently. They claimed in interviews that the reported difficulties within their ability were the major issues they were concerned with on those days, and they cost them much time and effort to solve.

### 4.3.3 To find references

Not all the difficulties were at the student's actual development level. Also, the more experienced person may not always be available for the international students in every context. The students often reported that they attempted to find references when they were alone. In such situation, the students need to find references from other recourses, such as books, regulations, dictionaries, and online materials. They often attempt to find references when they had difficulties in pragmatic competence and linguistics competence. The references usually come from physical mediational tools, which could provide or access knowledge of various areas. According to the data, the students attempted to solve 40 issues by finding references. Most of them involved technologies, namely computers and mobile devices. The remaining difficulties (only two issues, according to the records) involved reading papers and books to find solutions. If the contents of the papers and books were available online, using devices to approach the information might also possible. Therefore, finding references to overcome difficulties will be discussed in Section 4.3.5.

**Table 23. Solving by finding references**

Types of difficulties	No. of difficulties	Frequency	%
Pragmatic competence	12	6	50
Linguistic competence	48	15	31
Skills of discovery	26	8	24
Knowledge competence	46	4	22
Skills of interaction	18	8	20
Attitude competence	40	5	19
Skills of interpreting	20	3	15
Sociolinguistic competence	33	0	0



#### 4.3.4 To think critically

Critical thinking was not an often-used solution for the international students in this study, just 18 difficulties involved critical thinking. They were averagely scattered in various social and cultural situations. When applying this approach, the student might 1) identify the cultural differences and interpret them, 2) evaluate the differences, and 3) interact and mediate the cultural differences in social interactions (Byram, 1997). In another word, the students clarified what the cultural difference was, whether the different cultural item was acceptable or beneficial for them, and how to interact with others who preferred the item. The frequency of ICC difficulties where critical thinking was applied revealed the students thought critically more often for cultural difficulties (14 records) than language difficulties (7 records). However, critical cultural thinking was not a frequently used solution, as the percentage in each category of difficulties was below 15% (see Table 24).

**Table 24. Solving via critical thinking**

Types of difficulties	No. of difficulties	Frequency	%
Attitude competence	26	4	15
Skills of interpreting	20	2	10
Skills of interaction	40	4	10
Pragmatic competence	12	1	8
Skills of discovery	33	3	9
Linguistic competence	46	3	7
Knowledge competence	18	1	7
Sociolinguistic competence	7	0	0

Sophie thought critically about her experience with teacher-student in-class interaction. She felt embarrassed when she failed to explain her answer to the teacher's question in front of her classmates.

S: At first, I felt shame. Later, however, a German student also made a mistake, but she continued to answer following questions. Maybe foreigners don't care about it. It was me, thinking too much about other's attitudes...

I: Why you didn't try to answer the teacher's question in the classroom?

S: ... Our Chinese students seem to be afraid of losing face, making mistakes and being the first one. In my undergraduate study...firstly, some people thought the question was too simple and silly to answer; secondly, the respondents were usually regarded as top students or stupid ones. Now in the UK, I attended a seminar...with some Chinese students. One Chinese girl often interacted with the teacher, but another three Chinese laughed at her.

Although I didn't communicate with the teacher actively, I thought that girl was brave, and I appreciated her. (SI-W3FRI1\*)

The excerpt showed Sophie's attitude was changed through critical thinking. She identified the different reactions between herself and the German student after a wrong answer. And then, she thought of the fundamental reason of her reactions, and also compared them with other Chinese international students. At last, she drew a conclusion that she should not be shamed about her mistakes and needed to encourage herself to interact with the teacher in the classroom. After this thinking process, Sophie overcame the attitude barrier in the in-class communication. She might have an active in-class performance later.

Critical thinking was also reported when the international students intended to solve their language problems. Frank had a difficulty to identify 'capitalism,' 'capitalist,' and 'capital' in others' speech.

- F: The three words sound similar (to me), but it is impossible to tell them apart in social policy context, (as all the three could affect policy making)... I asked some Chinese students. They had the same problem with me... Foreigners didn't have such problem. Not only local British, but also a Turkish and an African.
- I: Why did you ask other people about this issue?
- F: I wanted to know I'm not the worst student. If it was only my problem..., I would make it up. If everyone has this trouble, certainly I will also do something, but not in a hurry with pressure. Asking other people maybe aim to release my psychological burden. (FI-W3TUE1)

Frank provided the details of his critical thinking process on a linguistic difficulty. He found a limitation of his English proficiency, and compared and contrasted this with his Chinese, British and other cultural background peers. In this way, he clearly found his problem. Also, he analysed the reasons that he applied his solution in this way, for self-confidence and reducing stress.

The international students' reports implied that critical cultural thinking was beneficial to changing one's attitudes, such as being more open-minded and growing confidence.

#### **4.3.5 Solutions with the mediation of mobile devices**

The eight students used technologies, especially mobile devices, to help with solving 71 reported difficulties (see Table 25). They most frequent use mobile devices for solving difficulties in pragmatic competence and skills of discovery. The percentages of using

mobile devices in the other competences were approximate except for difficulties in skills of interpreting and sociolinguistic competence. As the types of difficulties could not identify the mediational role of mobile devices act in problem-solving and cognitive process, the role will be analysed according to the typology of cognitive tools.

**Table 25. Difficulties and the use of mediational tools**

Difficulties	No. of difficulties	Frequency	%
Pragmatic competence	12	10	83%
Skills of discovery	33	14	42%
Attitude competence	26	9	35%
Linguistic competence	46	20	34%
Skills of interaction	40	13	33%
Knowledge competence	18	6	33%
Skills of interpreting	20	2	10%
Sociolinguistic competence	7	0	0

\*Not mutually exclusive

The students sometimes tried more than one tool or function to find a solution. The tools they used mediated the problem solving and learning process by enhancing the approaches to overcome the problems, including communication, self-effort, finding references and critical thinking. Five principal themes about the types of tools came from the students' records, including search tools, social tools, service providers, presenting tools and capture tools (see Table 26).

**Table 26. Solutions with mediational tools**

Types of tools	Frequency
Searching tools	35
Social tools	20
Service providers	12
Presenting tools	4
Capture tools	4
Total	71

\*Not mutually exclusive

Search tools were significant mediators that occurred in 35 issues to help students overcome their difficulties according to the data. They were the extension of the finding a reference approach. Search tools consisted of search engines and databases such as Google, dictionary apps and online library catalogues, in the students' reports. All the students in this study have applied some search tools to find solutions to their difficulties.

They approached the solutions or relevant information by searching for keywords. The search results would present the requested information through websites, items of databases, social media, and service providers. The information might support the students to overcome difficulties from the academic references to the guidance to a variety of daily activities, and from reviews of different products to the solutions of particular problems. The search outcomes were references, suggestions and advice on various aspects of academic and social life. For example, Emma wrote in a diary that her difficulty was “loneliness as an international student” (ED-W2MON2). To solve this problem:

I searched online to find whether someone had the same problem and how he/she reviewed and managed the loneliness. (ED-W2MON2)

I: What did you find online?

E: I found it was a common issue. I’m not the only one thinks this way. They discussed some advantages and disadvantages... (EI-W2MON2)

Emma’s example indicated that search tools could provide accounts of others’ experiences, which could be referred to as a guide for the searcher’s behaviours. Moreover, the dictionary app was special among the search tools, as a single functional app. However, it was often reported as a tool to find solutions to the difficulties with linguistic competence. The students only reflected upon one reason to use the dictionary, specifically to look up the meanings of words, especially in texts (12 records) rather than in audio messages (3 records).

Students reported the use of social tools included emails, social networks, phone and video calls and text, voice, video messages via various apps. The social tools were the mediators used to connect a person to others. For solving difficulties, they were often used to contact the persons who might help in specific situations, so that the students could ask for a favour or receive a solution. In other words, social tools could be a mediator to enhance the communicative approach to solving students’ problems. For instance, the students emailed their teachers to ask questions (e.g., ED-W1THU and JD-W4TUE), and sent messages to experienced peers (e.g., BD-W2FRI and CD-W4TUE). Even though the more capable individuals were not available in the students’ current contexts, the students still preferred to ask them, because they were the particular people who could have the answer to their questions and potentially would reply to them, according to their reports. The students also chatted with others for communication or discussion (e.g., LD-W4WED

and HD-W4THU). The social tools brought people in different physical contexts together and provided a platform for distance communication. Moreover, the students posted some advertisements on social networks (e.g., FD-W2SAT and FD-W4TUE). The social tools spread the message on a public stage and sent it to many people. The students' use of social tools implied that the social tools support person-to-person contact.

Service providers sought by the students often referred to various apps and websites that offered services such as directions, online shopping, music and learning materials. Some of them updated resources regularly and automatically for users (e.g., Google map, BBS, and VLE), while some combined with a small and peculiar database to let the user select items (e.g., shopping apps, music player and radio apps). The students subscribed to or downloaded a program or an app, which provided specific information. For example, Julie browsed blogs and bulletin board system (usually known as bbs) about travelling in Europe for planning her trip (JD-W1THU and JD-W1FRI). Lily used Google maps to direct her to her destination (LD-W1SAT and LD-W2TUE). The service providers could efficiently decrease some of the international students' problems in language and cultural adaptation and also independent living. International students, as the users of service providers, applied the tools to make their lives abroad easier.

Additionally, the students also reported that they used presenting tools (e.g., Adobe Reader and PowerPoint) to display their thoughts in a meaningful and appropriate form, and capture tools (i.e., camera and recorder apps) to catch the moment containing information. They were usually reported as tools to mediate issues in academic areas, such as reading papers, presenting ideas and recording academic activities.

#### 4.3.6 To do nothing

**Table 27. To do nothing**

Types of difficulties	No. of difficulties	Frequency	%
Sociolinguistic competence	7	3	43
Skills of interpreting	20	8	40
Knowledge competence	18	5	28
Attitude competence	26	7	27
Linguistic competence	46	11	24
Skills of discovery	33	7	21
Skills of interaction	40	6	15
Pragmatic competence	12	1	8

Sometimes the students did not do anything when they encountered difficulties. According to reports (see Table 27), the students often gave up on solving difficulties in sociolinguistic competence and skills of interpreting. They made no reaction to the difficulties because of two main reasons reflected in the reports: 1) they tried to avoid troubles that might be caused by solutions; 2) they had no idea how to solve the difficulties or where to find the possible solution.

The students did not try to solve some difficulties, as they attempted to avoid trouble. Emma was disappointed by the inactive members of the discussion group, but still “let it go.” She was concerned that her “group members would dislike her if she showed too [much] enthusiasm” (ED-W2MON1). She implied that solving this problem might affect her popularity and friendship among the group members. She chose to be silent. Chloe complained that she was disturbed when she studied in the library.

In China, nobody talks in the library... A group of black students talked loudly with dirty words. Why are they in the library?... I just left. It's impossible to let them stop taking. They might beat me. (CD-W1TUE)

I: Why you didn't do anything?  
C: It's none of my business. (CI-W1TUE)

Even though the group of students interrupted her study, Chloe had no intention to communicate with those students. She imagined that she might receive a physical attack. It implies that Chloe prefers to avoid troubles. In this context, Chloe might go to another quiet place to study.

The students did not react to some difficulties because they did not know the solution or a possible way to find a solution. Also, they usually had more choices, so they did not care about a particular solution to the difficulty.

A novel called *Sound and Fury* is hard to read... In this novel, it uses ‘you is...’ that is wrong in academic writing... And many words have spelling mistakes... I think the novel is a special case. I can't read it any more. (BI-W3FRI)

I gave up. It's really boring. (BD-W3FRI)

Ben did not solve the sociolinguistic problem in reading, because he did not know how to solve it or understand it. In this situation, Ben had many other alternative books to read.

Solving this problem was not a must-do. Sophie reported her difficulty in understanding a lecturer's accent:

One of my lectures is from South Korea. Her spoken [English] is not standard, so I cannot understand most of the lecture... I'd like to study the power points she has given, do more research after the class... (SD-W2MON\*)

In this issue, Sophie had a sociolinguistic difficulty, but she did not try to solve it directly. Instead, she planned to read teaching materials after class. However, as she claimed that she had no time to do the review, the difficulty was not solved as of the report time.

#### **4.3.7 Section summary**

This section reported the international students' intentions to solve their difficulties through communication, their own efforts, finding references, and critical thinking. They often employed technologies, especially mobile devices, to enhance the solution such as search tools, social tools, service providers, presenting tools and capture tools. Mobile devices facilitated solutions to mediate international students' difficulties. The students have reported that mobile devices offered external information, contact with others, online services, and other functions to enhance their problem-solving abilities and even developing of ICC.

However, sometimes the students gave up on solving some difficulties to avoid trouble and being clueless. Whether the attempts that the students tried were successful, failed or made some difference to achieve the students' goals was not considered in this study. The students sometimes were not sure whether the problems were solved or to what extent they were solved. Not all the difficulties could be solved just with one try or within one day or a week. Whether a solution worked or not sometimes could not be identified or evaluated from the data provided. For example, problems in reading skills, questions about their modules, and a lack of ability to understand native speakers usually required continuous development of particular abilities and knowledge to overcome these difficulties. Thus, the efficiency of solutions was not examined in this study.

## Chapter 5: Individual case descriptions

This chapter will display the analysis and description of four individual cases, which showed the international students' particular characteristics of their difficulties and their preferred solutions.

Four most telling cases, namely those reported most difficulties and shed the greatest light on the issues, were selected for in-depth examination. As presented in Table 28, Emma was chosen because she reported the most difficulties in linguistic competence and skills of discovery most frequently; Ben was examined as he focused on his difficulties in skills of interaction, pragmatic competence and sociolinguistic competence; Lily often spotted her problems about the knowledge and attitude towards new cultures; and Frank paid most his attention to pragmatic competence and skills of interpreting and reported more issues involving mobile devices than the others (see Table 28).

**Table 28. Students' difficulties and use of mobile devices**

Difficulties	Emma	Ben	Chloe	Lily	Frank	Sophie	Julie	Hanna
Linguistic	12	3	9	2	5	8	3	3
Sociolinguistic	1	2	1	1	0	1	0	0
Pragmatic	1	5	0	0	5	1	3	0
Knowledge	2	1	2	6	5	1	2	0
Attitude	3	1	5	6	5	2	2	4
Skills of interpreting	3	1	4	2	5	0	0	5
Skills of discovery	9	3	6	6	1	4	3	4
Skills of interaction	2	9	4	4	6	3	4	1
Use of mobile devices	9	10	9	9	13	6	11	4

\* Not mutually exclusive; the grey shading marks the maximum in each row.

Accordingly, the with-in case analysis of Emma, Ben, Lily and Frank were selected to present in this chapter. The with-in case analysis aimed to describe and interpret the issues that happened in a single case in this sociocultural context (Miles et al., 2014). Therefore, the with-in case analysis includes the primary evidence from the international students' diary and interview data. In addition, the students' difficulties and the corresponding solutions were analysed together to observe the correlation between the difficulties, the solutions, and the sociocultural contexts.



## 5.1 Emma: Involving into different groups

### Emma's background information

Name: Emma

Gender: F

Age: 23

Years of studying English: 16

Overall IELTS score: 6.5

Month of arrival: October

Master's program: Engineering Mechanic

Bachelor's program: Engineering Management

Mobile devices: Mobile phone and tablet computer

Emma chose to study abroad rather than to work, as was her initial plan, as she aimed to learn professional knowledge of engineering management. A master's course on this subject was not available in China according to her search. Moreover, she liked travelling and experiencing different cultures. Before coming to the UK, Emma expected her life would be lonely, "living in a room alone, cooking by myself, studying hard, and having big pressure of the course" (EI-W1SUN). After arrival, she found "there [are] too many Chinese students," but "life is not as miserable as I thought" (EI-W1SUN). During the data collection period, Emma reported some efforts made and difficulties experienced in trying to become involved in the local communities and other groups.

At the first interview, when Emma had been in the UK for about seven weeks, she said:

Because of the limited chance to have a contact with local people, I did not experience much about their culture. Until now, I feel like a traveller. (EI-W1SUN)

This reflected that Emma did not think she had become involved in any local community. In fact, according to her reports, she had already participated in a couple of events held by local people before. For example, she attended an activity of a student community once, which was regularly held twice a week during term time. However, she did not step into the community again, because:

All the people there were English native speakers... They had accents, and spoke informally.

I couldn't understand them and felt frustrated to involve in... They all knew each other... Nobody came to talk to me. (EI-W3SUN<sup>a</sup>)

a: This is a retrospective comment made in Week 3 about her first time attending the activity.

This demonstrates that Emma felt unwelcome in this community. Emma identified herself as “a talkative person” (EI-W3SUN). However, she did not feel like herself when she was in the community. She was “too shy to talk” (EI-W3SUN). Sometimes the native speakers intended to engage Emma on a topic, but she might encounter linguistic difficulties, such as pronunciation and vocabulary problems. The difficulties prevented Emma from being able to explain herself clearly and for the listener to understand her intentions. Emma believed that:

Actually, I can express the meaning thoroughly. I was just unconfident. Then, it was harder to speak English. (EI-W3SUN)

Emma likely fell into a circle where the lack of confidence weakened her spoken English, and the difficulties in speaking English decreased her confidence. Therefore, she did not attend this activity again.

Emma felt that her loneliness came from the bottom of her heart in Week 2. After chatting with her friends who were Chinese international students, she found that her friends also felt this way. Emma summarised the reasons for loneliness that her friends agreed upon, and took herself as an example:

I used to go to a university in another province in China. I sometimes felt lonely, but at least, I belonged to a group, such as a class, or a dorm. I shared a dorm with three other girls who were in the same course. That means we did all the things together. We had the awareness of collectivism. However, in the UK, I live in my own small room. People in my flat are from different courses, so we rarely meet... I feel that I am isolated... What's worse, I'm in an unfamiliar environment, and using another language, so it's hard for me to join some activities. (EI-W2MON2)

Emma's words suggested the differences of living style were the principal reason that caused her loneliness. The differences implied two kinds of personal relationship in collective and individual cultures. Emma, as a person, came from a collective living style where she used to do everything with the same group. She had to adapt to an individual life style where she was no longer fully engaged in a group 24/7, but joined different communities for different activities. Furthermore, the groups that Emma was involved in while living in China were set up by others. For example, somebody from the university

decided which class or dormitory Emma belonged to. Then, people in the same class or dormitory were a group that might do most activities together. However, in the UK, Emma was living and studying by herself. The class and the flat did not work as group. Emma was responsible for herself to find a group to join and to make friends. In addition, it was a challenge for Emma to live in a new environment with language and cultural barriers, especially in the first few weeks. Loneliness seemed an unavoidable feeling for international students like Emma.

However, in Week 3, Emma suddenly realised that she “had fewer chances to communicate with English speakers,” and her “English was poorer” than before (EI-W3SUN). Thus, she returned to some regular activities held by local people, and she found that she “could understand English native speakers more than before” (ED-W3FRI3). Emma was not sure about the reason for such improvement, “maybe because of the time.” She suggested that the longer the time in an English-speaking environment, the better one’s English ability would become.

According to her communication experiences with English native speakers, Emma used some tricks to help with her English listening and speaking skills. When she had difficulties in listening, she would pretend that she understood the point of the speaker. She would reply to the speaker with interjections such as “wow,” or with “comments about the topic” (EI-W3SUN). On the other hand, Emma’s English speaking fluency depended on the listeners’ reactions:

If the listener shows facial expressions that imply he feels [it] difficult to understand me, I will have pressure and [find it] harder to speak English... Secondly, when I spoke to British born Asians, I can have better communication, more relaxed feelings, and [find it] easier to chat with them (EI-W3SUN).

Emma admitted that this was her psychological problem. She may need time and practice to overcome the difficulty. When she was asked whether she considered other possible factors than linguistic and psychological problems in the third interview, her answer was that she had never thought about it. However, she had already reflected the basic cultural barrier developed from an individualistic environment.

In summary, a lack of confidence, language, and cultural difficulties decreased Emma’s enthusiasm to become involved in the local communities. The lower engagement in social activities made Emma feel lonely. Emma was trying to re-enter the communities

so that she could gain knowledge of the local language and culture, and even may be able to solve her loneliness problem, as she believed.

## 5.2 Ben: Language was the only aim of study abroad

### Ben's background information

Name: Ben

Gender: M

Age: 22

Years of studying English: 10

Overall IELTS score: 6.5

Month of arrival: July

Master's program: MA in Education

Bachelor's program: Media and Journalism

Mobile devices: Mobile phone and tablet computer

Ben claimed that his aim of studying abroad was “only to develop his English proficiency” (BI-W1SAT). As he was already in the UK for nearly three months prior to data collection, Ben realised that his English reading and listening abilities had some improvement. He could read English novels for leisure now, but he “could not bare to read a piece of an English article one year before” (BI-W1SAT). He believed that he “got used to the (English) language environment” (BI-W1SAT) in the time he spent in the country prior to his course.

Ben was disappointed with the study abroad environment, as he was “still surrounded by Chinese students” (BI-W1SAT) as he was registered to a department with many Chinese students.

The Department Party was full of Chinese girls... When I walked in, I was the only man there. So embarrassing. It's not comfortable... I felt I was unwanted. (BI-W4WED)

For keeping himself away from the Chinese-speaking environment, he “tried to [become] involved in [the] Chinese student community as little as possible” (BI-W1SAT). He would rather read an English book in the library than attend Chinese students' activities. Moreover, he was not interested in the in-class group discussions with Chinese students.

He stated that discussing with Chinese students would not have any improvement in language proficiency or new perspectives, so “it is not that meaningful” (BI-W3WEN1).

On the other hand, Ben joined some groups or events where most members were British or international students (other than Chinese), such as the Tennis Club, Creative Writing, and Graduate Students’ Association. In the activities, he took his chance to communicate with English-native speakers, though he encountered linguistic difficulties.

He said some words I don’t understand. I asked what is the meaning. He explained, but I still didn’t get it. Then, I took out my iPad, and asked him to type the word in [the name of a dictionary app]. It was a word about an item used daily. I’ve never learned before (BI-W2THU1)

It was common that international students would have linguistic difficulties in an intercultural conversation in English. However, Ben used a mobile device to solve a vocabulary difficulty in a face-to-face oral communication in a special case. At the same time, Ben also suffered from sociolinguistic difficulties.

(In Tennis Club) I tried my best to chat with them, but they spoke too fast with strong accents. When they talked to each other, I could not get a chance to speak...I could not understand them clearly. (BI-W1THU1)

Ben provided his reason for his difficulty in understanding accents:

We used to listen to the so-called Standard English, but many people here (in the UK) have accents. (BI-W1THU1)

This quotation revealed that sociolinguistic competence was not taught in his L2 classes prior to study abroad. Thus, it took some time for Ben to adapt to English native speakers’ accents. He also reported that he learned the terminology of tennis in English while playing with the native speakers.

I asked them about the terms in English, and they would tell me. During the game, they would also shout out the terms, such as all and deuce. (BI-W4WED)

This report showed an example of learning an L2 language in a sociocultural context with more capable individuals. The meanings of the words were acquired through the related actions and situations.

In the library, Ben worked hard on English writing, especially on IELTS writing. He

aimed to write like an English native speaker.

My writing ability reached a bottleneck. Whatever I wrote was like a Chinese style (with a fixed structure). I want to change the style. I read some writing samples by native speakers. I don't know how to write more lively... Writing (improvement) requires someone to be able to revise for you, including patterns of thinking, the use of words and sentences. You need a native speaker to give you guidance. (BI-W1MON)

These excerpts showed that Ben realised the pragmatic difficulty in his writing, and he noticed that he needed a native speaker to guide him for the improvement of his writing. However, such a person was not available for Ben during the four-weeks of data collection. Therefore, Ben chose to learn from native speakers' writings that he found online and in some books.

Ben reported that he read some English novels. When he read a novel called *The Sound and the Fury*, he was confused about the theme of the book because of the strange writing style with many spelling and grammar mistakes (also see Section 4.2.2). He did not try to solve this difficulty as it was out of his capability; giving up this book and finding another was a much easier way to escape this difficulty.

According to Ben's reports, he made special efforts to engage with English native speakers, and learned English in various sociocultural contexts. Ben preferred to get support and information from more capable people and reliable references.

As Ben paid much attention to communicative competence, he was less sensitive, comparatively, to the cultural issues. For example, he was not satisfied with the student-centred teaching approach and the group discussion. He inferred that they were waste of time, as he commented:

The lecturer teaches slowly. The session taught nothing, beginning with group discussion, playing a video clip, and he gave a short summary. And [it was] over. Every time it makes me speechless (or disappointed) (BI-W3WED1).

As culture learning was not mentioned as his aim for study abroad, Ben regarded different teaching approaches as unacceptable. Also, he did not show any attempt to adapt to the academic culture. In the difficulties in intercultural competence, he reported nine issues (see Table 11) that were mainly related to finding missing delivery and asking for directions. They were practical difficulties in daily life rather than understanding the culture of the host country. Therefore, Ben was a language-oriented international student who was not equally

sensitive to cultural phenomena.

### 5.3 Lily: Living in an international culture and enjoying adventures

#### Lily's background information

Name: Lily

Gender: F

Age: 22

Years of studying English: 10

Overall IELTS score: 6.5

Month of arrival: July

Master's program: MA in TESOL

Bachelor's program: Education

Mobile devices: A tablet and a smartphone

Lily came to study in the UK for an opportunity to experience a different culture and improve her English proficiency in an English-speaking environment (LI-W1SUN\*). The words she used to express her imagination of studying in the UK before departure was “gao da shang” (a Chinese popular online slang, literally meaning high quality, great and luxury, usually used to describe something excellent). Lily further explained the expression as “living in an English-speaking environment and improve her [my] English, making friends with people from home and abroad, having adventures and delicious food” (LI-W1SUN\*). This reflected that Lily aimed for an international culture full of new experiences.

After arrival, the nationality of the people in Lily's living and studying environments was not diverse.

I: Who are you living with?

Lily: One is from Spain... And two are British.

I: Who are you studying with?

Lily: In my class, only one is from Britain, one from Spain and the rest are from China. (LI-W1SUN\*)

However, Lily participated in different social activities, and made friends with “some British,

one from Spain, one from Vienna, one from Thailand, one from Iraq, and also Chinese” (LI-W1SUN\*). She learned salsa dancing in the Latin American student society, went swimming with a Spanish friend, and joined people from different countries for clubbing and parties. Even though she was in the UK, Lily experienced an international culture rather than a purely British culture that was originally generated in the UK. The international culture in Lily’s reflections was generally built up with the UK culture, Chinese culture and a variety of other cultures that were brought by their people to the university community and the society. In the international culture, people with different L1 communicated in English. They spoke English as an international language to share their own cultures with each other. Through communication in the multicultural environment, Lily gained the knowledge of others’ cultures from her ‘adventures,’ acquired diverse sides of the international culture, and thought critically about Chinese culture.

Lily claimed that she learned about the revolutions of Latin American culture when she chatted with people from the Dominican Republic in a Latin American themed pub. Before the communication, Lily “actually didn’t [don’t] know much about Latin American culture, history or things” (LI-W4FRI\*). Her friends told her the origin of the pub’s name and the stories behind the decorations, such as the revolution history of Latin America and the relevant famous people.

When they said they are from [the] Dominican Republic, I did not even know where was the country. I feel embarrassed (that I knew little about the world). Then I Googled it, and I knew it’s near Cuba. And they pointed at the pictures on the wall... Really famous, but I did not really know any of them. (LD-W4FRI\*; LI-W4FRI\*)

Although Lily encountered knowledge difficulties during the communication, she obtained some knowledge about Latin American culture after communication with people from this culture.

Interpreting the international environment from another aspect was reflected in Lily’s report that her bike light was stolen. She commented on the trouble as:

I can’t believe that British people would do this... This problem has happened to my friend as well... We don’t trust people, even if something is very cheap. (LI-W3TUE\*)

It shows that this unpleasant issue ended Lily’s trust in people living in the UK. She likely



blamed the lack of honesty of British people. Later, however, she also stated:

Bad people may exist in a good country. There is still poor people and uneducated people as well, so it is normal. We cannot say everyone should be trusted...We can't say we love Britain and everything in Britain is perfect. There may be some shortcomings and bad sides. (LI-W3TUE\*)

This opinion implies that Lily mediated her perceptions about her experience after thinking about them critically. This indicates the new experiences affected Lily's attitudes and what she used to believe in this case; critical thinking is a crucial process that may prevent biased judgements.

Being critical was not a simple task for Lily. It required not only experience, but also the particular knowledge of one's own culture. Lily identified a pair of controversial opinions on menstrual cycles when planning to go swimming with a Spanish girl. The contradiction confused her. The Spanish friend told her that:

She (the Spanish girl) can do anything when she has her period, (such as) have cold things, exercise and go swimming. Nothing can stop her. (LI-W4TUE\*)

Lily was shocked, as she always been told and believed that:

Girls are the same. I mean, in China, when we have our period, we have a bad stomach. You can't touch cold water. You can't eat cold food... They (women who do the same as the Spanish girl) may get ill when they are old. (LI-W4TUE\*)

The Spanish girl argued that her own opinion "is the tradition, (and) they all do this," while Lily's belief was "not the truth" (LI-W4TUE\*). She elaborated that Chinese girls followed the Chinese opinion when they were young, so they would feel in that way (LI-W4TUE\*). However, she was not convinced about the accusation of bias, as she said, "its maybe a perception. But I don't know" (LI-W4TUE\*). Lily could not make a judgement on which idea was the truth, because of knowledge and experience limitations. After discussion with the Spanish girl, Lily thought, "Chinese girls are more fragile and weak than European girls" (LI-W4TUE\*). From this communication, Lily realised different opinions via discussing with an individual from a different cultural background.

By sharing diverse knowledge and ideas, experiencing daily life, and discussing and critical thinking contradictions, Lily opened her mind to experience the diversity of the world during study abroad. To have an intercultural experience was one of her aims to study

abroad. It was likely that Lily achieved her aim and gained an international view during study abroad.

#### 5.4 Frank: Thinking critically and using a mobile device

##### Frank's background information

Name: Frank

Gender: M

Age: 22

Years of studying English: 15

Overall IELTS score: 6

Month of arrival: July

Master's program: Comparative & International Social Policy

Bachelor's program: Computer Science

Mobile devices: Mobile phone and tablet computer

Frank chose to study for a master's degree in one year abroad, and planned to apply for a PhD program. He expected to improve his academic attitude. By studying three months in the UK, he noticed that:

[Through] reading essays, comprehend[ing] or imitate[ing] other's academic thoughts, you'll have your own opinion. I think it is the academic attitude and approach that I will learn (during study abroad). (FI-W1SAT)

However, Frank doubted whether his PhD aim would be achieved, as his supervisor told him to prepare a research proposal and a sample essay for his application in January. As his bachelor degree was in Computer Science, he "knew little about it (Social Policy)" (FI-W1MON).

I didn't know what to plan. Now it's half of the (first) term... I don't know which area I could possibly study. (FI-W1MON)

For overcoming this difficulty in knowledge about the academic small culture, he consulted some PhD students, but from science department. They told Frank that applying for a PhD was easy "when your supervisor asks whether you would like to apply a PhD program, and

you say yes" (FI-W1MON).

I asked myself whether all the science students apply this way (FI-W1MON).

Frank had a second thought about the science PhD student's words. Then, he talked to his classmate who also aimed for applying a PhD, and he found that:

He had planned everything before he came to York. Every day he did nothing but reading and taking notes. No games, no social life, no travelling... (In comparison to him), my status and efforts to study are not enough for a PhD. (FI-W1MON)

By communicating, Frank realised that he felt his classmate was a more capable peer, and noticed his own shortage in planning and hard working in his academic area.

Frank's reports in this study reflected that when he had a difficulty, he intended to think critically from a few perspectives to analyse the problem, and then, solve it or make a judgement. For example, he talked about his supervisor, who was Chinese, who criticised him during a supervision meeting because he did not prepare well for the discussion. And then, he compared his Chinese supervisor to his language tutor in the pre-sessional course. He commented that:

Foreign teachers, er, even though you wrote something awkward, they would say "interesting." They've never been strict, and [always] complimented your work. At last, they would say your writing has some small problem. If you do something, it would be better... I prefer the straightforward way (the Chinese supervisor's way). (FI-W4WED1)

After comparing the different ways of pointing out students' problems, Frank understood the academic cultural differences between China and the UK, and evaluated the differences to draw a conclusion that he preferred the Chinese supervisor's style.

Frank used mobile devices in 16 of his reported difficulties. He was one of the participants who reported the most frequent use of mobile devices. He has reported all four functions of mobile devices as cognitive tools that were discussed in this study. The mobile device was used as a search tool for looking up words and information he was interested in.

(I was) reading papers for preparing the presentation on Friday, but too many new words and terminologies I couldn't understand.

I used Kingsoft dictionary, Eudic and Wikipedia

The three apps are good at Chinese-English dictionary, English-English dictionary, and the explanation of terms separately. (FD-W1WED2)

As Frank stated, he used online dictionary apps and online databases to find the meaning of words and terminologies. He also identified the advantages of each app in facilitating his reading academic papers.

The mobile device was used to as a social tool to contact friends and publish advertisements online. Frank made phone calls and texted message on a chatting app to plan a collaborative task (FD-W3WED4). He also posted an advertisement about available accommodation on a social network (FI-W2SAT). Moreover, he downloaded an app to facilitate him in correcting his English pronunciation (FD-W1WED1). The mobile device in this situation acted as a service provider. For keeping an audio-record of a supervision meeting, Frank used a mobile device as a capture tool (FD-W4WED1). He also applied the device as a presenting tool to display PDF documents (FD-W4THU). Frank used the mobile device in various social situations. When he had the device in hand, his physical location was not a boundary for him. Thus, he could get significant information and different types of support.

Furthermore, as confirmation emails were widely applied in booking services, email apps could be used as storage of notes and evidence. Frank encountered a difficulty in communicating with an English speaker about an issue with booking a study room.

When I went to the study room I booked ahead, I found a foreigner sit there. I knocked on the door and told him I've booked this room. He looked confused and said "really?" Then, I was confused. (FI-W2THU)

Frank did not catch the implied meaning behind the word. Whether "really" means "true or false" or "I get it" (FI-W2THU). In this unclear situation, Frank checked his email and showed the booking confirmation letter on the screen of his mobile phone. Thus, this pragmatic difficulty was solved by an evidence display on the phone, which made the situation easy for Frank to understand.

Additionally, Frank mentioned a failure of using mobile device to looking up the names of beers. As he could not determine the taste of beers and wines from the names, he took out his mobile phone to look up in the dictionary app.

The brands of beers and wines are not available. At that moment, I did not have Internet access, and the vocabulary database on my app is not big enough.

As Frank reported, this failure may be due to the lack of Internet access. This implies that the connectivity of mobile devices was as significant as the mobility of the devices and the learner.

## **Chapter 6: Discussion**

This chapter will discuss the findings of the present study in relation to the previous research on international students' experiences, especially their difficulties, during their study abroad. More specifically, it will focus on the students' difficulties and solutions, with a particular focus on the solutions facilitated by mobile devices.

The international students in the present study came to the UK to study for one-year taught master's degrees in six different courses (see Table 3). In addition to aiming for this academic achievement, they also sought to develop their English language competence and broaden their intercultural experience. The British culture was the major social context where they lived and studied. At the same time, however, the students were also exposed to other cultures, including small cultures within the local society, for example, academic culture and religious culture, and diverse national cultures brought by other international students. English was, therefore, a major and mediational tool for them to learn new knowledge and communicate with others within the English-speaking environment.

Focusing on eight international students, this study, therefore, aimed to better understand the experiences of students living and studying in a study abroad context and to contribute to the knowledge of how international students could be better prepared and assisted in studying and living abroad. Adopting a sociocultural theory (SCT) approach and using student diaries and follow-up interviews as data collection tools, the researcher collected information on students' reported difficulties and the ways they coped with those difficulties, including their use of mobile devices and other mediational tools. Byram's model of ICC was adopted to study international students' experiences. Some changes were made to the model, according to recent research and the themes reflected by this study. As the data analysis revealed, the eight students reported a range of difficulties related to their language and cultural proficiency, namely communicative and intercultural competence, while living and studying abroad (see Table 11). They also recorded the mediational tools they used to solve their problems. The difficulties and the tools will be critically discussed in the following sections.

### **6.1 Difficulties in communicative competence and solutions**

International students' difficulties in communicative competence refer to their lack of knowledge or ability to use the target language appropriately and include issues related to

linguistic competence, sociolinguistic competence and pragmatic competence. In the present study, a lack of linguistic competence was reported as the most frequently encountered challenge (45 records). A lack of sociolinguistic competence (6 records) and pragmatic competence (13 records) were the two least reported issues by the students (see Table 11). This finding indicates that the students faced many linguistic challenges; however, it also suggests that the students reported experiencing these issues the most because they were more aware of the linguistic knowledge, that is, linguistic rules that they studied and learnt in their previous English language education. Their knowledge of pragmatics and sociolinguistics was likely less developed, and therefore not articulated in their diaries and interviews.

### **6.1.1 Difficulties in linguistic competence**

When looking at the students' reported linguistic difficulties more specifically, 50% of these difficulties were lexical difficulties, where the students struggled with particular meanings of words; 35% were phonological difficulties, in which the students were concerned about accurate pronunciation of words; and the remainder (15%) were grammatical difficulties, which attracted the students' attention in academic writing (see Section 4.2.1).

In terms of lexical difficulties, the students were usually concerned with their vocabulary when a new word or an unexpected use of an 'old' word distracted them from their tasks of learning. In other words, the students reported vocabulary issues in relation to both their academic life and daily life communicative encounters. Similar findings of insufficient linguistic competence have been reported in previous studies (Liu, 2013; Lin & Scherz, 2014; Allen & Herron, 2003). International students were also shown to experience vocabulary problems in different encounters, especially listening to a fast speaking interlocutor or trying to understand an unfamiliar topic of conversation (Lin & Scherz, 2014). Similarly, when communicating with others, students find it difficult to instantly reply (Liu 2013). The lexical difficulties decreased international students' efficiency in the accomplishment of academic or daily tasks. Thus, international students seem to struggle with both receptive and productive vocabulary and vocabulary related to a particular topic.

With regard to phonological difficulties, the difficulties that the students experienced were also related to both listening and speaking situations, such as daily conversations and classroom presentations. The students reported having difficulty to understand the

pronunciation of words, and therefore to interpret their meanings. Also, they had problems in pronouncing certain words. The phonological difficulties prevented international students from understanding the speakers and expressing their thoughts effectively. When the students were asked about the reasons for their difficulties in listening and speaking, they related their problems to their low English proficiency levels, interlocutors' speed of speech, and the difficulty to produce the sound of some words. Therefore, international students' listening and speaking problems may not only be attributed to the students' lack of vocabulary and ability to understand the speakers' accents (i.e., sociolinguistic difficulties) as previous research found (e.g., Liu, 2013; Lin & Scherz, 2014), but also limited phonological competence (i.e., producing and identifying the meaning with a string of sounds in the target language) which is seldom considered in research on study abroad.

Finally, in terms of grammatical competence, this seemed to have caused few problems for the students. If they reported a grammatical issue, it was often in relation to their academic reading and writing. The students worried that grammar mistakes or the misunderstanding of certain sentences in a text would affect their assessment scores. Students were little worried about their grammar in their daily and social activities, and this could be due to the fact that, as Frank and Chloe explained, adult English-speakers who engaged in casual communication were tolerant towards their grammatical mistakes. Another reason for not worrying about their grammar could be related to the fact that prescriptive grammar rules are not always reflected in the utterances of native speakers (Regan, 1995) and that the students could have inferred this as the least important aspect of communication. It is also worth pointing out here that previous studies (e.g., Engle & Engle, 2004; Lord, 2009; Yang, 2016) have recorded little grammatical development in students who studied abroad, and the reasons for the lack of such development could also be related to students' perceptions about the importance of grammar in everyday communication.

### **6.1.2 Difficulties in pragmatic competence**

The difficulties in pragmatic competence were one of the least reported issues in the present study. The reported pragmatic difficulties revealed that international students were mainly concerned with the strange logic of English (e.g., EI-W1THU, FI-W1THU, JI-W4FRI) and confusion about implied meaning behind words in intercultural communication. In total,



13 out of 15 pragmatic issues were encountered in an academic context when the students were reading and writing academic articles. The students were confused about the use of pragmatic rules (e.g., discourse, coherence and cohesion) and were unfamiliar with the ways of thinking and expression in the target language (Abasi & Graves, 2008). This finding is also in line with the previous studies, which showed international students' confusion with academic writing and reading (Abasi & Graves, 2008; Amuzie & Winke, 2009; Kim, 2011; Liu, 2013; Tian & Lowe, 2013). This study, however, did not provide much evidence to support the results of previous studies reporting students' pragmatic difficulties in non-academic contexts (e.g., Bacon, 2002), such as daily interaction with their peers and others. One of the possible reasons for the low number (only two records) of records of pragmatic difficulties in a social context could be that international students rarely have pragmatic difficulties. Another possible reason could be that the international students firstly did not understand the literary meanings of utterances in an intercultural interaction, so they could not receive the pragmatic meanings. Before solving the linguistic problems, the international students may not realise the pragmatic meanings were hidden behind words.

### **6.1.3 Difficulties in sociolinguistic competence**

The difficulty in sociolinguistic competence was the least reported issue by the students. One possible reason was that the international students could not identify an accent problem from a phonological difficulty, or a dialect issue from a lexical difficulty. The students usually blamed their low English proficiency and the shortage of vocabulary. As the present study relied on students' self-reports, it remains unclear why these difficulties were the least mentioned by the students. However, it is interesting to notice here that the students had difficulties to understand not only native speakers' accents, but also the accents of other non-native speakers who came from other parts of the world. The students complained about the accents of Spanish, Korean, Indian, and Black English speakers.

### **6.1.4 Solutions to difficulties in communicative competence**

The major mediational tool helping to solve most of the students' difficulties in the study abroad context seemed to be the English language, while previously it was their native

Mandarin language. As Kim (2011) noted, it is like changing the language setting of the international students' life. The international students faced challenges to use English for interaction with people and surroundings, and coding and decoding the messages in English into information they could understand, manage in their minds, and react accordingly.

The international students have used mobile devices in 83% of pragmatic difficulties and 34% of linguistic difficulties, but none in sociolinguistic difficulties (see Table 25). When the international students engaged in pragmatic difficulties, they tried to find references for the new words and related information. They often attempted to use dictionary apps on their mobile devices to look up words for solving linguistic difficulties in various living and studying contexts. As none of the sociolinguistic difficulties were attempted to be solved, the use of mobile devices was not relevant.

Communication and finding references were the mediational tools that the students in this study often used to solve their linguistic and pragmatic problems (see **Error! Reference source not found.**). Moreover, the students often employed mobile devices to further mediate problem-solving or cognitive processes through providing references and contacting experienced people (see Section 4.3.5). The dictionary apps and search engines on mobile devices were the principal mediational tools which were used by the students to find references. Furthermore, and perhaps unsurprisingly, message and phone apps were often used to contact peers and experienced people to help the students with their encountered communicative problems.

Surprisingly, however, 'do nothing' was a way to deal with a large number of linguistic and sociolinguistic difficulties, suggesting that the students were helpless in dealing with those difficulties in some circumstances. Specifically, none of the sociolinguistic difficulties were solved or attempted to be solved. According to the reports, the reasons for the students' avoidance of dealing with an issue could be explained by their lack of knowledge or ability to overcome a particular issue. The students could also have perceived the experience issue as requiring a lot of effort to be solved, and therefore did not believe that the issue was worthy of their investment. For example, Ben gave up reading a novel that contained many spelling and grammar mistakes and was difficult to read, as he had a long reading list of "fifty worth-reading books" for leisure (BI-W3FRI). Therefore, international students sometimes prefer to leave the difficulties untouched until they have no choice but

to solve them. The 'do nothing' solution has not been discussed in research on study abroad, according to the literature found in this study.

## **6.2 Difficulties in intercultural competence and the solutions**

International students' difficulties in intercultural competence refer to their lack of knowledge and necessary skills to mediate the differences between the target culture and one's own. Intercultural communication difficulties arise from differences in cultural knowledge, attitudes, and patterns of behaviour (Spencer-Rodgers & McGovern, 2002). Effective intercultural communication requires knowledge, attitudes, and skills of interpreting, discovery and interaction in the target and one's own cultures.

### **6.2.1 Difficulties in knowledge competence and the solutions**

International students may encounter difficulties in knowledge competence, as they are new comers to the target culture. Difficulties in knowledge competence include a lack of knowledge about the target culture and cultural misunderstandings. The reported difficulties in knowledge competence generally matched with Lussier's (2011) structure of cognitive knowledge, which contains the humanistic approach, the sociocultural approach, and anthropological approach. The reports of the present study also found that the target cultures consist of the local culture, small cultures of communities and cultures of other people and products that the international students interact with.

In the present study, the local culture was the British culture, and the students' culture was Chinese. Researchers often suggest that British and Chinese cultures are different in cultural dimensions that are used to identify cultures (Hofstede, 2010; Schwartz, 1999). In other words, the small c's of the two countries were at the two polar ends of the cultural dimensions. As the cultural gap between the two nations is large, the cultural difficulties, specifically difficulties in the large cultural knowledge, are not surprising. Students in the present study showed their concerns in their misunderstanding of the norms and behaviours in the local large culture. The gaps in knowledge of large culture between nations are often reported in previous studies (Lin & Scherz, 2014; Mendelson, 2004; Nagy, 2008).

Knowledge of big C's, or knowledge of international culture, such as the geography and history of the world, may also cause some difficulties for international students.

International students do not only become involved with the local communities with native speakers of the target culture, but also with people from other parts of the world and speaking English as a second/foreign language. They live in a diverse cultural society. Students from different countries may introduce themselves and their countries as an ice-breaking topic of an intercultural conversation. If students in a conversation have little knowledge of the world, it may weaken the efficiency of intercultural communication. As reflected in some studies, international students preferred to make friends with people from co-nations and other international students (e.g., UKCOSE, 2004). It implies that the big C of other nations is more important than it appears. In addition, the efficiency may also depend on the interlocutors' ability to acquire new knowledge from a conversation, and this will be discussed in skills of discovery (see Section 6.2.3.1). However, the previous studies usually focused on the knowledge of the target culture and involvement in the local communities, but overlook the significance of international knowledge and communities.

The students reported many difficulties in small cultures, especially in academic culture. A small culture is the norms of a community or a group. It is not a sub-culture of a large culture, so it often possesses some different norms from the local culture. International students of the present study were concerned about the criteria of an assignment, referencing style, the procedure of applying for a PhD, the ways of requesting a book and returning it to the university library, and the use of university equipment and the relevant fees. These rules and regulations were from the academic culture, which might not be available in the large target culture. The students will learn knowledge about the university and academia within the academic culture. Previous studies have discussed international students' lack of academic knowledge, such learning culture, academic assessment, feedback, and plagiarism (Abasi & Graves, 2008; Lewthwaite, 1996; Lin & Scherz, 2012; Spencer-Oatey & Xiong, 2006; Tian & Lowe, 2013). The awareness of academic knowledge is often the first step to learn the academic culture. Learning the academic skills is another step. Difficulties in the academic culture are not only about knowledge, but also other intercultural competences.

Due to the lack of cultural knowledge, international students sometimes are not able to understand that their difficulties were caused by cultural differences. They even intended to avoid confronting with unknown cultural phenomena, until they had no choice but to solve the difficulties generated by the phenomena. When international students attempt to solve

the difficulties, they mainly learn cultural knowledge through face-to-face communication. Mobile devices were involved in 33% of the solutions to knowledge difficulties. They provided external information about the situation where the difficulties occurred.

### **6.2.2 Difficulties in attitude competence and the solutions**

Attitude competence considers international students' curiosity and openness to another culture, and their readiness to suspend disbelief and interpret another culture. The students' difficulties in attitude competence were mainly reflected as anxiety and diffidence about the unknown culture in a particular context. The negative attitudes from difficulties in attitude competence, especially anxiety and diffidence, minimised international students' curiosity and openness to the new culture, required conditions for obtaining attitude competence. Previous studies have supported this finding: international students who are in the stage of socially decentring are more likely to recognize cultural differences and suffer from intensive culture shock, such as anxiety and other negative emotions (Redmond, 2000); some international students were not confident in their language use (Allen & Herron, 2003), and the level of confidence affected international students' interaction with native speakers (Magnan & Back, 2007). Insufficient knowledge of the culture, including misleading information, sometimes prevents international students from further exploring the new culture or having a proper interpretation of the situation.

Having more authentic cultural knowledge is a way to solve attitude difficulties, 35% of which were solved with mobile devices and computers (see Table 25). International students in the present study tried various mediational tools to solve attitude difficulties (see Table 20). The tools were used to gain cultural knowledge and contact somebody to ease the tension on emotion, so that the attitude difficulties were solved or at least decreased. It is to say that search tools and social tools were often used by the students. Critical cultural awareness was relatively often used to solve attitude difficulties compared with when it was used in other kinds of difficulties, maybe because international students sometimes compared and contrasted the new knowledge of another culture to their own culture and thinking critically about whether the new knowledge was important in a particular situation. Critical thinking may shift an international student's evaluation and judgement, so it has an influence on students' attitudes toward the target culture and even solving attitude difficulties.

### **6.2.3 Difficulties in skills of discovery and the solutions**

Skills of discovery are the ability to discover and learn new knowledge and skills in another cultural context. They are competence to acquire new cognitive skills to adapt to continuous self-development in the new context. Difficulties in skills of discovery were the international students' principal concerns in the present study, mainly reflected in academic small culture. The students learned some knowledge about the British academic culture during their study, but they were still frustrated about how to behave to succeed in academic activities, such as learning through group discussion, using references, writing a high-score assignment, and in-class interaction with the teacher. Although the reported difficulties were in similar topics with difficulties in academic knowledge, they were the problems in how to practice the academic knowledge in their study to learn new knowledge. For example, Emma recorded a series of difficulties with group discussions: members refused to attend the discussion (ED-W1MON1), nobody wanted to speak their ideas (ED-W1FRI1), and difficulty in organising an efficient group discussion (ED-W2THU1). Emma's problems were the management and learning skills via group discussion rather than what is a group discussion. Therefore, these are difficulties in study skills, but not in academic knowledge. However, previous studies usually mixed study skills with academic knowledge in the discussions (e.g., Abasi & Graves, 2008; Lewthwaite, 1996; Lin & Scherz, 2012; Spencer-Oatey & Xiong, 2006; Tian & Lowe, 2013). They were unlikely to identify international students' essential difficulties clearly, so their suggestions for overcoming academic difficulties did not distinguish between whether a student needed to learn more academic knowledge or skills in real-life practice. It is similar to an example where an individual may learn teaching methods, but may not be a good teacher. Some researchers (e.g., Allen & Herron, 2003) suggested that international students' significant challenges were not academic difficulties (e.g., tests and grading) but linguistic and cultural difficulties, according to their study with students who enrolled in summer or short-term programs for learning the target language and culture but not for getting a degree. The academic challenges of the previous studies were unlikely as significant as those in the present study where participants were master's students in various disciplines and aimed for academic achievement.

According to students' reports, the present study found that the international students were comparatively enthusiastic to solve their difficulties in skills of discovery by self-effort,

communication and finding references, especially in study skills. The percentage of participants who chose to 'do nothing' was fewer than in other kinds of difficulties in ICC. In total, 42% of the difficulties employed mobile devices to communicate for collaborative learning, contact more experienced individuals, and provide other support, so that the students could overcome their difficulties (see Table 25). The international students made some effort to solve difficulties in study skills generally because the skills affect their academic knowledge, performance, and their scores and degrees. It might also be because the international students were studying in an academic community where relevant support was available. Therefore, the difficulties in skills of discovery were the most reported but were often solved.

#### **6.2.4 Difficulties in skills of interaction and the solutions**

Skills of interaction are the ability to apply intercultural competence in cross-cultural interactions. When the international students of this study reported difficulties in skills of interaction, they were usually confused about how to do something in a particular context. Students in the present study reported their difficulties in living, social and vocational skills. Living skills included intercultural competence, which the students worried about most frequently (20 records). The reported difficulties in living skills were detailed issues about daily activities, such as missing a delivery, sending a parcel, making an appointment, and planning a trip. Living skills are usually directly related to international students' efficiency and quality of life. It might be the reason that the students considered living difficulties most significant. Previous studies also revealed that international students had difficulties in handling daily life in a new environment (e.g., Allen & Herron, 2003). A lack of social skills has usually been regarded as an important challenge for international student in previous studies (e.g., Byram, 1997; UKCOSA, 2004; Spencer-Oatey & Xiong, 2006). However, the students in the present study did not show much attention to it by only reporting seven issues. The reported social difficulties were about social communication and negotiation, which were mainly related to the students' benefits and well-being. Although they have also complained that they did not have many chances to interact with British students, this issue had limited influence on the international students' intercultural difficulties. The social challenges were reported as less important to the students than previous studies, maybe because the students were used to having social difficulties, so that they thought they were

not worthy of noting, or the students did not care about difficulties that did not affect their academic and daily life. The present study also found the international students had difficulties with vocational skills. The students intended to find a part-time job to have more opportunity to engage in the local communities. However, the students did not have experience working experience in the UK, or even in any context. They faced various difficulties, such as where to find a job, how to write a CV for employment, and what to say in a job interview.

For international students' difficulties with skills of interaction usually occur in daily activities, such as communication with other people or doing something for a particular social purpose. Appropriate people who may answer international students' questions are often standing in the same virtual or real-life context as the students. For example, international students may ask a local person for directions and they may send an email or make a phone call to the service department when they have a problem with a product. This might be the reason that communication for solving difficulties in skills of interaction was a considerably more frequently reported solution in the present study. In total, 33% of difficulties in skills of interaction used mobile devices (see Table 25) as social tools to connect the international students to more capable individuals.

#### **6.2.5 Difficulties in skills of interpreting and the solutions**

Difficulties in skills of interpreting were key problems that arose from misunderstanding and failure in other intercultural competences. The international students in this study revealed that they had difficulties in figuring out misunderstandings, namely with skills of interpreting. The students sometimes claimed that they encounter various difficulties because they failed to achieve their aims of an intercultural communication and had an unpleasant intercultural experience. However, they were unable to find the problem which led to the failure in their intercultural communication. They even roughly blame their 'bad luck' or the other interlocutors. Even though difficulties in skills of interpreting were not heavily reported, they might affect international students' attitudes toward the target culture, and even reduce the intercultural interaction. The previous studies likely overlooked international students' skills to find misunderstandings, which is usually reported as 'I don't know what's wrong with...' Students' confusion about the context or others' behaviours may be the signals that misunderstandings occur.



A large proportion of the interpreting difficulties were unsolved, and the number using technology was the second lowest (10%) among all the difficulties (see Table 25), this may be raised by students' confusion of the difficulties. As long as they were unable to identify their difficulties, they were unlikely to come up with any possible solutions to their problems.

### **6.3 Summary of research questions**

The present study categorised international students' difficulties during study abroad according to the required ICC, namely communicative competence (linguistic, sociolinguistic and pragmatic competence) and intercultural competence (knowledge competence, attitude competence, skills of interpreting, skills of discovery and skills of interaction). The international students in the present study reported 167 difficulties in ICC (see Table 10). Among the reported issues, difficulties in linguistic competence, skill of discovery and skills of interaction were recorded a number of times. This implies that international students were concerned more with the three types of difficulties than other problems. The three types of difficulties also revealed three major challenges for international students, namely linguistic difficulties, academic culture difficulties and difficulties in the practice of cultural knowledge.

The international students in the present study attempted to solve their difficulties through communication, self-effort, finding references and critical thinking. They sometimes also did nothing for some types of difficulties when they did not know what were the problems or how to solve them. The most reported solutions were communication and self-efforts. It reflected that international students preferred to ask an experienced person for suggestions or rely on their own intelligence in the situation when and where the issues occurred.

Mobile devices were employed in various social and cultural contexts. The international students used the devices whenever they thought the devices could provide answers or lead them to the solutions. Mobile devices acted as tools to contact other experienced people or peers. Moreover, finding references was also an important solution for international students. Most the solutions via finding references were completed by mobile devices. Mobile devices were often applied as search tools, social tools and service providers to find references online, among experienced people, and from some services.

When looking at technology as one category, including mobile devices and computers, it supported international students to solve 43% (71 records) of their difficulties (see Table 19). As mobile technology is developing, the percentage of issues solved through mobile devices may increase in the near future. Mobile devices were not only mediational tools but also the extension of a person's intelligence during study abroad.

## **Chapter 7: Conclusion**

### **7.1 Summary of study**

This study was designed to address significant gaps in the research on international students' everyday difficulties, their personal choice of solutions, and their use of mobile devices for the problems during study abroad. It filled the gaps with international students' daily experiences that illustrated international students' difficulties and solutions in social contexts, but were seldom explored in the literature. Especially, as we are living in the mobile era, international students' use of mobile devices is a novel topic in both study abroad and mobile learning research areas.

This study explored study-abroad issues from interpretivist worldview. Unlike many previous studies using surveys that supposed what the difficulties might be, this study examined international students' experiences according to the students' daily reports. Moreover, to collect the primary evidence about their experiences, the present study adapted a novel method, namely the diary-interview method, for four weeks during their first academic term. To the best of our knowledge, a longitudinal and everyday data collection method was new in the research on international students' experience. In the diaries, eight Chinese international students were asked to report on challenges they experienced either when performing in their academic and daily activities, or when communicating with others in social contexts; while in the weekly interviews, they were asked to clarify the reported issues and to share any other experiences they felt relevant or important. In contrast to previous research that relied on the use of one-shot questionnaires and interviews (e.g., Lin & Scherz, 2014; Spencer-Oatey & Xiong, 2006), this study was longitudinal basing on everyday-collected data for about one month. Thus, this study obtained an in-depth understanding of international students' experience with the information on the social context of each reported issue. It revealed the actual difficulties faced by international students with limited influence from the students' personal misinterpretation and bias. Furthermore, this study filled the gap that previous studies less explored international students' difficulties in the entire study abroad context. This study provided primary evidence with rich description in any context where the international students reported they encountered difficulties.

The reported difficulties were analysed based on with a three-layer framework, which was more in-depth than the models in previous studies. The framework was modified from

Byram's (1997) model of ICC by the researcher, which could provide a profound understanding of international students' challenges. It could be the first time the Byram's ICC model was adopted to assess intercultural difficulties, which was designed to analyse students' intercultural competence. The developed framework was applied to examine international students' difficulties according to the lacked competence in ICC, which could lead to the challenges in the intercultural contexts. Compared with the previous studies that have reported only a limited range of international students' difficulties with one-layer frameworks such as language, cultural, and academic, the new framework of the present study further developed the framework of intercultural difficulties. In addition, it is important to emphasise here that while the difficulties of this study were analysed deductively, generally based on the existing categories from the literature, most of the reported difficulties fell into this predetermined framework.

One the other hand, the themes of the students' solutions and the types of reported mediational tools were analysed inductively. They formed new frameworks of solutions and mediational tools, which also refer to some models in the literature. This study explored international students' personal choice for solving the difficulties. Unlike previous studies that overlooked or limited students' self-decision in solving problems (e.g., Mendelson, 2004; Elola & Oskoz, 2008), the present study did not intervene tools or strategies that the students applied to overcome their difficulties. Alternatively, it recorded international students' preferences in everyday life. In this way, it contributed actual evidence to the literature on international students' decisions to problem solving during study abroad. Moreover, it revealed international students' daily use of mobile devices in social settings for overcoming their intercultural difficulties.

## **7.2 Essence of findings**

The key findings of the present study include exploring international students' difficulties according to the model of ICC, and the solutions and mediational tools that the students employed to overcome their difficulties. The findings of this study aligned with previous research that found international students have difficulties in language and culture (Gu & Maley, 2008; Kim, 2011; Lewthwaite, 1996; Lin & Scherz, 2014; Liu, 2013).

### **7.2.1 Major difficulties: vocabulary and behaviours in particular contexts**

The international students reported that their major challenges came from vocabulary, study skills and practice of ICC in various social contexts. It elucidated that the students had a strong awareness of the difficulties that determined their adaptation for living and studying and were necessary for them to solve as soon as possible within the contexts. Moreover, the students usually had high motivation to solve these issues as they affected their daily life and academic performance.

International students reported that they encountered a significant number of linguistic difficulties, especially difficulties about vocabulary, in the first few months of study abroad. The finding revealed that international students had difficulties in understanding the meanings of words in particular contexts, and recognising words in oral communication. Comparing with the least reported language-related difficulties in this study, specifically difficulties in sociolinguistic and pragmatic competence, it also showed that international students had a greater awareness of their linguistic insufficiency than the language used in the social contexts. Although the number of records was large, most linguistic problems were unsolved when the international students encountered them. When the students knew the spelling of a new word, they could look it up online. Among the meanings of words in different contexts, the students sometimes could not figure out the appropriate meaning of a word in a particular context. Moreover, the word problems in oral communication were usually left unsolved because the students thought it was not polite to disturb other's speaking with asking the meanings of words several times. Also, showing their limited knowledge of vocabulary was face-threatening for the students. They often suggested and comforted themselves with that the meaning of a particular word was not important for them when the interaction ended, and the pronunciation of the word could not be often recalled after a communication. Therefore, international students require more efficient mediational tools than online dictionary and encyclopaedias to capture linguistic difficulties in social communication and solve them with the consideration about the contexts of words.

International students also faced serious challenges in behaving in academic context, which required obtaining study skills of the target country. The reported study skills problems were generally about group discussions, preparing for presentations and assignments, and concentration on learning with a foreign language. The students or their

group members were not familiar with the teaching and learning approaches, processes and objectives in the UK education context. Thus, they were struggled to adapt to the new study skills, as well as learnt new knowledge with those skills. It implies that international students usually spend more time and efforts in learning and doing homework than language-native speakers to overcome the difficulties in the academic culture, the new knowledge of a subject, and the language (Abasi & Graves, 2008; Gu & Maley, 2008; Lewthwaite, 1996; Lin & Scherz, 2014). On the contrary, the difficulties in the study skills out of the academic area were seldom reported. It likely inferred that international students' study skills naturally developing in social interactions could support their adaptation in daily activities. Throughout the data collection period, difficulties in study skills kept occurring. The students were enthusiastic to solve these problems, as the difficulties usually affect their performance and scores in their courses. However, they were not confident or satisfied with their solutions and outcomes. Even until the end of the study, also the last day of the first term, not many difficulties in study skills were thoroughly solved as the students believed. It demonstrated that international students needed assistance for developing their study skills in academic area.

Difficulties in skills of interaction were frequently reported, which were challenges in behaving in an acceptable way within the British and international social contexts. The international students in this study reported more difficulties in living skills than in other skills of interaction. It implies that the international students encountered many problems when dealing with cultural norms. The students seemed to had high motivation to solve these problems, as they often attempt to find solutions in the contexts, on the same day or within the week. It might because these problems were significant for the students' adaptation in the British society. The students preferred to ask some more capable people who were in the contexts of the difficulties or who had experienced and overcame similar difficulties and in the students' contact list.

Therefore, the meaning in context, including meanings of words, academic activities and social behaviours in various situation, is the major difficulties for international students to overcome during study abroad. A mediational tool for providing context meanings to the international students in various situations would be able to move with the users, be sensitive to the immediate social contexts, tailor the support according to users' special needs and have the access to various kinds of information databases. It indicated that

mobile devices could be efficient mediational tools to provide information and guidance for international students to overcome difficulties in varied situations.

### **7.2.2 Obtaining more information and with the assistance of mobile devices**

Communication and trying with self-efforts were the two of the four solutions that the international students preferred to apply during study abroad. They were international students' approaches to obtain more reliable information. Communicating with others, or specifically asking for a more experienced person, is a convenient way to obtain information. It is what a child would do when facing challenges (Vygotsky, 1978). It was the easiest and most used solution in this study. The variable that decided the success of the international students' solution was whether they could find the appropriate person who obtained the authentic information about their problems.

On the other hand, trying with self-efforts includes the behaviours such as observing and evaluating the circumstance of the difficulties, and it is a skill which is developing along with a person's growing up. An international student would intend to find an acceptable way to get out of a trouble based on his/her limited knowledge about the host country, personal experience and the information provided within the circumstance. It is a particular example of trying with self-efforts, which is a way to learn useful information from the environment with brainstorm. This solution was often used when a more capable person was not available or difficult to get in touch, the student cared too much about the face to ask for support, or the source of useful information was not convenient to find through other approaches. In such circumstances, the reliability of the information recourse and the students' critical thinking skills determined the results of the issues.

Mobile devices were often employed by international students to facilitate overcoming their difficulties. Nearly half of their problems have been tried to solve with mobile devices. Mobile devices helped the international students with searching for information, connecting with people on social networks, finding online service providers, capturing and presenting information from their social life. More specifically, in half of the reported use of mobile devices, the students employed them as search tools to look up online dictionaries and to find online databases with search engines (see Table 26). They also used their mobiles for emails, social networks and text/ voice/ video messages. In terms of the context of mobile use, they used them everywhere, when participating in online communication, in the

classroom, on campus, and off campus.

Last but not least, it is important to note here that one-fourth of the reported difficulties in ICC were ignored and left unsolved. According to the students' comments, they did not attempt to solve some of their difficulties because they either did not know how to solve them, what to look for, and where to search or believed that the troubles were not important for them in some extent. The reported sociolinguistic difficulties and skills of interpreting often fell into this category. It implied that international students did not find an effective tool for mediating the two types of difficulties, and they overlooked the influence of these challenges on their study-abroad experience.

### **7.3 Limitations and future research**

The limitations of this study were in the participants' ability to reflect upon their problems, self-deception of self-report data, the number of reported issues related to mobile devices, the possible bias from translation, deductive coding with a pre-determined framework, the researcher's limitation in perspective, and the low generalizability.

The primary limitation of this study was caused by participants' insufficient ability and knowledge. Participants' ability and knowledge are not infallible with regard to their capability to remember all information relevant to the questions of the study (Paulhus & Vazire, 2007). This study asked the international students to record their difficulties, including some issues that did not make sense to them. It was a challenge for the students to remember every detail of something they did not understand. For example, the students often forgot the vocabulary difficulties they confronted with in oral communication, unless somebody spelt out the words for them. Otherwise, the meaningless sound was difficult to remember when they recalled the difficulty in their diary. For reporting difficulties with missing details, the students usually elaborated upon the situations where the difficulties happened and with a guess about the meanings of language or behaviours. Thus, the accuracy of this study was decreased to some extent, but the reported difficulties were recorded as much as the students could remember and understand. On the other hand, as the students were not experts in the target language and culture, the detailed they reported might be misinterpreted or omitted before reporting. Thus, the judgements claimed by the students were critically evaluated according to the reported elaborations about the situations where the issues happened, so that the accuracy of the study would have less



influence from students' limited knowledge of the target language and culture. It is acknowledged that the participants might provide information with their misunderstandings, which might affect the accuracy of this study. For avoiding the self-reported bias and participants' limited knowledge and abilities, future studies might need to observe or audio/video record international students' interactions in particular situations for obtaining original information of what actually happens to the participants.

As the data of this study was collected via self-reflective reports, namely diaries and interviews, the quality of the data, especially the accuracy, was decided by the faithfulness of the reports and the students' ability to understand their difficulties. Although the self-report is an efficient instrument to obtain psychological constructs of individuals and related issues, it leaves some room for self-deception, such as self-favouring bias, self-enhancement bias, defensiveness and denial (McDonald, 2008; Paulhus & Vazire, 2007). The self-deception is caused by respondents' natural intention to meet the socially desirable responses, so they provide answers that would present them in a favourable light (McDonald, 2008; Paulhus & Vazire, 2007). To minimise the self-deception, the participants in this study were reminded and encouraged to be honest about their reports every week, and they were asked to provide detail of each difficulty in their weekly interviews (see Section 3.6). Nevertheless, the researcher is aware that self-deception might still have an influence on this study.

One of the aims of this study was to explore international students' self-directed use of mobile devices in social settings. This aim was not shared with the students during data collection so that the students would report their natural use of mobile devices. Thus, the students did not pay special attention to their use of mobile devices in all situations. It meant that they might ignore some issues when they unconsciously used their mobile devices. Even though the proportion of reported use of mobile devices was not large, the study sufficiently revealed that the international students took mobile devices along with them almost all the time and frequently used the devices to solve their difficulties in various social contexts.

The accuracy of data would also be affected by the translation of diary entries and interview transcripts from Chinese to English. For collecting accurate and authentic data, Chinese and English were both used as the optional languages for diaries and interviews. The Chinese excerpts were translated when they were presented in the thesis, and marked

with asterisks in the thesis. The researcher tried to keep all meanings and implications original, so every sentence was carefully translated with implied meanings in brackets. It has been realised that the translated version still might shift or even lose some nuanced information within the data, which could raise some bias in data interpretation.

The pre-determined framework of international students' difficulties was based on Byram's model of ICC, which might limit the interpretation of the qualitative data. Despite a few records about independent living and records without sufficient details were not fit into the categories of the framework, the framework was efficient to code the majority of reported data. Moreover, as the reported issues were usually raised by more than one type of difficulties in daily activities, the pre-determined codes might overlap in one issue.

The researcher's perspective or bias might also be considered as a limitation to this study, as qualitative research heavily relies on the researcher's skills and knowledge (Anderson, 2010). The qualitative researcher is the instrument of data collection, coding and analysis (Anderson, 2010). The researcher of this study was once a Chinese international student who studied in the UK for a master's degree. She had been through similar experiences as the participants of this study met. As a Chinese native speaker, the researcher could understand the participants' cultural background, difficulties, and changes in attitude. However, as a foreigner from the British culture, she might be not able to identify all the language and cultural problems according to participants' narratives. Therefore, the follow-up weekly interviews were applied to do a member check. Also, another coder with British cultural background was invited to this study for peer debriefing.

Last but not least, a remaining limitation of the present study was the generalizability of the findings. This limitation was raised by the case study approach adopted by this study. This case study focused on Chinese international students' experiences in the UK context during the first few months of study abroad. However, research on study abroad generally concerns international students who come from various sociocultural backgrounds and study in different cultures. It indicates the language differences and culture distances are diverse for different students, so that international students with different backgrounds and contexts are unlikely to experience the same difficulties. Moreover, as this case study was based on international students' personal daily experiences, the reported issues were unique. In other words, the results and findings of this study are almost impossible to repeat in other studies with the same design, because the participants and their everyday

situations were not duplicable. Thus, the findings of this study cannot be generalised to all study abroad contexts. Also, this study was conducted in the first few months of study abroad, which was usually discussed as the most challenging period for international students' language and cultural adaptation (Brown & Holloway, 2008; Liu, 2013; Ward et al., 1998). As international students develop their language ability and adjust to the new social environment gradually, some types of difficulties would decrease significantly, such as challenges to understanding English native speakers in oral communication and difficulties in comprehension of the English reading materials. Simultaneously, new topics of challenges would occur in different periods of study abroad, for example, issues about their dissertation and new career at the end of the academic year. Therefore, the findings of this study cannot be generalised to all stages of study abroad. However, this study provided a thick description of the cases with regard to transferability, so that readers would be able to know whether the findings were transferable to their contexts (Mertens, 2010; Bryman, 2012). Further case studies could be conducted with international students from different cultural backgrounds and in another target country, or to explore international students' difficulties and the use of new technologies in the middle or later period of a study abroad.

#### **7.4 Implications**

Despite of the limitations acknowledged above (see Section 7.3), this study provided thick descriptions so that readers could decide the transferability of these findings to their studies or practice. Researchers, educators, and international students could benefit from the present study, as it reached a further understanding of international students' difficulties and their chosen solutions, especially their use of mobile devices.

From this study, researchers, educators and international students could learn that international students' difficulties during study abroad are not simply language and cultural challenges, but consist of eight dimensions. The present study demonstrated that various factors prevented the students from appropriate or acceptable reactions, including the knowledge, the attitude, and the practical skills of the target language and culture. With the more in-depth categories of international students' difficulties, this study showed important and practical implications for international students, researchers, English language teachers, and other people who communicate with international students. International students would have a clear aim to develop particular competencies of ICC. The eight

major types of international students' difficulties could be useful for Chinese students to plan to study in a UK university, or even for any international student from any country aiming for study abroad. By learning about specific difficulties that Chinese students could encounter, they could prepare themselves for overcoming some difficulties psychologically with some knowledge before departure and during study abroad. According to these findings, educators and researchers could provide pertinent suggestions to international students, and design more appropriate language teaching materials in workshops and tutorials about target language learning and cultural adaptation. Furthermore, the findings of this study could be efficient for those who live, study, and work with international students, especially with Chinese students. With the awareness of the international students' difficulties, the more efficient and successful communication could be established.

The most frequent reported difficulties, namely linguistic, skills of discovery and skills of interaction, indicated that the meaning of vocabulary and behaviours in various social contexts was the fundamental challenges that caused the majority of international students' difficulties. Researchers and educators would further study international students' challenges in understanding the meaning within contexts, and figure out practical solutions for the students to interpret vocabulary and behaviours according to the circumstances.

Another implication of this research for educators and researchers is to acknowledge that the crucial difficulties for international students studying and living abroad are usually beyond the classroom or without guidance. It found the international students confronted with many difficulties where teachers and tutors were not available to provide guidance. However, the orientation talks given by the university often emphasised on academic areas and on-campus life, but less on social communication off campus (Lewthwaite, 1996). Therefore, the educators and educational institutions need to help international students to prepare themselves for the challenges they might face at the beginning of the academic year, so that the students would adapt to the target language and culture quickly and save their efforts for academic achievement. The educators and researchers could provide students tutorials on intercultural communication, especially on the challenges they would face in social contexts.

This study reminds educators and researchers that international students already have some superficial awareness about language and cultural differences, which are usually

gained from their language learning experience and former intercultural communication. The students' understandings of their difficulties were not comprehensive and might even have bias. For example, international students in this study intended to blame most of their troubles on their shortage of vocabulary, poor grammar use, and insufficient cultural knowledge. With this bias, international students could not find the key factors that limited their efficiency in intercultural communication, as they omitted other difficulties such as pragmatic problems, negative attitudes, and limited skills of discovery. Thus, international students lacked the ability to identify the reasons for their problems, so they did not know what to search for. It was one of the reasons that the efficiency of solving their problems was low. For supporting international students to realise their core troubles and overcome them effectively, educators may need to direct international students to sort out their difficulties systematically and thusly develop proper solutions.

In the findings of solutions, researchers and educators would find international students' preferences to solving their problems in social contexts. They may realise international students' strength and weakness in self-directed learning within situations. The study-abroad context is beneficial for international students to learn language and culture in the authentic situation, but without formal guidance with teachers. The students' weakness in solving specific categories of difficulties pointed out the area that international students needed further support to overcome difficulties and learning from situations. Therefore, the researchers and educators could offer suggestions for international students to deal with the unsolved types of difficulties.

Moreover, this study could raise educators' awareness of efficient mediational tools that could support international students in sociocultural contexts without scaffolding. The findings of this study also demonstrated that mobile devices would facilitate international students in overcoming their difficulties and the students likely preferred to solve their problems in this way. However, the students reported only a few functions of mobile devices that were employed to overcome limited categories of their difficulties, such as online dictionaries and search engines. They seemed to have no ideas how to address some difficulties such as problems in sociolinguistic competence, pragmatic competence and skills of interpreting, even with smart mobile devices. The full potential of mobile devices was not met by the students. This finding implies that educators and researchers may need to offer international students suggestions on how they could use mobile devices

to solve various types of difficulties in social contexts.

For researchers, educators and even educational mobile apps designers, this study revealed many aspects that international students needed further support (e.g., oral communication and study skills) and the functions of mobile devices that were underestimated by the international students in self-directed learning within social circumstances (e.g., context sensitivity and accessibility). It implied the areas that mobile learning could develop in the future. For example, speaking recognition apps could be designed for solving accent problems; context-sensitive apps would provide social and cultural information about buildings, streets, and even human behaviours, so that international students could immediately receive information about sociocultural situations in context.

### **7.5 Final remarks**

Although the international student of this study encountered various difficulties during study abroad, most of the time they enjoyed their experiences and were grateful to the challenges they have overcome. Through the difficulties, their ICC is developing. They need to keep in mind that study abroad is not only for learning knowledge of a discipline in the classroom, but also for experiencing a new style of living and a fresh view of the world in another social context. Many adventures are waiting for them outside of the place they are born and typically lived.

Solving a difficulty in an unfamiliar context is a challenge for most people. A mediational tool is usually needed to facilitate international students in getting out of the challenging circumstance. Now, in the mobile world, mobile devices are often brought by international students anytime and anywhere. A mobile device is a powerful computer and with access to the Internet could mediate difficulties at the moment in the context when and where the problems occur. The researchers, educators and international students are suggested to be aware of mobile devices as powerful mediational tools in cognitive processes during study abroad.

## Appendices

### Appendix A. The diary sheet of the first pilot study

#### Diary Sheet

##### Instruction

1. What language difficulties did you experience in the last week when interacting in the English-speaking environment? This includes interacting with people who speak English (e.g., native and other non-native speakers) and interacting with objects (e.g., signs, menus, web-pages)
2. Did you do anything to solve these language difficulties when interacting in the English-speaking environment? If yes, what exactly did you do?
3. Did you use any mobile applications to solve your language difficulties when interacting in the English-speaking environment? If yes, please list the details.
4. What cultural difficulties did you experience in the last week when interacting in the English-speaking environment?
5. Did you do anything to solve these culture difficulties when interacting in the English-speaking environment? If yes, what exactly did you do?
6. Did you use any mobile applications to solve these cultural difficulties when interacting in the English-speaking environment? If yes, please list the details.

##### Your Diary

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## Appendix B. The diary sheet of the main study

Name: \_\_\_\_\_

(This will be removed and replaces with a number before processing)

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Participant ID: \_\_\_\_\_















(To be completed by the researcher)

### Chinese learners' experiences during study abroad:

#### A diary study

Day 1 (Write the date here)

Your status (tick "✓" as many as apply):

							Nothing special
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Happy	Laughing	Hard working	Shy	Sad	Crying	Angry	
							Others
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Scared	Unsure	Sleepy/tired	Confused	Sick	Embarrassed	Nervous	<u>Fill with words</u>

Why did you pick that status?

What difficulty(-ies) did you experience today?

For each difficulty please complete the table below.



**Difficulty 1:**

**Nature of the difficulty:**

**Situation in which you encountered the difficulty:**

*When, where, with whom, what, how*

**What did you try to solve the difficulty, if any:**

Why?

**What mobile applications did you use to try to solve the difficulty, if any:**

Why?

**Whether you solved the difficulty:**

Why?

**Any other relevant information:**

**Please add more tables if you experienced more difficulties today.**

***Thank you for completing today's diary entry.***

## Appendix C. Face sheet

### Face sheet

Name:

Age:

Gender:

Arrival date:

IELTS score:

Bachelor's program and department:

Master's program and department:

1. Why did you choose to study abroad? What skills or knowledge would you like to develop during your study abroad?
2. Do you have any travelling abroad or communicating with non-Chinese people experience before coming to the UK?
3. How many mobile devices (e.g., smartphones and tablet computers) do you have during your study in the UK? How often do you use it (them)?
4. When did you have your first smart mobile device?

## **Appendix D. Recruiting email**

### **Full version**

Dear XX,

I am a PhD student in the Department of Education. I'd like to recruit participants for my research. Could you please send the following advert to students on the MA programmes in the Department? If you could use the first line as the subject line and then duplicate it in the body that would be great. I'm hoping to start my study next Monday, so if you could get this out to them asap, I would really appreciate it. Apologies for late notice.

All the best,

Xiaoyin

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### **Participants needed for study of Chinese students' experience during study abroad**

Dear master students,

My name is Xiaoyin Yang, a PhD student in the Department of Education. I am conducting a study that aims to explore Chinese international students' experience during master study in the UK. In particular, I am interested in the difficulties and strategies to overcome the difficulties during study abroad. You are welcomed to join the study, if you are

a Chinese student speaking English as a foreign language

living in the UK for the first time

doing a one-year master course

a mobile device user (e.g. having a smartphone and/or tablet computer).

My research includes **diary study** and **interview**. You will keep a diary on your everyday difficulties and solutions on weekdays, and then have an individual interview at the weekends. The data collection will last for 4 weeks (9 November – 7 December). Every diary entry will take about 15 minutes, and every interview will take approximately 30 minutes. Your data will be confidential, and will not be communicated to your tutors, friends or classmates.

You may benefit from the study, especially on the awareness of your own studying-abroad experience, such as your achievement, the improvement of your language skills, and your intercultural competence. You may also develop a better understanding of how to conduct a research.

If you meet the conditions stated above and would like to help me better understand how Chinese students' experience of study abroad, please **select a time on the following doodle and provide your name and username** where it asks for your name:

<http://doodle.com/3e94ix54u73u6877#table>.

If you find that you are unable to make the time that you originally scheduled or you would like further information about the study, please contact me via email [xy633@york.ac.uk](mailto:xy633@york.ac.uk).

All the best,

Xiaoyin

### **Short version**

Dear master students,

Participants are needed for my research on Chinese international students' experience during master study in the UK. You are welcomed to join the study, if you are

a Chinese student speaking English as a foreign language

living in the UK for the first time

doing a one-year master course

a mobile device user (e.g. having a smartphone and/or tablet computer).

For more details please see the link below:

<https://www.dropbox.com/s/6h98kdidh92zr40/Recruiting%20email.docx?dl=0>

All the best,

Xiaoyin

## **Chinese version**

### **招募实验参与者**

该试验目的是为了解中国学生在英留学情况。实验参与者需满足以下条件：

1. 中国人，英语为外语
2. 第一次在英国生活（今年7月之后才来到英国）
3. 读一年制硕士课程
4. 使用智能手机或平板电脑

实验包括每天记录自己留学生活中的困难和解决办法 (diary study) (20天，每天15分钟)，每周末一次访谈(interview) (4次，每次30分钟)。实验时间从2014年11月10日到12月7日。

通过参与实验，你会了解自己在留学生活中的收获，自身问题，以及努力方向。另外，你也会亲自体验到如何做社会科学实验。对于社会科学专业（教育学、语言学、社会工作等）的同学，你可以更深刻的了解 research methods 的运用方法。

有兴趣的同学可以在下面链接里选择实验前期培训时间，请留下你的姓名和学校用户名。

<http://doodle.com/3e94ix54u73u6877r346kaft/admin#table>

或者给我发邮件（xy633@york.ac.uk）了解实验详情。

谢谢大家！

## **Appendix E. Research participants' information sheet**

**Title of the research:** An exploratory study of Chinese international students' experiences during study abroad in the UK

### **1. Who will conduct the research?**

Xiaoyin Yang, PhD student in Department of Education, the University of York

### **2. What is the aim of the research?**

The aim of the study is to explore Chinese international students' experience during master study in the UK. In particular, I am interested in the difficulties and strategies to overcome the difficulties.

### **3. How am I going to benefit from this study?**

You may benefit from the study on the awareness of your own studying-abroad experience, such as your achievement, the improvement of your language skills, and your intercultural competence. You may also develop a better understanding of how to conduct a research. This introspective activity may help you to improve your English and adapt to the new culture.

### **4. What would I be asked to do if I took part?**

If you volunteer to participate in this study, you will be asked to complete a diary recording your experiences on weekdays and discuss your experiences at weekends. The diaries and interview mainly focus on what difficulties you have encountered and how did you solve it and whether you used your mobile devices to support yourself. If you agree to participate in the study, you will be asked to hand in a diary everyday (i.e., 20 diaries in total), and attend 4 interviews to discuss your experience in every week (for 4 weeks). Each diary may take you about 15 minutes and the interview may take approximately 30 minutes.

### **5. What happens to the data collected?**

All information you provide to me will be kept confidential. Electronic data will be stored in password-protected documents. I am the only person who can access to identifying information. Participants will be coded as student 1, student 2... for protecting students' identity before sharing data with my supervisor, TAP member and a second coder. The reference list that is used to identify participants will be kept in another password-protected file. Your data will not be communicated to your tutors, friends or classmates. Some of the data may be published in my thesis or at research conferences with fake name or number instead of your real name. The transcripts of interviews will be sent to you for your comments. All electronic data will be destroyed after the successful completion of the research.

**6. What happens if I do not want to take part or if I change my mind?**

Your participation is voluntary. If you change your mind during the study, you need to email me immediately. If you change your mind after data collection you can contact me within seven days after the last interview. I will delete all your information that you have provided when I receive your request, and send you a confirmation by email.

**7. If I have questions or complaints, where should I address?**

If you have any question about this study, please do not hesitate to contact me via email (xy633@york.ac.uk). If you have any complaints about this study, please contact my supervisor, Zoe Handley (zoe.handley@york.ac.uk) and the chair of the ethics committee, Emma Marsden (emma.marsden@york.ac.uk).

**Researcher's name:** Xiaoyin Yang

**Researcher's signature:** Xiaoyin Yang

**Contact details:** xy633@york.ac.uk

**Date:** 19/02/2014

**Appendix F. Participant consent form**

**Title:** An exploratory study of mobile devices supporting Chinese international master students overcome language and cultural barriers during studying in the UK

**I wish to participate in the above named project.**

**I have read the participant information sheet for the above research project and understand the following:**

1. What I am asked to do in the research. \_\_\_\_
2. The purpose of the research. \_\_\_\_
3. That all information I provide will be dealt with in a confidential manner. \_\_\_\_
4. That I am free to withdraw my data anytime before seven days after the interview, and I can decline the publication of my own data. \_\_\_\_
5. That I know the contact details for giving comments and complaints. \_\_\_\_
6. That I have the opportunity to comment on the transcript of my interview. \_\_\_\_

**Signed:** .....

**Contact details:** .....

**Date:** .....



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