

**The use of a mobile instant messaging (MIM)
application for English interaction in the Korean EFL
context**

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Doctor of Philosophy

2018

University of Technology Sydney

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Certificate of Original Authorship

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of the requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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This research is supported by an Australian Government Research Training Program Scholarship.

Acknowledgements

I would like to express my deep thanks to the participants who were willing to contribute to the data collection for my thesis. Without their voluntary cooperation, this study might not have been conducted and completed.

My sincere gratitude goes to my supervisor, Professor Wan Ng who supported and encouraged me with timely advice, academic knowledge and patience throughout the long journey of my part-time PhD. She consistently provided me with helpful research direction and expertise on this subject that enabled this study to be accomplished. I cannot imagine completing this thesis without her insightful and constant advice and comments on my writing.

I would like to thank Dr Damian Maher, my alternate supervisor, for his comments and recommendations on the thesis. I would also like to thank Dr Howard Nicholas for his academic support and valuable advice on the subject. I am also grateful to Professor Jihyun Lee for her guidance and warm encouragement during my years of candidature at University of New South Wales. My special thanks go to Ms Yeonjae Kim and Ms Jiyeon Kim for kind assistance and encouragement during my PhD years.

I would like to acknowledge my appreciation to the Graduate Research School for my UTS Doctoral scholarship, which was a very valuable and supportive assistance for me allowing me to concentrate on my studies. I would also like to express my thanks to my fellow PhD students at UTS for their warm and friendly fellowship as I adapted to my new PhD life at UTS. I acknowledge the editorial assistance I received in the preparation of this thesis by Dr Kerry Thomas.

I especially thank my beloved parents in South Korea for their endless care and support toward my career. Without their love and support, I would not have accomplished this work and overcome the challenges that I faced during this course.

I deeply thank my loving daughter, Chelsea Kwon, for understanding and constantly giving me emotional support in her own special ways. I hope that she can achieve her goals in the HSC in 2017.

My heartfelt words of gratitude should go to my husband, Thomas Kwon. Because of his whole-hearted support and devotion towards my research, I could start and finally complete my PhD study. He continuously provided me with truthful advice for my study, whilst working as a perfect counsellor and mentor throughout this long journey. He encouraged me not to give up this work and I sincerely appreciate that.

I heartily would like to dedicate this entire thesis to my dearly loved family.

Jieun Hwang

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Abstract

With the rapid development of mobile technology in South Korea, there is an expectation that smart phones (Internet accessible) can provide Korean university students with more opportunities to interact in English with others to assist in their learning of English as a foreign language (EFL). However, there has been little empirical research on how students interact with each other and negotiate meanings using the mobile instant messaging applications on their smartphones.

This study aimed to explore the feasibility of using the *KakaoTalk* mobile instant messaging (MIM) application to enhance the English communicative opportunities for Korean undergraduate students and to ascertain how communicative interactions in English via a MIM application can assist in English language learning through this platform.

To accomplish these aims, the study adopted a mixed method approach. The quantitative approach surveyed 103 university students to establish the current status of MIM use in English communicative activities. Qualitatively, a case study approach was used to investigate how Korean students interacted with English dominant and non-English dominant students using the MIM application. Data was collected through message observations of the students' interactions in English. Semi-structured interviews with 14 Korean students were conducted in the research to elicit benefits and issues with interacting in English using *KakaoTalk* on their smartphones.

The survey findings indicated that many of the Korean students were already communicating in English with peers from other countries. The findings from the case studies demonstrated that as they interacted with their partners using *KakaoTalk*, the Korean students made use of negotiation of meaning strategies such as elaboration and confirmation, similar to findings in face-to-face studies that indicate active engagement in language skills development. In a mobile technology-enhanced environment, the Korean students utilised multimodal representations (text, photos and video clips) as well as several language styles (emoticons, punctuation and onomatopoeia) to support their negotiated interactions. The research also showed that the level of interaction was dependent on how the students were paired. There was more engagement in the communicative activity when the pairs were comprised of culturally and linguistically

different students (i.e. between Korean–English dominant and Korean–non-English dominant groups) than when the pairs were culturally similar (i.e. Korean–Korean group). The level of interactive activity was also higher between opposite gender pairs than same-gender pairs. The Korean students’ perceptions of the benefits and issues related to the use of a MIM application to communicate in English and the implications of the research are reported.

The research provides timely understanding of how smartphone technologies could be used to provide much-needed opportunities for authentic interaction and negotiation of meanings between peers in order to enhance their English language development in South Korea. The knowledge gained will inform university educators and policy makers on how English communication via a MIM application can be implemented to assist in Korean university students’ English learning in the Korean EFL context.

Chapter 1 – Introduction

1.1 Background of the study

The rapid and ongoing developments in digital technology have resulted in significant changes to mobile devices over the last two decades. Indeed, handheld devices such as mobile phones, iPads and other tablets, all perform as miniature personal computers in the modern age. The portability and smart functions of these devices provide the user with a versatile platform for individual learning and communicating at times and places that are convenient and suited to their lifestyle. In education, the popularity and increased ownership of mobile devices have influenced instructors and learners to make use of them as educational tools (Aamri & Suleiman, 2011; Kondo et al., 2012). In South Korea, Korean university students have a high rate of mobile phone ownership with 99.5% owning a mobile phone and more specifically 97.3% owning a smartphone (Korean Information Society Development Institute, 2013). Using an Internet connection on their mobile devices, learners can access individualised learning materials and learn independently directing their own learning without placing too much reliance on direction from their teachers. One of the clear evidences of the usefulness of mobile phones for university students is that the majority of students showed a preference for receiving notifications from their university such as exam dates and exam results through their mobile phones (Cavus & Ibrahim, 2009).

The use of smartphones to access the Internet in South Korea has rapidly increased over recent years. As a result of the proliferation of smartphones, there is a paradigm shift from short message service (SMS) to mobile instant messaging (MIM) applications (Deng, Lu, Wei, & Zhang, 2010; Perry, 2012). More than 90% of Korean smartphone users have downloaded MIM applications (Nielsen, 2013). *KakaoTalk*, which has 120 million users (worldwide) and supports 12 languages, is the most popular MIM application in Korea (Jung-a, 2013).

Among many mobile applications (e.g. *KakaoTalk*, *Line*, *Facebook messenger*), the *KakaoTalk* application has gained prominence among smartphone users as a leading MIM application in Korea with 90% of smartphone users having used this application (Oghuma, Chang, Libaque-Saenz, Park, & Rho, 2015). According to Oghuma et al. (2015), the primary difference between SMS and MIM communication modes on a

smart phone is that MIM is dependent on a mobile Internet connection to function. SMS is a text message service allowing short messages of 160 characters or less (regardless of service provider) based on telecommunications operators. The sender and receiver of messages need to install the appropriate software on their smartphones to access a MIM message. Research indicates that the preference Korean users have for using a MIM application over SMS is that MIMs enable users to exchange images, video and audio materials, in addition to text messages using their data plan at no additional cost whereas the use of SMS requires an additional fee (Oghuma et al., 2015).

In South Korea, people send and receive messages and pictures without any additional charge by using the free Wi-Fi environment available in many public places including universities, libraries, government buildings, stations, parks and hospitals (National Information Society Agency, 2013). This is because a local area network had previously been installed throughout the nation providing a free Wi-Fi network at many public places (Oberg & Daniels, 2013). In this environment, people have unlimited access to the Internet within the Wi-Fi zone and they can have fast Internet connections at a reasonable cost outside the Wi-Fi zone. Therefore, for Korean students' learning English as a Foreign Language (EFL), the use of the Internet via their smartphones can be a real option within the context of the free mobile Internet environments in Korea.

In South Korea, students learn English in an EFL context similar to that found in most Asian countries. Generally, Korean students are taught English as a subject within the school curriculum, however, the main medium of instruction in EFL lessons is the Korean language. In the traditional EFL learning settings as well as in their daily routines, English language learners often have limited opportunities to use and interact with others in English. Because it is not an official national language, students typically do not have the opportunity to use English (either spoken or written) in their daily lives. Most Korean EFL students are not required to speak in English outside their classroom setting and the Korean language which is the students' shared language is used in everyday life.

In the Korean EFL context, Communicative Language Teaching (CLT) is widely accepted as an effective approach to teaching English. The Korean Ministry of Education has expressed the importance of CLT and in particular the emphasis on learning to communicate as opposed to learning a set of rules. As such, the Ministry has

made attempts to implement CLT through changes to the national English curricula (Yoon, 2005). Due to criticism of the heavy emphasis on grammar in the previous English curricula for Korean secondary schools (Bae & Han, 1994; Korean Ministry of Education, 1992), the revised curriculum outlines the development of learners' communicative competence. Communicative competence indicates learners' ability to use the language they have learned in a social context and emphasises effective communication and how language is used within a language community (Hymes, 1972). It is also regarded as the ultimate goal of language teaching (Richards, Platt, & Platt, 1992).

1.2 Statement of the problem

At the official level in Korea, CLT has been determined to be the most suitable teaching method, however in reality, most English classes operate in such a way that is focused on preparing students for the College Scholastic Ability Test (CSAT), which assesses language knowledge of grammar, reading and listening ability. The results of the test are used to determine whether the student is eligible to enter university (Rusina, 2008). Therefore, the students' main purpose for learning English is to get good marks in school examinations and the CSAT. Accordingly, teachers adopt a one-way instruction method rather than a two-way interaction method to develop the students' English skills and knowledge (Rusina, 2008). This predominantly involves the teaching of grammar and reading comprehension while learners take notes without giving students sufficient opportunities to use their English skills or to communicate with peers or the teacher inside the classroom. Thus, for many Korean students in the EFL context, even though they have over 10 years of English language learning experience under the curriculum described above, when they attend university they feel uneasy about speaking and interacting in English with others. In other words, at the university level, they are at a low level of communicative competence. The lack of English communicative competency of Korean university students is a result of the language teaching style in schools where the focus on examinations meant that the students were not being provided with authentic opportunities to be exposed to language use inside the classroom. At the university level, there is also limited opportunities to develop communicative competency due to time constraints in the classroom. Furthermore, students are limited in their opportunities to use the target language on a daily basis

outside the classroom (Jeon & Hahn, 2006) because Korean is the primary language used in everyday life.

According to Nah (2008), to assist EFL learners with exposure to English language use, learning services by mobile phone companies are provided which focus on vocabulary or conversation items but not interactive communication. In addition, video clips showing English lessons by famous EFL teachers are offered by these mobile phone learning services. However, these services only provide EFL learning resources to students and not opportunities for the learner to communicate in English with others (Nah, 2008). Korean people have an expectation that Internet access via smartphones will make it easier for EFL learners to access language learning information and to interact with friends or teachers anytime, anywhere (Han & Kim, 2003). However, there has only been limited research conducted on the use of mobile phones that are Internet accessible for interacting in English, particularly in the informal context.

Rationale

Studies have been conducted to determine how mobile phones are being used to develop linguistic skills in the field of language learning (Cavus & Ibrahim, 2009; Gromik, 2012; Kiernan & Aizawa, 2004; Nah, 2008; Stockwell, 2008, 2010; Thornton & Houser, 2005). For example, Nah (2008) investigated the potential of using a mobile phone for developing South Korean university students' EFL listening skills. The results showed that a wireless application protocol was effective in supporting the students to learn listening skills. Thornton and Houser (2005) focused on the use of mobile phones for English vocabulary lessons by sending on a daily basis via mobile email, reading texts to promote students' regular study habits. Similarly, Kim and Yoon (2014) investigated the effect of smartphone applications on secondary students' writing competence. The finding showed students had increased written output in both quantity and quality, and the authors suggested smartphone applications are useful and productive tools for EFL writing. These studies show that mobile phones are versatile and effective in developing the linguistic aspects that include vocabulary, writing and listening skills. Korean students already have sufficient opportunities to learn and develop their grammar, reading and listening linguistic skills, from their class teachers inside the classroom. However, there are insufficient opportunities for the students to

adopt this knowledge that is learned in the classroom for communicating in English in real life situations (Seo, 2015).

Lai and Gu (2011) noted in their research that students used technology to regulate their language learning outside the classroom. The authors reported that technology-enhanced out-of-class learning was a very positive experience and indicated that students could learn more of the target language using technology outside the classroom. They suggested that the non-compulsory nature of out-of-class learning with technology makes it less boring. The smartphone with its applications, is a popular and convenient tool widely used by young people today for communication in informal environments. But as Stockwell (2013) indicated, there has been little research on how learners use their mobile devices for language learning outside the classroom. In particular, there is limited research in the literature on how students use their smartphones to interact and to negotiate meanings on a MIM platform for their language development, especially in the Korean EFL context. Long (1985, 1992) considered interaction as a crucial element for language acquisition due to the conversational and linguistic modifications that occur when communicating. Furthermore, Long emphasised the importance of having the opportunity to interact with other speakers in order to make language input comprehensible, hence developing the communicative skills of the learner.

1.3 Aims and research questions

This study aimed to investigate how Korean university students when provided with opportunities to develop their language skills in authentic situations, make use of the MIM application *KakaoTalk* on their smartphones, to interact in English with peers from different backgrounds.

The research questions were:

1. What are the existing practices of Korean university students in the use of a MIM application to communicate in English?
2. How do Korean university students with differing language backgrounds such as English dominant and non-English dominant communicate in English via the MIM application *KakaoTalk*?

Sub-questions relating to this research question were:

- a) What are the features of a smartphone that students exploit for interaction in English with peers using *KakaoTalk*?
 - b) Why do the students utilise these features when communicating via a MIM application in these contexts?
 - c) What are the language styles that the students use on a MIM platform to communicate understanding?
 - d) What are the patterns of negotiation of meaning that emerge in the English interactions via this MIM application?
 - e) What are the similarities and differences in the patterns of communication between the three cases of paired-groupings (Korean–Korean; Korean–English dominant speakers and Korean–non-English dominant speakers) in terms of:
 - (i) the amount of time spent and number of messages posted; and
 - (ii) strategies/functions used for negotiation of meaning?
- 3a) What are Korean students’ perceptions of the benefits and difficulties in English interaction via a MIM application?
- 3b) What are their recommendations for using a MIM application for English interaction in the Korean EFL context?

1.4 Significance of the study

As described above, South Korean university students’ ability to interact in English remains at a low standard despite the many years of English education they received. This is largely due to a lack of time and opportunity in formal classes for teachers to implement CLT appropriately in the classroom. Given that the goal of CLT in South Korea is to achieve communicative competence, it is important to find ways to enhance communication ability with greater opportunities to interact with others in English. A practical method to address these requirements is through the use of technology. Driven by the technological advances that have seen the large ownership of

smartphones by young people and the popularity of MIM applications in South Korea, it is timely to investigate and develop understanding of how these technologies could be used to provide the much-needed opportunities for authentic interaction between peers in order to enhance their communicative competency in English.

By investigating how Korean university students, with differing language backgrounds interact with each other using the MIM application *KakaoTalk* in the Korean EFL context, the findings from this study will inform language teachers and policy makers on how text-based interactions in English via a MIM application can be implemented to develop students' English language skills through extended opportunities in the informal context. The study will also inform teachers of the potential for developing curriculum activities to aid English language development that blend formal and informal learning using smartphones and instant applications.

1.5 Outline of the thesis

The thesis is divided into eight chapters. Chapter 1 introduces the study background. It presents an overview of the English education system in South Korea and the problems in English teaching and learning. It sets out the aims and the significance of the study.

Chapter 2 is the literature review that conceptualises the framework for the study. It discusses the concept of CLT that is the major English teaching approach in South Korea followed by second language acquisition (SLA) hypotheses including input hypothesis, interaction hypothesis and output hypothesis. This is followed by a discussion of the nature of negotiation of meaning in SLA (a component of interaction) and technology-based language learning that covers mobile-assisted language learning and social media for language learning. The use of multimodal representations and language styles in technology-based communication is also discussed.

Chapter 3 describes and justifies the methodology of how the data was collected, coded and analysed according to the research questions. Mixed methods were employed for this study, comprised of (1) quantitative data based on a survey questionnaire that was used to establish the current status of Korean students' use of MIM applications for communicating in English and (2) a case study approach that included message

observations and analysis for paired cases, used to gather qualitative data. In addition, interview data was gathered and analysed using qualitative methodologies. The relevant information regarding research site, participants and data collection procedures is described.

The results of the study are presented in three consecutive chapters. Chapter 4 presents the findings of Korean university students' existing practices in using their smartphones and MIM applications for English communication as well as their perceptions of the benefits and issues encountered if they were using them.

Chapter 5 presents the findings of the selected Korean university students' communicative activities with their paired counterparts, including the use of multimodal features and language styles through the use of the MIM application, *KakaoTalk*. The findings of patterns of negotiation of meaning using *KakaoTalk* between three cases are presented in the chapter.

Chapter 6 presents Korean student participants' perceptions of the benefits and difficulties related to interacting in English via the MIM application *KakaoTalk*, and their recommendations for improving the communication experiences in English using this platform.

Chapter 7 summarises the findings according to the research questions and discusses the main themes drawn from the findings and their implications.

Chapter 8 is the concluding chapter and presents the main ideas found in the study. It includes the limitations of the study and directions for future research.

Chapter 2 – Literature Review

2.1 Introduction

A review of the literature is ‘a summary of a set of related research papers’ (Jaidka, Khoo, & Na, 2013, p. 303) and according to these authors is conducted by a researcher to identify any research gaps and locate his/her own work in relation to previous studies. The process of undertaking a literature review is significant because it provides a researcher with an opportunity for a comprehensive overview of their area of research. It shows how the current research is relevant to previous works and gives readers guidance in how the research is progressing in a given field.

This study is designed to explore the feasibility of using the *KakaoTalk*, MIM application to enhance the opportunities for Korean university students to communicate in English, and to ascertain how communicative interactions in English via the MIM application, can assist in English language learning in the South Korean EFL context. Specifically, the study investigates how South Korean university students use the MIM application, *KakaoTalk*, on their smartphones to communicate in English with others. The terms ‘communication’ and ‘interaction’ are used interchangeably in this study to indicate engagement in English dialogue with others. This chapter reviews the research literature that is relevant to the framework for this investigative study in four areas: (i) CLT as a major English teaching approach in Korea; (ii) second language acquisition hypotheses, including input hypothesis, interaction hypothesis and output hypothesis; (iii) negotiation of meaning in SLA; and (iv) technology-based language learning, including mobile-assisted language learning (MALL), MIM applications and multimodal representations and language styles in technology-based communication. Where appropriate, the integration of technology-enhanced communicative practices is included in the other areas reviewed, in particular, in the section on negotiation of meaning.

The review of CLT in the first section provides a definition describes its key characteristics and explains CLT in the EFL context where English is learned as a foreign language. In the South Korean context, CLT is the leading approach for English education in school and higher education. This section examines issues identified in the implementation of CLT in EFL countries including South Korea.

In the second section, the review of SLA hypotheses focuses on input hypothesis, interaction hypothesis, and output hypothesis. These theories are important because they provide an account of how language is learned and can be applied in technology-enhanced learning environments. The third section reviews negotiation of meaning in SLA and includes a comparison of the negotiation of meaning in face-to-face (F2F) and technology-based communication modes, the types and patterns of negotiation of meaning in technology-based communication, and how learners' language proficiency affects their meaning negotiation. The final section reviews technology-based language learning and covers mobile-assisted language learning, language learning related to social media and the embedment of multimodal representation to convey meanings in text-based interactions. Potential benefits and challenges for language learning and the use of language styles in text-based communication are discussed.

2.2 Communicative Language Teaching (CLT)

English is a global language and plays a crucial role in promoting international exchange, acquiring scientific knowledge and participating in international competition (Ross, 1992). In South Korea, much attention has been paid to English language learning and teaching contexts. English is taught as a compulsory subject from Year 3 in primary school to university level. English teaching has been emphasised to develop students' communication skills since CLT was introduced in the National Curriculum for English in 1992 (Kwon, 2000; Nunan, 2003). The CLT approach in South Korea replaces the traditional language teaching methods such as the audio-lingual and grammar translation methods (Flattery, 2007).

2.2.1 Definition and key characteristics of CLT

Since being introduced in the early 1970s in Europe and North America, CLT has become widespread, with a rapid expansion in English language teaching contexts. It is one of the most prominent and popular language teaching methodologies in both ESL (English as a second language) and EFL contexts. With this popularity, CLT has been defined in different ways in different contexts, rather than universally and there is no united single CLT model (Markee, 1997; Savignon, 1983; Savignon & Berns, 1984). Mustapha and Yahaya (2013) refer to CLT as an approach to language teaching that focuses on developing learners' communicative skills through actual language used in

real life situations. It focuses on teachers' implementation of this teaching method by developing students' ability to use proper English (Chang & Goswami, 2011). Richards et al. (1992) defined CLT as 'an approach to foreign or second language teaching which emphasises that the goal of language learning is communicative competence' (p. 65). It is generally accepted that CLT is considered as an approach rather than a method (Brown, 1994; Richards & Rodgers, 1986; Savignon, 2001). CLT can be described as focusing on developing learners' communicative skills and emphasises the use of a target language in a meaningful context.

The main characteristics of the CLT approach have been widely identified (Celce-Murcia, 1991; Finocchiaro & Brumfit, 1983; Johnson, 1982; Littlewood, 1981; Richards & Rodgers, 1986; Yuan, 2011). Yuan (2011, p. 428) has characterised the theoretical basis of CLT as follows:

1. pursuing authentic communication in life and content-oriented meaning negotiation as its main purpose.
2. involving a learner-centred and experience-based approach. Differing from the traditional teacher-centred class, CLT encourages students to learn actively and independently, cultivating their communicative competence.

Indeed, traditional teaching methods of language learning have paid attention to the teacher-centred approach, while CLT places more emphasis on a student-centred approach. In the traditional teacher-centred context, teachers mainly focus on delivering content, which students receive and memorise in a passive learning environment. However, in CLT, learners play a role as a negotiator between the learning process and the learning object (Chang & Goswami, 2011). Learners negotiate meaning in order to either comprehend others or make themselves understood in classroom activities (Richards & Rodgers, 1986). In addition, the teacher in CLT performs a role as a co-communicator by engaging in the learners' communicative activities (Larsen-Freeman, 2000). Memari (2013, p. 433) identified the roles of teachers/students in the CLT approach:

The Roles of Teachers in the Classroom:

The teacher is not a model for correct speech and writing and does not have the primary responsibility for making students produce error-free sentences. The teacher is a facilitator/advisor, answering questions, monitoring performance and taking note of learners' errors, in addition to the role of co-communicator.

The Roles of Learners in the Classroom:

Communicators should participate in classroom activities cooperatively rather than individualistically, be comfortable with listening to their peers in group work or pair work tasks, rely less on the teacher as a model and take on a greater degree of responsibility for their own learning.

Above all, in CLT, since the teaching and learning process is student-centred, rather than teacher-centred, the learner plays a greater role in the learning processes. Instead of the explicit explanation of grammar rules, CLT advocates that grammatical rules are understood in different functional categories (Brown, 2007). Even though both fluency and accuracy are taken into consideration in the CLT approach, building fluency is emphasised over accuracy (Memari, 2013). That is, CLT pays more attention to fluency in language teaching rather than the accuracy. Any mistakes or errors during language activities can be tolerable and natural (Larsen-Freeman, 2000). Mustapha and Yahaya (2013, p. 791) summarised the aforementioned characteristics of CLT as follows:

- learner-centred rather than teacher-fronted;
- involves communicative activities in authentic, meaningful settings;
- emphasises meaning and use of the target language rather than form and structure.

In addition to these three characteristics, a fourth can be added as Memari (2013) noted:

- more attention is given to fluency in language learning rather than accuracy.

2.2.2 Communicative competence.

Hiep (2007, p. 194) asserted that CLT communicative activities are 'the means to develop the learners' communicative competence in the second/ foreign language'. Understanding communicative competence is important because it is a major aspect of

CLT and, as Li (1998, p. 678) argued, the goal of CLT is ‘to develop learners’ communicative competence’. According to Hymes (1972), learners should develop communicative competence that indicates their ability to use the language they have learned properly in a social context. Hymes’ main idea was that to communicate effectively, speakers need to have more than grammatical competence and know how language is used within a language community. Communicative competence was further developed by Canale and Swain (1980), who proposed that there are three main components of communicative competence: grammatical competence, sociolinguistic competence and strategic competence. Grammatical competence is the ability to produce grammatically appropriate utterances including knowledge of vocabulary, syntax or sentence. Sociolinguistic competence refers to the ability to make sociolinguistically proper utterances, focusing on knowledge of interpreting utterances between speakers’ literal meanings and their intentions. Strategic competence emphasises the ability to solve the problems that occur during communication when there is insufficient grammatical or sociolinguistic competence. Canale and Swain’s (1980) model was further developed by Canale (1983) as shown in Figure 2.1, by separating discourse competence from sociolinguistic competence. In Canale’s (1983) model of communicative competence, the fourth competence is discourse competence, which focuses on the ability to produce cohesive and coherent utterances.

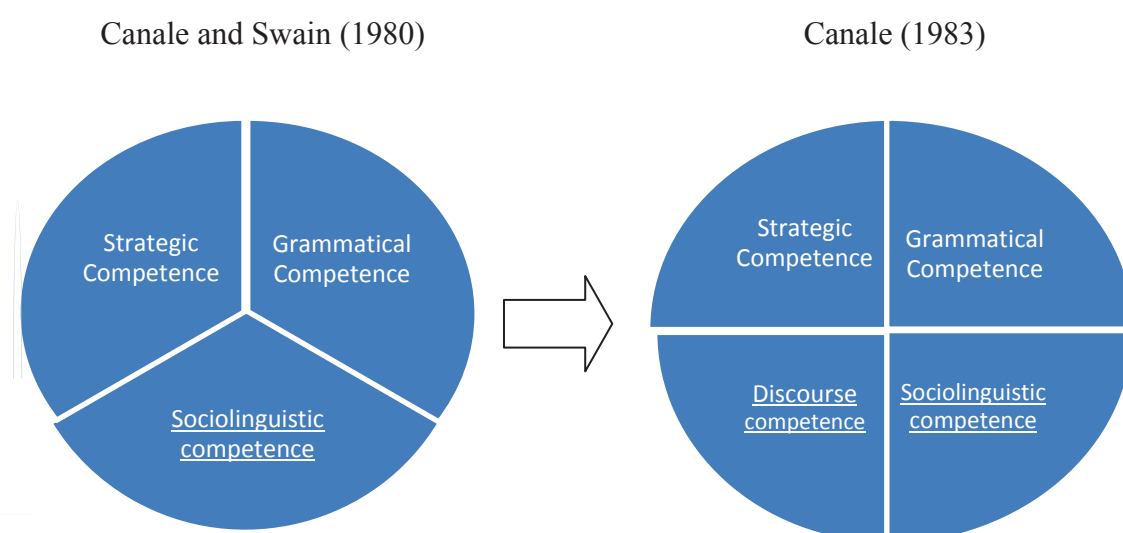


Figure 2.1. Communicative competence.

Larsen-Freeman (2000) advocated that in the field of language teaching and learning, CLT has been adopted to develop students' communicative competence in real contexts. Additionally, Hiep (2007, p. 196) described the goal of CLT as 'the teaching of learners to be able to use the language effectively for their real communicative needs rather than simply to provide learners with the knowledge about the grammar system of that language'. The primary goal of CLT is to enable learners to communicate effectively by using appropriate target language and achieving their communicative competence.

2.2.3 The benefits of CLT.

Among the major features of CLT, four benefits are found for English teaching and learning. Firstly, in a CLT class, as most of the learning process focuses on the learners, they can spend more time exercising and communicating adequately in a learner-centred atmosphere. In learner-centred learning environments, students have ownership of the learning process, and thus they can concentrate more on their own learning (Hu, 2010; Jones, 2007; Lochland, 2013). Further, as Wu (2010) argued, in the learner-centred atmosphere, teachers encourage learners to be independent and responsible for their learning and motivate them to develop learning skills such as collaboration or critical thinking skills.

Secondly, a benefit of CLT is the use of authentic and contextualised teaching materials. Various scholars (Bax, 2003; Collins, 2005; Harmer, 2003; Sowden, 2007; Su, 2011) have illustrated that learners show more engagement when class materials reflect their real life contexts and these materials are contextualised by taking their cultural aspects into consideration. Additionally, their motivation increases if what they learn at language class is related to what they actually need in their daily lives (Hiep, 2007; Nishino & Watanabe, 2008; Richards & Rodgers, 2001; Seo, 2015).

Thirdly, compared to the traditional teaching methods that offered insufficient exposure to authentic language use, by heavily relying on linguistic forms, CLT encourages learners to improve their ability to use the target language and primarily focuses on the learners' meaningful use of language that helps to communicate effectively and properly in different situations (Brown, 1994). As Larsen-Freeman (2000) argued, learners also have opportunity to negotiate or interact with others

through various communicative activities that relate to real communication in their language classroom environment.

Lastly, a safe and non-threatening learning environment is one of the benefits of CLT. This enables learners to feel comfortable and relaxed when communicating in the target language (Seo, 2015). Learners are reluctant to be involved in communicative activities when their anxiety increases or they are afraid of making mistakes (Ewald, 2007; Kim, 2009; Tallon, 2009). Further, in the communicative activities, learners gain better learning outcomes when they do not receive any explicit correction from their teacher, and therefore, it is recommended that teachers create safe and comfortable learning environments for successful CLT approaches (Ewald, 2007; Gregersen, 2003). Additionally, Chang and Goswami (2011) claim that CLT may provide students with non-threatening environments to develop their language and social skills in ways that lead to a reduction of learners' anxiety levels as they collaborate with others to achieve a common goal.

In summary, CLT can enable learners to involve themselves in authentic and interactive tasks in the learner-centred environments. However, it has also been reported that teachers find it difficult to implement CLT, particularly in EFL classrooms because of a number of issues (Burnaby & Sun, 1989; Ellis, 1994; Ghanbari & Ketabi, 2011; Li, 1998, 2001; Shamin, 1996). Issues that are regarded as common in EFL contexts will now be discussed.

2.2.4 Identified issues when implementing CLT in EFL contexts.

Compared with ESL contexts where CLT is more successful in the classroom in the EFL context, CLT is more difficult to apply. According to Koosha and Yakhabi (2013), learners in ESL classrooms have a high motivation to engage in English communication because they need to use English language as part of their daily lives. On the contrary, in an EFL setting, learners consider English to be irrelevant to their everyday needs and thus they show low motivation to learn and communicate in English. EFL learners do not have sufficient access to the target language outside the classroom and easily come back to their first language as soon as they finish class (Campbell, 2004).

I will now examine the issues identified regarding the implementation of CLT in the EFL context including in South Korea which is the focus of this study.

A study identifying unsuccessful implementation of CLT was conducted by Hiep (2007) in the Vietnamese EFL context. The participants were three Vietnamese teachers who taught English at universities and faced constraints that prevented them from implementing CLT. Hiep (2007) argued that these constraints were related to limited access to authentic learning environments where learners could use the English language and a grammar-based teaching context that focused on passing examinations. As well, the large numbers of students in classes, the students' lack of motivation and their insufficient ability to participate in independent learning processes, made it difficult for teachers to apply CLT activities. Finally, the teachers' lack of professional skill in generating communicative activities such as group work was identified as an obstacle to implementing successful CLT in the Vietnamese EFL context. To overcome such issues, Hiep (2007) recommended provision of authentic learning materials that are often difficult to access and use in EFL classrooms.

Another issue concerning the effectiveness of the CLT approach was raised by Littlewood (2007) who examined the implementation of the CLT approach and task-based language teaching (TBLT) in primary and secondary schools in East Asian countries. He distinguished five main concerns related to the CLT approach and TBLT:

1. classroom management;
2. avoidance of English;
3. minimal demands on language competence;
4. incompatibility with public assessment demands; and
5. conflict with educational values and traditions.

Firstly, classroom management is related to large class sizes. It is challenging for teachers to use communicative activities with large numbers of students. The second concern indicates students' low levels of proficiency in spoken English and teachers' lack of confidence to apply communicative activities in English. As well, students lack the confidence and willingness to participate in CLT and TBLT activities because these activities require much interactive communication. Thirdly, students do not use language resources adequately and try to complete assigned tasks by using their prior English knowledge. Additionally, they put minimal demands on their English

competence by adapting simple strategies rather than engaging in the process of negotiating meaning. Fourthly, the designed CLT activities are not compatible with the public examination system which uses form-focused examinations. These examinations focus on grammatical knowledge and reading comprehension skills rather than students' communicative proficiency. The fifth concern identified by Littlewood (2007) highlights the conflict between East Asian EFL countries and the CLT approach, in terms of educational values and culture. In other words, East Asian EFL countries have traditional teacher-centred teaching and learning practices while CLT emphasises a learner-centred approach.

Researchers in other countries also have identified unsuccessful application of CLT in EFL teaching and learning contexts (Ahmad & Rao, 2012; Chang & Goswami, 2011; Mustapha & Yahaya, 2013; Nishino & Watanabe, 2008; Ozsevik, 2010). In Turkey, Ozsevik (2010) found that teachers at primary and secondary schools had non-optimistic perceptions toward the complete adoption of CLT. Several factors were identified as challenges to the implementation of CLT in the English teaching profession including difficulties caused by the teachers, the students, the educational system and CLT itself. He used Li's (1998) categorisation to identify the challenges in employing CLT practices (see Table 2.2 for Li's findings of similar issues). Table 2.1 shows the difficulties and their reported factors to implement CLT in the Turkish context.

The difficulties caused by teachers mainly related to their insufficient English-speaking ability and lack of knowledge when managing the CLT classroom. Also reported factors were lack of training for CLT practices and lack of time to prepare class materials. Next, the difficulties caused by students were identified as lack of both language proficiency and motivation to promote communicative competence resulting in low participation of communicative activities. Thirdly, the difficulties caused by the educational system and CLT itself were connected to lack of authentic materials, absence of effective assessment tools and the high number of students in the classroom.

Table 2.1. Difficulties associated with the implementation of CLT in Turkey
(Ozsevik, 2010, pp. 85-109)

Difficulties caused by	Reported factors
The teachers	<ul style="list-style-type: none"> - Deficiency in spoken English to apply CLT in their classrooms - Lack of knowledge of the appropriate use of language in context - Lack of training in CLT - Lack of time for developing communicative materials - Misconceptions about CLT
The students	<ul style="list-style-type: none"> - Low English proficiency - Passive style of learning - Resistance to participate in communicative activities -Lack of motivation for developing communicative competence
The educational system	<ul style="list-style-type: none"> - Lack of support - Lack of authentic materials - Large classes - Grammar-based examinations
CLT itself	<ul style="list-style-type: none"> - Lack of effective and efficient assessment instruments - Inadequate account of EFL teaching

In Japan, Nishino and Watanabe (2008) analysed the responses to a survey conducted by the Ministry of Education, Culture, Sports and Technology. The survey investigated the implementation of CLT in the teaching process and the participants were Japanese teachers of English in secondary schools. The findings revealed that there were many difficulties in applying CLT principles. The main barriers included the lack of opportunities for students to speak in English after class, students' low level of motivation to obtain speaking skills, the dominant teacher-centred teaching culture, the examination-focused curriculum and large number of students in English classes. The study suggested that English teaching theory and practice that were suitable for the local EFL context needed to be developed.

To sum up, many issues related to implementing CLT in EFL contexts have been identified. The commonly agreed issues relate to the lack of ability of English teachers to apply the CLT approach in the classroom and their insufficient skills in the creation of communicative activities. Other issues are the students' lack of opportunity to practise English outside the classroom, their low motivation to develop communicative competence and lack of confidence when engaging in communicative activities due to low language proficiency. Further, large-size classroom environments and form-based examination systems that focus on linguistic knowledge have also been identified as interfering with the success of the CLT approach in EFL contexts.

2.2.5 CLT in the South Korean EFL context.

CLT was introduced into the South Korean Ministry of Education's 6th National Curriculum in 1992 (Kim, 2011) and became the principle feature of English education in the reformed 7th National Curriculum of 1997 (Li, 1998). As with the adoption of CLT in other EFL countries, similar issues have been identified during the implementation of CLT in South Korea (Choi, 2008; Guilloteaux, 2004; Jeon, 2009; Kim, 2011; Li, 1998; Vasilopoulos, 2008). In particular, Li (1998), in a study conducted with South Korean secondary school English teachers, identified some issues in the implementation of CLT in the South Korean context. As shown in Table 2.3, Li (1998) originally identified four main categories of constraints in adopting CLT: by the teacher, by the students, by the educational system and by CLT itself.

As shown in Table 2.2, Korean EFL teachers had difficulties with communication skills, due to their own low English proficiency. They were reluctant to employ the strategies recommended by the CLT approach because they were concerned about not being able to answer their students' unexpected questions. Teachers claimed that the lack of training resulted in misconceptions and uncertainty about what exactly CLT is as well as how they should implement it effectively in their classrooms. Li (1998) found that developing CLT-based materials required considerable time because teachers did not have access to authentic materials.

Table 2.2. Four main issues associated with the implementation of CLT in South Korea (Li, 1998.)

Source	Identified issues
Teacher	<ul style="list-style-type: none"> - Deficiency in spoken English - Deficiency in strategic and sociolinguistic competence - Lack of training in CLT - Few opportunities for retraining in CLT - Misconceptions about CLT - Little time for developing materials for communicative classes
Students	<ul style="list-style-type: none"> - Low English proficiency - Lack of motivation for developing communicative competence - Resistance to class participation
Educational system	<ul style="list-style-type: none"> - Large classes - Grammar-based examinations - Insufficient funding - Lack of support
CLT itself	<ul style="list-style-type: none"> - Inadequate account of EFL teaching - Lack of effective and efficient assessment instruments

In relation to the identified difficulties caused by students, Li (1998) found that Korean students had low English proficiency and this made it difficult to use communicative activities in class. Further, students had little motivation to develop communication skills because they were eager to attain good examination results that focused on linguistic knowledge including grammar and reading comprehension. Thus, students avoided participating in classroom activities by showing a passive attitude toward developing their communicative skills.

The third category of issues related to adopting CLT was the structure of the education system in Korea. The large numbers of students in classes made it difficult to perform CLT activities such as pair or group work because these activities require manageable numbers and space. Students were only motivated to perform successfully in examinations that emphasised grammar and reading comprehension rather than develop English communication skills. Li (1998) identified relating to the educational system, a lack of funding and support to develop CLT practices and authentic teaching materials. This led to teachers' difficulties with designing CLT-focused classes.

The final category identified by Li (1998) included the nature of CLT itself. The main problematic issues were the failure to account for the EFL context and inadequate assessment tools. Li (1998) argued that teachers were confused when they examined the students' communicative skills because the concrete assessment criteria was not established.

As CLT was originally generated from Western educational cultures where it was adapted in ESL contexts, it needs to be modified and contextualised, if it is to be successfully applied in EFL contexts. As Li (1998, p. 696) claimed, 'the predominance of text-centred and grammar-centred practices in South Korea does not provide a basis for the student-centred, fluency-focused and problem-solving activities required by CLT'.

Similar issues of implementing CLT in South Korea have been raised by other researchers (Choi, 1999, 2000; Choi, 2007; Eun, 2001; Flattery, 2007; Lyu, 2006; Seo, 2015). Firstly, some teachers were unable to understand the nature of CLT and did not think that it worked appropriately in their examination-based classroom environments (Eun, 2001; Flattery, 2007). Other teachers indicated that examinations mainly measured reading, listening and grammar, rather than speaking, writing and socio-cultural knowledge (Choi, 1999, 2000). Secondly, teachers tended to remain teacher-centred and adopt one-way teaching methods, such as drill practices rather than student-oriented methods. This did not encourage students to interact with each other and led to reduced opportunities for communication (Choi, 1999; Eun, 2001) and limited access to English outside the English conversation classes (Seo, 2015). Thirdly, along with large classes and students' unwillingness to participate in communicative activities, teachers' low English competence in CLT classes, lack of confidence in their own English

abilities and inadequate training, impeded the successful implementation of the CLT approach in the South Korean context (Choi, 2000; Eun, 2001).

As these studies have revealed, CLT has not been successfully applied in the Korean EFL context because there is a significant gap between its principles and the application of CLT in local contexts. Even though CLT principles incorporate student-centred learning and authentic communication that focuses on negotiation of meaning in the target language to obtain communicative competence, the successful application of CLT in EFL contexts is impeded by students' lack of motivation and their confidence to engage in communicative activities, large-size classroom environments and a form-based examination system that emphasises linguistic knowledge.

In summary, in South Korea, acquiring communicative competence has become the key aspect of English learning and teaching and teachers have agreed on its significance (Jeon, 2009). However, the education system in Korea is still faced with issues associated with the implementation of CLT in the English teaching and learning contexts. These issues concerning the effective application of CLT in the Korean context predominantly relate to teacher-centred teaching methods, students' lack of opportunity to communicate inside the classroom and their limited access to English outside their English classes. One of the ways to address the issues mentioned here is to enhance opportunities for students to communicate in English by adopting a MIM application. Communications via a MIM application may be able to provide English learners with sufficient opportunities to use English and interact with others, thus developing language skills and their communicative competence. Authentic interactions are an important component for language learning, because they provide students with opportunities to negotiate meaning to comprehend others or make themselves understood (Richards & Rodgers, 1986).

While CLT focuses on teaching English that aims to develop learners' communicative competence, SLA assists in the understanding of learning processes or mechanisms to explain how a second language is actually learned. In the next section, SLA hypotheses will be discussed, in particular the proposed processes of how language learning takes place.

2.3 Second Language Acquisition (SLA) Hypotheses

The predominant hypotheses in the field of SLA are:

- Input hypothesis, which focuses on the learner's comprehensible input that is considered essential for language acquisition (Krashen, 1982, 1985);
- Interaction hypothesis, which emphasises opportunities to interact and negotiate meaning when some kind of communication problem occurs, and plays an important role in the language learning process (Long, 1983a); and
- Output hypothesis, which provides a pedagogical goal in language learning (Swain, 1985).

These hypotheses are discussed in more detail below.

2.3.1 Input hypothesis.

In the 1980s, Input hypothesis, as proposed by Krashen (1982, 1985), had an impact on the SLA field. Krashen emphasised that the goal of language acquisition is achieved in a communicative environment that is abundant with comprehensible input. Similarly, SLA also depends on the comprehensible input a learner obtains (Krashen, 1982; Long, 1983). Comprehensible input is defined as 'second language input just beyond the learner's current second language competence in terms of its syntactic complexity' (Mitchell & Myles, 2004, p. 47).

Krashen (1985) defined a learner's current state of knowledge as 'i' and used the mathematical concept $i + 1$ to indicate one step beyond the learner's current level of linguistic competence. Language is acquired when learners comprehend input including language structure that is challenging:

Humans acquire language in only one-way by understanding messages, or by receiving 'comprehensible input'... We move from i, our current level, to $i + 1$, the next level along the natural order, by understanding input containing $i + 1$.
(p. 2)

According to Krashen (1985), language acquisition takes place by means of learners' access to comprehensible input and they progress when they receive comprehensible input that is beyond their current stage of competence. Comprehensible input is the most significant element in Krashen's model of how SLA takes place and it

is regarded as both a necessary and sufficient condition for language acquisition to occur. In Krashen's view, SLA depends on comprehensible input, thus a teacher's primary role is to help learners to receive comprehensible input. This theoretical perspective claims that grammatical rules are acquired in an automatic manner when learners can access a target language that they can comprehend. Thus, teachers do not need to teach grammar rules.

However, other researchers have argued that while comprehensible input is necessary, it is inadequate for SLA (Crookes, 1991; Harley & Hart, 1997; Long, 1996; Schmidt, 1990, 1993; Sharwood Smith, 1986; Swain, 1985, 1991). According to this viewpoint, the comprehension process differs from the production process. In other words, the ability to understand meaning is different from the ability to use linguistic knowledge to express meaning. Furthermore, learners are able to comprehend input when it is negotiated, and produce output during interactions that lead to internalisation of what they have experienced. In terms of acquisition of the grammatical rules of the target language, these are not automatically acquired by comprehensible input; rather learners require negative evidence that they can notice (Schmidt, 1990, 1993).

2.3.2 Interaction hypothesis.

Long's (1983a, 1983b, 1985, 1996) interaction hypothesis is an additional critique of Krashen's input hypothesis. In Long's view, comprehensible input is necessary but not sufficient for full language acquisition to take place. Interactionists suggest that SLA occurs through conversational interaction (Hatch, as cited in Lightbown & Spada, 2004; Long, 1983a, 1983b, 1985, 1992, 1996; Pica, 1994). Similarly, Long (1985, 1992) advocates that interaction facilitates language acquisition because of the conversational and linguistic modifications that occur in such discourse.

Although Long agreed with Krashen that comprehensible input is necessary for language acquisition, he raised the issue of how input is made comprehensible. Long (1983b) designed an experimental study based on observations of interactions between language learners and native speakers. Sixteen pairs of native speakers (NS) of English and 16 pairs of native and non-native speakers (NS–NNS) of English participated in face-to-face tasks including informal conversations and giving instructions for playing a game. The findings of the study revealed that there was little linguistic difference

between the talks produced by the NS pairs and the NS–NNS pairs in terms of grammatical complexity. However, there were important differences in the use of conversational and linguistic adjustments between the NS–NNS pairs. Long (1983b) operationalised conversational adjustments as confirmation checks, comprehension checks or clarification requests and found that the NS–NNS pairs used these conversational tactics to solve ongoing communication difficulties. Native speakers apparently depended on these tactics to solve communication problems when talking with less fluent non-native speakers and not with any conscious motive to teach grammar (Long, 1983b). From the perspective of the interaction hypothesis such collaborative efforts are very useful for SLA. Based on the findings of this experimental study, Long (1983b) claimed that modified interaction through different conversational adjustments, promotes learners' needs to access comprehensible input.

For successful SLA, Long (1983b) emphasised the need for learners to have the opportunity to interact with other speakers rather than to simplify the linguistic forms. In other words, modified interaction is a necessary mechanism for language learning to occur. Similarly as stated by Larsen-Freeman and Long (1991, p. 144):

Modification of the interactional structure of conversation ... is a better candidate for a necessary (not sufficient) condition for acquisition. The role it plays in negotiation for meaning helps to make input comprehensible while still containing unknown linguistic elements and, hence, potential intake for acquisition.

The role of interaction in SLA has been comprehensively discussed by Hatch (1978a, 1978b, 1983) and Long (1981, 1983a, 1983b, 1985). Both researchers proposed that in the process of interacting, learners and their interlocutors negotiate the meaning of messages by modifying and restructuring their interactions to reach a mutual understanding. As a result of this negotiation, learners may comprehend words and grammatical structures beyond their current level of competence and ultimately incorporate them in their own production. Thus, if comprehension of input is a necessary condition for successful SLA, as Long (1983b) has claimed, interactional modification is the mechanism that brings about that comprehension.

Mackey's (1999) empirical study supported the role of modified input during interaction to facilitate language development. Results showed that learners who engaged in interaction progressed further in the process of question formation in second language learning while the non-interactors were unable to do so. Thus, Mackey (1999, p. 565) has provided clear evidence that 'taking part in interaction can facilitate second language development'. Furthermore, she stated that actively participating in conversational interaction provides a positive effect on the production of advanced structures. In relation to the interaction hypothesis, Mackey (1999) proposed that interactional modifications lead to second language development and more active involvement in negotiated interactions leads to greater development.

Gass and Mackey (2007) claimed that the interaction hypothesis encompasses some aspects of both Krashen's (1985) input hypothesis and Swain's (1985) output hypothesis, because the major components of the interaction approach are input, output and feedback. Input includes the linguistic forms of oral, written and any visual signals in sign language that the learners are exposed to. Output indicates learners' language production and feedback relates to any information that is provided to the learners in response to their language production (Gass & Mackey, 2007).

2.3.3 Output hypothesis.

There has been a claim that, along with comprehensible input, comprehensible output is a crucial element for SLA because the former is unable to fully explain the language learning process (Pica, Holliday, Lewis, & Morgenthaler, 1989; Swain, 1985; Swain & Lapkin, 1995). Swain (1985, p 249) referred to comprehensible or 'pushed' output as the need for a learner to be 'pushed toward the delivery of a message that is not only conveyed but that is conveyed precisely, coherently, and appropriately'. She emphasised that learners need to have the opportunity to use a target language to fully understand the language, and when they are pushed in their language production, they can make themselves understood through this process, to enhance their SLA.

Swain (1985) asserted that producing language is an important part of language learning to achieve the native speaker's level of language competence. An example she observed was of students who learned French in an immersion program in Canada. Even though the students received adequate comprehensible input and achieved native-like receptive skills, they failed to obtain native-like levels of grammatical competence.

This was because the students lacked opportunities to participate in sufficient levels of conversation. Swain argued that despite the amount of comprehensible input they received, these students lacked the opportunities to produce the extended language output and were not pushed to be more accurate and more appropriate in their language output in terms of grammatical and sociolinguistic aspects.

Swain (1985) further discussed second language learners' need for comprehensible output (pushed output) rather than just comprehensible input in order to develop interlanguage (IL) capability. Comprehensible output leads to language development beyond functional levels of a second language (L2) proficiency by forcing 'the learner to move from semantic processing to syntactic processing' (p. 249). In relation to the role for output in second language development, Swain (1995, p. 128) claimed:

Output may stimulate learners to move from the semantic, open-ended, nondeterministic, strategic processing prevalent in comprehension to the complete grammatical processing needed for accurate production. Output, thus, would seem to have a potentially significant role in the development of syntax and morphology.

In the expanded output hypothesis, Swain (1995, p. 128) proposed three primary functions for learner output:

1. 'noticing/triggering' functions, or what might be referred to as the consciousness- raising role;
2. hypothesis-testing functions; and
3. metalinguistic functions, or what might be referred to as its 'reflective' role.

Swain believed that learners notice the gaps and problems in their current language system through production of the target language (noticing function) while output enables learners to test their IL by judging their comprehensibility and well-formed utterances based on the received feedback from the language partners (hypothesis-testing function). Output also allows the learners to reflect on and analyse their problems in IL use and knowledge (metalinguistic function).

The interaction hypothesis and the concept of comprehensible input and comprehensible output are useful for understanding face-to-face, verbal and NNS–NS interactions in classroom settings for SLA. While the need for opportunities to interact is crucial for SLA, the reality in the EFL classroom is that such opportunities are difficult to create. This could be due to the confined nature of classrooms, the largely traditional method of teaching English in classrooms, the lack of class time to interact for substantial periods of time and the lack of authenticity in the interactions between peers that are confined in a classroom space and time.

This doctoral study seeks to engage concepts of the interaction theory discussed above, to research opportunities that foster interactions between EFL learners and their peers to develop their language skills. The opportunity investigated in this thesis is the facilitation of interactions that are mediated by smartphones equipped with Internet access. As will be discussed in the next section, computer technology has been utilised in classrooms for students learning English to communicate with each other. However, because there has been limited research in the use of instant messenger applications on smartphones to promote interaction opportunities this study aims to close this gap by investigating how, as learners of English, Korean university students interact and negotiate meanings via the MIM application, *KakaoTalk*.

2.4 Negotiation of Meaning

Learners of English interacting with one another are required to negotiate meanings in order to understand each other. The concept of negotiation of meaning is integral to the communications via a MIM application on a smartphone and is a central component of this doctoral study.

2.4.1 Negotiation of meaning in SLA.

The interaction hypothesis (Long, 1996) proposes that language acquisition is facilitated by comprehensible input or feedback that is offered in the process of interaction. Long (1985) found that in NNS–NS conversations, participants modified their interaction when their counterpart had difficulties in their comprehension of communication. The language modification provided comprehensible input and helped the interaction to keep going. Thus, more second language interaction implies that more

negotiation of meaning will take place and consequently language learners could receive more comprehensible input.

Negotiation of meaning has been regarded as an essential component for language acquisition (Patterson & Trabeldo, 2006). Pica (1994, p. 494) referred to negotiation of meaning as ‘the modification and restructuring of interaction that occurs when learners and their interlocutors anticipate, perceive or experience difficulties in message comprehensibility’. Nunan (1999, p.311) defined negotiation of meaning as ‘the interactional work done by speakers and listeners to ensure that they have a common understanding of the ongoing meaning in a discourse’. Furthermore, the process of meaning negotiation enables speakers to better understand each other by allowing increased comprehensibility of language input through modified interaction (Ellis, Tanaka, & Yamazaki, 1994; Pica, 1994; Smith, 2003).

The concept of modified interaction was proposed by Long (1983b). Modified interaction can be achieved by the conversational repair moves of negotiation of meaning through communicative strategies such as clarification requests or comprehension checks. During interactions, negotiation of meaning occurs when there is a language difficulty in understanding discourse between communicators. That is, when utterance problems occur, the sender and receiver of the communication try to utilise tactics such as elaboration, confirmation or clarification to overcome the linguistic difficulties and reach mutual understanding of communication.

Many studies have highlighted the importance of negotiation of meaning in the learning of language (Gass, 1997; Gass & Varonis, 1994; Long, 1985; Pica, 1994; Pica, Young, & Doughty, 1987; Varonis & Gass, 1985). In particular, Varonis and Gass (1985) emphasised negotiation of meaning as a key factor in SLA, placing more stress on this process of language acquisition. Pica and colleagues (1987) discussed the importance of negotiation of meaning in terms of the process of promoting learners’ comprehension of the target language. Pica (1994) indicated that the continued awareness of difficulties during negotiation of meaning enables learners to explore IL to overcome interactive problems in the understanding of communication. In addition, Pica (1994) pointed out that the negotiation of meaning process promotes language acquisition allowing different syntactical structures to be used to explain the same meaning. Furthermore, according to Stevick (1981), learners can obtain a successful language result because the process of negotiation of meaning promotes continued

awareness and attention to their interactions. In summary, negotiation of meaning during SLA is crucial because it provides learners with guidance to convey messages and enables them to pay continuous attention to their communications. This process can lead to successful comprehension of communicative discourse.

2.4.2 Negotiation of meaning in interaction.

From the interaction hypothesis, Long (1996) asserted that negotiation of meaning offers learners the opportunities for language learning. Negotiation of meaning occurs when learners have communicative difficulties and they try to resolve them. In the interaction process, learners can perceive the incomprehensibility of utterances from some signals such as confirmation checks, clarification requests or comprehension checks (Gass & Mackey, 2007). This indicates that learners fail to understand the initial utterance and the signals play a role of corrective feedback. The interlocutor who receives those signals tries to modify the initial utterance to make the partner understand and arrive at a mutual comprehension. The receiver of signals is pushed to modify the initial utterance correctly and clearly which is known as output modification (Swain, 1995). Output modification is beneficial to language learning by allowing learners to test the second language hypothesis (Mackey, 2006; Swain, 1995) and notice gaps in their interlanguage system (Gass, Mackey & Pica, 1998). In other words, it provides learners with opportunities to compare their own language output with the target form and notice the gap in their IL (Iwashita, 2003).

2.4.2.1 Long's negotiation of meaning signals.

Negotiation of meaning skills is an ability to utilise meaning negotiation signals for effective interaction. It is believed to promote language development by pushing learners to experience the integrated process that enables them to receive comprehensible input and produce comprehensible output during interactions (Bygate, 1987).

Long (1983b) set forth five negotiation of meaning signals, identifying their roles in utterances: confirmation checks, clarification requests, comprehension checks, self-repetition and repetitions of other's utterances. Confirmation checks serve to make sure that the listener understands correctly what the speaker said. This signal is represented with rising intonation questions and repetition of all or part of the initial utterance.

Clarification requests made by the listener help the listener understand what the speaker has said. This signal takes such question forms as tag or what questions. It mostly begins with the expression “I don't understand” or a request for explanation of what was initially stated. Comprehension check is used to ensure the listener’s understanding with the questions of “Right?” and “OK?” It is helpful to prevent a communication breakdown by checking the listener’s comprehensibility immediately following the speaker’s utterances with such questions. Self-repetition includes all examples of speakers repeating what they previously said. It is formed with a partial, complete or modified repetition. Repetition of other's utterances works in the same way as self-repetition but it indicates that the speaker repeats what the interlocutor has initially said or repeats it partially or as a lexical item. It might include the extended forms of a speaker’s utterances.

2.4.2.2 Negotiation of meaning and learning outcome.

Some researchers have focused on the learning outcome of meaning negotiation (Alcón, 2009; Bitchener, 2004; Leahy, 2001; Luan & Sappathy, 2011) while others have examined the context of negotiation of meaning, regardless of whether it resulted in learning or not (Akayoğlu & Altun, 2009; Jepson, 2005; Kim, 2006; Oliver, 1998, 2002; Patterson & Trabeldo, 2006; Toyoda & Harrison, 2002). These studies demonstrated how participants interacted by adopting strategies of negotiation for meaning in their interactions. With regard to the learning outcome of meaning negotiation, Bitchener (2004) investigated in a longitudinal study the relationship between negotiated interaction and language learning through communicative tasks such as information-gap and decision-making. The study based on face-to-face interaction mode, demonstrated that participants engaged in negotiated interaction regarding vocabulary items rather than focusing on grammar or pronunciation. When the majority of participants noticed a gap between their language expression and the responses they received from their language counterparts, they modified their utterances in order to be understood clearly. This process of interaction facilitated language learning, by modifying or restructuring the linguistic structures and language forms to resolve problematic utterances.

Another study by Luan and Sappathy (2011), examined the relationship between negotiated interaction and L2 vocabulary acquisition in the Malaysian context. The

participants of the experimental study were a group of primary Year 5 students in ESL classrooms. The study found that learners who were involved in negotiated meaning in face-to-face mode during a two-way interactive task, obtained higher scores in vocabulary tests. Furthermore, students involved in an interactive task demonstrated their ability to acquire and retain vocabulary items. The study concluded that negotiated interaction is valuable for enhancing acquisition and retention of vocabulary among primary school students who have average proficiency, by emphasising the importance of planned activities related to negotiated interaction. The studies on learning outcome of negotiation of meaning have shown that negotiated interaction is particularly beneficial for learning lexical items showing better scores in vocabulary tests as well as enhanced acquisition of vocabulary.

The studies on how participants interacted by adopting strategies of negotiation for meaning in their interactions, have been conducted regardless of learning outcomes. Oliver (1998), for example, investigated children's negotiation for meaning and whether their strategies for meaning negotiation were similar to those of adults in face-to-face mode. The results indicated that children used negotiating strategies including clarification requests, confirmation checks, comprehension checks and repetitions in similar ways to adults.

As aforementioned, a clarification request is the utterance produced by the listener for clarifying what the speaker had said (Long, 1980, 1983a, 1983b; Pica & Doughty, 1985). It includes expressions such as "I don't understand", wh-questions, yes/no questions, and tag questions. Confirmation check is made by the listener and used to establish that the preceding utterances had been understood correctly. It includes repetition of some or all of the previous utterances (Long, 1980, 1983a; Pica & Doughty, 1985). Furthermore, comprehension check is the communicative strategy made by the speaker to check if a preceding utterance had been comprehended correctly by the listener, thus, primarily the question "Do you understand?" is used (Long, 1980, 1983b; Pica & Doughty, 1985). Oliver (1998, p. 375) demonstrated examples of children using some of these strategies:

Example 1: NNS: A little line in the leave.

NS: A what? (→ clarification request)

Example 2: NNS 1: Where does the um, glasses go?

NNS 2: The glasses? (→ confirmation check)

Example 3: NNS: You know what, you know? (→ comprehension check)
[OK]?

Even though children employed similar patterns of negotiation strategies such as clarification requests, confirmation checks, or comprehension check, there were differences between children and adults in the degree of use of the strategies. The most commonly used strategies by children were repetition, clarification requests and confirmation checks while the least used was comprehension checks. Oliver (1998) concluded that in a classroom environment even children can negotiate for meaning to achieve mutual understanding during conversation and, therefore, negotiation of meaning is valuable for SLA for children.

In another study examining the use of negotiation of meaning by children, Oliver (2002) paired participants, matched in age and gender, and with a background either as a native speaker (NS) or a non-native speaker (NNS) of English. Three comparison groups were formed: 32 NNS–NS, 48 NNS–NNS, and 16 NS–NS pairs. The findings showed that the NNS–NNS pairs used the most strategies of meaning negotiation, followed by NNS–NS, then NS–NS pairs. There was a significant difference in the amount of negotiation of meaning in terms of the native or non-natives status of the participants. According to Oliver (2002), in NS–NS dyads, little negotiation of meaning was needed because there was little communication breakdown in contrast to the NNS–NNS and NNS–NS dyads who needed a substantial amount of negotiation of meaning during their communications. When more communication breakdown occurred, more negotiation of meaning was required to overcome communication difficulties (Long, 1980).

Zhao and Bitchener (2007) explored face-to-face interactional patterns between dyads of teacher–adult learners and adult learners–adult learners through meaning-focused tasks such as information exchange communication which needed participants to exchange information they had in order to complete a task. The findings demonstrated that meaning negotiation happened in interactions between pairs in both groups of dyads when participants were faced with linguistic difficulties. There were more questions in the learner–learner interactions as participants used this strategy to ‘initiate opportunities for accessing target language data for the immediate resolution of

language difficulties' (p. 446), which is beneficial for second language learning and acquisition.

2.4.3 Negotiation of meaning in face-to-face and technology-based communication.

Although many studies on the negotiation of meaning have been conducted in face-to-face mode, there is now a trend to examine meaning negotiation in technology-based communication modes, such as text-based synchronous computer-mediated communication (SCMC) (Akayoğlu & Altun, 2009; Patterson & Trabaldo, 2006; Sim, Har & Luan, 2010). The mode of SCMC is text-based but it is regarded as an oral-like communication channel (Fernandez-Garcia & Martinez Arbelaiz, 2003).

Recent comparative studies have investigated the quantity and quality of negotiation of meaning in face-to-face and SCMC modes (Kaneko, 2009; Lai & Zhao, 2006; Nik et al., 2012; Rouhshad, 2014; Sim et al., 2010; Smith, 2009a). Those that compared frequency of negotiation of meaning found that the participants produced more negotiation of meaning in face-to-face mode than in SCMC (Kaneko, 2009; Smith, 2009a; Nik et al., 2012). Kaneko (2009), for example, showed that learners of Japanese in an intermediate Japanese class generated twice as many negotiation of meaning strategies in the face-to-face mode through three different tasks, namely, role play, spot the difference and constructing sentences. This is consistent with the results of other studies (Smith, 2009a; Nik et al., 2012) that demonstrated fewer instances of negotiation of meaning occur in SCMC mode than face-to-face mode. This is because in SCMC mode, L2 learners tend to resolve communication problems or incomprehension of utterances through scrolling back or re-reading the previous messages rather than personally negotiating meaning with their interlocutors.

Other studies (e.g. Blake, 2000; Ortega, 2009), on the other hand, have suggested that SCMC enables negotiations to take place at any time and, therefore, more frequently than the face-to-face interaction mode.

Some studies have emphasised the quality of negotiation of meaning in both face-to-face and SCMC modes (Lai & Zhao, 2006; Rouhshad et al., 2014; Sim et al., 2010). In Lai and Zhao's (2006) study, dyads of ESL learners who engaged in spot the difference tasks produced negotiation of meaning in both modes. They indicated that SCMC of text-based online chat provided learners with an advantage over face-to-face

conversations, in terms of facilitating noticing of errors. They emphasised that online chat has potential because it promotes learners' noticing of their own mistakes. In addition, Sim et al. (2010) indicated that low proficiency learners have enhanced opportunities for SLA involving negotiation of meaning in both SCMC and face-to-face environments. In their study, SCMC offered more varied syntactic and semantic modifications that enable low proficiency learners to have sufficient opportunities to negotiate meaning for comprehensible input. Therefore, Sim et al. (2010) suggested that language teachers need to promote the use of SCMC to enhance opportunities for negotiation of meaning by emphasising that an SCMC communication mode can be an appropriate environment to develop communicative language ability through more production of modified output. They argued that classes using online chats could be particularly beneficial for low proficiency learners as a bridge of face-to-face interaction (Sim et al., 2010).

In summary, the comparative studies on negotiation of meaning indicate that the mode of interaction is a variable factor that influences the quantity and quality of negotiations. However, it is still unclear which mode of interaction is best for eliciting more negotiation of meanings, because some studies reported that there was significantly more negotiation of meaning in face-to-face than in SCMC mode (Kaneko, 2009; Nik et al., 2012; Smith, 2009a) while other studies (Blake, 2000; Ortega, 2009) indicated more frequent negotiations in SCMC mode than in face-to-face interaction. This means that the factor of communication mode doesn't seem to influence the amount of meaning negotiation between the two interaction modes. However, the quality of negotiation of meaning such as learners' noticing mistakes and more varied modification of low proficiency learners, could be the benefit of SCMC mode. As this doctoral study is focused on mobile technology-mediated interaction, it is appropriate to look more closely at how the technology-based communication mode facilitates meaning negotiation and how learners negotiate in this mode.

2.4.4 Negotiation of meaning in technology-based communication.

In the last two decades, there have been many studies on negotiation of meaning conducted in the technology-based communication mode known as computer-mediated communication (CMC). CMC includes email, discussion boards or instant messaging (IM) (Akayoğlu & Altun, 2009; Bitchener, 2004; Patterson & Trabeldo, 2006; Samani

et al., 2015; Toyoda & Harrison, 2002; Warschauer, 1998). This communication mode has long been regarded as a promising channel for language learning as it increases learners' opportunities to use the target language (Barson, Frommer, & Schwartz, 1993), promotes negotiation of meaning (Blake, 2000) and facilitates an amount of comprehensible input and output resulting from negotiation of meaning (Blake, 2000; Pellettieri, 2000; Toyoda & Harrison, 2002). However, studies examining negotiation of meaning using a mobile-assisted communication environment have not been conducted, therefore this study reviewed the use of negotiation of meaning strategies in the CMC mode, in an attempt to frame the theoretical basis for this doctoral study.

2.4.4.1 Types and patterns of negotiation of meaning in CMC.

Patterson and Trabeldo (2006) examined tandem language learning with 50 students of Spanish at a US university and 50 students of English at an Argentinean university. Participants in each setting were matched with participants in the other setting, and the matched pairs exchanged messages using two computerised methods, email and IM chats. Two models of negotiation of meaning were used as a framework to analyse the collected data (Long & Robinson, 1998; Pica, 1994). The study showed that various types of negotiation of meaning were used including confirmation check, clarification request, elicit vocabulary, comprehension check, reply clarification, reply confirmation, reply vocabulary, reply comprehension, elaboration and self-correction. Interestingly, overall twice as many functions of negotiation were used in the IM chats than in email. The authors noted that the synchronous nature of IM chats gave learners more opportunities to receive instant responses to their questions and requests for clarification. Unlike asynchronous communication such as email, IM chats also decrease the need, and amount of time, for students to scroll back to messages and reflect on how they would respond, hence increasing the amount of negotiation of meanings output. Patterson and Trabeldo (2006) concluded that tandem language learning projects using CMC are valuable for language learners and language classes because CMC allows language learners to communicate with native speakers of the target language away from the classroom and it also offers a more genuine cross-cultural experience through the exchange of images.

Akayoğlu and Altun (2009) examined the patterns of negotiation of meaning emerging in text-based synchronous CMC environments, using the *Tapped In* application. They also compared any differences between NS and NNS adults of

English, in terms of negotiation of meaning functions in this environment. There were two groups of participants invited to join discussion sessions that discussed the given stories: one was composed of undergraduate students who were non-native speakers of English, and the other group comprised eight native speakers of English who were invited to interact with non-native speakers of English. The data was analysed by means of computer-mediated discourse analysis, a linguistic discourse analysis method that deals with the patterns produced during discourse (Herring, 2004).

Akayoğlu and Altun (2009) identified 12 types of meaning negotiation functions: clarification request; confirmation; confirmation check; correction; elaboration; reply clarification; reply confirmation; reply vocabulary; vocabulary request; elaboration request; reply elaboration; and vocabulary check. The most frequently used function in the NS data was clarification request but in the NNS data it was confirmation. However, the least frequently used functions relating to vocabulary categories were found to be similar for both groups. In other words, the functions most frequently used by the two groups differed while the least frequently used functions relating to vocabulary categories, were similar. This demonstrates that there were various functions of meaning negotiation and the most frequently used function differed according to whether the participants were NS or NNS. Accordingly, the authors argued that patterns of negotiation of meaning in text-based CMC need to be determined because CMC provides students with new environments that help to improve their language learning (Akayoğlu & Altun, 2009).

In the Malaysian ESL environment, Samani et al. (2015) determined the types and frequency of negotiation of meaning in the interaction process and compared the results of their study with previous studies of text-based synchronous CMC environments. The participants of the study were ESL learners at university who were in group discussions about the selected stories through text-based CMC. The coding taxonomy developed in previous studies (Akayoğlu & Altun, 2009; Patterson & Trabeldo, 2006) was applied to code the data during the discourse analysis process. Their study identified 10 types of functions: clarification request; confirmation; confirmation check; correction or self-correction; elaboration; elaboration request; reply clarification or definition; reply confirmation; reply elaboration; and vocabulary check (Samani et al., 2015).

The findings indicated that the amount of negotiation of meaning was affected by the language proficiency of the participants. This outcome is supported by previous

studies (Ellis, 1985; Oliver, 2002; Varonis & Gass, 1985; Wesche & Ready, 1985; Yule & MacDonald, 1990) that have demonstrated that low proficiency language learners need more subsequent negotiation and linguistic modification to solve misunderstanding during interactions. Samani et al. (2015) suggested that teachers could encourage their students to utilise CMC mode in the process of second or foreign language learning by being aware of the characteristics of negotiation functions.

As already mentioned, various functions of negotiation of meaning have been identified in the CMC environment (Akayoğlu & Altun, 2009; Patterson & Trabeldo, 2006; Samani et al., 2015) through using coding taxonomies of negotiation of meaning as framework. These studies found that CMC enables learners to communicate with native speakers of a target language beyond the classroom and offers them authentic cross-cultural experiences (Patterson & Trabeldo, 2006). The pattern of negotiation for meaning is different in terms of the most frequently used functions (Akayoğlu & Altun, 2009) while the learners' proficiency influences the amount of meaning negotiation with low proficiency learners adopting more strategies of negotiation of meaning to resolve communication difficulties during interaction via CMC mode (Samani et al., 2015).

The present study uses a combined taxonomy based on those of Akayoğlu and Altun (2009) and Samani et al. (2015) as a framework to identify the types, amount and patterns of meaning negotiation emerging in the MIM application environment. Several explanations and utterance examples of Samani et al. (2015) were added to Akayoğlu and Altun's (2009) taxonomy. The adopted taxonomy of types of negotiation of meaning functions is outlined in Table 2.3. The negotiation of meaning functions presented in this table provide the framework for my study of how Korean university students negotiate meaning using the MIM application, *KakaoTalk* on their smartphones.

Table 2.3. Combined taxonomy of types of negotiation of meaning

Types of negotiation of meaning	Explanation	Example
1. Clarification request	Made by the listener to clarify what the speaker has said and includes statements such as “I don’t understand”, wh- questions, yes/no questions and tag questions. ¹	34: what was the old man reprehensive of? 34: I mean symbolically 2: my idea is peace 26: really? The old man symbolizes peace?? ²
2. Reply clarification	Clarifying his or her previous statement as a result of request (clarification request). ¹	18: wasn't it that the truck is for the old man so that they will be sent far away from here 3: to evacuate those who were left behind 27: to take the old man? 3: like the old man ²
3. Confirmation check	Asking for confirmation of a previously made statement to be sure he or she has understood correctly. ¹	5: Fourth of July - guys any idea what is this, I mean, does this symbolize smthg? 26: America's Independence Day? 26: symbolizes freedom I guess 2: I think so. ²
4. Reply confirmation	Confirming a statement when someone requests confirmation, with expressions like “yes”, “OK”, “you are right”. ¹	18: You have to agree that society during early 60s is more conservative to compare than early 2000, right? 3: indeed

		<p>3: indeed*</p> <p>34: in what aspects please dear Aisha? ²</p>
5. Confirmation	Also made by the listener to establish that the preceding utterance has been heard and understood correctly. They include repetition accompanied by rising intonation. ¹	<p>7: ...I think she mean that her father wants Jacque to marry the guy she meets in Japan... she did it for the sake of the father...</p> <p>34: but there was no mention of father force</p> <p>1: yeah there is no mention of a father ²</p>
6. Elaboration request	Requesting elaboration if he or she does not have an idea about the speaker's utterance and requesting extra information. ¹	<p>5: it's started about the Indians. Who are they?</p> <p>2: did you mean the Indians??</p> <p>5: yeah, very confusing ²</p>
7. Reply elaboration	Elaborating his or her own statement to make it clear as a result of request (elaboration request). ¹	<p>20: parents decision is very important ...</p> <p>2: Maybe...</p> <p>2: but what if they made the wrong decision?</p> <p>20: if they made the wrong decision then they have to face the consequences not the others. ²</p>
8. Elaboration	Elaborating the meaning of a previous statement regardless of whether the previous statement belongs to him or her. ¹	<p>18: Maybe she meant that she is a woman, and it is her duty to get married, raise children and take care of a family.</p> <p>18: Besides, it is a must for a woman to get married before they reach 30s.</p> <p>18: Well, I just thought that way.</p>

		27: I disagree ²
9. Comprehension check	Asking if the other person understood what was said or written and generally expecting that he or she has understood.	A: <i>Here, UFO stands for unidentified flying objects, do you understand?</i> B: Yes, I see.
10. Reply comprehension	Replying to comprehension check or indicating that the statement was understood.	A: Here, UFO stands for unidentified flying objects, do you understand? B: Yes, I see
11. Vocabulary check	Checking whether the other participants know the meaning of vocabulary or not. ¹	20: Prudence...is it????? 26: I think that can be true 0020 and yes it's Prudence 5: what is the meaning of prudence? ²
12. Reply vocabulary	Giving a meaning of a word or phrase as a result of a request.	NNS27: yes, is there a volunteer to translate? NNS4: <i>a liar dosnt live forever</i> NNS4: i think NNS4 smiles NNS24: <i>the end for a liar is not so far!</i> NNS28: <i>people will understand that you are lying at the end</i> NS7: <i>your lies catch up with you.</i>

13. Correction or self-correction	Correcting an error made by another speaker or self-correction of one's own error. ¹	<p>5: we need to be passion on what we're doing</p> <p>5: Like what Steven did</p> <p>2: I agree</p> <p>26: <i>passionate</i>* ²</p>
14. Vocabulary request	Requesting a vocabulary word.	<p>NNS28: I want to remind you a Turkish proverb</p> <p>NNS4: ?</p> <p>NS7: sure, what's the Turkish proverb?</p> <p>NNS28: “yalancının mumu yatsıya kadar yanar”</p> <p>NNS24 smiles</p> <p>NS7: <i>and in english? ;)</i></p> <p>NNS4: smiles</p> <p>NS6: <i>translate please</i></p>

Note. Adopted from Akayoğlu and Altun (2009) and Samani et al. (2015).

¹ Explanation added from Samani et al. (2015); ² Examples added from Samani et al. (2015).

2.4.4.2 Negotiation of meaning in CMC and language proficiency.

The study by Samani and co-researchers (2015), of Malaysian students' use of the CMC, *Yahoo Messenger*, demonstrates that the amount of negotiation of meaning was dependent on the participants' language proficiency. This is consistent with the findings of other studies (Oliver, 2002; Patterson & Trabeldo, 2006; Varonis & Gass, 1985; Yule & MacDonald, 1990). For example, NNS–NNS pairs, in other studies, have outperformed NNS–NS pairs, in terms of the number of negotiation of meaning strategies used in interactions (Varonis & Gass, 1985; Yule & MacDonald, 1990). According to Samani et al. (2015), this is because there is more linguistic negotiation of meaning and language modification in NNS–NNS interactions due to misunderstandings between communicative partners. Thus, these language partners need to adopt interactive tactics to resolve linguistic difficulties and obtain mutual comprehensibility of communications.

Other studies (Ellis, 1985; Porter, 1986; Shortreed, 1993) have supported the influence of learners' L2 proficiency on the amount of negotiation of meaning that emerges during communication. These studies indicate that more interactive strategies are needed to resolve communicative misunderstanding between NNS–NNS or NNS–NS pairs than between NS–NS pairs, and lead to an increase in the linguistic meaning negotiations and modifications for these groups. In addition, Samani et al (2015) suggested that communications by ESL students with high language skills will have low levels of vocabulary related functions such as vocabulary request or vocabulary check, and comprehension check function.

2.5 Technology-based Language Learning

Technology allows students to learn language in relatively comfortable settings and more importantly, provides second language learners with opportunities to interact actively, to produce comprehensible input, negotiation of meaning and comprehensible output in conversational activities (Chapelle, 2004; Hampel, 2003; Hampel & Hauck, 2004; Hanson-Smith, 1999). In particular, mobile devices such as mobile phones, PDAs or tablet PCs enable students to interact with their teachers and peers at anytime and anywhere.

In mobile learning, some researchers have emphasised the characteristics and affordability of mobile devices by highlighting accessibility, mobility and supported

learning in different places beyond physical connections (Georgiev, Georgieva, & Smrikarov, 2004; Parsons, 2007), while Sharples, Taylor and Vavoula (2006) described mobile learning as the process to obtain knowledge in various contexts based on communication between people and mobile technologies. According to Kukulska-Hulme and Shield (2008, p. 273), mobile learning is learning that is ‘mediated via handheld devices and potentially available anytime, anywhere’. Furthermore, Kukulska-Hulme (2009) emphasised the potential of mobile devices that enable people to access both learning resources and other people regardless of time and space by overcoming challenges in physical limitations.

As illustrated in Figure 2.2, technology-based language learning has the potential to become all-encompassing and includes mobile-assisted language learning that is mediated through mobile devices such as tablets, mobile phone and PDAs. Included in MALL is a subset that is divided into two subcategories: synchronous and asynchronous communication channels. Mobile instant messaging applications are regarded as a hybrid communication pathway encompassing synchronous and asynchronous channels, as such, it is located in the centre of two different communicative methods.

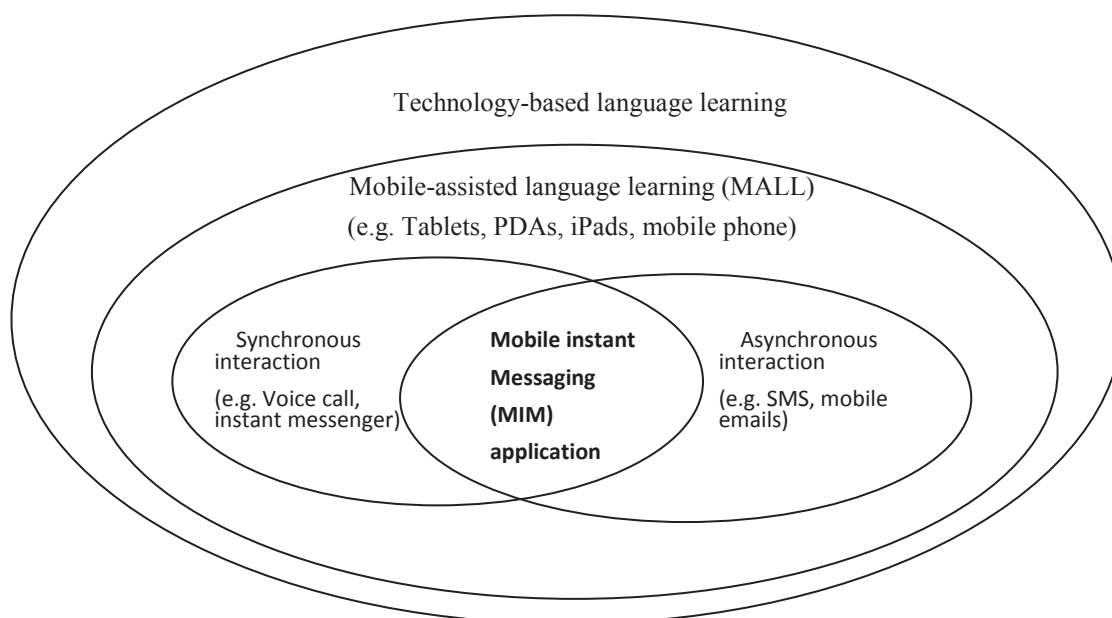


Figure 2.2. Conceptualising language learning via MIM applications.
Adapted from Ng (2013, p. 10).

2.5.1 Mobile-assisted language learning (MALL).

Mobile devices used in MALL allow people to learn in different ways by providing learners with the opportunity to learn continuously, interact with others or access learning resources.

In a research study with Japanese university students in EFL classes, three different communication modes were compared: email via computer, email via mobile phone, and speaking groups to examine the use of mobile phones as classroom tools to learn target language structures (Kiernan & Aizawa, 2004). The findings demonstrated that mobile phones were popular learning tools for the students and served as an effective learning resource. Enabling learners to communicate in English outside the classroom was noted as another important benefit.

Nah (2008) investigated the potential for using a mobile phone for South Korean university students' EFL listening skills. The results showed that a wireless application protocol was effective in supporting students to learn listening skills and that students had a positive attitude toward using their mobile phone in this way. Furthermore, the students endorsed the use of a wireless application protocol to learn the English language in this learning environment.

Stockwell's (2010) study examined the effectiveness of a mobile phone or a desk top computer, for EFL university students' vocabulary activities. The findings indicated that both modes, mobile phone and desk top computer, were affective in improving students' vocabulary scores, with no significant difference in scores between the two platforms. However, it took more time to complete the activity on the mobile phone, than on the desk top computer and students using the mobile phone for their activity demonstrated lower usage than those using a desk top computer. Stockwell emphasised the importance of integrating the use of a mobile phone with other activities to encourage students' willingness to engage in these activities.

Gromik (2012) investigated the suitability of mobile phone video production as a language learning tool. In this study, EFL learners at university made use of the recording feature of a mobile phone to create video productions. The study found that the video recording feature in a mobile phone made it possible to evaluate learners' speaking skills.

Kondo et al. (2012) investigated whether MALL would facilitate independent EFL learning. They used the Nintendo DS as a platform for university EFL learners to

become accustomed to both playing games and engaging in learning activities on the one device. Their primary interest was to investigate if MALL activities would develop self-regulated learning enabling learners to study without a teacher's intervention. The results indicated that the use of the MALL device developed students' self-study behaviour with participants stating that they spent more time studying in out-of-class environments and their English listening and reading skills improved. In other words, compared to the control group of university students who did not receive the MALL support, the students in the MALL group demonstrated increased scores in both the listening and reading domains and more improvement in the reading domain. The explanation for this is that the use of MALL enabled students to develop their reading skills outside the classroom more so than their listening skills.

These studies show that MALL applications are versatile and effective in developing linguistic aspects of speaking skills and self-regulated learning and MALL devices help learners improve both reading and listening skills.

Kukulska-Hulme, Norris and Donohue (2015) describe a pedagogical framework for mobile-assisted language teaching and learning, highlighting four connecting concepts: teacher wisdom, device features, learner mobilities and language dynamics. This pedagogical framework informed teachers of how these concepts are integrated in activities for language learning, designed for their learner using mobile technologies.

- Teacher wisdom: The teacher's personal role and experience in enacting pedagogy. Enacting a mobile pedagogy means considering pedagogy in relationship with the other three spheres of the framework.
- Device features: The mobile device features that enable multimodal communication, collaboration and language rehearsal in the course of everyday or professional settings. These features are relevant for teachers and learners, both of whom may need to keep enhancing their knowledge and skills over time. Mobile technology partly depends on the ability to connect to the Internet in different locations, ideally seamlessly, but people still need to be aware of aspects such as availability of Wi-Fi or how much it may cost to download a very large file.

Learner mobilities: Learner mobilities include the places and times when people can learn, the range of contexts and cultural settings they occupy and the personal goals that motivate learners to keep on learning beyond the confines of the classroom.

Language dynamics: Language is dynamic and, partly due to the rapid evolution of communications technology, is in constant flux. New channels and media become available for learning and interpersonal communication, and these may be used to conduct language teaching (e.g. via social media) to practise the target language, and to initiate inquiries about language meanings and language change.

Furthermore, Burden & Atkinson (2008) indicated the pedagogical value of technology to enhance teaching and learning in relation to learning design framework using technology by emphasising the creation of learning activities to enable learners to engage in both meaningful and challenging tasks. They focused on ‘pedagogical affordances’ that indicate any activities or practices of a function of technology that help the learner to perform (p. 123). The researchers pointed out the importance of ‘sound planning, imagination and creativity’ for teachers designing educational learning activities using technology and its applications (p. 124).

2.5.2 Mobile instant messaging (MIM) application for communication.

Mobile instant messaging applications are a recently introduced platform that combines social media with mobile technology. MIM was originally designed for community enhancement through collaboration and information exchange (Arnold & Paulus, 2010). It has been used to maintain personal relationships, develop community engagement, and support L2 learning by interaction with others (Church & de Oliveira, 2013; Lai, 2014; Santamaría-García, 2013). Examples of this type of communicative platform are *Facebook*, *WhatsApp*, *Viber*, *Line*, and *KakoaTalk*.

Learners who are accustomed to using a smartphone and its applications often interact with others synchronously (via voice call or instant messenger) or asynchronously (via SMS, mobile email or discussion board). Nah (2008) indicated that mobile messenger is considered a synchronous interaction method with an instant

response as well as an asynchronous interactive channel, which gives learners time to check for errors and correct them. Furthermore, mobile messenger enables learners to communicate with others in a variety of ways including the use of messages, pictures, audio and video files. Therefore, language learners have the potential to use a wide range of communicative channels when adopting a MIM for an English interaction tool. As a result, language learners are provided with more opportunities to communicate in English with others and have access to a broader range of people and interactive practices than in face-to-face classroom environments (Hall & Verplaetse, 2000).

2.5.2.1 SMS vs. MIM.

The distinction between SMS and MIM is that MIM is dependent on a mobile Internet connection to send messages or photos, while SMS (short message service) can be used without any Internet connection. According to Church and de Oliveira (2014, p. 353),

SMS is a ubiquitous capability built into the GSM wireless standard which allows short 160 character text messages to be sent to and from any GSM mobile handset regardless of service providers. SMS has since evolved to include messages containing image, video and sound content. Known as MMS or Multimedia Messaging Service, these tend to cost more than simple text messages.

They described MIM (using *WhatsApp* as an example) as:

WhatsApp is a MIM application for smartphones. It allows you to send and receive images, video, audio and location-based messages to individuals or groups of friends using your pre-existing data plan and at no cost. *WhatsApp* requires a mobile Internet connection to function and both parties must have the proprietary software installed on their mobile phone. (p. 353)

2.5.2.2 Social media and language learning.

MIM is a social media platform. According to Mubarak (2016, p. 116), social media is defined as:

the social software in the form of websites and other online groups such as social networking and micro blogging which are created by a sizable group of

folks (known as users) to share conversations, personal messages, ideas, information or to grow social and professional contacts.

Grahl (as cited in Lomicka & Lord, 2016, p. 255) classify social media into six different categories:

- (1) social networks (e.g., *Facebook*, *LinkedIn*, *Whatsapp*, *KakaoTalk*);
- (2) bookmarking sites (e.g., *Delicious*, *StumbleUpon*);
- (3) social news (e.g., *Digg*, *Reddit*);
- (4) media sharing (e.g., *Instagram*, *YouTube*, *Flickr*);
- (5) microblogging (e.g., *Twitter*); and
- (6) blogging, particularly comments and forums.

Whatsapp and *KakaoTalk* are categorised as social networks because they are used to build social networks or maintain social relations with others. They allow users to interact via the Internet facilitating online social networks.

Researchers have conducted studies into the use of social media for language learning (e.g. Klimanova & Dembovskaya, 2013; Lin et al., 2016; Mills, 2011; Mubarak, 2016; Stevenson & Liu, 2010; Yunus et al., 2012). Stevenson and Liu (2010) examined the use of social media sites *Palabea*, *Live Mocha* and *Babbel* for learning language through social interaction. These sites enabled language learners at university to communicate with native speakers of the target language through audio, video or text chat. They found that users of *Babbel* perceived improvements in new vocabulary and had increased confidence in their ability to use the foreign language. According to Stevenson and Liu (2010), these communication tools provide learners with a real time conversational language environment that is usually only available when visiting or living in a foreign country.

Similarly, Mills (2011) investigated college students' use of the social networking tool *Facebook* to learn about French language and culture. The data was based on students' interactions with other members, posted notes and created profiles within the *Facebook* community. The students of an intermediate-level French course shared feedback and resources related to the topics discussed in the classroom. The findings

showed that this interactive tool promoted students' joint enterprise through participation and engagement in a meaningful online community. It also developed students' mutual engagement and allowed learners to generate relationships with community members and enhance a shared repertoire of French cultural resources. The study concluded that *Facebook* used in the French classroom, enhanced students' communication and discussion skills through an interactive community.

White (2009) demonstrated that social media improved university students' motivation and academic writing skills in Japan. *Facebook* was also used to promote Japanese students' motivation in their English class. A discussion question was given every week and feedback was also provided on an individual basis to assist with the improvement of students' writing skills. The students were encouraged to obtain feedback by asking questions about their work. The findings showed that the students reduced their grammatical mistakes throughout the five-week discussion activity and they were motivated to learn from both their mistakes and the feedback that was provided by other students in their discussion group.

With regard to the benefits and limitations of social media in language learning, Yunus et al. (2012) found that *Facebook* enhanced Malaysian university students' creative thinking ability, through the brainstorming activities. Church and de Oliveira (2014) also found that *WhatsApp* allowed its users to exchange messages in real time at no cost. They highlighted the benefits as less 'cost', a 'sense of community', and 'immediacy' (p. 352). Furthermore, social media offers a comfortable and less stressful learning environment that allows learners adequate time to respond to questions in contrast to the classroom environment (Zaidieh, 2012).

There are, on the other hand, some limitations to the use of social media for language learning (Grandzol & Grandzol, 2010; Richard, Cobo, Fortuny, & Hohenwarter, 2008; Yunus et al., 2012). For example, Yunus et al. (2012) found that learners cannot always focus on their work and may be distracted when using online platforms. In particular, Internet distraction was pointed out as the main challenge of using social networks for learning writing. The learners' habit of informal writing was another challenge, because extensive use of abbreviations and short forms might lead to their use even in formal writing assignments at school. In addition, as some social media provide an automatic spelling correction service, if learners get used to this

service, they may easily forget how to spell even simple words correctly (Yunus et al., 2012).

2.5.2.3 Potentials and challenges in text-based communication for language learning.

MIM was originally based on a text-based interaction mode of communication. Text-based interaction encompasses a wide range of communications, which are mediated by text such as online discussion boards, emails and MIM applications. Studies comparing text-based and verbal communications in the online environment have been widely documented. For example, Satar and Özdener (2008) compared EFL learners' text-based communication to voice chatting over four weeks. They found that communicative proficiency was enhanced in both text chat and voice chat. They also investigated levels of anxiety related to communicating in English with data collected from pre- and post-intervention anxiety scales showing that anxiety decreased only in the text chat group. Similarly, Hansen (2001) demonstrated that EFL learners participating in online discussion sessions felt less stressed and more willing to share their own opinions than in face-to-face discussions.

Along with learners' decreased anxiety states in online text-based communication, the time available to correct and produce better quality language output has also been identified as a benefit of this mode of communication (Pennington, 2004; Sequeira, as cited in Lin et al., 2013). Learners have more time to construct and review their opinions, check grammatical or vocabulary errors and correct and modify their sentences before sending their messages. Sequeira (as cited in Lin et al., 2013) compared synchronous written exchanges to face-to-face communication and found that learners of Spanish in the text communication group produced more language output than those in the face-to-face communication group.

Factors such as different learner personalities, learning and response pace, motivation and language proficiency may lead to individual differences in students' readiness to speak up in class or in groups (Chen, 2005). In particular, learners who are shy, slow, or afraid of making errors may have fewer opportunities to speak or involve themselves in discussions. In contrast, online text-based communication systems can promote learner confidence and encourage various linguistic structures. For instance, Lee (2004) demonstrated that most students who were non-native speakers of Spanish

presented a sense of comfort in a text-based language environment and gained general confidence in learning the target language. Smith (2003) also demonstrated that students engaged in an electronic discussion made use of a variety of discourse structures such as elaboration, confirmation or comprehension check and this variety of language use was greater in text-based electronic discussion than in oral discussion. In turn, text-based communication resulted in learners' increased participation and motivation for meaning negotiation and authentic interaction, which are difficult to establish successfully in the traditional face-to-face classroom setting. Given these potential benefits, text-based communication is an effective way to support learners' interactions with others in terms of active involvement in a comfortable atmosphere.

The challenges of text-based communication have also been reported. Thornton and Houser (2002) drew attention to the technical difficulties in typing input text, and Shudong and Higgins (2006) pointed out that small fonts on a small screen, particularly on a mobile phone, may be difficult to read. Satar and Özdener (2008) argued that the quality of language accuracy might be less than in face-to-face communication mode because turn taking in text chat is fast and other information such as intonation, eye contact or other bodily movement is absent.

2.5.3 Embedment of multimodal representations in text-based communication.

Multimodality is the distinct feature of technology-based communication. People use the multimodal features of online chat to illustrate and further contextualise many of the terms and expressions contained in written text (Tudini, 2010). Multimodality refers to multiple modalities, such as sound, image and text, and makes meaning through these multiple methods of articulation (Kress & Van Leeuwen, 2001). Learners make use of the features of multimodality including videos, photos and written texts to share their own experiences with others (Brown & Laurier, 2013; Okabe, 2004).

Previous studies on the use of multimodality have been documented in the language communication field. In the online chat environment, native speakers and language learners support their communications multimodally by attaching photos or film clips. For example, in the Tandem Language Learning Project (Patterson & Trabaldo, 2006), students at universities in both Argentina and the USA utilised videos

and photos for a cultural exchange activity. The American students in the study made digital videos and placed them on the server for the students in Buenos Aires to view. The American students described in Spanish their university life including dorm life, sports activities, shopping, night life, and eating in the cafeteria. Similarly, the Argentine students took digital photographs showing different places in their university buildings and placed them on the *Net-Learning* website, so that the American students could view their university life in Buenos Aires. These activities offered a large amount of information about each other's campuses and enabled participants to discuss various aspects of university life. The use of multimodal functions provided these students with the opportunity for cultural exchanges through language interaction.

According to Sienel, Kopp and Rossler (2004), an IM application offers three different interaction modes: voice, graphic and mixed multimodal communication. These modes can be adapted to the users' preferences and particular contexts. An example of the graphic mode is the preference for some people in public places to send text messages such as when on a train or at the airport while voice mode may be their preference when driving a car. Hence multimodality affords users with more flexible ways of interacting, when compared to a unimodal method.

Similarly, the MIM application allows learners to utilise visual media such as photos, video clips, or emoticons to support communication, sometimes without any lengthy texts. Sánchez-moya and Cruz-Moya (2015) demonstrated that *WhatsApp* enables its users to choose from a wide spectrum of features when communicating or exchanging information. These include images, pictures, videos and web links along with text messages. The multimodal representation in MIM offers users freedom of choice by providing a range of modalities to meet the preferences and needs of individual users.

2.5.4 Language styles in text-based communication.

Emoticons.

The emoticon, a visual representation, is one of the best-known language features in technology-based communication, including in MIM applications. According to Dresner and Herring (2010, p. 249), emoticons are 'a blend of "emotion" and "icons" and refer to graphic signs such as the smiley face that often accompany textual CMC',

while for Crystal (2001, p. 36) they are ‘combinations of keyboard characters designed to show an emotional facial expression’. Baron (2000, p. 242) defined emoticons as ‘emotion markers’. The main purpose of an emoticon is to be a visual cue that expresses the senders’ emotional state in a text-based communication mode.

In relation to the importance of expressing emotions in language communication, Derks, Fischer, and Bos (2008) have pointed out that people exchange their emotional states when communicating with each other referring to this as ‘social sharing’ (p. 770). Emotional involvement enables people to connect and communicate with family, friends and others around the world, even if they have never met before. Their emotional expressions can be represented by emoticons in text-based communication.

Many studies have documented the use of emoticons in text-based communication. Derks, Bos, and von Grumbkow (2007) found that emoticons have been used more often in informal, playful, interactive, or positive environments than in formal or task-focused environments. Tossell et al. (2012) found that the most frequently used emoticons were :) (happy); :((sad); and :D (very happy). They found that the use of these three emoticons by participants comprised 70% of their total use of emoticons. Similarly, Garrison, Remley, Thomas, and Wierszewski (2011) found that the most frequently used emoticon is :-) (happy/smile). Other frequently used emoticons are :-P (playfulness) and ;-) (wink). Some studies have found that people use more emoticons in a positive rather than negative context (Lee & Wagner, 2002; Park, Kim, & Lee, 2014; Tossell et al., 2012) inserting emoticons to represent a warm or bright atmosphere. For example, people sent a :-) with a text message for the purpose of making their happy intention clear to the receiver (Luor, Wu, Lu, & Tao, 2010). In a study by Park et al. (2014), participants primarily used positive pictorial emoticon features, with chuckle (😄), smile (😊), beam (😁), wink (😉) and crushed (😍), being the most frequently used emoticons. Park et al. (2014) also found there was more emoticon usage illustrating good moods rather than negative moods with most users preferring to use emoticons illustrating smiling faces. They identified the main intentions or reasons for the use of emoticons in IM on a smartphone as:

- (1) They can help the receiver understand more accurately and clearly;
- (2) They make a warm and bright atmosphere;
- (3) They are easier to insert than writing text;

- (4) They are fun to use; and
- (5) They are popular to use.

Tossell et al. (2012) examined gender differences in the use of expressed emotions and found that in text-based communication males used fewer emoticons than females. Other studies have found similar patterns, for example, Wolf (2000), Baron (2004), Herring (2003) and Luor et al. (2010) found that women use emoticons up to three times more often than men as visual indicators of smiling and laughter.

Users have embraced the emoticon, considering it as a visual cue for augmenting the meaning of text messages (Rezabek & Cochenour, 1998). This assists with users' negotiation of meaning and avoids misunderstanding in text-based messages. The study by Park et al. (2014, p. 162) highlights that 'senders want receivers to understand IM well, so he/she sends emoticons to prevent miscommunications'. In other words, the use of emoticons enhances comprehensibility of communication by assisting receivers to understand communication more clearly and avoid misunderstanding in negotiation of meaning. However, the study also identified the reasons some participants do not use emoticons in IM, including:

- (1) Sending emoticons in IM from a smartphone is annoying;
- (2) Using emoticons in IM interrupts the communication; and
- (3) Emoticons make chatting conversation less serious (p. 162).

With regard to the use of emoticons in terms of relationships between people, the participants in a study conducted by Tossell et al. (2012) sent more emoticons in equal-equal (horizontal) relationships than in superior-inferior (vertical) relationships.

In summary, the research related to emoticon use in text-based communications, that include MIM, reveals: (i) females use more emoticons in smartphone IM than males; (ii) emoticons are more often used in positive emotional states than negative ones; (iii) emoticons are found more frequently in equal relationships such as between friends or colleagues of similar status. The emoticon is, therefore, the primary language feature for improving negotiation of meaning when used thoughtfully. It assists people to interact with less misunderstanding and to enhance the richness of their message exchanges.

Punctuation.

In text-based communication, the punctuation mark is another language feature that is used to indicate a pause in a sentence, show that a sentence has come to an end, bring out clarity in the messages and help to comprehend the intended messages exactly (Ehrlich, 1987). Ong'onda, Mata, and Oketch (2010) pointed out that punctuation clarifies the meaning of sentences and is essential for communication. In their study investigating Kenyan university students' use of punctuation marks in SMS communication including capitalisation, end marks, hyphen and apostrophe, they found a unique use of punctuation, such as non-standard punctuation and omission of punctuation. The use of non-standard punctuation resulted from a lack of paralinguistic signs that are used in face-to-face communication. However, the violation of standard punctuation use allowed text messages to be more informal in ways that were suitable for the relation-oriented characteristics of SMS communication.

Ong'onda et al. (2010) also demonstrated that capitalisation was used for emphatic tones such as 'SERIOUSLY' or 'WHY' while multiple end marks such as '!!!' or '?!?!?!' were used to express a strong feeling. Punctuation was an alternative way to convey emotions due to the lack of nonverbal cues, such as facial expression, gestures or other visual cues that exist in face-to-face interaction mode. The use of multiple punctuation marks also enabled senders of messages to intensify the tone of their message in text-based communication. Furthermore, senders used a hyphen to convey a pause, while the apostrophe was omitted in modal auxiliary verbs such as *dont*, *cant*, or *wont* to save time when responding. They found that punctuation was used in various ways for 'the structure and organisation of SMS language as well as intonation and pauses' (p. 43) and the unique uses of punctuation reflected the writers' freedom from traditional English conventions. The university students in their study did not pay attention to the importance of punctuation rules in SMS communication, because its language is 'highly structured and theme-focused' (p. 47). Instead, the punctuation variation was used as a compensatory strategy to meet communication needs by transferring their feelings effectively in text-based communication mode.

A study of college students' language features in text messages in the Irish context (Lyddy et al., 2014) demonstrated that 25% of word content used was non-standard spelling type with omitted capital letters as the most frequently used category.

Contrary to the standard use of punctuation, incorrect punctuation including omitted periods and apostrophes such as “dont, cant, wont, ill”, was mainly characterised in their text message communication.

Onomatopoeia.

Lyddy et al. (2014, p. 551) defined an onomatopoeic word as ‘a nonword sound-based exclamation, such as *Ha, arrrrgh, woohoo, yay*’, and found that 4.73% of onomatopoeia used in their study was non-standard spelling. They noted that onomatopoeia is often accepted in other forms of writing. Thurlow and Brown (2003) considered onomatopoeic spellings (yay!, haha) to be influenced by the form of speech along with other language styles such as emoticons (:-)), letter/number homophones (gr8/great) or nonconventional spellings (nite/night). The language features of text-based communication mode are known as textisms (Carrington, 2004; Rettie, 2009), which are language variants, such as abbreviations and non-standard forms of words (De Jonge & Kemp, 2010; Plester & Wood, 2009). They are fast, personal and nonintrusive ways to communicate (Ling, 2005).

With the prevalence of onomatopoeia including other language features, there have been studies on the impact of use of language features on young learners’ literacy (Plester & Wood, 2009; Plester, Wood, & Bell, 2008; Plester, Wood, & Joshi, 2009; Rosen, Chang, Erwin, Carrier, & Cheever, 2010). Plester and Wood (2009) noted, in their study, no negative effects on literacy for preteens and further reported a positive effect of texting on children’s literacy skills. However, Rosen et al. (2010) reported that young adults indicated a negative influence of text-based communication on their language use in formal writing while a positive association with informal writing was reported.

Furthermore, the language features are described as a ‘foreign’ language (Crystal, 2008a, 2008b; Jones & Schieffelin, 2009) and some studies noted that use of language features in texting demonstrates an appreciation of the sounds of language (Crystal, 2008a, 2008b; Jones & Schieffelin, 2009; Plester & Wood, 2009; Tagliamonte & Denis, 2008).

To sum up, punctuation marks are used to transfer feelings and emotions effectively in text-based communication mode. They reinforce a sender’s tone through

multiple variations of punctuation, show pauses within messages and are omitted at times for a quicker response. The non-standard use of punctuation enables messages to be informal in ways that are appropriate for the relation-focused characteristics of text-based communication. Punctuation is another language style and it is used as an alternative method to convey senders' feelings and emotions in text-based communications, which lack the facial expressions, body movements or other visual cues that are available in face-to-face communication mode (Ong'onda et al., 2010). Onomatopoeia, in texting mode, is used to indicate sound-based exclamation and there has been argument on the impact of its use including on other language features involved in learners' literacy (Crystal, 2008a, 2008b; Plester & Wood, 2009; Rosen et al., 2010, Tagliamonte & Denis, 2008).

2.6 Conclusion

My doctoral research was designed to investigate the feasibility of using a MIM application to enhance opportunities for South Korean university students to interact and communicate in English. This study aims to investigate how students interact and negotiate meanings through the use of the MIM application, *KakaoTalk* on their smartphones. The literature review in this chapter provides the framework for this study, in particular the interaction hypothesis (including the input and output hypotheses) and negotiation of meaning principles and strategies for SLA.

The chapter has identified the benefits and problems associated with CLT, which is the instructional approach that is adopted in South Korea for teaching English in the EFL context. In order to assist students to develop English language skills, an understanding of SLA is important. The literature review indicates that interactions and negotiations of meaning are crucial components for learning the English language in the EFL context. The literature has also shown that students' opportunities for interaction using the target language could be enhanced by the use of technology, in particular mobile technology that enables interactions in the target language to continue in informal settings beyond the classroom. The gap identified from the literature is the limited amount of study in the use of MIM on smartphones by students to communicate through negotiation of meaning and enhance their communicative competence in the target language. Using the theoretical frameworks discussed in this chapter, my study aims to contribute to the closing of this gap.

Chapter 3 – Methodology

3.1 Introduction

This chapter presents the research methodology used in the study. The first section of the chapter discusses the epistemology and research approaches including the quantitative and qualitative approach, case study and validity and reliability of the study. The next section provides relevant information regarding the research site, participant sample and selection process. It also discusses the data collection process, which comprises questionnaires, message observations and interviews. The last section discusses how the data analysis was undertaken.

As I will be referring to the research questions while discussing the methodology, they are reiterated here. This study aims to explore the feasibility of using the *KakaoTalk*, MIM application to enhance the English communicative opportunities for Korean undergraduate students and to ascertain how communicative interactions in English via a MIM application can assist in English language learning through this communicative channel. The main research questions and subsidiary questions are:

1. What are the existing practices of Korean university students in the use of a MIM application to communicate in English?
2. How do Korean university students with differing language backgrounds such as English dominant and non-English dominant communicate in English via the MIM application *KakaoTalk*?

Sub-questions relating to this research question are:

- a) What are the features of a smartphone that students exploit for interaction in English with peers using *KakaoTalk*?
- b) Why do the students utilise these features when communicating via a MIM application in these contexts?
- c) What are the language styles that the students use on a MIM platform to communicate understanding?

- d) What are the patterns of negotiation of meaning that emerge in the English interactions via this MIM application?
- e) What are the similarities and differences in the patterns of communication between the three cases of paired-groupings (Korean–Korean; Korean–English dominant speakers and Korean–non-English dominant speakers) in terms of:
 - (i) the amount of time spent and number of messages posted; and
 - (ii) strategies/functions used for negotiation of meaning?
- 3a) What are Korean students’ perceptions of the benefits and difficulties in English interaction via a MIM application?
- 3b) What are their recommendations for using a MIM application for English interaction in the Korean EFL context?

To answer these questions, multiple data gathering methods were used. To address research question Q1, a general questionnaire was constructed and administered to Korean students at a university in Korea to obtain an understanding of Korean university students’ existing practices in using mobile phones and MIM applications to communicate in English. Message observations and interviews were conducted to answer research questions Q2 and Q3 respectively concerning how Korean university students communicate with others using the MIM application, *KakaoTalk* (Q2); and to elicit their perceptions of the benefits and issues related to their English interaction experiences using the MIM application (Q3a). The students’ recommendations for improving the communication experiences in English on a MIM platform were identified from interviews to answer research question Q3b. These methods are summarised in Table 3.1 below and discussed in detail in the sections that follow.

Table 3.1. Research questions and data gathering methods

RQ #	Research question	Data gathering method
1	What are the existing practices of Korean university students in the use of a MIM application to communicate in English?	Questionnaire
2	How do Korean university students with differing language backgrounds such as English dominant and non-English dominant communicate in English via the MIM app, <i>KakaoTalk</i> ?	
2a	What are the features of a smartphone that students exploit for interaction in English with peers using <i>KakaoTalk</i> ?	Message observation
2b	Why do the students utilise these features when communicating via a MIM application in these contexts	Interview
2c	What are the language styles that the students use on a MIM platform to communicate understanding?	Message observation
2d	What are the patterns of negotiation of meaning that emerge in the English interactions via this MIM application?	Message observation
2e	What are the similarities and differences in the patterns of communication between the three cases of paired-groupings (Korean–Korean; Korean–English dominant speakers and Korean–non-English dominant speakers) in terms of (i) the amount of time spent and number of messages posted and (ii) strategies/functions used for negotiation of meaning?	Message observation
3a	What are Korean students’ perceptions of the benefits and difficulties in English interaction via a MIM application?	Interview
3b	What are their recommendations for using a MIM application for English interaction in the Korean EFL context?	Interview

3.2 The Research Design

3.2.1 Epistemology.

Thomas (2009, p. 87) defined epistemology as ‘the study of our knowledge of the world’ and it provides a philosophical background for deciding what kinds of knowledge are legitimate and adequate (Gray, 2004). Every research including educational studies is guided by different research philosophies that include a viewpoint on what forms educational reality (Check & Schutt, 2012).

Easterby-Smith, Thorpe, and Lowe (1991) pointed out the importance of having an epistemological perspective. It can help to clarify issues related to the research design including the type of data being gathered, the data collection site and how the data is going to be interpreted. In addition, knowledge of research philosophy assists the researcher to recognise what designs will be effective and identify those that will not fulfil the purpose of the intended investigation.

Creswell (2014) illustrated four types of epistemologies: postpositivism, constructivism, transformative and pragmatism. Postpositivists hold a deterministic philosophy of cause and effect whereas the belief of constructivists is that individuals seek understanding of the world in which they live and work. The transformative perspective indicates that ‘research inquiry needs to be intertwined with politics and a political change agenda to confront social oppression at whatever levels it occurs’ while pragmatists agree that ‘research always occur in social, historical, political and other contexts’ (p. 7). The main components of each epistemology are shown in Table 3.2.

Table 3.2. *Four types of epistemologies*

Postpositivism	Constructivism
<ul style="list-style-type: none"> • Determination • Reductionism • Empirical observation and measurement • Theory verification 	<ul style="list-style-type: none"> • Understanding • Multiple participant meanings • Social and historical construction • Theory generation
Transformative	Pragmatism
<ul style="list-style-type: none"> • Political • Power and justice oriented • Collaborative • Change-oriented 	<ul style="list-style-type: none"> • Consequences of actions • Problem-centred • Pluralistic • Real world practice oriented

Adopted from Creswell (2014, p. 6).

Among the different epistemological viewpoints, this study is situated in the constructivist epistemology because individual participants construct their own meaning and knowledge from the social-cultural context that is influenced by their previous experiences or understandings. Gray (2004, p. 17) elaborated on constructivist epistemology by stating that ‘meaning does not exist in some external world but is created by the subject’s interactions with the world. Meaning is constructed not discovered, so subjects construct their own meaning in different ways even in relation to the same phenomenon’. Moreover, subjective meanings can be negotiated socially and formed through interaction with others (Creswell, 2009). This epistemology focuses on developing ‘a consensus among participants about how to understand the focus of inquiry’ (Check & Schutt, 2012, p. 15).

The aim of this study is to understand how Korean students and their counterparts communicate in English, in an environment mediated by the use of the MIM application *KakaoTalk*. As the study relies on the participants’ views of the situation being studied (Creswell, 2009), it is appropriate for it to be underpinned by a constructivist epistemological design by using observation and interview methods to elicit data.

3.2.2 Research approaches.

A research approach is ‘the plan or proposal to conduct research, involves the intersection of philosophy, research designs and specific methods’ (Creswell, 2014, p. 5). The three major research approaches in social science are: quantitative, qualitative and mixed method research.

Quantitative research depends on the collection of quantitative data that is numerical data (Johnson & Christensen, 2012). As noted by Creswell (2014, p. 19), ‘the researcher tests a theory by specifying narrow hypotheses and the collection of data to support or refute the hypotheses’. In the current study, quantitative data was collected using a questionnaire, which included multiple choice and closed-ended questions. No hypothesis was considered necessary for the type of data to be gathered for research question Q1 because the survey was designed to be exploratory rather than to test a hypothesis. According to Dörnyei (2003), a questionnaire can be used to collect a wide range of data, including personal background and demographic factors, habits and experiences as well as perspectives and beliefs. The questionnaire data collection method in this study was adopted because it is efficient in terms of research time, effort and financial resources (Dörnyei, 2003) and it can be administered on a large scale. A large amount of information can be collected in a short period of time and processing of the data can be efficient and straightforward, by utilising statistical software. The questionnaire in this study was administered to answer research question Q1, by gathering data that would establish Korean university students’ existing practices in using mobile phones and MIM applications to communicate in English. As the aim of conducting the questionnaire was to gather data from a large sample of students from the university in Korea employing a quantitative approach provided a research method that is effective and efficient to approach research question Q1.

Qualitative research uses the collection of qualitative data that is non-numerical, that include words and pictures (Johnson & Christensen, 2012). Qualitative data can be obtained from participants using a range of data collection methods, such as interviews and observations (Burns, 2000; Krueger, 1994; Larsen-Freeman & Long, 1991). Creswell (2014, p. 19) indicated that in qualitative research ‘the researcher seeks to establish the meaning of a phenomenon from the views of participants’. He emphasised one of the main components of data collection in qualitative research is to observe

participants' behaviours when they are engaged in activities. Johnson and Christensen (2012) added that researchers examine human choice and behaviour as it happens naturally by using a 'wide and deep-angle lens' (p. 35). They argued that qualitative researchers do not intervene with the natural flow of participants' behaviours and try to understand different layers of reality including how they think, how they interact and what types of norm are shown. Qualitative researchers collect data through in-depth interviews, participant observation, field notes and open-ended questions (Johnson & Christensen, 2012). In this study, a qualitative approach adopting message observations and semi-structured interviews was used to address research questions Q2 concerning how Korean university students communicate with others using the MIM application, *KakaoTalk*. Message observations were conducted to address the sub-question questions:

- 2a) What are the features of a smartphone that students exploit for interaction in English with peers using *KakaoTalk*?
- c) What are the language styles that the students use on a MIM platform to communicate understanding?
- d) What are the patterns of negotiation of meaning that emerge in the English interactions via this MIM application? and
- e) What are the similarities and differences in the patterns of communication between the three cases of paired-groupings (Korean–Korean; Korean–English dominant speakers and Korean–non-English dominant speakers) in terms of:
 - (i) the amount of time spent and number of messages posted; and
 - (ii) strategies/functions used for negotiation of meaning?

Interviews were conducted to answer sub-question Q2b: Why do the students utilise these features when communicating via a MIM application in these contexts. The interview approach was also used to address research questions Q3a exploring Korean students' perceptions of the benefits and difficulties in English interaction via a MIM application as well as answer research question Q3b concerning students' recommendations for using a MIM application for English interaction in the Korean EFL context.

The combining of qualitative and quantitative approaches in this study is a mixed method research approach, which is ‘an approach to inquiry involving collecting both quantitative and qualitative data integrating the two forms of data’ (Creswell, 2014, p. 4). The blend of quantitative and qualitative research offers a more complete understanding of the data gathered to address the research questions than either one of the research methods can offer alone. Researchers advocating for mixed method research regard the use of only quantitative or qualitative research as incomplete for multiple research questions (Johnson & Christensen, 2012).

Creswell (2003) classified six types of mixed method research design:

- 1) sequential explanatory;
- 2) sequential exploratory;
- 3) sequential transformative;
- 4) concurrent triangulation;
- 5) concurrent nested; and
- 6) concurrent transformative.

In sequential designs, either the qualitative or quantitative data are collected in an initial stage followed by the collection of the other data during a second stage. 1) Sequential explanatory is characterized by collection and analysis of quantitative data followed by a collection and analysis of qualitative data whereas 2) Sequential exploratory is that an initial phase of qualitative data collection and analysis take place followed by a phase of quantitative data collection and analysis. 3) Sequential transformative indicates collection and analysis of either quantitative or qualitative data first. The results are integrated in the interpretation phase.

In contrast, concurrent designs are characterized by the collection of both types of data during the same stage. 4) Concurrent triangulation is characterised by two or more methods used to confirm or corroborate findings within a study while 5) Concurrent nested gives priority to one of the methods and guides the research while another is embedded or “nested.” 6) Concurrent transformative design is characterised by the use of a theoretical perspective to provide support for various perspectives.

Among the different types of mixed method designs, this study used sequential transformative approach because quantitative data was collected in the first stage and qualitative data in the next stage. The results from both quantitative and qualitative data regarding Korean students' difficulties and their perceptions of English interaction via MIM application were integrated. The research also made use of concurrent transformative design that used a theoretical model for the analysis of the data collected.

3.2.3 Case study approach.

The case study approach is another qualitative research study design. Stake (2000) defined case study research as 'not a methodological choice but a choice of what is to be studied (p. 435) whereas other researchers have defined it as an inquiry strategy, a methodology or a comprehensive research strategy (Denzin & Lincoln, 2005; Merriam 1998; Yin, 2003). In addition, other researchers have defined a case study as a detailed investigation of a person, place or topic in order to understand it in a deeper way. In-depth information regarding the case can be obtained in a natural setting to understand the complexity and actual context of the case (Punch, 2009; van Lier, 2005). Furthermore, Yin (2003) discussed how an in-depth and contextual understanding of the case is built depending on multiple data sources. In the current study, a case study approach was adopted to obtain in-depth information about the Korean university students' use of the MIM application, *KakaoTalk* to communicate in English with specific groups of speakers (other Korean (K) students, English dominant (E) and non-English dominant (NE) students). The cases in this study are made up of the combinations of different groupings (K-K, K-E and K-NE). From the study of the patterns of communication between these case study groups, comparisons can be made of similarities and differences between interaction styles.

Stake (2000) proposed that three types of case studies are used in research: the single instrumental case study; the collective or multiple case study; and the intrinsic case study. A single instrumental case study emphasises an issue or concern and selects one bounded case to illustrate the issue. A collective or multiple case study examines one or more issues of concern and uses multiple cases to illustrate the issue. For example, a researcher may select various programs from several research sites or multiple programs within a single research site. An intrinsic case study focuses on the case itself (Creswell et al., 2007).

This study adopts a multiple case study approach because it explored the use of a MIM application to communicate in English by three groups of Korean students with different English-speaking backgrounds. In this study, each paired group of Korean students (i.e. Korean students paired with either other Korean students, English dominant or non-English dominant speakers) is regarded as a case. For instance, the K–E group, Korean students paired with English dominant speakers, is a case and there were three cases in this study (K–K, K–E, K–NE). By adopting a multiple case study approach, the research investigated how Korean university students, with differing language backgrounds, that is Korean English dominant and non-English dominant, communicate in English via the MIM application, *KakaoTalk*. It explored the similarities and differences among the cases in the patterns of negotiation of meaning functions in terms of the frequencies of communication and strategies/functions used for negotiation of meaning. In this study, the term ‘cases’ will be used interchangeably with ‘groups’.

3.2.4 Validity, reliability and triangulation.

The use of different research approaches can increase the validity and reliability of data and lead to triangulation of the study. Validity refers to procedures used by researchers to check the accuracy of their findings whereas reliability indicates whether the researcher’s approach is consistent across different research contexts or projects (Gibbs, 2007). In qualitative research, rich and deep descriptions used to convey the findings of an investigation transport readers to the setting and provide an element of shared experience (Creswell, 2009). The detailed description of the setting offers various perspectives about a theme allowing the findings to be conveyed in a more realistic and rich manner. This process adds to the validity of the findings. Researcher bias is one of the weaknesses of qualitative research and one way to increase validity by reducing bias, is to adopt different types of data collection methods (Bickman & Rog, 1998). Johnson and Christensen (2012, p. 264) described researcher bias as ‘obtaining results consistent with what the researcher wants to find’. The issue of researcher bias in qualitative research has been raised because qualitative research tends to be exploratory and has an open-ended structure (Johnson & Christensen, 2012).

Keeping in mind that a well-structured case study design helps to remove research bias (Yin, 2003), this study used multiple data collection methods, of message

observations, semi-structured interviews and follow-up interview to ensure the validity of the case studies. As suggested by Drenara (2003) and Renckly (1996) to ensure the validity of the findings of the questionnaires, I stayed in the three classrooms that I administered the questionnaires in to clarify any questions that the students may have. Furthermore, the questionnaire was provided to students in the Korean language – the participants' first language – to ensure that the students understood the questions that were being asked. In addition, the questions were tested by other Korean students and feedback was obtained from Korean teachers before finalising the survey.

Reliability is also important when implementing a case study design because of the reliance on data generated from either limited or particular samples or situations (Gray, 2004). In order to check that research approaches are consistent or reliable, Yin (2003) recommended that qualitative researchers document as many of the procedural steps in the case study as possible. Gibbs (2007) also suggested some procedures for obtaining reliability of a study. He proposed that a transcript check needs to be done to avoid obvious transcription mistakes. He emphasised that there should be no drift in terms of code definition as well as no shift in relation to code meaning when coding is conducted. He pointed out that this process can be completed through constant comparison of data and taking notes about the codes and their definitions. Keeping in mind these recommendations to ensure reliability of the case study, several procedural steps, including message observations and semi-structured and follow-up interviews, were accomplished in different phases as well as transcripts being reviewed at multiple times following the coding scheme.

To ensure coding reliability for text messages, two independent participants who were postgraduate students majoring in applied sciences acted as intercoders. Prior to the coding process, the coders were trained by coding a portion of data together and making comparisons to establish reliable synchronisation of the results. Intercoder reliability was conducted for the analysis of the messages by using the same coding taxonomy of Akayoğlu and Altun (2009) and Samani et al. (2015) (see Table 3.6) for the coding of the types of negotiation of meaning and how often (frequencies) they occurred. In addition, the amount of time the participants spent communicating in English and the number of message exchanged were also coded for intercoder reliability. For the types of negotiation of meaning, there was 89% agreement in coding and for the

frequencies of negotiation of meaning, the level of agreement was 94%. Coders had 92% agreement regarding the amount of time participants spent communicating in English and 95% agreement for the number of messages posted through the *KakaoTalk* MIM application.

Another crucial element in qualitative research is data triangulation: the collecting of data over different times or from different sources (Easterby-Smith et al., 1991). Mackey & Gass (2005, p. 181) described data triangulation as ‘the use of multiple, independent methods of obtaining data in a single investigation in order to arrive at the same research findings’. To support the triangulation of research findings, Creswell (2014, p. 201) recommended the following strategy by stating,

Triangulate different data sources of information by examining evidence from the sources and using it to build a coherent justification of the themes. If themes are established based on converging several sources of data and perspectives from participants, then the process can be claimed as adding to the validity of the study.

As discussed above, this study employed multiple data collection techniques including the use of a survey, interviews and message observations to ensure research triangulation. As Flick (1998, p. 444) asserted, it ‘serves also to clarify meaning by identifying different ways the phenomenon is being seen’. Therefore, two or more independent sources are required to support the study and its conclusions because one method alone cannot provide adequate support (Mackey & Gass, 2005).

There are four types of triangulation suggested in the literature: data triangulation, investigator triangulation, theory triangulation and methodology triangulation (Burns, 2000; Denzin, 1989; Renckly, 1996). Data triangulation uses multiple time, space and persons, while investigator triangulation adopts multiple observers. Theory triangulation uses different theoretical schemes whereas methodology triangulation uses multiple data sources. Among these types of triangulation, this study adopted methodology triangulation. For example, message observation data were triangulated with interview data and open-ended questions data on benefits/issues obtained from the survey were triangulated with interview data of the Korean students. As noted by Burns (1997), data

triangulation using several types of data collection methods increases the validity and effectiveness of the research.

3.2.5 Ethics application and approval.

Ethics approvals were obtained from the University Human Research Ethics Committee. For the ethics approval, permission to conduct research was obtained from the head of the Language Institute and the vice president for International Affairs at the university where the research was conducted. Participants' information statement for the survey that explains the purpose of the study, the estimated time to complete the questionnaire and a call for volunteers to participate in the next phase of the research were prepared and submitted to the University Human Research Ethics Committee for approval. The consent form and a second information letter for phase 2 of the research was prepared that explains the purpose of the English interaction activity of phase 2 including a commitment to participate in interviews (see Appendix D) and this was also submitted for approval. The ethics approval number for the research is 13 119.

3.3 The Study Design

In this section of the chapter, the research site and participants of the study are described followed by an explanation of the data collection methods for the survey, message observations and semi-structured interviews. As discussed earlier in the chapter, the study employed a mixed method approach as the combination of both quantitative and qualitative approaches can often provide the researcher with the opportunity to understand the topic of interest more fully (Johnson & Christensen, 2012).

3.3.1 Research site and participants.

Research site.

This study was conducted at a university in southern Korea. Apart from domestic students, many international students from around the world study as foreign exchange students at this university. This university has a global orientation with educational goals focusing on fostering research capabilities that can compete with global standards, and cultivating talent that will lead the world. This large-campus university is one of the

national universities in Korea and includes 17 colleges. All undergraduate students at the university are required to attend English classes for two semesters regardless of the faculty in which they study. The classes focus on four aspects of English learning: speaking, writing, reading and listening. The teachers are Koreans or English dominant speakers who organise and deliver classroom lectures to the students and assess their work. Each university in Korea has their own English program. Korean teachers or English dominant speaking teachers teach different aspects of English such as grammar, reading, writing or conversation, according to the policy of each university. For example, Korean teachers at some universities teach reading, grammar or writing classes and English dominant teachers teach speaking classes whereas at other universities English dominant teachers instruct all aspects of English. In the university where I collected data, the students are required to attend English classes taught by English dominant teachers, for two semesters in their first year, after which they can choose other English classes that are taught by Korean teachers or other English native speaker teachers.

The research site was selected because I am an alumna of the university and being familiar with the environment was an advantage. In addition to this, because many international students study at this university, as foreign exchange students, it was a convenient research site to recruit foreign students, as counterparts to the Korean student participants, to participate in the research.

Participants.

The Korean participants in this study were drawn from a wide range of academic programs across different faculties. The survey was completed by 103 students from various faculties. Of the 103 respondents who participated in the survey, 47 expressed interest in being involved in phase 2 of the study, which is the English communication component of the study. From these 47 participants, a smaller sample of respondents (N=14) were selected with consideration given to balancing the gender ratio and the participants' commitment to four weeks of message observations and three sessions of semi-structured interviews.

The eight non-Korean participants recruited to take part in the communicative activities as counterparts of the Korean students, were all exchange students studying at the same university. The students were recruited via an advertisement (see Appendix F)

that was posted on the website of the exchange student community. Out of the 18 responses received, eight participants were invited to participate in exchanging messages, with consideration given to their gender and first languages. These students' motivation to participate in the study was largely due to their desire to be part of a social network of local Korean students and to learn more about Korean culture and life in Korea.

The demographic characteristics of the Korean students and their counterparts including gender, nationality and first language, are presented in Table 3.3. Each student was given a pseudonym to protect their identity and provide confidentiality for their responses as required under the ethics protocol. Hence, Korean participants were identified as K1 - K14, English dominant speakers as E1- E4 and non-English dominant speakers as NE1 - NE4. All Korean students were Korean native speakers; their English dominant counterparts were from America, Australia, and Canada and their non-English dominant counterparts from Lithuania, Mexico, Mongolia and Vietnam. The Korean students were paired with other Korean students in the group 'K-K', with English dominant speakers in the group 'K-English dominant' or with non-English dominant speakers in the 'K-non-English dominant group'.

The student pairs were divided into three groups as shown in Figure 3.1. The purpose of forming three groups was to compare the differences in patterns of communicative interactions using the MIM application between the three cases of paired-groupings (Korean-Korean; Korean-English dominant speakers and Korean-non-English dominant speakers) in terms of (i) the amount of time spent and number of messages posted and (ii) strategies used for negotiation of meaning. Korean students were paired with either other Korean students, English dominant or non-English dominant students and these groups were categorised as K-K, K-E and K-NE respectively as shown in Figure 3.1.

Table 3.3. Participant demographic information for the message observation phase

Group	Pseudonym	Gender	Nationality/First Language
Korean–Korean (K–K)	K1	Male	Korean/ Korean
	K2	Female	Korean/ Korean
	K3	Female	Korean/ Korean
	K4	Female	Korean/ Korean
	K5	Male	Korean/ Korean
	K6	Male	Korean/ Korean
K–English dominant (K–E)	K7	Male	Korean/ Korean
	K8	Female	Korean/ Korean
	K9	Female	Korean/ Korean
	K10	Male	Korean/ Korean
	E1	Female	Canadian/ English
	E2	Male	American/ English
	E3	Female	American/ English
	E4	Male	Australian/ English
K–non-English dominant (K–NE)	K11	Male	Korean/ Korean
	K12	Female	Korean/ Korean
	K13	Female	Korean/ Korean
	K14	Male	Korean/ Korean
	NE1	Female	Mongolian/ Mongolian
	NE2	Male	Lithuanian/ Lithuanian
	NE3	Female	Mexican/ Spanish
	NE4	Male	Vietnamese/ Vietnamese
Total	22		

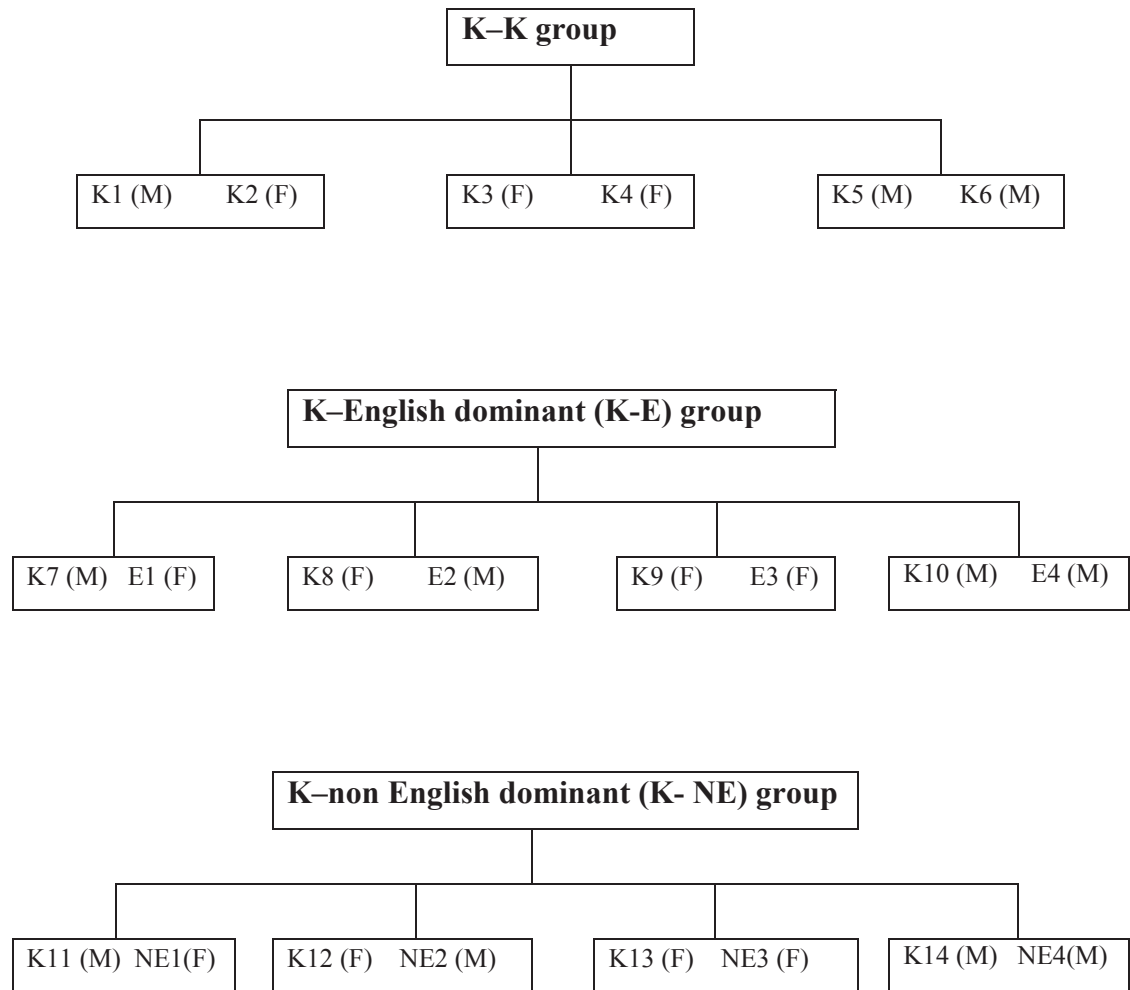


Figure 3.1. Pairing of students in each group (M: male; F: female)

When Korean students were paired with other Korean students in the K-K group, with English dominant speakers in the K-E group or with non-English dominant speakers in the K-NE group, they were differentiated by gender and their first language. There were three pairs in the K-K group, four pairs in the K-E group and four pairs in the K-NE group. This allocation provided gender and language background balance where each group would have mixed-gender pairs, same-gender (male) and same-gender (female) pairs. There were two mixed-gender pairs in the K-E and K-NE groups due to the combination pairing of a male (K) with female (E or NE) and a female (K) pairing with a male (E or NE).

3.3.2 Data collection procedures.

Data was collected in three phases. An overview of the these phases and the methods employed is provided.

Phase 1: Survey of Korean students across faculties at the Korean university. The survey contained closed (quantitative data) and open-ended questions (qualitative data).

Phase 2: Message observation of messages exchanged between the paired participants using the MIM application, *KakaoTalk* and interviews with Korean students to ascertain their perceptions of English interaction using the *KakaoTalk* application as well as why they utilised particular smartphone features and language styles. Qualitative methods were used in the analysis of the data that was generated from this phase of the study.

Phase 3: Follow-up interview with Korean student participants. Qualitative methods were used in the analysis of the data from this phase of the study.

These phases are discussed in more detail below.

3.3.2.1 Phase 1: Survey.

The first phase of the study was designed to address the research question:

Q1: What are the existing practices of Korean university students in the use of a MIM application to communicate in English?

The items in the questionnaire were designed to provide five types of data:

- participants' demographic details including mobile phone ownership and their foreign experiences (i.e. whether they have studied/travelled overseas);
- participants' experiences in communicating in English via a mobile phone network and mobile Internet (Wi-Fi);
- participants' use of MIM applications to communicate in English; and
- participants' perceptions of English interaction through MIM applications.

The questionnaire (see Appendix A) consisted of multiple choice questions for the closed questions. For instance, the information on students' demographic details and their experiences in English communication via a mobile phone network and/or mobile

Internet were obtained based on closed questions. The information about students' use of MIM applications for English communication was collected through different types of questions: open-ended, closed and multiple choice questions. The questions pertaining to participants' perceptions of their English interaction through MIM applications including difficulties, were open-ended.

3.3.2.2 Phase 2: Message observations and interviews.

In the second phase of the research, message observations and interviews were conducted to elicit Korean students' communicative activities through the use of the MIM application, *KakaoTalk*.

The Korean and non-Korean participants were paired with consideration given to gender combinations within each of the groups (see Figure 3.1).

Message observations

The paired students were engaged in communication activities for four weeks during which time the student pairs were encouraged to exchange messages on given topics. Four topics, one topic for each of the four weeks of the communicative activities, were provided. The topics as shown in Table 3.4 were provided to help student pairs to initiate conversation as well as stay focused on their conversations. The participants' actual text-based English interactions, via *KakaoTalk*, were observed for all the four topics. The message collection process is described below.

Table 3.4. *Interaction topics*

Week	Topic
1	University life
2	Travel you have made
3	Your hometown
4	Friends and friendship

Prior to starting the first session of the interaction, the Korean and non-Korean students were instructed on how to invite their communication counterparts and how to export the exchanged messages to my email account. As all students were experienced in the use of *KakaoTalk*, they were familiar with the messenger environment and the

application was already installed on their smartphones. The students who participated in the communicative activity were adequately equipped with ‘mobile digital literacy’ defined as ‘digital literacy associated with the use of mobile technology across all contexts of an individual’s life’ (Ng, 2016, p. 95).

At the end of each week, when the conversation for each topic had ended, the students were asked to send the strands of their interactive messages from their smartphones to me, a procedure that had been used in similar research studies (Beasley, 2009; Bernicot, Volckaert-Legrier, Goumi, & Bert-Erboul, 2012; Spilioti, 2011). The students were able to edit any part of their text-based communications that they did not want me to view prior to sending the messages. This method allowed for the students’ actual English interactions to be ‘observed’, because the MIM application recorded the time they communicated, the text messages, the language styles used, and the attachment of photos or videos as well as website addresses or links to video clips or websites. The message observation data addressed research questions Q2 a, c, d and e.

Semi-structured interviews.

In addition to observing students’ interactive messages in English, semi-structured interviews were conducted to obtain more detailed information about the Korean students’ perceptions of English interaction using the *KakaoTalk* MIM application. These interviews were also designed to determine why students utilised particular smartphone features and language styles. As this study aimed to enhance the English communicative opportunities for Korean university students via a MIM application to assist in their English learning, only the Korean students (n=14) were interviewed in phase 2 and phase 3 of the study. There were three interviews: two in phase 2 and one in phase 3 of the research (see Table 3.5). The data from phase 2 interviews addressed research questions Q2b (Why do the students utilise these features when communicating via a MIM application in these contexts?) and Q3a (What are Korean students’ perceptions of the benefits and difficulties in English interaction via a MIM application?) respectively.

Gray (2004) indicated that semi-structured face-to-face interviews used in qualitative research involve researchers having a list of issues and questions to ask their participants. The order of questions may change depending on which direction the interview takes and additional questions may be asked when there are new issues that

were not anticipated at the start of the interview (Gray, 2004). In this study, the interviews with the Korean students were based on this face-to-face model and each interview took approximately 20 minutes. The interviews were guided by a list of prepared questions (see Appendix C).

In phase 2, two one-on-one interviews were conducted with the Korean students who were participating in the four-week interactive messaging activity. The two stages of the interviews were:

1. Interview 1: conducted at the end of the second week (i.e. immediately after two weeks of messaging observations). The timing of the interview was to allow the students to be familiar with their participants and to elicit experiences, to that point, to ascertain that the communicative activities were going smoothly. The interview also elicited data from the Korean students on their perceptions of the benefits and difficulties in English interaction via *KakaoTalk*.
2. Interview 2: conducted at the end of the fourth week (i.e. immediately after four weeks of messaging observations). In the second interview, the exchanged messages in print were shown to the Korean students and they were asked about language styles that they may have used in the conversations as well as about smartphone features that they may have used such as images, photographs or videos.

3.3.2.3 Phase 3: Follow-up interview.

In phase 3, a follow-up interview relating to research question Q3 was conducted. This occurred one week after completion of messaging observations. The interview revisited the perceptions of benefits and difficulties of Korean students' experiences as well as asked for their recommendations on how to improve on future experiences when interacting in English using a MIM application.

All Interviews were conducted in Korean, the students' first language to ensure that they were able to answer the questions confidently and clearly. Table 3.5 summarises the aims of each interview and shows all the questions that were asked in each interview.

Table 3.5. *Aims of the interviews and examples of questions asked with Korean students*

Interview	Aim
<p>1</p> <p>After 2 weeks of messaging observations (Phase 2)</p>	<p>To check on how the communicative activity was going and to obtain information about the Korean students' perceptions of the benefits and difficulties of English interaction via <i>KakaoTalk</i>.</p> <p>Questions asked:</p> <ul style="list-style-type: none"> • How is the communication with your partner going? • What do you think of the English interaction with your partner using <i>KakaoTalk</i>? • Are there any benefits/difficulties in English interaction using <i>KakaoTalk</i> that you can see after these two weeks? (If yes, what kind of benefits/difficulties?)
<p>2</p> <p>After 4 weeks of message observations. Interview conducted with students' transcripts (Phase 2)</p>	<p>To gain information about why students' utilise the features of a smartphone and the language styles they use when communicating via the <i>KakaoTalk</i> MIM application.</p> <p>Questions asked:</p> <ul style="list-style-type: none"> • Why do you use those smartphone features when interacting via the MIM application, <i>KakaoTalk</i>? • Why do you use those language styles when interacting via the <i>KakaoTalk</i> application?
<p>3</p> <p>One week after completion of messaging observations (Phase 3)</p>	<p>To seek the Korean students' recommendations for improvements for future use of a MIM application for English interaction in the Korean EFL context.</p> <p>Questions asked:</p> <ul style="list-style-type: none"> • Do you have any recommendations to improve English communication experiences through a MIM application? • Please explain or provide examples for each of these recommendations

3.4 Data Analysis

3.4.1 Questionnaire data.

The types of data that were obtained from the questionnaire were both numerical and descriptive. Frequency and descriptive statistics were calculated for quantitative questions to determine Korean university students' existing practices in using mobile phones and MIM applications to communicate in English.

The numerical data collected from the closed questions were analysed using the Statistical Package for the Social Sciences (SPSS 18; SPSS Inc., 2009), computer software program. The word-based responses obtained from the open-ended questions were categorised into themes following a coding process that 'marks segments of data with symbols, descriptive words or category names' (Johnson & Christensen, 2012, p. 582). In this study, the set of open-ended responses was read carefully and segmented words or sentences were classified into the main thematic areas.

3.4.2 Message observation data.

Data from the interactive messages on the *KakaoTalk* platform obtained in the message observational phase were analysed for types and frequencies of negotiation of meaning strategies using the coding scheme of the taxonomy in Akayoğlu and Altun (2009) and Samani et al. (2015). The modified coding taxonomy used in this study is presented in Table 3.6.

3.4.3 Interview data.

The interview data obtained from the case studies were analysed to ascertain themes or issues relevant to the participants (Stake, 1995; Wolcott, 1994). As shown in Figure 3.2, the qualitative data obtained from semi-structured interviews was analysed following multiple steps of interpretive data analysis.

Table 3.6. *Coding scheme*

Coding scheme adopted from Akayoğlu and Altun (2009) and Samani et al. (2015) for the types of negotiation of meaning.

Types of negotiation of meaning	Explanation	Example: <i>The bold sentences in the table provide an example of the type of negotiation of meaning indicated.</i>
1. Clarification request	Made by the listener to clarify what the speaker has said and include statements such as “I don’t understand,” wh- questions, yes/no questions, and tag questions. ¹	34: what was the old man reprehensive of? 34: I mean symbolically 2: my idea is peace 26: really? The old man symbolizes peace??²
2. Reply clarification	Clarifying his or her previous statement as a result of request (clarification request). ¹	18: wasn't it that the truck is for the old man so that they will be sent far away from here 3: to evacuate those who were left behind 27: to take the old man? 3: like the old man²
3. Confirmation check	Asking for confirmation of a previously made statement to be sure he or she has understood correctly. ¹	5: Fourth of July - guys any idea what is this, I mean, does this symbolize smthg ? 26: America's Independence Day? 26: symbolizes freedom I guess 2: I think so. ²
4. Reply	Confirming a statement when someone requests confirmation with	18: You have to agree that society during early 60s is more conservative to

confirmation	expressions like “yes”, “OK”, “you are right”. ¹	compare than early 2000, right? 3: indedd 3: indeed* 34: in what aspects please dear Aisha? ²
5. Confirmation	Also made by the listener to establish that the preceding utterance has been heard and understood correctly. They include repetition accompanied by rising intonation. ¹	7: ...I think she mean that her father wants Jacque to marry the guy she meets in Japan... she did it for the sake of the father... 34: but there was no mention of father force 1: yeah there is no mention of a father²
6. Elaboration request	Requesting elaboration if he or she does not have an idea about the speaker’s utterance, and requesting extra information. ¹	5: it's started about the Indians. Who are they? 2: did you mean the Indians?? 5: yeah, very confusing ²
7. Reply elaboration	Elaborating his or her own statement to make it clear as a result of request (elaboration request). ¹	20: parents decision is very important ... 2: Maybe... 2: but what if they made the wrong decision? 20: if they made the wrong decision then they have to face the consequences not the others.²
8. Elaboration	Elaborating the meaning of a previous statement regardless of whether the previous statement belongs to him or her. ¹	18: Maybe she meant that she is a woman, and it is her duty to get married, raise children and take care of a family. 18: Besides, it is a must for a woman to get married before they reach 30s.

		<p>18: Well, I just thought that way.</p> <p>27: I disagree²</p>
9. Comprehension check	Asking if the other person understood what was said or written and generally expecting that he or she has understood.	<p>A: Here, UFO stands for unidentified flying objects, do you understand?</p> <p>B: Yes, I see.</p>
10. Reply comprehension	Replying to comprehension check or indicating that the statement was understood.	<p>A: Here, UFO stands for unidentified flying objects, do you understand?</p> <p>B: Yes, I see</p>
11. Vocabulary check	Checking whether the other participants know the meaning of vocabulary or not. ¹	<p>20: Prudence...is it??????</p> <p>26: I think that can be true 0020 and yes it's Prudence</p> <p>5: what is the meaning of prudence?²</p>
12. Reply vocabulary	Giving a meaning of a word or phrase as a result of request.	<p>NNS27: yes, is there a volunteer to translate?</p> <p>NNS4: a liar doesnt live forever</p> <p>NNS4: i think</p> <p>NNS4 smiles</p> <p>NNS24: the end for a liar is not so far!</p> <p>NNS28: people will understand that you are lying at the end</p> <p>NS7: your lies catch up with you.</p>
13. Correction or self-correction	Correcting an error made by another speaker or self-correction of one's	<p>5: we need to be passion on what we're doing</p>

	own error. ¹	5: Like what Steven did 2: I agree 26: <i>passionate</i>*²
14.Vocabulary request	Requesting a vocabulary word or phrase.	NNS28: I want to remind you a Turkish proverb NNS4: ? NS7: sure, what's the Turkish proverb? NNS28: “yalancının mumu yatsıya kadar yanar” NNS24 smiles NS7: <i>and in english? ;)</i> NNS4: smiles NS6: <i>translate please</i>

Note. Developed by Akayoğlu and Altun, 2009; with supporting explanations and examples provided by Samani et al., 2015.

¹ Explanation added from Samani et al. (2015); ² Examples added from Samani et al. (2015)

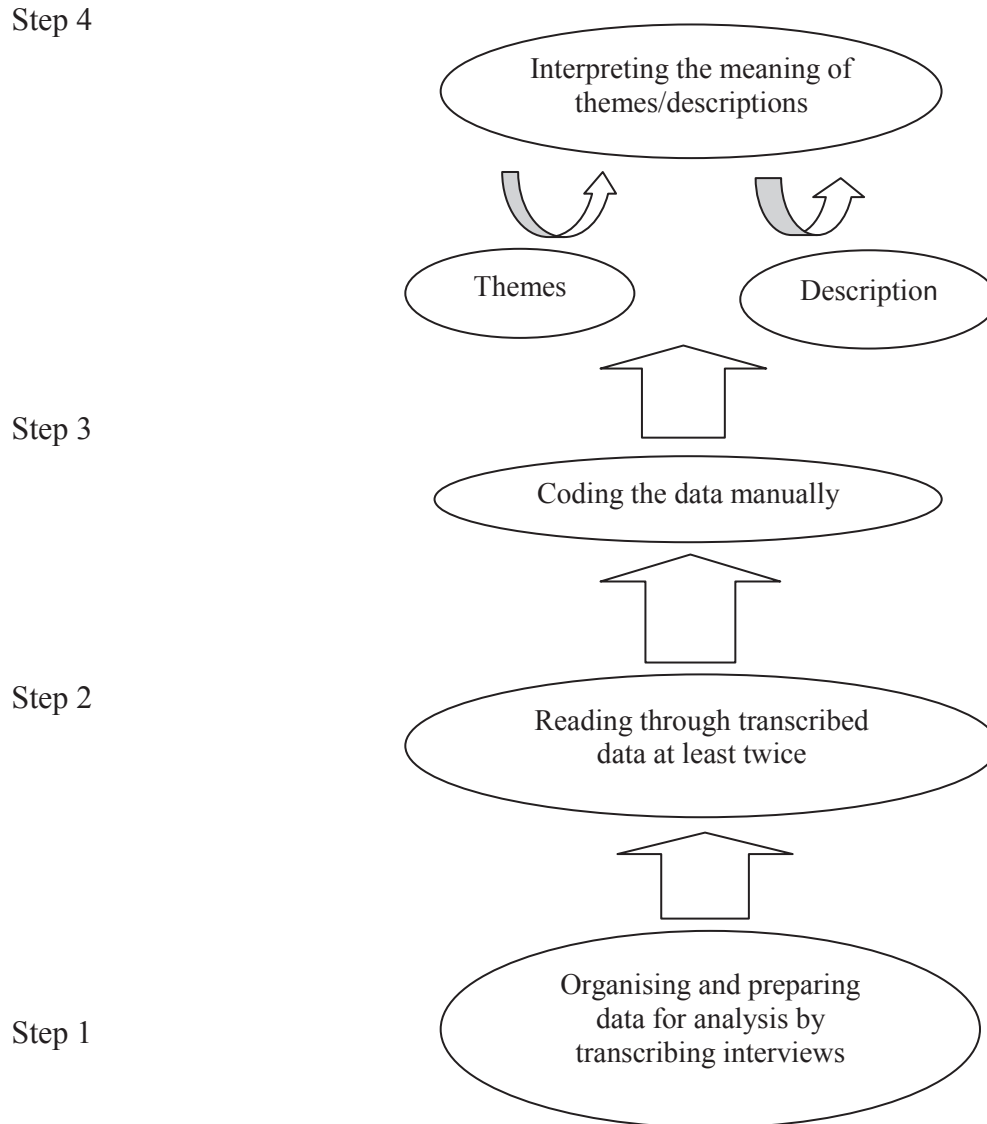


Figure 3.2. Qualitative data analysis process

The steps involved in interview data analysis were adopted from Creswell (2009, p. 18). In step 1 of this study, data was organised and prepared for analysis by transcribing the interviews. In step 2, the transcribed text was read through several times, in order to obtain a general sense of the information and to reflect on its overall meaning. At this stage, general thoughts about the interview data were written in the margins of the transcription pages. In step 3, the coding process was used to generate relevant themes or categories, which were used to classify the responses. Coding is ‘the process of organizing the material into chunks or segments of text before bringing meaning to information’ (Rossman & Rallis, as cited in Creswell, 2009, p. 186). This coding process involves dividing sentences into several categories and labelling them with a term in accordance with what the participants are saying (Creswell, 2009). In the final

step, the interview data was analysed to interpret the meaning of themes to ascertain the main ideas in the data (Lincoln & Guba, 1985).

3.5 Summary

This chapter described the adoption of a mixed method design using both quantitative and qualitative approaches to explore the feasibility of using the *KakaoTalk* MIM application to enhance the English communicative opportunities for Korean university students and to ascertain how communicative interactions in English via a MIM application can assist in English language learning through this communicative platform.

This study made use of a survey to investigate the Korean students' existing practices in using mobile phones and MIM applications to communicate in English. The study was largely qualitative adopting a case study approach to obtain in-depth information about how Korean students' communicate in English via the MIM application, *KakaoTalk* with other students of either similar or different language backgrounds such as English dominant and non-English dominant students.

Data for the case studies were obtained from students who exported their message strands to me for message observations. Semi-structured interviews were conducted as a component of the case studies to elicit more in-depth information on the communication experiences via *KakaoTalk*. The modified coding scheme (Akayoğlu & Altun, 2009; Samani et al., 2015) was used for analysing how pairs negotiated meanings in the conversations. Specifically, the message observation was performed to address the research questions concerning smartphone features and language styles that the students used on the MIM platform to communicate in English.

The interviews were conducted to answer the research questions of why the Korean students utilised particular features and their perceptions of the benefits and difficulties of interacting in English via the MIM application. Students' recommendations for using a MIM application for improving English interaction experiences in the Korean EFL context were also elicited through the interviews.

Chapter 4 – Korean Students’ Existing Practices of English Interaction via a Mobile Instant Messaging Application

4.1 Introduction

The results of the study will be presented in three chapters. The first results chapter (Chapter 4) presents the findings based on the survey that investigated Korean students’ existing practices in the use of MIM applications for English communication. The second results chapter (Chapter 5) presents findings based on message observations of the communicative activities of paired students in their respective cases (or groups) examining how they communicate in English using the *KakaoTalk* MIM application. The third results chapter (Chapter 6) presents findings based on the analysed interview data of Korean students’ perceptions of the effectiveness and difficulties associated with their English interaction experiences using *KakaoTalk*. The students’ recommendations on how to improve English interaction activities using an MIM application are also presented.

Clarification of terms used in this study.

The two words ‘communicate’ and ‘interact’ are used to mean engagement in English dialogue with peers. Communication means the text output while interaction means the features the participant chose to produce the outputs.

Clarification of the terms mobile phone network and mobile Internet used in this chapter, is necessary, as these terms refer to differing transmission methods. The transmission of the former mode is based on mobile phone networking, which supports SMS, multimedia messaging services (MMS) and voice calls. The other transmission method is based on a mobile Internet connection (Cheong, 2005), which provides the services of emails, mobile messaging, YouTube and other web-based applications, video calls and voice calls that are transmitted via a mobile Internet connection that is dependent on Wi-Fi. There are also differences between these two types of communicative platforms. Mobile instant messaging applications are used with a mobile Internet connection and they are available without any charges by using the Internet connection of mobile devices including sending messages and pictures with no

limitation on the length of the message (Church & de Oliveira, 2013). This is in contrast to SMS based on a mobile phone network, which is limited to 160 characters. More information about the differences between MIM application and SMS has been described in section 2.5.2.1.

4.2 Korean University Students' Existing Communication Practices in English using MIM Applications

This chapter presents the results of the survey questionnaire that addresses the research question:

What are the existing practices of Korean university students in the use of a mobile instant messaging (MIM) application to communicate in English?

As it was not known if Korean students were using MIM applications on their smartphones for English communicative activities and if they did, with whom were they communicating, the first part of the study was to establish the existing practices of the Korean students in their use of MIM applications. In order to do this, a paper-based questionnaire (see Appendix A) was administered to three classes of students studying English at the Korean university where the research took place. Students in these classes were from faculties across the university.

The questionnaire administered to the students elicited responses about (i) their demographic details including their foreign experiences (whether they have studied overseas) and mobile phone ownership; (ii) their experiences communicating in English via the mobile phone network and mobile Internet; and (iii) their use of MIM applications to communicate in English and, if they were familiar with MIM, their perceptions of the effectiveness and difficulties of this type of platform.

4.2.1 Students' demographic information.

The Korean students' demographic details including their experiences in foreign countries and their access to mobile Internet to communicate in English are shown in Table 4.1. Of the 103 students who completed the paper-based survey, 56 (54% of the total number of participants) were female students and 47 (46%) were male students. The majority of the students were in their 3rd or 4th year of study (n=81, 78%) and were

in their twenties. The academic majors undertaken by the participating students showed various faculties including Engineering, Social Sciences and Management. This indicates that there is a balance between science (e.g. Engineering and Science) and non-science (e.g. Business and Social Science) students among the volunteer participants.

Table 4.1. *Demographic information of Korean student participants (n=103)*

Demographic information	Categories	Number	Percentages*
Gender	Male	47	46
	Female	56	54
Year	Year 1	7	7
	Year 2	15	15
	Year 3	25	24
	Year 4	56	54
Age	18-20 years	2	2
	21-25 years	71	69
	26-30 years	29	28
	Over 30 years	1	1
Major	Engineering or Science	43	42
	Humanities or Social Sciences	27	26
	Management or Economics	25	24
	Others (Laws, Accounting & Education)	8	8
Experience in foreign countries	None	81	78
	1-6 months	12	12
	7-12 months	4	4
	Over 1 year	6	6
Access to mobile Internet	Yes	101	98
	No	2	2

Note. * Percentages are rounded to the nearest whole number.

4.2.1.1 Foreign experiences.

The majority of the Korean students (n=81, 78%) reported that they had never studied in any English-speaking country while only 22% of respondents indicated that they had studied in English-speaking countries such as America, Australia, Canada or the United Kingdom.

4.2.1.2 Mobile phone ownership.

All the students in the study owned a mobile phone with 98% owning a smartphone that could access the Internet. Given the increasing prevalence of mobile Internet services in Korea, most of the students participating in the survey have had experiences in accessing the Internet using their smart phones.

4.2.2 Experiences in communicating in English via the mobile phone network and mobile Internet services.

As discussed above, communication in English can be carried out through either of the transmission methods – mobile phone network and mobile Internet. In the survey, questions about the students' use of and experiences with a mobile phone network and mobile Internet were asked separately to investigate whether they use one or both services for communicating in English via their smartphones. The use of these transmission methods is presented in Table 4.2.

The results in Table 4.2 show that 62 out of 103 students (i.e. 60 %) have had experiences in communicating in English via their mobile phone network through SMS, MMS or voice calls whereas 57 students (55%) used the mobile Internet to communicate in English using mobile messaging applications (MIM), email or video call methods such as Skype on their smart phones, which is accessible through mobile Internet environments. As illustrated in Figure 4.1, there is an overlap of 16 students (16%) who used both of these methods for the purpose of interaction in English.

Table 4.2. Experience of communication in English via a mobile phone network or mobile Internet (n=103)

English communication	Experience	Frequency (number of students)	Percentage*
via <u>mobile network</u>	Yes	62	60
	No	41	40
Total		103	100
via <u>mobile Internet</u>	Yes	57	55
	No	46	45
Total		103	100
via <u>mobile network</u> and <u>mobile Internet</u>	Yes	16	16
	No	37	36

Note. * Percentages are rounded to the nearest whole number.

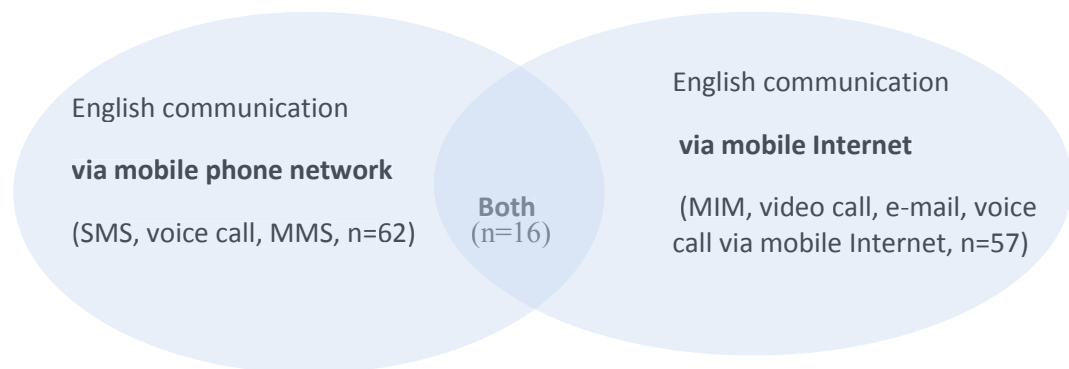


Figure 4.1. Frequency of participants communicating in English via a mobile phone network and/or mobile Internet.

The findings indicate that most students had previous experience in communicating in English using either the mobile phone network or mobile Internet. In addition, even though the majority of the students had never studied in foreign countries before, they had experiences communicating in English through either the mobile phone network or mobile Internet within Korea. In particular, more than half of the students (n=57) have communicated in English using mobile Internet that supports MIM applications.

4.2.3 Use of mobile Internet to communicate in English.

As the focus of this research is on the use of MIM applications for interactions in English, more specific questions on this topic were asked. The 57 students who used mobile Internet services were asked to respond to questions that covered aspects such as how long (time period), how often (frequency) and the location where the interactions took place. They were also asked about the types of MIM applications they used to communicate in English and the language backgrounds (Korean, English dominant or non-English dominant) of the people with whom they interacted. In addition, the students were asked to provide a comment on the difficulties of interacting in English through MIM applications and their perceptions of the effectiveness of English interaction using this platform. Table 4.3 presents data on how long (time period) the students have communicated in English via mobile Internet environments.

Table 4.3. *Time period of English communication via mobile Internet (n=57)*

Period of time	Number	Percentage*
1-4 months	32	56
5-12 months	10	18
Over 12 months	13	23
Other	2	3
Total	57	100

Note. * Percentages are rounded to the nearest whole number

As shown in Table 4.3, 32 students (56%) indicated that they had communicated in English via mobile Internet for time periods of between one and four months. Twenty-three students (41%) indicated they had conversed in English for longer periods of over five months with their counterparts.

Table 4.4 shows how often (frequency) Korean students communicated in English via the mobile Internet method. Seventeen students (30%) reported that they communicated in English three or more times a week and 17 students (30%) communicated in English once a week. Eighteen students (32%) indicated they communicated in English between one and three times a month and five students (8 %) reported they communicated in English infrequently (less than once a month). In summarising, 60% of the students communicated in English more than once a week with 7% stating that they interacted in English on a daily basis via the mobile Internet. Less frequent communication in English was reported by 40% of the students with 8% indicating that they interacted in English less than once a month.

Table 4.4. *Frequency of English communication via mobile Internet (n=57)*

Frequency of English communication	Number of students	Percentage*
Everyday	4	7
3-4 times a week	13	23
Once a week	17	30
2-3 times a month	9	16
Once a month	9	16
Less than once a month	5	8
Total	57	100

Note. * Percentages are rounded to the nearest whole number.

The locations where English interactions via mobile Internet took place are shown in Table 4.5. This question allowed the students to provide multiple responses if applicable, and the total frequency of responses provided was 100. The students communicated in diverse places that included the university, home, on transportation, and even while walking. The preferred places for communicating in English (83% of responses) were the university at home and on transportation such as the bus or train. There was a lower preference allocated to communicating using mobile Internet while walking or at work. The preference for university and home locations was because the students found that these were quieter places and were more suitable for concentrating while communicating in English. These results concord with Nah's (2008) findings that

Korean university students preferred locations for the use of mobile Internet for learning English that were ‘stable places’ (p. 138) such as home, university or a cafe. In order to write and send messages in English, students need a ‘stable’ place that will allow them to focus on the task.

Table 4.5. *Place of English communication via mobile Internet (n=57)*

Location	Frequency of response	Percentage* of total number of responses
At home	41	41
At university	22	22
On bus/subway/car	20	20
Walking	14	14
Other	2	2
At part time work	1	1
Total	100	100

Note. * Percentages are rounded to the nearest whole number.

The time of the day in which the Korean students’ communication in English via mobile Internet occurred was mainly during the evening or afternoon and rarely in the morning as shown in Table 4.6. The students also indicated a preference to undertake the communicative activities while filling in extra time such as waiting for transportation or for a person.

Table 4.6. *Time of communication in English via mobile Internet (n=57)*

Time	Frequency of response	Percentage* of total number of responses n (responses) = 111
Morning	6	5
Afternoon	25	23
Night	32	29
Weekend	9	8
In between classes	8	7
Travelling between home/ uni/ work	14	13
Waiting (e.g., bus, subway, for friends)	17	15
Total	111	100

Note. * Percentages are rounded to the nearest whole number.

4.2.4 Use of MIM applications to communicate in English.

To obtain information about which MIM applications the students used for interacting in English, an open-ended question was asked in the survey where respondents could offer multiple responses to the question:

What kinds of MIM applications do you use to interact in English via the mobile Internet? (e.g., *Facebook*, *KakaoTalk*, *Twitter*, *WhatsApp*, etc).

As shown in Table 4.7, the majority of the students' responses (82%) indicated that their preferred MIM applications for communicating in English were *KakaoTalk* (43%) and *Facebook* (39%). As the *KakaoTalk* application was the most popular MIM application that the students used for communicative purposes, it was adopted as the media of communication for students to interact in English activities in the next phase of this study.

Table 4.7. *Types of MIM applications for English communication (n=52)*

Mobile application	Frequency of response	Percentage* of total number of responses n (responses = 84)
KakaoTalk	36	43
Facebook	33	39
WhatsApp or Skype	10	12
Others	5	6
Total	84	100

Note. * Percentages are rounded to the nearest whole number.

As shown in Table 4.8, the majority of the students' responses (78%) indicate a preference for the text-based mode of communication using MIM applications. The students indicated that they were more comfortable with this mode of communication than the voice call or video call modes.

Table 4.8. *Modes of MIM applications for English communication (n=52)*

Modes	Frequency of response	Percentage* of total number of responses
Text-based	51	78
Voice call	9	14
Video call	5	8
Total	65	100

Note. * Percentages are rounded to the nearest whole number.

Table 4.9 shows the groups (Korean, English dominant or non-English dominant) of people with whom the Korean students interacted in English. In the questionnaire, the students were asked which groups of speakers they have interacted with in English using MIM applications. The students were able to provide multiple responses to this question. Thirty-two of the 78 responses (41%) indicated that communication was with English dominant speakers while 29 of the responses (37%) indicated that they

interacted with non-English dominant speakers. Hence, the majority of the responses (78%) indicate that the students have had English communication experiences with others from different cultural backgrounds.

Table 4.9. *Groups of speakers communicating in English with Korean participants using MIM applications (n=52)*

Groups	Frequency of response	Percentage* of total number of responses
Korean	17	22
English dominant (English native speaker)	32	41
Non-English dominant (English not first language)	29	37
Total	78	100

Note. * Percentages are rounded to the nearest whole number.

To find out the reason why the Korean students communicated in English using MIM applications, an open-ended question was included in the survey:

Why do you communicate in English using a MIM application? (e.g. for English practice, buying something, socialisation, etc).

One of the themes emerging from the responses to this open question indicated that the students used MIM applications to keep in contact with their foreign friends (68 % of the total responses). Other themes were to practice their English with others (24% of the total responses) and communication in English with foreign team members for the purpose of completing a team project for their class (8% of the total responses). In summarising, the majority of the responses showed that the main purpose of interaction in English was to socialise with foreign friends. The results imply that some Korean students have already been making their own efforts to communicate in English using MIM applications outside the classroom. In the Korean context, students have limited opportunity to communicate in English in the class environment and outside the classroom. As mentioned in Chapter 1, the students are not provided with sufficient opportunity during class to communicate in English nor do they have many opportunities to use English in their daily lives because English is not an official

language used in Korea. However, these findings indicate that some students make their own efforts to communicate with others informally using mobile technology to overcome the lack of opportunity for English interaction or as a necessity when working on group projects. To date, there are limited studies examining how students in South Korea communicate in English via mobile technology using MIM applications on their smart phone.

4.2.5 Difficulties in English interaction using MIM applications.

To further understand the Korean students' English communicative experiences through the use of MIM applications, an open-ended question to elicit difficulties encountered was asked in the questionnaire:

Did you have any difficulties in communicating in English using MIM applications? If so, what difficulties did you have?

In Table 4.10, the results show that while 42% of the students reported that they had no difficulty in communicating in English when using MIM applications more than half of the students (58%) indicated that they had experienced difficulties.

Table 4.10. *Difficulty in communication in English via MIM applications (n=52)*

Difficulty	Number	Percentage*
Yes	30	58
No	22	42
Total	52	100

Note. * Percentages are rounded to the nearest whole number.

The difficulties were related to the following: low level ability to express themselves in English (46% of the total responses); lack of knowledge of spoken English (27% of the total responses); subtle differences in lexical meaning between the dictionary definition and real life situations (18% of the total responses); and typing skills in English (9% of the total responses). Examples of these difficulties are shown below in the short quotes provided by Korean students. The number at the end of each quote represents the number allocated to each individual Korean student who participated in the survey.

Low level ability to express themselves in English

I have low ability of English language so it is difficult to communicate in English [12]

I don't know well how to express myself in English exactly due to my low ability in English [56]

Lack of knowledge of spoken English:

It is difficult to understand spoken English [67]

It is difficult to use various spoken expressions because of lack of English knowledge [40]

Subtle differences in lexical meaning between the dictionary definition and real life situations:

It is difficult to understand difference between the vocabulary between real world meaning and word definition on the dictionary [88]

I used some words and expressions that I learned at school to communicate in English but their nuances were not quite right in some contexts [101]

Typing skills in English:

It is difficult to type in English on my mobile phone [4]

Typing speed in English is much slower than in Korean [51].

4.2.6 Perceptions of effectiveness of English interaction via MIM applications.

The Korean students were also asked to indicate their perceptions of the effectiveness of English communication via MIM applications. The open-ended question was:

Do you think it is effective to communicate in English through mobile instant messaging (MIM) applications for English language learning?

If so, why do you think it is effective? If not, why do think it is not effective?

As shown in Table 4.11, the majority of the students (83%) indicated that communication in English via MIM applications was effective.

Table 4.11. *Effectiveness of communication in English via MIM applications (n=103)*

Effectiveness	Number	Percentage*
Yes	85	83
No	18	17
Total	103	100

Note. * Percentages are rounded to the nearest whole number.

The reasons that students gave for the effectiveness of MIM applications for English learning included: more opportunities to use/practice English in their daily lives (36% of the total responses); more opportunities to learn English by constructing sentences and checking them using a mobile dictionary (32% of the total responses); frequent exposure to English language while exchanging messages (13% of the total responses); communication with other foreign people anytime anywhere (11% of the total responses); and more comfort in text-based communication mode than voice or video call modes (8% of the total responses). Relevant quotes supporting these reasons are shown below:

More opportunities to use/practice English in their daily lives

It is effective because I can practice English every day. It makes me more familiar with English language [6]

It is effective because it makes me think and use English on daily basis [81]

More opportunities to learn English

It is effective for me to learn English by constructing sentences and correcting them because I can have time to check the errors [48]

It makes me try to use English grammatically by checking words and grammar using mobile dictionary [76]

Frequent exposure to English language

It makes me be exposed to English frequently by writing in English [24]

It is effective for exposure to English and being familiar with English by searching information about expressions and grammar [65]

Communication with other foreign people anytime anywhere

I keep in touch with others from other countries regardless of locations [55]

I can communicate with foreign friends from other countries without meeting with them [91]

Comfort in text-based communication

Texting makes me more comfortable rather than verbal talking or videotelephony [34]

Conversely, 18 students (17%) indicated that English communication via MIM applications was less effective for English learning. According to these students, face-to-face communication was regarded as the best way to interact in English and for learning English as shown in the quotes below:

I think verbal face-to-face communication is better for English learning than text-based communication that is written communication [9]

Face-to-face method enables me to understand conversation well because I can see facial expressions and gestures of communication partners [33]

4.3 Summary

This chapter presented the findings of the existing practices of Korean university students of their use of mobile phones including MIM applications to communicate in English. The data obtained from a paper-based questionnaire gathered information about (i) the students' demographic information including their foreign experiences and mobile phone ownership; (ii) their experiences in communicating in English, via the mobile phone network and mobile Internet; (iii) their use of MIM applications to communicate in English; and (iv) perceptions of the effectiveness and difficulties of English interaction through the use of MIM applications.

The findings showed that the majority of the students (78%) have never studied in any English-speaking country. All the students owned a mobile phone with 98% owning a smartphone that could access the Internet. Most students had previously experienced communication in English using the mobile phone network (60%) or mobile Internet (55%).

Communication in English with peers from other countries was through social media and MIM applications such as *Facebook*, *WhatsApp*, *Skype* and *KakaoTalk*. Among them, *KakaoTalk* was the most popular MIM application used by these students and it was adopted as the application for this study.

The results showed that the majority (83%) of the students perceived that English communication via MIM applications was effective for learning English because it provides more opportunities to use, practice and learn English in their daily lives and more communicative opportunities with other foreign people. However, more than half of the students (58%) indicated that they had difficulties with the experience. The barriers most perceived by the students related to their own ability to communicate in English and minor technical skills associated with using the keyboard to type.

These results provide a comprehensive overview of the state of the use of mobile phones and MIM applications for interaction in English by Korean university students. The results also identified that some Korean students were already creating opportunities for themselves to interact socially in English with foreigners outside the classroom. However, how these students interact and whether English skills development occurs when students communicate using MIM applications in informal contexts is unknown. The findings in the next two chapters are aimed at addressing this.

Chapter 5 – Communicative Activity in English with Specific Groups via the MIM Application *KakaoTalk*

5.1 Introduction

In the previous chapter, the findings of the study investigating the Korean students' existing experiences in English communication using MIM applications were reported. In this chapter, in-depth information is provided on how the students communicate through the MIM application, *KakaoTalk* when paired with students with different language backgrounds. The messages in the dialogues of the three case study groups were obtained from the participants and analysed. The aim of the message observations was to determine participation (the amount of time spent and number of postings made) as well as investigate the patterns of negotiation of meaning emerging from the groups, in their English interaction through *KakaoTalk*. How the students exploited multimodal representations and language styles in negotiating meanings during communicative interactions was also investigated. The similarities and differences in the patterns of communication between participating groups were also examined. The significance of these investigations is to explore the feasibility as well as the impact of using MIM applications to extend Korean students' opportunities for English communication and language skills development.

The chapter presents the results of the exchanged message data between the pairs of students in the three different groupings (Korean–Korean [K–K]; Korean–English dominant speakers [K–E]; and Korean–non-English dominant speakers [K–NE]) to address the following research question and sub-questions:

How do Korean university students with differing language backgrounds such as Korean, English dominant and non-English dominant, communicate in English via the MIM application, *KakaoTalk*?

The sub-questions are:

- a) What are the features of a smartphone that students exploit for interaction in English with peers using *KakaoTalk*?

- b) Why do the students utilise these features when communicating via a MIM application in these contexts?
- c) What are the language styles that the students use on a MIM platform to communicate understanding?
- d) What are the patterns of negotiation of meaning that emerge in the English interactions via this MIM application?
- e) What are the similarities and differences in the patterns of communication between the three cases of paired-groupings (K–K, K–E, K–NE), in terms of (i) the amount of time spent and number of messages posted; and (ii) strategies/functions used for negotiation of meaning?

5.2 Communicative Activity in English

As an overview of the students' participation in the use of *KakaoTalk* over the research period of four weeks, the amount of time they spent in conversations as well as the number of messages posted were determined. This analysis was conducted to address research question 2e) (i) comparing the similarities and differences in the patterns of communication between communicative pairs in terms of the amount of time spent and the number of messages exchanged between the participating groups. The students' conversations were monitored over four weeks during which time a different topic was proposed each week as a stimulus for dialogue exchange.

5.2.1 Total amount of time in conversations per group over the four weeks.

The amount of time that students were engaged in conversations and the number of interactions between pairs and within each group over the four weeks were calculated to reveal any similarities and differences in communication patterns between the pairs and groups' activities. The calculation of time for the communication activity was based on the displayed time on the *KakaoTalk* application screen that accompanied each message. More details on this information are provided in section 5.5.1. The results shown in Table 5.1 present the total amount of time the pairs spent in their respective groups over the four weeks of communication. As shown in the table, the pairs in the K–NE group spent, on average the most time exchanging messages (average $t = 322$ minutes) followed by the K–E group (average $t = 299$ minutes). The K–K group spent

the least amount of time communicating with each other (average $t = 224$ minutes) compared to the other two groups. A possible reason for the K–K group spending less time communicating is that the K–K group students are culturally similar; hence they ask fewer questions and need fewer explanations resulting in less communication occurring.

Table 5.1. *The amount of time spent between pairs/groups for the 4 weeks of interactions*

Group Pair	Korean–Korean K–K	K–English dominant (K–E)	K–non-English dominant (K–NE)
Mixed-gender	K1 (M) – K2 (F): 384'	K7 (M) – E1 (F): 528'	K11 (M) – NE1 (F): 293'
		K8 (F) – E2 (M): 375'	K12 (F) – NE2 (M): 559'
Average time spent (Mixed-gender)	384'	451.5'	426'
Same-gender	K3 (F) – K4 (F): 141'	K9 (F) – E3 (F): 108'	K13 (F) – NE3 (F): 243'
	K5 (M) – K6 (M): 147'	K10 (M) – E4 (M): 183'	K14 (M) – NE4 (M): 194'
Average time spent (Same-gender)	144'	145.5'	218.5'
Average (all pairs, irrespective of gender in the group)	224'	299'	322'

Note. M: male; F: female

The data in Table 5.1 shows that the mixed-gender pairs across the three groups spent more time exchanging messages over the four-week period of the study than the same-gender pairs. The mixed-gender pairs communicated for 384 minutes in the K–K group an average of 451.5 minutes $((528 + 375)/2)$ in the K–E group and an average of 426 minutes $((293 + 559)/2)$ in the K–NE group.

In contrast, and as shown in Table 5.1, the same-gender pairs communicated for less amounts of time with averages of:

- 144 minutes for the same-gender pairs compared to 384 minutes for the mixed-gender pair in the K–K group,
- 145.5 minutes for the same-gender pairs compared to 451.5 minutes for

- the mixed-gender pairs in the K–E group and
- 218.5 minutes for the same-gender pairs compared to 426 minutes for the mixed-gender pairs in the K– NE group

A possible explanation for the greater amount of time spent on message exchanges between mixed-gender pairs is the natural attraction in the traditional sense and intrinsic interest and curiosity to find out more about an opposite gender communication partner, hence motivating the mixed-gender pairs to spend more time communicating with each other.

5.2.2 Turns of conversation over the four weeks.

In this section, the number of turns (messages posted) of conversation between pairs over the four weeks is presented. A turn is a message in the sequence of messages that the participant exchanged. As shown in Table 5.2, the number of turns (average 433) for the K–E group was similar to the K–NE group (average 428). The K–K group had the fewest number of turns communicating with each other (average 332) compared to the other two groups. This is consistent with the amount of time spent on messaging over the four weeks of activities where the K–K group spent the least amount of time on conversations.

On average, the K–E and K–NE groups took more turns in exchanging messages than the K–K group. Further, mixed-gender pairs took more turns in the communicative activities than the same-gender pairs across the three groups. These findings imply that the pairs of K–E and K–NE groups engaged in communicative activity more actively than the pairs of the K–K group by spending more time in exchanging messages and involving more frequent message exchanges.

In addition, the females in the mixed-gender pairs initiated the conversations most of the time for each of the four topics and the counterparts of Korean students in the same-gender pairs started the conversations in two groups of K-E and K-NE.

Table 5.2. *Number of turns of conversation between pairs/groups for the 4 weeks of interactions*

Group Pair	Korean–Korean K–K	K–English dominant (K-E)	K–non-English dominant (K-NE)
Mixed-gender	K1 (M) – K2 (F): 284-309 (total 593)	K7 (M) – E1 (F): 374-448 (total 822)	K11 (M) – NE1 (F): 357-430 (total 787)
		K8 (F) – E2 (M): 260-391 (total 651)	K12 (F) – NE2 (M): 251-240 (total 491)
Average number of turns (Mixed-gender)	593	736	639
Same-gender	K3 (F) – K4 (F): 46-79 (total 125)	K9 (F) – E3 (F): 39-58 (total 97)	K13 (F) – NE3 (F): 121-137 (total 258)
	K5 (M) – K6 (M): 142-136 (total 278)	K10 (M) – E4 (M): 81-79 (total 160)	K14 (M) – NE4 (M): 73-101 (total 174)
Average number of turns (Same-gender)	201	128	216
Average (all pairs in the group)	332	433	428

5.3 The use of Multimodal Representations in Communicating with *KakaoTalk*

This study was designed to investigate the use of multimodal representations of a smartphone utilised during English interactions via the *KakaoTalk* application and to explore the reason for the use of these features in this context as specified in the research questions 2(a) and 2(b). Multimodal representations include the use of images or photos and links to video clips as these modes of representation offer visual means of communication, which enhance text-based meaning. These multimodal features were observed in students' exchange message activities. The number of exchanged photos and linked videos were determined to investigate how frequently students exploited multimedia features of the smart phone when interacting via a MIM platform.

As shown in Table 5.3, photos were utilised more than video clips in the conversations across the groups and the reason behind this may be that it is easier to send photos than video clips. The number of used photos was 17 for the K–E, five for the K–NE and one for the K–K groups. The photos were more frequently used in the K–

E and K–NE groups than the K–K group. They were used most for the hometown topic and were least used for the topic of travel. Students exchanged more images about hometown to help with their counterpart's understanding because of differences in cultural backgrounds. A likely explanation for this is that after two weeks of communication, students were more familiar with each other and thus shared more photos with each other. In contrast, the K–K group did not use photos much due to their similar cultural and language background thus they did not need to help the other's comprehension of most of the conversation topics through attaching images.

Table 5.3. *Exchanging photos and linking to video clips*

Group	Pair	Photos (frequency of use)				Total	Video clips (frequency of use)				Total
		Wk. 1	Wk. 2	Wk. 3	Wk. 4		Wk. 1	Wk. 2	Wk. 3	Wk. 4	
		Topic					Topic				
		University	Travel	Hometown	Friends		University	Travel	Hometown	Friends	
K–K	K1(M)– K2(F)	1				1					
K–E	K7(M)– E1(F)	1 (K)	1 (K)	4 (K:2, E:2)	1 (E)	7				2 (E)	2
	K8(F)– E2(M)				5 (K:1, E:4)	5				2 (E)	2
	K9(F)– E3(F)	1 (K)		4 (E)		5					
K–NE	K13(F)– NE3(F)	1 (NE)		2 (K)		3					
	K14(M)– NE4(M)	1 (NE)			1 (K)	2					
Total		5	1	10	7	23				4	4

Note. K: The used features by Korean students, E: The used features by English dominant speakers, NE: The used features by non-English dominant speakers

In the next section, examples of how the students made use of different modes of representations and themes associated with why they used them are presented. The two themes identified for using multimodal representations are ‘enhancing comprehension of discourse’ and ‘experiencing cultural differences’.

5.3.1 Enhancing comprehension of discourse.

Table 5.4 shows examples of images and links to video clips integrated into the students’ conversational texts to support comprehension of discourse.

Table 5.4. *Use of multimodal representation between K–E and K–NE groups*

Korean–English dominant group (K–E)	Korean–non-English dominant group (K–NE)
Excerpt 1 (between K9 [F] and E3 [F]): University life	Excerpt 2 (between K13 [F] and NE3 [F]): Your hometown
25 2013 년 11 월 26 일 오후 1:39, K9 : hi. did you eat lunch?	320 2013 년 12 월 6 일 오후 3:55, K13 : Oh good~ Do you have something want to know about Korea?
26 2013 년 11 월 26 일 오후 1:40, K9 : i ate pizza	321 2013 년 12 월 6 일 오후 3:56, NE3 : Hmmm whats your favorite korean food?
27 2013 년 11 월 26 일 오후 1:40, E3 : nope T T	322 2013 년 12 월 6 일 오후 3:56, NE3 : Abd where can i get it?
I'm so hungry, but I'm at my Internship	323 2013 년 12 월 6 일 오후 4:02, K13 : I like 국밥!(kuk bab). You can eat almost evey restaurant.
28 2013 년 11 월 26 일 오후 1:40 K9 : 454985971.jpg	324 2013 년 12 월 6 일 오후 4:03, K13 : Even in school restaurant!!
29 2013 년 11 월 26 일 오후 1:40 K9 : internship??	325 2013 년 12 월 6 일 오후 4:03, K13 : Do you know about it?: D
30 2013 년 11 월 26 일 오후 1:40, E3 : ooh~ where'd you get that?	326 2013 년 12 월 6 일 오후 4:03, NE3 : No! What is it?
31 2013 년 11 월 26 일 오후 1:41, K9 : do you know atti at north gate?	327 2013 년 12 월 6 일 오후 4:04, NE3 : Bit wheres the best restaurant for it?
32 2013 년 11 월 26 일 오후 1:41, E3 : no, I don't think I've seen it yet	328 2013 년 12 월 6 일 오후 5:12, K13 : Amm..it is boiled rice with soup!
	329 2013 년 12 월 6 일 오후 5:12, K13 : Soup is made of pork!! i can't explain



454985971.jpg

well

330 2013 년 12 월 6 일 오후 5:29, **NE3:**
Haaa never seen it haha

331 2013 년 12 월 6 일 오후 5:38, **K13:**
When the weather is cold, kuk-bab makes warm

332 2013 년 12 월 6 일 오후 5:39, **K13:**
How about mexico?? What is the traditional food?

333 2013 년 12 월 6 일 오후 5:55, **NE3:**
We have tacos. Enchiladas

334 2013 년 12 월 6 일 오후 5:55, **NE3:**
My favorite food is mole

335 2013 년 12 월 6 일 오후 8:45, **K13:**
2129395327.jpg

336 2013 년 12 월 6 일 오후 8:45, **K13:**
1308317467.jpg

337 2013 년 12 월 6 일 오후 8:45, **K13:**
Oh taco looks really delicious!!!!!!!!!!

338 2013 년 12 월 6 일 오후 8:45, **K13:**
Second one is kuk-bab~~

339 2013 년 12 월 6 일 오후 9:35, **NE3:**
Oh yeah ive seen it

340 2013 년 12 월 6 일 오후 9:35, **NE3:**
But im a vegetatiab so i cant eat it :(



2129395327.jpg



1308317467.jpg

Excerpt 1 presented in Table 5.4 is drawn from a conversation about university life. The Korean student (K9) asked the English dominant speaker (E3) whether she had eaten lunch and K9 said in her sequence turn that she had eaten a pizza for lunch. K9 sent a photo of the food she had eaten (**jpg.454985971**) to support her previous utterance and assist with E3's understanding. E3 expressed understanding with the provided image and inquired about the food item by saying "*ooh where'd you get that?*" This excerpt demonstrates that sending an image helped the counterpart's comprehension and encouraged them to extend their conversation.

Another example is shown in excerpt 2, which is drawn from a conversation about hometowns including food, restaurants and places for shopping. The Korean student (K13) asked the non-English dominant counterpart (NE3) whether she wanted to know about Korea and NE3 replied by asking what K13's favorite Korean food is as shown in turn 321. K13 tried to explain it but faced difficulty describing it in turn 329 saying "*i can't explain well*" and sent a photo of her favorite Korean food in turn 336 (**jpg.1308317467**) to elaborate the previous utterance in the process of negotiation of meaning thereby enhancing NE3's comprehension. NE3 expressed understanding in turn 339 saying "*Oh yeah ive seen it*" from the images. Thus, the use of photos played a role in enhancing NE3's comprehension during negotiated interaction. In other words, during the process of negotiating meaning the use of an image helped with the counterpart's understanding. In addition, K13 added a photo of the traditional Mexican food that NE3 talked about (**jpg.2129395327**) in turn 335.

Similarly, excerpt 3 in Table 5.5 provides an example of how a link to a film clip on *YouTube* is embedded in the communicative exchange. The English dominant speaker (E1) made a link to her self-made video indicated as (**YouTube link provided**) in turn 411 for the Korean student (K7) to watch. Providing video materials supported her own utterances and assisted with K7's understanding. E1 explained that she produced the video clip of all of her memories in Korea and K7 was amazed at her talent for making her own film clips as evidenced in the subsequent turns. The real link is not displayed here to protect the participant's identity.

Table 5.5. *Examples of use of multimodal representation between K–E and K–K groups*

Korean–English dominant group (K–E)	Korean–Korean group (K–K)
<p>Excerpt 3 (between K7 [M] and E1 [F]): Friends and friendship</p> <p>402 2013 년 12 월 21 일 오전 12:23, K7: Wow. You have many memories in Korea.</p> <p>403 2013 년 12 월 21 일 오전 12:23, E1: So many...</p> <p>404 2013 년 12 월 21 일 오전 12:23, E1: I actually made a video of all my memories.</p> <p>405 2013 년 12 월 21 일 오전 12:23, E1: It's on YouTube, do you want to watch it? (curious)</p> <p>406 2013 년 12 월 21 일 오전 12:24, K7: Really? What is the name of it?</p> <p>407 2013 년 12 월 21 일 오전 12:24, E1: [Youtube link provided]</p> <p>408 2013 년 12 월 21 일 오전 12:24, E1: No!</p> <p>409 2013 년 12 월 21 일 오전 12:24, E1: Wrong one...</p> <p>410 2013 년 12 월 21 일 오전 12:24, K7: Aha</p> <p>411 2013 년 12 월 21 일 오전 12:25, E1: [Youtube link provided]</p> <p>412 2013 년 12 월 21 일 오전 12:25, E1: There :)</p> <p>413 2013 년 12 월 21 일 오전 12:29, K7: Wow it's so pretty</p> <p>414 2013 년 12 월 21 일 오전 12:29, K7: You have a great talent</p> <p>415 2013 년 12 월 21 일 오전 12:30, K7: Great Photos and videos. Editing is also amazing</p>	<p>Excerpt 4 (between K1 [M] and K2 [F]): University life</p> <p>178 2013. 11. 28. 오후 2:40, K2: but as soon as the class finish! team project meeting started</p> <p>179 2013. 11. 28. 오후 5:06, K1: oh my god</p> <p>180 2013. 11. 28. 오후 5:06, K1: i m finished</p> <p>181 2013. 11. 28. 오후 5:07, K1: class of electronic engineering laboratory</p> <p>182 2013. 11. 28. 오후 5:07, K1: i made am radio</p> <p>183 2013. 11. 28. 오후 5:27, K2: am radio??</p> <p>184 2013. 11. 28. 오후 5:27, K2: you made am radio?</p> <p>185 2013. 11. 28. 오후 5:28, K1: yes..todays topic</p> <p>186 2013. 11. 28. 오후 6:10, K1: [His own picture provided]</p> <p>187 2013. 11. 28. 오후 6:15, K2: am radio?</p> <p>188 2013. 11. 28. 오후 6:15, K2: sorry my battery lost</p>

An example of how the K–K group students made use of photos is shown in excerpt 4 above. Their conversation was about university life. The two Korean students were communicating about their classes and K1 introduced the radio he made during class and showed the radio to K2 by sending his own picture, indicated as **(His own picture provided)** in turn 186. The posting of an image assisted K1’s own utterances and supported his counterpart’s comprehension during conversations. The real picture is not displayed here to protect the participant’s identity.

5.3.2 Experiencing cultural differences.

The examples below indicate how the use of multimodal representations provided the Korean students with the opportunity to experience different cultural aspects of foreign countries. The use of visual representations mainly occurred in the K- E group in this study.






In excerpt 5 in Table 5.6, on the topic of hometowns, the Korean student (K7) and the English dominant speaker (E1) exchanged three photos enabling them to experience cultural differences. K7 asked E1 about her hometown and tried to guess what that hometown was like by adding a photo (**jpg. 277038695**) in turn 271. Sequentially, K7 introduced his own hometown with another photo (**jpg. 1419534508**) in turn 273. E1’s response to K7 seemed to be one of comprehension of the question by saying “*Aha, a little bit I guess*”, which she followed up by sharing more details about her own hometown in Canada. E1 further elaborated on her hometown in Canada by providing a photo (**jpg. 380630777**) in turn 275 enabling K7 to have the opportunity to view a different style of residential area in the foreign country.

Similar to the previous example, excerpt 6 in Table 5.6 shows that adding images provided the Korean student with the opportunity to view a different cultural tradition of the foreign country. The Korean student (K7) and the English dominant speaker (E1) pair continued with their communication through the *KakaoTalk* MIM application after the four-week interaction period for this research had ended. The communication took place when E1 went back to Canada. E1 sent a photo of the Christmas tree she decorated with her mother shown in turn 853 (**jpg. 679951613**), and this gave K7 an opportunity to experience a different perspective culturally including the seasonal festivities of the foreign country.

In another paired conversation between Korean student (K9) and English dominant speaker (E3) shown in excerpt 7 in Table 5.6 while communicating on the topic of hometowns, K9 made a request to E3 to send through pictures of her town by saying “wow. *do you have pictures? i want to see :-)*”. In response to this request, E3 supplied a series of photos in turns 155 to 158 (**1645440510.jpg**), (**894264048.jpg**), (**1576441820.jpg**), (**68626669.jpg**) to assist K9’s understanding. Providing the images gave K9 the opportunity to see a different city in the foreign country.

Table 5.6. *Use of multimodal representation in K–E group*

Korean–English dominant group (K–E)	
<p>Excerpt 5 (between K7 [M] and E1 [F]): Your hometown</p> <p>270 2013 년 12 월 7 일 오후 4:09, K7: How is your hometown? In my expectation would look like this</p> <p>271 2013 년 12 월 7 일 오후 4:10, K7: 277038695.jpg</p> <p>272 2013 년 12 월 7 일 오후 4:13, K7: And this is picture of my hometown</p> <p>273 2013 년 12 월 7 일 오후 4:14, K7: 1419534508.jpg</p> <p>274 2013 년 12 월 7 일 오후 4:14, E1: Aha, a little bit I guess, at least my current home. I was born and raised in Ottawa, Ontario. My childhood involved a lot of imagination, because we weren't super well off when i was growing up. But we had many facilities. So my parents made sure I took many different class. Swimming, skating, soccer, tap and jazz dance... This was my childhood :) I lived very close to my school so I played in the playground and in my backyard most of the time.</p> <p>275 2013 년 12 월 7 일 오후 4:20, E1: 380630777.jpg</p> <p>276 2013 년 12 월 7 일 오후 4:20, E1:</p>	<p>Excerpt 7 (between K9 [F] and E3 [F]): Your hometown</p> <p>150 2013 년 12 월 12 일 오후 4:02, E3: but I've lived there too long so I'm tired of it</p> <p>151 2013 년 12 월 12 일 오후 4:03, E3: we have some really nice universities also</p> <p>152 2013 년 12 월 12 일 오후 4:04, K9: wow. do you have pictures? i want to see</p> <p>153 2013 년 12 월 12 일 오후 4:06, E3 : well not really my own but I can find some</p> <p>154 2013 년 12 월 12 일 오후 4:06, E3 : hold on a sec</p> <p>155 2013 년 12 월 12 일 오후 4:11, E3: 1645440510.jpg</p> <p>156 2013 년 12 월 12 일 오후 4:11, E3:</p>

<p>This is where I've been living since I was 11</p> <p>277 2013 년 12 월 7 일 오후 4:20, K7: Wow that's cool.I wanna live in a house like this</p> <p>279 2013 년 12 월 7 일 오후 4:22, E1: Houses like this are common in Canada.</p>  <p>277038695.jpg</p>  <p>1419534508.jpg</p>  <p>380630777.jpg</p>	<p>894264048.jpg</p> <p>157 2013 년 12 월 12 일 오후 4:11, E3: 1576441820.jpg</p> <p>158 2013 년 12 월 12 일 오후 4:11, E3: 68626669.jpg</p> <p>159 2013 년 12 월 12 일 오후 4:14, K9: beautiful!!!!!!!</p> <p>160 2013 년 12 월 12 일 오후 4:15, K9: different city daegu!!!!!!</p> <p>161 2013 년 12 월 12 일 오후 4:18, E3: well it's pretty huge too</p>
<p>Excerpt 6 (between K7[M] and E1[F]): Continuation of communication after the intervention period</p> <p>847 2013 년 12 월 22 일 오후 10:35, K7: What time is it there?</p> <p>848 2013 년 12 월 22 일 오후 10:36, E1: 10:35 here :)</p> <p>849 2013 년 12 월 22 일 오후 10:37, K7: Wow It's complete opposite</p> <p>850 2013 년 12 월 22 일 오후 10:38, K7: It's 22:37 exactly</p>	 <p>894264048.jpg</p>  <p>1576441820.jpg</p>

851 2013 년 12 월 23 일 오전 12:52,
E1: Im about to decorate the house with everything Christmas with my mom! So excited :D

852 2013 년 12 월 23 일 오전 11:03,
E1: We finished!

853 2013 년 12 월 23 일 오전 11:03,
E1: 679951613.jpg

854 2013 년 12 월 23 일 오후 1:53,
K7: Wow so beautiful!

855 2013 년 12 월 23 일 오후 1:56,
K7: It seems that it's tall as you

856 2013 년 12 월 24 일 오후 12:34,
E1 : It's actually taller :D

857 2013 년 12 월 24 일 오후 12:35,
E1: Do you have a Christmas tree in your house? :)

858 2013 년 12 월 24 일 오후 12:47,
K7: There was the tree when I was 9~11 years old. But there isnt now.

859 2013 년 12 월 24 일 오후 12:48,
E1: Wah, decorating the tree is my favourite thing to do! I do it with my mum every winter :) it's tradition

860 2013 년 12 월 24 일 오후 12:48,
E1: Makes me very warm and happy inside!

861 2013 년 12 월 24 일 오후 12:52,
K7: Really? I want to do it too. But my parents just arent going to do that.



68626669.jpg



679951613.jpg

To sum up, the above examples show that multimodal features were used in message communication, via *KakaoTalk*, although the use of photos were observed more than video clips. The topic that had the most photos used was hometown. Providing pictures or video clips played a role in supporting communication by enhancing comprehension of discourse as well as providing the Korean students with the opportunity to experience different cultural perspectives such as residential area, different city or seasonal festivities in foreign countries. The K–E group used the most multimodal features of these types.

5.4 The Use of Language Styles in *KakaoTalk* Messages

Language styles in this study include the features appearing in text-based communication such as emoticon, punctuation, and onomatopoeia. The findings showed that the language used with the *KakaoTalk* application was a combination of features of verbal and written style communication. In particular, the language styles were more similar to an informal verbal style written communication as indicated by the use of emoticons, punctuation and onomatopoeia. In the communicative nature of a MIM application, these language styles were used to support further understanding in the interactions by helping to convey emotional states and feelings of the message senders.

5.4.1 The use of emoticons.

The findings show that the use of emoticons, a visual mode, was common among Korean students. Examples of how the students utilised the emoticons and themes associated with why they used them are presented below. The three themes identified for using emoticons are ‘showing feelings in a quick manner’, ‘transferring feelings vividly and clearly’ and ‘showing familiarity between close relationships’.

5.4.1.1 Showing feelings in a quick manner.

The examples in Table 5.7 show that the use of emoticons enabled the Korean students to communicate effectively in a spontaneous communication mode by conveying feelings or emotions in a quick manner. This is supported by students’ comments:

‘the use of emoticons seems to make the communicative atmosphere comfortable and to increase intimacy with language partner. It is sometimes useful when I express feelings without writing long English sentences. So I actually used them a lot.’ (K9_Interview 2)

‘It is effective to use emoticons because I can express my emotions or feelings directly to my language partner without typing many words. It is an easier way to show feelings to others in text-based communication.’ (K11_Interview 2)

Table 5.7. *Use of emoticons to show feelings between K-E and K-NE groups*

K-English dominant group (K-E)	K-non-English dominant group (K-NE)
<p>Excerpt 8 (between K9 [F] and E3 [F]): Travel you have made</p> <p>34 2013 년 12 월 8 일 오후 3:47, K9: good afternoon 😊 Did you see a movie? yesterday, i studied hard and now i also study for my examination... 😓😓😓</p> <p>35 2013 년 12 월 8 일 오후 3:51, E3: oh what's your major?</p> <p>36 2013 년 12 월 8 일 오후 3:55, K9: my major is polymer engineering.</p> <p>37 2013 년 12 월 8 일 오후 3:56, K9: i have an important exams on 10,11,12 day</p> <p>38 2013 년 12 월 8 일 오후 3:57, K9: so i am so stressful 😓</p> <p>39 2013 년 12 월 8 일 오후 3:57, E3: aww that sounds horrible, I heard engineering exam time is pretty sucky</p> <p>40 2013 년 12 월 8 일 오후 3:58, E3: anyway good luck</p> <p>41 2013 년 12 월 8 일 오후 4:00, K9: thanks 😊 Do you have an exam?</p> <p>42 2013 년 12 월 8 일 오후 4:08, E3: nope:) just my internship work</p>	<p>Excerpt 9 (between K11 [M] and NE1 [F]): Friends and friendship</p> <p>580 2013 년 12 월 18 일 오후 9:13, NE1: by the way this week's topic is friends</p> <p>581 2013 년 12 월 18 일 오후 9:13, NE1: kkkk</p> <p>582 2013 년 12 월 18 일 오후 9:13, NE1: do u have girlfriend???</p> <p>583 2013 년 12 월 18 일 오후 9:15, K11: Last month seperated (이모티콘)</p>

In excerpt 8, the Korean student (K9) showed her feelings of being in a stressful state, in turn 34 and 38 by adding graphical emoticons. This helped with spontaneous and effective communication by adding feelings to the texts and conveyed them in a quick manner without lengthy description. Similarly, in excerpt 9, another Korean

student (K11) elaborated his feeling by posting an emoticon that indicated sadness in turn 584. K11 utilised an animated emoticon displayed as (이모티콘), which is read as ‘emoticon’ in the Korean language.

Among the different types of emoticons such as text-based (e.g. :P), pictorial (e.g. 😊) or animated, the exchanged animated emoticon was shown as (이모티콘) in the text messages that the students sent through to my email account. The animated emoticon was marked as 이모티콘 in Korean in the email rather than the original animated type because exchanged messages were transmitted to the email account as a text type.

5.4.1.2 Transferring feelings vividly and clearly.

Examples drawn from the K–E group show the use of emoticons that allowed the Korean students to add feelings to their texts and to transfer feelings and thoughts more vividly and clearly as stated by K7:

‘I did use many emoticons but not in this English conversation because my English counterpart didn’t use them a lot and I thought she might not know the emoticons that I used. I think I can load up my emotions and ideas into messages vividly by using emoticons. It is like a verbal communication.’ (K7_Interview 2)

Excerpt 10 (between K7 [M] and E1 [F]): University life

88 2013 년 11 월 27 일 오후 8:18, **E1**: It is pretty cold :) are you on campus, or are you home now?

89 2013 년 11 월 27 일 오후 8:19, **K7**: I'm in the bus to my home

90 2013 년 11 월 27 일 오후 8:19, **E1**: Ahhh

91 2013 년 11 월 27 일 오후 8:19, **E1**: I am in my dorm now :)

92 2013 년 11 월 27 일 오후 8:19, **E1**: Did you eat dinner?

93 2013 년 11 월 27 일 오후 8:19, **K7** : So warm here 🥵

94 2013 년 11 월 27 일 오후 8:20, **K7**: Not yet 🤔 I'm so hungry

Excerpt 11 (between K7 [M] and E1 [F]): Friends and friendship

343 2013 년 12 월 15 일 오후 10:10, **E1**: Anyways, tell me about your friends :)

344 2013 년 12 월 15 일 오후 10:10, **E1**: Especially your best friend 😊

345 2013 년 12 월 16 일 오후 3:36, **K7**: Hello! Now I've finally ended my works!!!!

And I'm sorry for no reply messages. It was so late when I checked your messages and I worried that you might awake up from your sleep.

346 2013 년 12 월 16 일 오후 3:41, **K7**: And... There are many friends around me and we used to hang out in downtown.

347 2013 년 12 월 16 일 오후 3:44, **K7**: We all like drinking beer and playing games

😊 We are 27 years old but when we play together, we are back to 14years old 😊

348 2013 년 12 월 16 일 오후 4:11, **E1**: Haha! Of course :P

Excerpt 12 (between K9 [F] and E3 [F]): Travel you have made

44 2013 년 12 월 8 일 오후 4:26, **K9**: hum. . i dont understand what you mean. Sorry



i guess you study another thing which is not related your original major. is it right?

45 2013 년 12 월 8 일 오후 4:27, **E3**: I'm doing a paid internship and they're paying for my stay here, my flight tix, and other stuff

46 2013 년 12 월 8 일 오후 4:28, **E3**: so i'm kind of taking a semester break

47 2013 년 12 월 8 일 오후 4:34, **K9**: ahah :) i understand 😊😊

48 2013 년 12 월 8 일 오후 4:35, **E3**: kk, so u havn't done anything fun this weekend?

49 2013 년 12 월 8 일 오후 4:43, **K9**: not funny weekend 😞 hard study weekend.

but, i will have a interesting time on next weekend. because exam will be finished

As shown in excerpt 10, K7 expressed his feelings of warm and hunger in turns 93 and 94, by adding graphical emoticons. In addition, K7 showed his pleasant feeling in turn 347 of excerpt 11 through the inclusion of an emoticon. The English dominant speaker (E1) used text-based emoticons such as :) and :P in excerpt 10 and 11 to symbolise a cheeky smile with tongue sticking out. The use of emoticons elaborates the discourse, in particular when the sender wishes to elaborate on her/his feeling states in a clear way. Furthermore, the Korean student (K9) also added emoticons in turn 44 and 49 of excerpt 12 to describe her feelings of sorry and boring as well as to express her comprehension of discourse, saying “*ahah :) i understand*” in turn 47.

5.4.1.3 Showing familiarity between close relationships.

In the second interview, the Korean students were asked why they utilised particular language styles such as emoticons, in their text messages via *KakaoTalk*. They demonstrated individual styles in the way they used emoticons but tended to use emoticons when there were familiar relationships such as close friends as shown in the quotes below:

‘I sometimes use emoticons with my communicative partner to show my sense of friendliness. However, I normally send many emoticons to my friends rather than unfamiliar people.’ (K3_ Interview 2)

‘In general, I use emoticons with a familiar acquaintanceship as I think it is suitable to use them to close friends to express my emotions states of mind and also its use depends on the genders of receivers. I do not send them to opposite gender, females. I tend to be cautious to use them when communicating with other females.’ (K6_ Interview 2)

‘I usually use emoticons with friends or familiar people and I choose different ways to express my feelings according to the levels of familiarity to people like between close friends or between general relationships.’ (K14_ Interview 2)

These quotes indicate that the Korean students show emotions and feelings through the use of emoticons in an equal relationship between friends or other familiar people.

To sum up, the findings show that emoticons were adopted in the message communication via *KakaoTalk* to express students' emotions and feelings effectively. The use of emoticons enabled the Korean students to show their feelings instantly without lengthy text descriptions in a spontaneous communicative mode. Furthermore, the use of emoticons helped them transfer their emotional states clearly and vividly showing the growing familiarity or increased intimacy between the paired students. Within the current culture of young people, the shared use of emoticons between paired language counterparts seems to be comfortable and acceptable. In the next section, the use of punctuation by the participating students as another method to transfer message sender's feeling states or moods is discussed.

5.4.2 The use of punctuation.

The use of punctuation is another means used by the Korean students to express in writing their feelings and thoughts via the MIM application *KakaoTalk*. Examples below present how they used punctuation and the themes associated with why they used them during message exchanges. The main themes identified for using punctuation by the Korean students are 'reinforcing emotions and feeling states', 'emphasising messages' and 'expressing familiarity in informal talk'.

5.4.2.1 Reinforcing emotions and feeling states.

The examples in Table 5.8 show that Korean students made use of punctuation to reinforce their emotions and feeling states in their text-based communication using *KakaoTalk*. The number of question or exclamation marks used appears to express the strength/level/degree of their feelings. In other words, different numbers of punctuation marks indicate different states of feeling. For example, excessive punctuation indicated more intensive feelings as indicated by K8 and K9:

'when I express my feeling strongly, I adopt a number of punctuation like *thanks !!!!!*. I think it helps me display my intense emotion or feelings along with texts.' (K8_Interview 2)

'the different numbers of punctuation means the different levels of my feelings. I used more punctuations to show my strong emotions or feelings.' (K9_Interview 2)

Table 5.8. *Use of punctuation to reinforce emotions in K-E group*

K-English dominant group (K-E)	K-English dominant group (K-E)
<p>Excerpt 13(between K8 [F] and E2 [M]): University life</p> <p>102 2013 년 11 월 28 일 오전 12:36, E2: are you okay?</p> <p>102 2013 년 11 월 28 일 오전 12:36, K8: yeap pretty much now. :-) not such in a good condition when I was doing the buddy.</p> <p>103 2013 년 11 월 28 일 오전 12:37, K8: I almost dropped off the 1st semester.</p> <p>104 2013 년 11 월 28 일 오전 12:37, E2: oh no, i glad you are better.</p> <p>105 2013 년 11 월 28 일 오전 12:37, K8: which I think was stupid that I gave up the classes for the reason.</p> <p>106 2013 년 11 월 28 일 오전 12:38, K8: thank :-)</p> <p>107 2013 년 11 월 28 일 오전 12:38, K8: *thanks !!!</p>	<p>Excerpt 14 (between K9 [F] and E3 [F]): Your hometown</p> <p>150 2013 년 12 월 12 일 오후 4:02, E3: but I've lived there too long so I'm tired of it</p> <p>151 2013 년 12 월 12 일 오후 4:03, E3: we have some really nice universities also</p> <p>152 2013 년 12 월 12 일 오후 4:04, K9: wow. do you have pictures? i want to see</p> <p>153 2013 년 12 월 12 일 오후 4:06, E3 : well not really my own but I can find some</p> <p>154 2013 년 12 월 12 일 오후 4:06, E3 : hold on a sec</p> <p>155 2013 년 12 월 12 일 오후 4:11, E3: 1645440510.jpg</p> <p>156 2013 년 12 월 12 일 오후 4:11, E3: 894264048.jpg</p> <p>157 2013 년 12 월 12 일 오후 4:11, E3: 1576441820.jpg</p> <p>158 2013 년 12 월 12 일 오후 4:11, E3: 68626669.jpg</p> <p>159 2013 년 12 월 12 일 오후 4:14, K9: beautiful!!!!!!!!!!</p> <p>160 2013 년 12 월 12 일 오후 4:15, K9: different city daegu!!!!!!!!</p> <p>161 2013 년 12 월 12 일 오후 4:18, E3: well it's pretty huge too</p> <p>162 2013 년 12 월 12 일 오후 4:19, E3:</p>

	<p>it's half the size of Korea actually</p> <p>163 2013 년 12 월 12 일 오후 4:19, E3: :D</p> <p>164 2013 년 12 월 12 일 오후 8:49, K9: half ????? it's a big city!! amazing. it is wonderfulness that a state of america have a independent rule. example is A city has a A rule. B citu has a B rule. USA has different rule. it is amazing! because Korea has one rule.</p>
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In excerpt 13, K8 employed multiple punctuation in the text messages via *KakaoTalk* to strengthen her feelings. She showed a high degree of gratitude by saying ‘*thanks*’ with three exclamation marks in excerpt 13 turn 107 (thanks !!!). Additionally, K8 self-corrected the spelling ‘*Thanks*’ and by marking it with an asterisk she is drawing her partner’s attention to the corrected word.

The second example in Table 5.8, excerpt 14, shows a similar use of punctuation that the Korean student (K9) adopted to reinforce her feelings. K9 showed her big sense of awe by using multiple exclamation and question marks, in turns 159 (beautiful!!!!!!!!), (different city daegu!!!!!!!!) and 164 (half ????? it's a big city!!). K9 intensified her conveyed feeling by differentiating the number of exclamation marks to express a level of feeling states.

5.4.2.2 *Emphasising messages.*

Examples drawn from the K–NE group demonstrate one of the themes elicited from the second interview: the use of punctuation marks help Korean students to emphasise words or messages. The punctuation marks enable the receiver to focus on the sender’s utterances. For example, K12 said:

‘I use one exclamation mark for emphasising my saying and multiple exclamation marks for my surprise.’ (K12_Interview 2)

Excerpt 15 (between K12 [F] and NE2 [M]): University life

47 2013 년 11 월 23 일 오전 12:03, **K12**: Where are you from?

48 2013 년 11 월 23 일 오전 12:04, **NE2**: Lithuania.

- 49 2013 년 11 월 23 일 오전 12:04, **NE2**: Are you from Daegu?
- 50 2013 년 11 월 23 일 오전 12:07, **K12**: No im from Busan !
- 51 2013 년 11 월 23 일 오전 12:08, **NE2**: Yay, the city of many mountains
- 52 2013 년 11 월 23 일 오전 12:10, **K12**: Right! And famous for beach !

Excerpt 16

- 13 2013 년 11 월 22 일 오후 11:40, **K12**: Where do you live? Are you a student?
- 14 2013 년 11 월 22 일 오후 11:43, **NE2**: I live on the KNU campus, at the dormitory. Yes, I am an exchange student
- 15 2013 년 11 월 22 일 오후 11:43, **NE2**: What about you?
- 16 2013 년 11 월 22 일 오후 11:46, **K12**: Wow !!!
- 17 2013 년 11 월 22 일 오후 11:47, **K12**: Which dormitory??

As shown in the two examples above, K12 used exclamation marks to emphasise her messages in turns 50 and 52 of excerpt 15 as well as to highlight her word (*Wow !!!*) in turn 16 of excerpt 16.

5.4.2.3 Expressing familiarity in informal talk.

The examples in Table 5.9 show a different use of punctuation to express familiarity in informal conversation via the *KakaoTalk* application as indicated by K13's quote below and supported by how she used punctuation in excerpt 17:

‘I think that it seems to be a formal conversation if I use punctuation once each sentence as a conventional method but use of multiple punctuations is likely to express familiarity to counterpart and it is like more informal talk.’ (K13_ Interview 2)

This quote from K13's interview indicates that she made use of punctuation marks to show her familiarity and sense of relaxedness with her counterpart in the informal *KakaoTalk* environment. This is demonstrated in excerpt 17 where K13 employed multiple punctuation consecutively to express familiarity with NE3. K13 showed the strong feeling of amazement by saying ‘*oh really*’ with several exclamation and

question marks at the same time in turn 44 of excerpt 17 by using them in a different way than the standard use of punctuation. It appears to be a combination of query to ensure that she interpreted correctly combined with a sense of amazement. Hence, K13 adopted an unconventional use of punctuation in the informal nature of the communication on the *KakaoTalk* platform.

The unconventional use of punctuation is also demonstrated by K5 (see excerpt 18 in Table 5.9). K5 used multiple punctuation marks to enhance the informal communication atmosphere in the MIM interactions by showing familiarity. Excerpt 18 shows K5 using two full stops in turns 19, 24 and 25. He explained the unconventional use of the full-stop:

‘I have used two full stops habitually because this is informal chatting environments so I can avoid formal-like conversation.’ (K5_Interview 2)

In addition, the texted emoticon ^^ that was used by K5 shown in turn 18 is the Korean style emoticon to indicate smiling eyes.

Table 5.9. *Use of punctuation to indicate familiarity and informal talk between K–NE and K–K groups*

K–non-English dominant group (K–NE)	Korean–Korean group (K–K)
<p>Excerpt 17 (between K13 [F] and NE3 [F]): University life</p> <p>42 2013 년 11 월 23 일 오후 5:05, NE3: I have three dogs</p> <p>43 2013 년 11 월 23 일 오후 5:05, NE3: Lovr them and miss them</p> <p>44 2013 년 11 월 23 일 오후 5:48, K13: Oh really !?!?!? Three dogs ?!!</p> <p>45 2013 년 11 월 23 일 오후 5:49, NE3: Yes a yorkie, italian greyhound abd a whippet</p> <p>46 2013 년 11 월 23 일 오후 6:19, K13: Aha! They should be cute~</p>	<p>Excerpt 18 (between K5 [M] and K6 [M]): University life</p> <p>17 2013 년 11 월 28 일 오후 5:17, K5: it's okok ..</p> <p>18 2013 년 11 월 28 일 오후 5:17, K5: we have to study hard for our major ^^;</p> <p>19 2013 년 11 월 28 일 오후 5:20, K5: i finish class now.. so going to have dinner .. what r u doing?</p> <p>20 2013 년 11 월 28 일 오후 9:26, K6: i bought somethings in downtown</p> <p>21 2013 년 11 월 28 일 오후 9:26, K6: so I am go home now</p>

	<p>22 2013 년 11 월 28 일 오후 9:27, K6: do you know the subject of this program in this eek?</p> <p>23 2013 년 11 월 28 일 오후 9:28, K6: I think you already know. we have to talk about our campus life</p> <p>24 2013 년 11 월 28 일 오후 10:03, K5: yes this week subject is campus life ..</p> <p>25 2013 년 11 월 28 일 오후 10:04, K5: but.. theres no something to do specially now.. (😭눈물) because</p> <p>26 2013 년 11 월 28 일 오후 10:04, K5 : preparing for final exam ..</p> <p>27 2013 년 11 월 28 일 오후 10:05, K5 : um .. what is your track ..?</p>
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From the above interview quotes and excerpts, it appears that the Korean students have their own ways of using punctuation by adopting various punctuation marks or differentiating their number of punctuation marks in order to express their emotional state and feelings more effectively. Furthermore, identified themes indicate that punctuation was used to intensify emotions and feeling states, emphasise their utterances and express familiarity with their communicative partner. Even though the interactions were in text-based communication mode, the students seemed to be able to engage in more verbalised communication by conveying their feelings directly to others through the use of punctuation marks.

5.4.3 The use of onomatopoeia.

Onomatopoeia is defined as the imitative word of sound to describe and represent different types of sound source (Sundaram & Narayanan, 2006). The main uses of onomatopoeia in *KakaoTalk*-based interactions were the sound of laughter such as *kkk* or ㅋㅋㅋ (the imitative sound of laughter in Korean), and the sign of pause such as *um....* In the non-audible communication of texts, the Korean students made use of

kkkk to express the sound of laughter. They used the feature of *um..* to show a pause of hesitation and uncertainty.

5.4.3.1 Representing / describing the sound of laughter.

The examples below demonstrate that onomatopoeia is used to describe the sound associated with laughing or giggling. It is used as a strategy to imitate original sound and show it effectively in the text.

In excerpt 19, K8 adopted onomatopoeia, *kkkk* or *ㅋ ㅋ ㅋ* to represent the sound of laughing or giggling in turns 50, 55 and 56. *ㅋ ㅋ ㅋ* is one of the Korean consonants and pronounced as ‘Keu’. It is used to express a little bit of laughter. K8 explained what *kkkk* or *ㅋ ㅋ ㅋ* means, in turns 50 and 52 by saying that *u know we used ㅋ ㅋ ㅋ or kkk for sound of laughter*. Similarly, the second example in Table 5.10, excerpt 20, shows that K2 imitated the sound of laughing or giggling during interactions by utilising onomatopoeia *kkk* in turn 9 (*Me too kkkkk*).

Table 5.10. *Use of onomatopoeia to represent the sound between K–E and K–K groups*

K–English dominant groups (K–E)	Korean–Korean groups (K–K)
<p>Excerpt 19 (between K8 [F] and E2 [M]): University life</p> <p>42 2013 년 11 월 28 일 오전 12:01, K8: I wanted to go to some other countries and see how the students behave differently in a class. I also had some complaints about that over shy thing.</p> <p>43 2013 년 11 월 28 일 오전 12:02, E2: yes, koreans are sooooo shy</p> <p>44 2013 년 11 월 28 일 오전 12:03, E2: hahh but some of my friend pretend to be shy</p> <p>45 2013 년 11 월 28 일 오전 12:03, E2: they say that its cute to act shy</p> <p>46 2013 년 11 월 28 일 오전 12:04, K8: oh my lol</p> <p>47 2013 년 11 월 28 일 오전 12:04, K8: for me..</p>	<p>Excerpt 20 (between K1 [M] and K2 [F]): University life</p> <p>8 2013. 11. 25. 오후 7:53, K1: i cant english well</p> <p>9 2013. 11. 25. 오후 7:53, K2: Me too kkkkk</p> <p>10 2013. 11. 25. 오후 7:53, K1: plz understand me.....</p> <p>11 2013. 11. 25. 오후 7:53, K2: understad me,....too</p>

48	2013 년 11 월 28 일 오전 12:04, E2: do you do it? lol	
49	2013 년 11 월 28 일 오전 12:04, K8: but the thing is that	
50	2013 년 11 월 28 일 오전 12:04, K8: u know we used ㅋㅋㅋ or kkkk	
51	2013 년 11 월 28 일 오전 12:04, E2: yes	
52	2013 년 11 월 28 일 오전 12:05, K8: when I say lol to my friend, i feel like I cannot express my laughter in an original way.	
53	2013 년 11 월 28 일 오전 12:05, E2: hahhh why do you do it. hahh im curious:)	
54	2013 년 11 월 28 일 오전 12:05, E2: so you pretend to be shy?	
55	2013 년 11 월 28 일 오전 12:05, K8: my friends didn't get kkkkkkk	
56	2013 년 11 월 28 일 오전 12:06, K8: pretend? wow this one is big lol kkkk	

5.4.3.2 Indicating pause of hesitation and uncertainty.

Another use of onomatopoeia was the sign for a pause being used to show a break during interactions. This can be a sign to let the counterpart know that she/he is thinking about the communication topic or needs time to prepare a response. As indicated in the excerpts below, onomatopoeia such as ‘um...’ communicates to the recipient a pause during interactions. Examples below show that onomatopoeia expresses a short stop or hesitation or uncertainty in an effective way to help interpretation of plain text as demonstrated in the quotes:

‘I use um.. to express the moment of thinking something and this makes it possible to show a short stop in the text-based communication mode. Actually, facial expression is not available in typed text. The use of um.. helps to indicate the moment of hesitation by showing a break during interaction.’ (K5_ Interview 2)

‘There isn’t any specific meaning to use *um...* but sometimes it can help to show the situation when I am not sure about something during communication.’ (K1_ Interview 2)

Excerpt 21 (between K5 [M] and K6 [M]): University life

44 2013 년 11 월 29 일 오후 5:33, K5:: do you like programming?

45 2013 년 11 월 29 일 오후 5:44, K6: I dont like programming so I want to learn semiconductor

46 2013 년 11 월 29 일 오후 5:48, K5: **um...**well i still dont know what's what

47 2013 년 11 월 29 일 오후 5:49, K5: about this major.

Excerpt 22 (between K1 [M] and K2 [F]): Travel you have made

315 2013. 12. 2. 오후 1:02, **K1**: i finished all class

316 2013. 12. 2. 오후 1:02, **K1**: monday is very comfortable

317 2013. 12. 2. 오후 1:04, **K2**: So Monday was more tired

318 2013. 12. 2. 오후 2:05, **K1**: after lunch sleeping..

319 2013. 12. 2. 오후 3:32, **K2**: The second topic are travels that you have made and studying abroad.

320 2013. 12. 2. 오후 3:41, **K1**: **um...** i dont know exactly whats mean

As shown in excerpt 21, K5 utilised ‘*um...*’ in turn 46 to express the time for a pause, by indicating hesitation before starting his next utterance in his MIM conversation via *KakaoTalk*. Similarly, K1 employed the sign for pause ‘*um...*’ in turn 320 of excerpt 22 to show his uncertainty about their conversation topic. The use of a pause was a supplementary device to represent an interval to let the partner recognise

the situation of hesitation or uncertainty about the communication topic or their utterances.

In summary, the use of onomatopoeia such as *kkk*, $\Rightarrow \Rightarrow \Rightarrow$ (the imitative sound of laughter in Korean) or *um...*, plays a role in the expression of the sound of laughter and the sign of pause during student interactions. The Korean students take their time to reply carefully by showing a pause of hesitation and uncertainty during the nonverbal text-based communication mode.

5.4.4 The use of language.

The findings show that there were some grammatical errors as well as spelling mistakes in the English language usage of Korean students. The examples in Table 5.11 indicate that grammatical and spelling errors occurred in the K-K group and K-NE group.

Table 5.11. *Korean students' grammatical and spelling errors in conversational messages*

Korean-Korean group (K-K)	K-non-English dominant group (K-NE)
<p>Excerpt 23 (between K1 [M] and K2 [F]): University life</p> <p>8 2013. 11. 25. 오후 7:53, K1: i cant english well</p> <p>9 2013. 11. 25. 오후 7:53, K2: Me too kkkkk</p> <p>10 2013. 11. 25. 오후 7:53, K1: plz understand me.....</p> <p>11 2013. 11. 25. 오후 7:53, K2: understad me,....too</p> <p>Excerpt 24 (between K5 [M] and K6 [M]): University life</p> <p>19 2013 년 11 월 28 일 오후 5:20, K5: i finish class now.. so going to have</p>	<p>Excerpt 25 (between K12 [F] and NE2 [M]): University life</p> <p>108 2013 년 11 월 25 일 오후 2:30, NE2: How many megaboxes are in Daegu?</p> <p>109 2013 년 11 월 25 일 오후 2:31, NE2: Next time we will come to yours megabox!</p> <p>110 2013 년 11 월 25 일 오후 2:44, K12: I dont know how many megaboxes are in daegu. But there is one megabox near to our universoty</p> <p>111 2013 년 11 월 25 일 오후 2:44, K12: University</p>

dinner .. what r u doing?	
20 2013 년 11 월 28 일 오후 9:26, K6: i bought somethings in downtown	
21 2013 년 11 월 28 일 오후 9:26, K6: so I am go home now do you know the subject of this program in this eeek?	
22 2013 년 11 월 28 일 오후 9:28, K6: I think you already know. we have to talk about our campus life	

In excerpt 23, the Korean student (K1) had a grammatical error in turn 8 by saying ‘*i cant english well*’ and another Korean student, (K6) made a mistake with his grammar in turn 21 of excerpt 24 saying ‘*so I am go home now*’ as well as a spelling error (*eeek?* maybe week). As shown in excerpt 25, there was a spelling error by K12 in turn 110 but she corrected it by herself in the next turn.

Table 5.12 illustrates how Korean student (K8) understood the exact meaning of an English expression during a conversation with English dominant speaker (E2).

Table 5.12. *Understanding English expression during conversation*

K-English dominant group (K-E)	
Excerpt 26 (between K8 [F] and E2 [M]): Travel you have made	
70 2013 년 11 월 28 일 오전 12:09, E2: if you are dating someone	
71 2013 년 11 월 28 일 오전 12:09, K8: yep	
72 2013 년 11 월 28 일 오전 12:10, E2: or together as a coupke	
73 2013 년 11 월 28 일 오전 12:10, E2: couple	
74 2013 년 11 월 28 일 오전 12:10, E2: we call it dating	
75 2013 년 11 월 28 일 오전 12:10, E2: understand what I mean?	
76 2013년 11월 28일 오전 12:10, K8: Yes I got it.	

In excerpt 26, E2 explained the meaning of a word and checked whether K8 understood what he was talking about, by asking ‘*understand what I mean?*’. K8 was able to understand the English expression through the conversation with her counterpart.

In summary, Korean students made errors in their use of grammar and spelling but they comprehended the exact meaning of English words during communication via *KakaoTalk*. The findings also showed that Korean students self-corrected their spelling mistakes during conversations.

In the written communication mode, visual and verbal cues such as facial expressions, gestures or bodily movements are absent. To overcome these communication difficulties, language styles and multimodal representations assist written communication in the negotiation of meaning process. Multimodal representations such as the use of images or video clips, support negotiation of meaning by enhancing comprehension of discourse while language styles, such as emoticons, punctuation and onomatopoeia enable the students to express their emotions and feelings effectively and emphasise their utterances. Thus, the use of these features contribute to the negotiation of meaning and transferring of meaning to the communicative partner, in text-based communication mode. In the next section, strategies for negotiation of meaning and the patterns that emerged in the *KakaoTalk* MIM conversations will be investigated to examine how the Korean students engaged in negotiation of meaning via the MIM interaction mode.

Negotiation of meaning is the modification and restructuring of interaction and it occurs when learners and their interlocutors experience difficulties in message comprehensibility (Pica, 1994). The learners can overcome the linguistic difficulties and reach mutual understanding of communication through the negotiation of meaning process. Negotiation of meaning is, therefore, important to promote learners’ comprehension of the target language and lead to language acquisition (Pica et al., 1987). This study investigates how Korean students negotiate meaning during the communicative activity of message exchange and examines the patterns of their negotiation of meaning.

5.5 Patterns of Negotiation of Meaning Using *KakaoTalk* Between Paired Students and Groups

In this study, patterns of negotiation of meaning functions were identified from the text dialogues of the students' communications in English using the *KakaoTalk* MIM application. The exchanged message data were coded based on the taxonomy prepared by Akayoğlu and Altun (2009) and Samani et al. (2015) as detailed in Table 3.6 (see Chapter 3, section 3.4.2). The taxonomy was adopted for the current study as a coding scheme to identify the patterns of meaning negotiation (types and frequencies) emerging in the MIM application environment. As indicated in Chapter 3, the taxonomy according to Akayoğlu and Altun (2009) and Samani et al. (2015) has 14 strategies for negotiation of meaning, however, only 13 strategies were found in the conversations of the case studies in this study. Vocabulary request was not found in the messages of these case studies. In the section below, examples of how the 13 negotiation of meaning functions were coded are shown.

5.5.1 Examples of how the negotiation of meaning functions are coded based on the framework of Akayoğlu and Altun (2009) and Samani et al. (2015).

In this section, each function of meaning negotiation across the groups is demonstrated, based on the coding scheme of the taxonomy prepared by Akayoğlu and Altun (2009) and Samani et al. (2015). The observed message data shows the students' interactions through the use of the *KakaoTalk* application, where the actual time they communicated and their text messages including multimodal features and language styles used were recorded. For example:

2013 년 11 월 22 일 오후 11:47, K12: *Do you know here?*

This text-line indicates that this message was sent by K12 to his/her counterpart on 22 November 2013, at 11:47 pm. 오후 in Korean means pm, whereas 오전 means am, in the messages. From sections 5.5.1.1. to 5.5.1.8, excerpts are presented in the tables to show how each function of meaning negotiation was coded, across the three groups of students according to the defined coding taxonomy. The text messages that indicate the function of meaning negotiation are marked in bold in the tables.

5.5.1.1 Comprehension check & reply comprehension.

Table 5.13 shows examples of excerpts that are drawn from conversations from pairs in the K–NE and K–E groups to illustrate functions of ‘comprehension check’ and ‘reply comprehension’. In excerpt 27, the Korean student (K12) checked her counterpart’s (NE2) understanding through the function of comprehension check in turn 20, NE2 replied in reference to the previous utterance in turn 23. Similarly, in excerpt 28, the English dominant speaker (E2) checked what his counterpart meant in turn 75, and K8 responded to his question through the function of reply comprehension in turn 76.

Table 5.13. *Examples of comprehension check and reply comprehension negotiation of meaning*

Types of negotiation of meaning	Definition	Example
Comprehension check	Asking if the other person understood what was said or written, and generally expecting that he or she has understood.	<p>Excerpt 27 (between K12 [F] and NE2 [M]): University life</p> <p>20 2013 년 11 월 22 일 오후 11:47, K12: Do you know here? → <u>Comprehension check</u></p> <p>21 2013 년 11 월 22 일 오후 11:47, K12: I am also KNU student</p> <p>22 2013 년 11 월 22 일 오후 11:48, NE2: Dekkeunomun?</p> <p>23 2013 년 11 월 22 일 오후 11:49, NE2: Nop, I don't know → <u>Reply comprehension</u></p>
Reply comprehension	Replying to comprehension check or indicating that the statement was understood.	<p>Excerpt 28 (between K8 [F] and E2 [M]): Travel you have made</p> <p>70 2013 년 11 월 28 일 오전 12:09, E2: if you are dating someone</p> <p>71 2013 년 11 월 28 일 오전 12:09, K8: yep</p> <p>72 2013 년 11 월 28 일 오전 12:10, E2: or together as a couple</p> <p>73 2013 년 11 월 28 일 오전 12:10, E2: couple</p> <p>74 2013 년 11 월 28 일 오전 12:10, E2: we call it dating</p> <p>75 2013 년 11 월 28 일 오전 12:10, E2: understand what I mean? → <u>Comprehension check</u></p> <p>76 2013 년 11 월 28 일 오전 12:10, K8: Yes I got it. → <u>Reply comprehension</u></p>

5.5.1.2 Clarification request & reply clarification.

In Table 5.14, examples of excerpts drawn from a conversation from pairs in the K–NE group are shown to demonstrate ‘clarification request’ and ‘reply clarification’ in the students’ negotiation of meanings. As shown in excerpt 29, the function of

clarification request was adopted by the Korean student (K13) in turn 44 to clarify what the counterpart (NE3) said and NE3 replied in reference to the clarification request in turn 45. The functions of clarification request and reply clarification were adopted in turns 22 and 23 of excerpt 30.

Table 5.14. *Examples of clarification request and reply clarification negotiation of meaning*

Types of negotiation of meaning	Definition	Example
Clarification request	Made by the listener to clarify what the speaker has said and includes statements such as “I don’t understand”, wh-questions, yes/no questions, and tag questions.	<p>Excerpt 29 (between K13 [F] and NE3 [F]): University life</p> <p>42 2013 년 11 월 23 일 오후 5:05, NE3: I have three dogs!!!</p> <p>43 2013 년 11 월 23 일 오후 5:05, NE3: Lovr them and miss them</p> <p>44 2013 년 11 월 23 일 오후 5:48, K13: Oh really?!?!?!? Three dogs?!! → <u>Clarification request</u></p> <p>45 2013 년 11 월 23 일 오후 5:49, NE3: Yes a yorkie, italian greyhound abd a whippet → <u>Reply clarification</u></p>
Reply clarification	Clarifying his or her previous statement as a result of a request (clarification request).	<p>Excerpt 30 (between K14 [M] and NE4 [M]): University life</p> <p>22 2013 년 11 월 26 일 오전 10:13, NE4: Are you living alone or with your roommate? → <u>Clarification request</u></p> <p>23 2013년 11월 26일 오전 11:03, K14: Im living alone. How old R U,then? → <u>Reply clarification</u></p>

5.5.1.3 Confirmation check & reply confirmation.

Examples of excerpts drawn from conversations between pairs in the K–E and K–K groups shown in Table 5.15 present functions of ‘confirmation check’ and ‘reply confirmation’ in the process of negotiation of meaning. In turn 287 of excerpt 31, the Korean student (K8) made a request of ‘*Wow first? Not the second (language)?*’ to the English dominant counterpart (E2) in order to confirm the previous utterance. E2 replied in response to this request in turn 288 by saying *Yes, my name is Rodrigo*.

Excerpt 32 also shows the functions of confirmation check and reply confirmation that were adopted in the conversation between Korean students, K5 and K6 in turns 96 and 97.

Table 5.15. *Examples of confirmation check and reply confirmation negotiation of meaning*

Types of negotiation of meaning	Definition	Example
Confirmation check	Asking for confirmation of a previously made statement, to be sure he or she has understood correctly.	Excerpt 31 (between K8 [F] and E2 [M]): Travel you have made 286 2013 년 12 월 9 일 오후 9:42, E2 : well, spanish kinda my first lanuage 287 2013 년 12 월 9 일 오후 9:43, K8 : Wow first? Not the second? → <u>Confirmation check</u> 288 2013 년 12 월 9 일 오후 9:43, E2 : yes , my name is Rodrigo → <u>Reply confirmation</u>
Reply confirmation	Confirming a statement when someone requests confirmation, with expressions like “yes”, “OK”, and “you are right”.	Excerpt 32 (between K5 [M] and K6 [M]): Travel you have made 95 2013 년 12 월 9 일 오후 12:49, K6 : our topic is travel to abroad 96 2013 년 12 월 9 일 오후 12:49, K6 : right? → <u>Confirmation check</u> 97 2013 년 12 월 9 일 오후 12:56, K5 : yes travel to abroad → <u>Reply confirmation</u>

5.5.1.4 Confirmation.

As shown in Table 5.16, excerpts drawn from pairs in the K–E group and the K–K group are presented to show the function of ‘confirmation’ in negotiation of meaning. The function of confirmation is used by the Korean student (K8) to confirm her English dominant (E2) partner’s utterance in turn 169 of excerpt 33 by stating ‘*he is amazing i know. uncommon guy*’. Similarly, in excerpt 34, the Korean student (K2) confirmed the counterpart’s (K1) previous utterance by repeating ‘*yeah north gate is too far engineering building*’.

Table 5.16. *Examples of confirmation negotiation of meaning*

Types of negotiation of meaning	Definition	Example
Confirmation	Made by the listener to establish that the preceding utterance has been heard and understood correctly. They include repetition.	<p>Excerpt 33 (between K8 [F] and E2[M]): University life</p> <p>166 2013 년 11 월 28 일 오전 12:51, E2: GD is amazing</p> <p>167 2013 년 11 월 28 일 오전 12:51, K8: but he is stylish but small..is it okay for you? kk you are way too tall for him</p> <p>168 2013 년 11 월 28 일 오전 12:52, E2: he is just.... amazing.</p> <p>169 2013 년 11 월 28 일 오전 12:53, K8: he is amazing i know. uncommon guy → <u>Confirmation</u></p> <p>Excerpt 34 (between K1 [M] and K2 [F]): University life</p> <p>76 2013. 11. 26. 오후 6:27, K1: northgate is too far to eat for me</p> <p>77 2013. 11. 26. 오후 6:28, K2: yeah north gate is too far engineering building → <u>Confirmation</u></p>

5.5.1.5 Elaboration request & reply elaboration.

Two examples of excerpts drawn from conversations of the K–E and K–NE groups are shown to illustrate ‘elaboration request’ and ‘reply elaboration’. As shown in excerpt 35 of Table 5.17, the function of elaboration request was adopted by the English dominant student (E3) in turn 50 to request elaboration and the Korean student (K9) replied in reference to the elaboration request in turn 51. Similarly, in excerpt 36, the non-English dominant speaker (NE1) requested extra information in turn 136 and K11 responded to her question through the function of reply elaboration in turn 137.

Table 5.17. *Examples of elaboration request and reply elaboration negotiation of meaning*

Types of negotiation of meaning	Definition	Example
Elaboration request	Requesting elaboration if he or she does not have an idea about the speaker's utterance and requesting extra information.	<p>Excerpt 35 (between K9 [F] and E3 [F]): Friends and friendship</p> <p>49 2013 년 12 월 8 일 오후 4:43, K9: not funny weekend(근심) hard study weekend... but, i will have a interesting time on next weekend. because exam will be finished</p> <p>50 2013 년 12 월 8 일 오후 4:44, E3: yeah? do u have plans already → <u>Elaboration request</u></p> <p>51 2013 년 12 월 8 일 오후 4:46, K9: no i dont have plan. but i am sure that i do anything it is very funny → <u>Reply elaboration</u></p>
Reply elaboration	Elaborating his or her own statement to make it clear as a result of request (elaboration request).	<p>Excerpt 36 (between K11 [M] and NE1 [F]): University life</p> <p>134 2013 년 11 월 23 일 오후 6:06, K11 : Umm so do you know toeic?</p> <p>135 2013 년 11 월 23 일 오후 6:38, NE1: Toeic is english test in korea right?! similar to Toefl kkkk</p> <p>136 2013 년 11 월 23 일 오후 6:38, NE1: y??? did u get that test? → <u>Elaboration request</u></p> <p>137 2013년 11월 23일 오후 6:40, K11: Yes z tomorrow i have test → <u>Reply elaboration</u></p>

5.5.1.6 Elaboration.

Table 5.18 displays excerpts drawn from conversations from the K–E and K–K groups, to demonstrate the function of ‘elaboration’ in the process of negotiation of meaning. In excerpt 37, the Korean student (K7) replied in reference to the counterpart’s (E1) questions in turn 27, and elaborated more the meaning of his previous utterance in turn 28. The Korean student (K5) in excerpt 38, answered his partner’s (K6) question and elaborated more his previous statement in turn 260.

Table 5.18. *Examples of elaboration negotiation of meaning*

Types of negotiation of meaning	Definition	Example
Elaboration	Elaborating the meaning of a previous statement regardless of whether the previous statement belongs to him or her	<p>Excerpt 37 (between K7 [M] and E1 [F]): University life</p> <p>25 2013 년 11 월 23 일 오후 7:27, E1: What year are you in now?</p> <p>26 2013 년 11 월 23 일 오후 7:27, K7: I've played a bass guitar in my band</p> <p>27 2013 년 11 월 23 일 오후 7:28, K7: 4th year!</p> <p>28 2013 년 11 월 23 일 오후 7:29, K7: I've had three years of absence → <u>Elaboration</u></p> <p>Excerpt 38 (between K5 [M] and K6 [M]): Friends and friendship</p> <p>258 2013 년 12 월 24 일 오전 2:02, K6: nowadays do you meet your highschool friends or childhood friends?</p> <p>259 2013 년 12 월 24 일 오전 11:28, K5: im meeting with my juniors in school</p> <p>260 2013 년 12 월 24 일 오전 11:29, K5: nowadays they are out of army haha → <u>Elaboration</u></p>

5.5.1.7 Self-correction.

In Table 5.19, excerpts drawn from pairs in the K–NE group and K–K group are shown to illustrate ‘self-correction’. The function of self-correction is applied to correct their spelling mistakes in turn 111 of excerpt 39, and turn 151 of excerpt 40.

Table 5.19. *Examples of self-correction negotiation of meaning*

Types of negotiation of meaning	Definition	Example
Self-correction	Correcting an error made by another speaker or self-correction of one’s own error.	<p>Excerpt 39 (between K12 [F] and NE2 [M]): University life</p> <p>108 2013 년 11 월 25 일 오후 2:30, NE2: How many megaboxes are in Daegu?</p> <p>109 2013 년 11 월 25 일 오후 2:31, NE2: Next time we will come to yours megabox!</p> <p>110 2013 년 11 월 25 일 오후 2:44, K12: I dont know how many megaboxes are in daegu. But there is one megabox near to our universoty</p> <p>111 2013 년 11 월 25 일 오후 2:44, K12: University → <u>Self-correction</u></p> <p>Excerpt 40 (between K5 [M] and K6 [M]): Friends and friendship</p> <p>150 2013 년 12 월 11 일 오후 2:50, K6: did you recieve the topic of this eek?</p> <p>151 2013 년 12 월 11 일 오후 2:51, K6: week? → <u>Self-correction</u></p> <p>152 2013 년 12 월 11 일 오후 3:36, K5: not yet</p>

5.5.1.8 Vocabulary check & reply vocabulary.

As indicated in Table 5.20, an excerpt that is drawn from the K–NE group shows an example of the functions of ‘vocabulary check’ and ‘reply vocabulary’. In excerpt 41, the Korean student (K12) checks the meaning of the word in turn 44 and NE2 replied in reference to this request in turn 45.

Table 5.20. *Examples of vocabulary check and reply vocabulary negotiation of meaning*

Types of negotiation of meaning	Definition	Example
Vocabulary check	Checking whether other participants know the meaning of vocabulary or not.	Excerpt 41 (between K12 [F] and NE2 [M]): University life 41 2013 년 11 월 22 일 오후 11:56, NE2: krejo krejo 42 2013 년 11 월 22 일 오후 11:57, NE2: Yes, creative industries. It is a very wide field, which cover 14 different fields
Reply vocabulary	Giving a meaning of a word or phrase as a result of a request	43 2013 년 11 월 22 일 오후 11:57, K12: Krejo?? 44 2013 년 11 월 22 일 오후 11:57, K12: What does mean → <u>Vocabulary check</u> 45 2013 년 11 월 23 일 오전 12:00, NE2: Ups..I haven't installed the Hangul keyboard yet. Perhaps it is like kreo or okreo. As I remeber it means something like 'oh really?' → <u>Reply vocabulary</u>

5.5.2 Types and frequencies of the negotiation of meaning functions per group.

Based on the 14 functions of negotiation of meaning framed by Akayoğlu and Altun (2009) and Samani et al. (2015), in this study the 13 types and their frequencies of negotiation of meaning identified in the MIM interactions per pair of participants and per group, are presented below.

It is necessary to investigate the types and frequencies of the negotiation of meaning strategies in the English interactions through the *KakaoTalk* application in order to understand the patterns of negotiation of meaning emerging in English interaction on a MIM platform. The data will also inform any similarities and differences in the patterns of communication between the three participating groups in terms of the functions used in their negotiation of meaning.

5.5.2.1 K–K group.

In the K–K group, up to 11 functions of negotiation of meaning were observed across the three pairs of students, as shown in Table 5.21, 5.22 and 5.23. In each table, the types and total count (frequency) for each function for each week/topic are presented. Highlighted cells show the three most frequently used negotiation of meaning functions for the pair. The functions related to elaboration that is elaboration request, reply elaboration and elaboration, took place more often across the pairs while vocabulary related functions such as vocabulary check or reply vocabulary are not observed in this group.

Table 5.21. *The types and frequencies of negotiation of meaning for the K1 (M) – K2 (F) pair in the K–K group*

(Total turns: 284 vs 309 = 593)

	Frequency						
	Week1 (University)	Week2 (Travel)	^Week3 (Hometown)	^Week4 (Friends)	Total	Percentage*	Percentage**
1. Confirmation check	9(2)	2(1)	-	-	11(3)	5.3(1.4)	1.9(0.5)
2. Reply confirmation	9(4)	2(1)	1	-	12(5)	5.8(2.4)	2.0(0.8)
3. Confirmation	10(2)	3(1)	-	-	13(3)	6.3(1.4)	2.2(0.5)
4. Clarification request	7(4)	4(2)	-	-	11(6)	5.3(2.9)	1.9(1.0)
5. Reply clarification	5(1)	3(2)	-	-	8(3)	3.9(1.4)	1.3(0.5)
6. Elaboration request	34(14)	11(6)	2(1)	-	47(21)	22.7(10.2)	7.9(3.5)
7. Reply elaboration	33(19)	12(5)	2(1)	-	47(25)	22.7(12.1)	7.9(4.2)
8. Elaboration	26(12)	8(5)	-	-	34(17)	16.4(8.3)	5.7(2.9)
9. Self-correction	4(3)	1(1)	1(1)	-	6(5)	2.9(2.4)	1.0(0.8)
10. Comprehension check	1(1)	-	-	-	1(1)	0.5(0.5)	0.2(0.2)
11. Comprehension	9(5)	7(2)	-	-	16(7)	7.7(3.4)	2.7(1.2)
Total	147(67)	54(27)	6(3)	-	207(97)	100(46.8)	35(16.3)
Percentage*	71(32.4)	26.1(13.0)	2.9(1.4)	-	100(46.8)		
Percentage**	24.8(11.3)	9.1(4.5)	1.0(0.5)	-	35(16.3)		

Note. ^ Little or no participation this week due to Korean student' examination period. * utterances only related to negotiation of meaning as a percentage of the total number of negotiation of meaning (207). ** utterances only related to negotiation of meaning as a percentage of the total number of conversation messages (593). The bracket () indicates the number of negotiation meaning utterances of Korean student (K1).

Table 5.22. *The types and frequencies of negotiation of meaning for the K3 (F) – K4 (F) pair in the K–K group*

(Total turns: 46 vs 79 = 125)

	Frequency						
	Week1 (University)	Week2 (Travel)	Week3 (Hometown)	^Week4 (Friends)	Total	Percentage*	Percentage**
1. Confirmation check	--	1(0)	1(0)	--	2(1)	4.8(2.3)	1.6(0.8)
2. Reply confirmation	2(1)	1(0)	1(0)	--	4(2)	9.6(4.8)	3.2(1.6)
3. Confirmation	2(0)	--	--	--	1(0)	2.4	0.8
4. Clarification request	1(0)	1(0)	--	--	2(0)	4.8	1.6
5. Reply clarification	--	1(0)	--	--	1(0)	2.4	0.8
6. Elaboration request	4(3)	5(3)	4(2)	--	13(8)	30.9(19)	10.4(6.4)
7. Reply elaboration	4(2)	5(2)	3(2)	--	12(5)	28.6(11.9)	9.6(4.0)
8. Elaboration	2(0)	3(1)	--	--	5(2)	11.9(4.8)	4(1.6)
9. Self-correction	1(0)	--	--	--	1(0)	2.3	0.8
10. Comprehension	--	1(0)	--	--	1(0)	2.3	0.8
Total	15(6)	17(7)	9(4)	--	42 (18)	100(42.8)	34(14.4)
Percentage*	36.5(15.3)	41.4(17.8)	22.1(9.7)	--	100(42.8)		
Percentage **	12 (4.9)	13.7(5.7)	7.3(3.8)	--	34(14.4)		

Note. ^ No participation this week due to Korean student' examination period. *utterances only related to negotiation of meaning as a percentage of the total number of negotiation of meaning (42). **utterances only related to negotiation of meaning as a percentage of the total number of conversation messages (125). The bracket () indicates the number of negotiation meaning utterances of only Korean student (K3).

Table 5.23. *The types and frequencies of negotiation of meaning for the K5 (M) – K6 (M) pair in the K–K group*

(Total turns: 142 vs 136 = 278)

	Frequency						
	Week1 (University)	Week2 (Travel)	Week3 (Hometown)	Week4 (Friends)	Total	Percentage*	Percentage**
1. Confirmation check	--	1(1)	2(1)		3(2)	3.1(2.0)	1.1(0.7)
2. Reply confirmation	1(0)	3(1)	4	1	9(1)	9.2(1.0)	3.2(0.4)
3. Confirmation	--	--	2(0)	2(1)	4(1)	4.1(1.0)	1.4(0.4)
4. Clarification request	1(1)	--	1(1)	--	2(2)	2.1(2.0)	0.7(0.7)
5. Reply clarification	1	--	--	--	1(0)	1.0	0.4
6. Elaboration request	8(3)	6(2)	7(4)	2(2)	23(11)	23.5(11.2)	8.3(3.9)
7. Reply elaboration	8(4)	4(3)	6(3)	2(0)	20(10)	20.4(10.2)	7.2(3.6)
8. Elaboration	5(3)	5(3)	6(1)	1(0)	17(7)	17.3(7.2)	6.1(2.5)
9. Self-correction	--	1(1)	2(2)	--	3(3)	3.0(3.1)	1.1(1.1)
10. Comprehension check	1(1)	--	--	--	1(1)	1.0(1.0)	0.4(0.4)
11. Comprehension	4(1)	4(1)	4(1)	3(2)	15(5)	15.3(5.1)	5.3(1.8)
Total	29(13)	24(12)	34(13)	11(5)	98(43)	100(43.8)	35(15.5)
Percentage*	29.6(13.3)	24.5(12.2)	34.7(13.3)	11.2(5.1)	100(43.8)		
Percentage **	10.4(4.7)	8.7(4.3)	12.2(4.7)	4.0(1.8)	35(15.5)		

*Note.**utterances only related to negotiation of meaning as a percentage of the total number of negotiation of meaning (98). **utterances only related to negotiation of meaning as a percentage of the total number of conversation messages (278). The bracket () indicates the number of negotiation meaning utterances of only Korean student (K5).

Tables 5.21, 5.22 and 5.23 indicate that the number of turns were 593, 125 and 278 respectively for the pairs in the K–K group. The total frequency of negotiation of meaning was demonstrated as 207, 42 and 98 respectively in this group. The little or no participation demonstrated in weeks 3 and 4 was due to the Korean students' examination period.

Table 5.24 below shows the percentages of the total frequencies of negotiation of meaning (against the total number of turns) were 35, 34 and 35 for each pair in the K–K group. There is not a significant difference among the pairs in this group in terms of percentage of negotiation of meaning.

Table 5.24. *Total frequency of negotiation of meaning*

Korean–Korean group	
Pair	Total frequency of negotiation of meaning (%)
K1–K2 (M-F)	35
K3–K4 (F-F)	34
K5–K6 (M-M)	35

5.5.2.2 K–English dominant group.

The K–E group demonstrated 11 functions of negotiation of meaning within the four pairs as illustrated in Tables 5.25, 5.26, 5.27 and 5.28. The types and frequency of each function in terms of the week/topic are presented in each table. The most frequently used functions of negotiation of meaning were elaboration request, reply elaboration and elaboration, however comprehension or reply confirmation also occurred as frequent functions in some pairs, as highlighted in the tables. Similar to the findings in the K–K group, vocabulary related functions such as vocabulary check or reply vocabulary were not observed in this group.

Table 5.25. *The types and frequencies of negotiation of meaning for the K7 (M) – E1 (F) pair in the K–E group*

(Total turns: 374 vs 448 = 822)

	Frequency						
	Week1 (University)	Week2 (Travel)	Week3 (Hometown)	Week4 (Friends)	Total	Percentage*	Percentage**
1. Confirmation check	5(4)	3(2)	3(0)	5(4)	16(10)	4.5(2.8)	1.9(1.2)
2. Reply confirmation	6(1)	5(3)	1(0)	15(5)	27(9)	7.6(2.5)	3.3(1.1)
3. Confirmation	4(3)	1(0)	3(1)	8(4)	16(8)	4.5(2.3)	1.9(1.0)
4. Clarification request	4(5)	6(3)	1(1)	12(6)	23(15)	6.5(4.2)	2.8(1.8)
5. Reply clarification	1(0)	5(2)	1(0)	10(5)	17(7)	4.8(2.0)	2.1(0.9)
6. Elaboration request	28(11)	18(7)	5(1)	35(18)	86(37)	24.3(10.5)	10.5(4.5)
7. Reply elaboration	27(16)	17(11)	5(4)	34(13)	83(44)	23.4(12.5)	10.1(5.4)
8. Elaboration	11(8)	14(8)	3(1)	17(3)	45(20)	12.7(5.6)	5.4(2.4)
9. Self-correction	2(0)	4(3)	--	3(2)	9(5)	2.5(1.4)	1.1(0.6)
10. Comprehension check	--	--	--	1	1 (0)	0.3	0.1
11. Comprehension	3(1)	11(4)	--	17(10)	31(15)	8.9(4.2)	3.8(1.8)
Total	91(49)	84(43)	22(8)	157(70)	354(170)	100(48)	43(20.7)
Percentage*	25.7(13.8)	23.7(12.1)	6.2(2.3)	44.4(19.8)	100(48)		
Percentage **	11.0(6.0)	10.2(5.2)	2.7(1.0)	19.1(8.5)	43(20.7)		

Note. *utterances only related to negotiation of meaning as a percentage of the total number of negotiation of meaning (354). **utterances only related to negotiation of meaning as a percentage of the total number of conversation messages (822). The bracket () indicates the number of negotiation meaning utterances of only Korean student (K7).

Table 5.26. *The types and frequencies of negotiation of meaning for the K8 (F) – E2 (M) pair in the K–E group*

(Total turns: 260 vs 391 = 651)

	Frequency						
	Week1 (University)	Week2 (Travel)	^Week3 (Hometown)	Week4 (Friends)	Total	Percentage*	Percentage**
1. Confirmation check	2(1)	2(2)	--	2(0)	6(3)	1.8(0.9)	0.9(0.5)
2. Reply confirmation	2(0)	6(2)	--	9(3)	17(5)	5(1.5)	2.6(0.8)
3. Confirmation	5(2)	4(2)	--	3(0)	12(4)	3.5(1.2)	1.8(0.6)
4. Clarification request	14(8)	7(3)	--	12(6)	33(17)	9.7(5.0)	5.1(2.6)
5. Reply clarification	12(6)	5(3)	--	12(6)	29(15)	8.6(4.4)	4.5(2.3)
6. Elaboration request	40(19)	17(9)	--	23(13)	80(41)	23.6(12.1)	12.3(6.3)
7. Reply elaboration	39(19)	19(10)	--	17(8)	75(37)	22.1(10.9)	11.5(5.7)
8. Elaboration	19(8)	18(7)	-	23(11)	60(26)	17.6(7.6)	9.2(3.9)
9. Self-correction	4(1)	--	--	2(0)	6(1)	1.8(0.3)	0.9(0.2)
10. Comprehension check	2(1)	--	--	1	3(1)	0.9(0.3)	0.5(0.2)
11. Comprehension	9(4)	6(2)	--	3(2)	18(8)	5.3(2.3)	2.7(1.2)
Total	148(69)	84(40)	--	107(49)	339 (158)	100(48)	52(24.3)
Percentage*	43.7(20.5)	24.8(12.8)	--	31.5(14.7)	100(48)		
Percentage**	22.7(10.6)	12.9(6.2)	--	16.4(7.5)	52(24.3)		

Note. ^ No participation this week due to Korean student' examination period. *utterances only related to negotiation of meaning as a percentage of the total number of negotiation of meaning (339). **utterances only related to negotiation of meaning as a percentage of the total number of conversation messages (651). The bracket () indicates the number of negotiation meaning utterances of only Korean student (K8).

Table 5.27. *The types and frequencies of negotiation of meaning for the K9 (F) – E3 (F) pair in the K–E group*

(Total turns: 39 vs 58 = 97)

	Frequency						
	Week1 (University)	Week2 (Travel)	^Week3 (Hometown)	^Week4 (Friends)	Total	Percentage*	Percentage**
1. Confirmation check	1(1)	2(2)	--	--	3(3)	6.5(6.5)	3.1(3.1)
2. Reply confirmation	1	2	--	--	3(0)	6.5	3.1
3. Clarification request	0(0)	2(2)	--	--	2(2)	4.4(4.4)	2.1(2.1)
4. Reply clarification	0	1	--	--	1(0)	2.2	1.0
5. Elaboration request	3(1)	9(4)	--	--	12(5)	26.0(10.8)	12.4(5.1)
6. Reply elaboration	3(2)	8(5)	--	--	11(7)	23.9(15.2)	11.3(7.2)
7. Elaboration	2(1)	4(1)	--	--	6(2)	13(4.4)	6.2(2.1)
8. Comprehension check	0	1	--	--	1(0)	2.2	1.0
9. Comprehension	2(0)	5(1)	--	--	7(1)	15.2(2.2)	7.2(1.0)
Total	12(5)	34(15)	--	--	46(20)	100(43.5)	47(20.6)
Percentage*	26.0(10.9)	74.0(32.6)	--	--	100(43.5)		
Percentage**	12.3(5.2)	35.1(15.4)	--	--	47 (20.6)		

Note. ^ No participation these weeks due to Korean student' examination period. *utterances only related to negotiation of meaning as a percentage of the total number of negotiation of meaning (46). **utterances only related to negotiation of meaning as a percentage of the total number of conversation messages (97). The bracket () indicates the number of negotiation meaning utterances of only Korean student (K9).

Table 5.28. *The types and frequencies of negotiation of meaning for the K10 (M) – E4 (M) pair in the K–E group*

(Total turns: 81 vs 79 =160)

	Frequency						
	Week1 (University)	Week2 (Travel)	^Week3 (Hometown)	Week4 (Friends)	Total	Percentage*	Percentage**
1. Confirmation check	5(5)	4(2)	--	1(1)	10(8)	7.2(5.8)	6.3(5.0)
2. Reply confirmation	3(0)	4(0)	--	4(2)	11(2)	7.9(1.4)	6.9(1.3)
3. Confirmation	3(2)	1(0)	--	0(0)	4(2)	2.9(1.4)	2.5(1.3)
4. Clarification request	2(2)	3(1)	--	0(0)	5(3)	3.6(2.2)	3.1(1.8)
5. Reply clarification	2(0)	3(2)	--	0(0)	5(2)	3.6(1.4)	3.1(1.3)
6. Elaboration request	26(15)	11(5)	--	4(2)	41(22)	29.5(15.9)	25.6(13.7)
7. Reply elaboration	24(7)	11(5)	--	4(2)	39(14)	28.1(10.1)	24.3(8.7)
8. Elaboration	3(3)	3(1)	--	2(1)	8(5)	5.8(3.6)	5.0(3.1)
9. Self-correction	3(2)	0	--	0	3(2)	2.1(1.4)	1.9(1.3)
10. Comprehension check	0	2(1)	--	0	2(1)	1.4(0.7)	1.3(0.6)
11. Comprehension	3(1)	6(3)	--	2(1)	11(5)	7.9(3.6)	6.9(3.1)
Total	74(37)	48(20)	--	17(9)	139 (66)	100(47.5)	87(41.2)
Percentage*	53.2(26.6)	34.6(14.4)	--	12.2(6.5)	100(47.5)		
Percentage**	46.3(23.1)	30.0(12.5)	-	10.6(5.6)	87 (41.2)		

Note. ^ No participation this week due to Korean student' examination period. *utterances only related to negotiation of meaning as a percentage of the total number of negotiation of meaning(139). **utterances only related to negotiation of meaning as a percentage of the total number of conversation messages (160). The bracket () indicates the number of negotiation meaning utterances of only Korean student (K10).

As shown in Tables 5.25, 5.26, 5.27, and 5.28, the number of total turns was 822, 651, 97 and 160 respectively in the K–E group. The total frequency of negotiation of meaning was presented as 354, 339, 46 and 139 respectively for each pair in this group. Little or no participation was shown in weeks 3 and 4 because of the Korean students’ examination period.

In Table 5.29 below, the percentage of total frequency of negotiation of meaning (to total number of turns) for each pair is provided with 43, 52, 47 and 87 occasions respectively in the K–E group. Much more negotiation of meaning occurred in the male gender pair of this group, particularly for the topic of university life with 46.3% of the occurrences. This suggests that the pair took an active part in their MIM interactions to solve their communicative problems by utilising more communicative strategies during negotiation of meaning.

Table 5.29. *Total frequency of negotiation of meaning*

K–English dominant group (K–E)	
Pair	Total frequency of negotiation of meaning (%)
K7–E1 (M-F)	43
K8–E2 (F-M)	52
K9–E3 (F-F)	47
K10–E4 (M-M)	87

5.5.2.3 K–non-English dominant group.

In the K–NE group, up to 13 functions of negotiation of meaning were observed within the four pairs as shown in Tables 5.30, 5.31, 5.32 and 5.33. Each table includes the types and total frequency for each function for each week/topic. The most frequently adopted functions of negotiation of meaning were highlighted for each pair. The findings showed that elaboration related types such as elaboration request, reply elaboration and elaboration and reply confirmation occurred more often across the pairs in the group while vocabulary related functions that is vocabulary check and reply vocabulary rarely occurred. These types of function did not appear often because the students checked vocabulary items by themselves through the mobile dictionary on their smartphone rather than ask their language partner to obtain information.

Table 5.30. *The types and frequencies of negotiation of meaning in the K11 (M) – NE1 (F) pair in the K–NE group*

(Total turns: 357 vs 430 = 787)

	Frequency						
	Week1 (University)	Week2 (Travel)	^Week3 (Hometown)	Week4 (Friends)	Total	Percentage*	Percentage**
1. Confirmation check	13(6)	5(1)	--	4(2)	22(9)	7.2(3.0)	2.8(1.1)
2. Reply confirmation	12(5)	8(6)	--	12(7)	32(18)	10.5(5.9)	4.1(2.3)
3. Confirmation	11(3)	5(2)	--	2(0)	18(5)	5.9(1.6)	2.3(0.6)
4. Clarification request	5(2)	4(4)	--	2(1)	11(7)	3.6(2.3)	1.4(0.9)
5. Reply clarification	4(2)	2(0)	--	2(1)	8(3)	2.6(1.0)	1.0(0.4)
6. Vocabulary check	2	--	--	--	2(0)	0.7	0.3
7. Reply vocabulary	2(2)	--	--	--	2(2)	0.7(0.7)	0.3(0.3)
8. Elaboration request	32(19)	17(7)	--	18(8)	67(34)	22.0(11.1)	8.5(4.3)
9. Reply elaboration	30(13)	16(8)	--	17(10)	63(31)	20.7(10.2)	8.0(3.9)
10. Elaboration	15(4)	10(3)	--	9(2)	34(9)	11.1(2.9)	4.3(1.2)
11. Self-correction	2(2)	4(2)	--	5(2)	11(6)	3.6(2.0)	1.4(0.8)
12. Comprehension check	5(3)	1(1)	--	1(1)	7(5)	2.3(1.6)	0.9(0.6)
13. Comprehension	12(3)	9(6)	--	7(3)	28(12)	9.1(3.9)	3.5(1.5)
Total	145(64)	81(40)	--	79(37)	305 (141)	100(46.2)	39(17.9)
Percentage*	47.5(21.0)	26.6(13.1)	--	25.9(12.1)	100(46.2)		
Percentage**	18.4(8.1)	10.3(5.1)	--	10.1(4.7)	39(17.9)		

Note. ^ No participation this week due to Korean student' examination period. *utterances only related to negotiation of meaning as a percentage of the total number of negotiation of meaning (305). **utterances only related to negotiation of meaning as a percentage of the total number of conversation messages (787). The bracket () indicates the number of negotiation meaning utterances of only Korean student (K11).

Table 5.31. *The types and frequencies of negotiation of meaning for the K12 (F) – NE2 (M) pair in the K–NE group*

(Total turns: 251 vs 240 = 491)

	Frequency						
	Week1 (University)	Week2 (Travel)	Week3 (Hometown)	Week4 (Friends)	Total	Percentage*	Percentage**
1. Confirmation check	10(6)	1(1)	3(1)	--	14(8)	4.3(2.5)	2.9(1.6)
2. Reply confirmation	4(2)	-	3(1)	3(1)	10(4)	3.1(1.2)	2.0(0.8)
3. Confirmation	2(1)	3(0)	4(2)	1(1)	10(4)	3.1(1.2)	2.0(0.8)
4. Clarification request	2(1)	4(0)	4(1)	--	10(2)	3.1(0.6)	2.0(0.4)
5. Reply clarification	1(1)	2(2)	5(3)	1	9(6)	2.8(1.9)	1.8(1.2)
6. Vocabulary check	2(1)	--	--	--	2(1)	0.6(0.3)	0.4(0.2)
7. Reply vocabulary	2(1)	--	--	--	2(1)	0.6(0.3)	0.4(0.2)
8. Elaboration request	48(20)	26(10)	33(12)	2(0)	109(42)	33.9(13.1)	22.2(8.6)
9. Reply elaboration	43(26)	23(14)	30(18)	3(2)	99(60)	30.7(18.7)	20.2(12.2)
10. Elaboration	17(7)	10(6)	8(6)	1(1)	36(20)	11.2(6.2)	7.3(4.1)
11. Self-correction	1(1)	--	1(0)	1(1)	3(2)	0.9(0.6)	0.6(0.4)
12. Comprehension check	4(4)	--	--	--	4(4)	1.3(1.2)	0.8(0.8)
13. Comprehension	8(2)	5(0)	-	1(1)	14(3)	4.4(0.9)	2.9(0.6)
Total	144(74)	74(33)	91(44)	13(7)	322 (158)	100(49.0)	66(32.2)
Percentage*	44.7(23.0)	23(10.2)	28.3(13.7)	4.0(2.2)	100(49.0)		
Percentage**	29.3(15.1)	15.1(6.7)	18.5(9.0)	2.6(1.4)	66(32.2)		

Note. *utterances only related to negotiation of meaning as a percentage of the total number of negotiation of meaning (322). **utterances only related to negotiation of meaning as a percentage of the total number of conversation messages (491). The bracket () indicates the number of negotiation meaning utterances of only Korean student (K12).

Table 5.32. *The types and frequencies of negotiation of meaning for the K13 (F) – NE3 (F) pair in the K–NE group*

(Total turns: 121 vs 137 = 258)

	Frequency						
	Week 1 (University)	Week 2 (Travel)	Week 3 (Hometown)	Week 4 (Friends)	Total	Percentage*	Percentage**
1. Confirmation check	1(0)	2(0)	1(1)	1(0)	5(1)	2.8(0.6)	1.9(0.3)
2. Reply confirmation	6(5)	11(6)	8(2)	6(4)	31(17)	17.3(9.5)	12.0(6.6)
3. Confirmation	1(1)	4(1)	3(3)	--	8(5)	4.5(2.8)	3.1(1.9)
4. Clarification request	1(1)	1(1)	6(5)	1(1)	9(8)	5.0(4.5)	3.5(3.1)
5. Reply clarification	1	--	2	--	3(0)	1.7	1.2
6. Elaboration request	14(7)	7(4)	12(5)	7(1)	40(17)	22.3(9.5)	15.5(6.6)
7. Reply elaboration	13(5)	6(3)	10(6)	5(4)	34(18)	19.0(10.0)	13.2(7.0)
8. Elaboration	6(3)	8(4)	10(4)	5(2)	29(13)	16.2(7.3)	11.2(5.0)
9. Self-correction	1(1)	--	1(1)	--	2(2)	1.1(1.1)	0.8(0.8)
10. Comprehension check	1(1)	1(0)	1(1)	--	3(2)	1.7(1.1)	1.2(0.8)
11. Comprehension	7(6)	1(1)	4(2)	3(1)	15(10)	8.4(5.6)	5.8(3.9)
Total	52(30)	41(20)	58(30)	28(13)	179(93)	100(52.0)	69(36.0)
Percentage*	29.0(16.8)	23.0(11.1)	32.4(16.8)	15.6(7.3)	100(52.0)		
Percentage**	20.2(11.6)	15.9(7.8)	22.5(11.6)	10.8(5.0)	69(36.0)		

Note. *utterances only related to negotiation of meaning as a percentage of the total number of negotiation of meaning (179). **utterances only related to negotiation of meaning as a percentage of the total number of conversation messages (258). The bracket () indicates the number of negotiation meaning utterances of only Korean student (K13).

Table 5.33. *The types and frequencies of negotiation of meaning in a pair of K14 (M) – NE4 (M) in the K–NE group*

(Total turns: 73 vs 101 = 174)

	Frequency						
	Week 1 (University)	Week 2 (Travel)	^Week 3 (Hometown)	Week 4 (Friends)	Total	Percentage *	Percentage**
1. Confirmation check	2(1)	1(1)	--	3(0)	6(2)	4.4(1.5)	3.4(1.1)
2. Reply confirmation	7(6)	2(0)	--	13(8)	22(14)	16.3(10.4)	12.6(8.1)
3. Clarification request	1(0)	--	--	4(1)	5(1)	3.7(0.7)	2.9(0.6)
4. Reply clarification	1(1)	--	--	4(2)	5(3)	3.7(2.2)	2.9(1.7)
5. Elaboration request	14(6)	3(2)	--	16(1)	33(9)	24.5(6.7)	19.0(5.2)
6. Reply elaboration	12(8)	3(1)	--	14(13)	29(22)	21.5(16.3)	16.7(12.6)
7. Elaboration	7(2)	2(0)	--	19(11)	28(13)	20.7(9.6)	16(7.5)
8. Self-correction	--	--	--	1(1)	1(1)	0.7(0.7)	0.6(0.6)
9. Comprehension check	1	--	--	--	1(0)	0.7	0.6
10. Comprehension	1(1)	--	--	7(2)	8(3)	6.0(2.2)	4.6(1.7)
Total	46(25)	11(4)	--	78(37)	135 (66)	100(48.9)	78(37.9)
Percentage*	34.0(18.5)	8.2(3.0)	--	57.8(27.4)	100(48.9)		
Percentage**	26.4(14.3)	6.4(2.3)	--	44.8(21.3)	78(37.9)		

Note. ^ No participation this week due to Korean student' examination period. *utterances only related to negotiation of meaning as a percentage of the total number of negotiation of meaning (135). **utterances only related to negotiation of meaning as a percentage of the total number of conversation messages (174). The bracket () indicates the number of negotiation meaning utterances of only Korean student (K14).

As demonstrated in Tables 5.30, 5.31, 5.32 and 5.33, the number of total turns was 787, 491, 258 and 174 respectively in the K–NE group. The finding showed that the total frequency of negotiation of meaning was 305, 322, 179 and 135 respectively for each pair in the group. No participation was observed in weeks 3 because of the Korean students’ examination period.

Table 5.34 illustrates that the percentage of total frequency of negotiation of meaning (to total number of turns) for each pair was 39, 66, 69 and 78 respectively in the K-non-English dominant group. In common with the K–E group, more negotiation of meaning appeared in the male gender pair. This pair engaged in more negotiating meaning about the topic of friends with the total percentage of 44.8. This finding indicates that the male gender pair tried to resolve their language difficulties in order to enhance mutual understanding when interacting via the *KakaoTalk* MIM platform.

Table 5.34. *Total frequency of negotiation of meaning*

K–non-English dominant group (K–NE)	
Pair	Total frequency of negotiation of meaning (%)
K11–NE1 (M-F)	39
K12–NE2 (F-M)	66
K13–NE3 (F-F)	69
K14–NE4 (M-M)	78

5.5.3 Similarities across the three groups.

This study identified similarities and differences in the patterns of communication between the three groupings relating to the most and least frequently used functions of negotiation of meaning.

5.5.3.1 *The most frequently used negotiation of meaning strategy.*

From the collected text-based interactions in the MIM application between the three groups, 13 types of negotiation of meaning functions were observed. They included elaboration requests, reply elaboration, elaboration, clarification request, reply clarification, self-correction, confirmation check, reply confirmation, confirmation, comprehension check, comprehension, vocabulary check and reply vocabulary.

However, the category of vocabulary request identified by Akayoğlu and Altun (2009) was not observed in the interactions between students in this study.

As shown in Tables 5.35, 5.36 and 5.37 below, among the different categorical functions elaboration request was the most frequently used strategy of communication in all three groups. In the K–K group, it is used in 22.7%, 30.9% and 23.5% of the total negotiation of meaning strategies in the K1(M)–K2(F), K3(F)–K4(F), K5(M)–K6(M) pairs respectively. In the K–E group, elaboration request was observed in 24.3%, 23.6%, 26.0% and 29.5% of the total negotiation of meaning strategies in the K7(M)–E1(F), K8(F)–E2(M), K9(F)–E3(F) and K10(M)–E4(M) pairs respectively. In the K–NE group, this function was used 22.0%, 33.9%, 22.3% and 24.5% by the K11(M)–NE1(F), K12(F)–NE2(M), K13(F)–NE3(F) and K14(M)–NE4(M) pairs respectively. According to Akayoğlu and Altun’s definition (2009, p.305), the elaboration request was used to ‘request elaboration if she or he does not have an idea about the speaker’s utterance and request extra information’.

In addition to elaboration request, reply elaboration was the second most frequently used function in all the groups. Within the K–K group, the percentages of reply elaboration were 22.7, 28.6 and 20.4 in the K1(M)–K2(F), K3(F)–K4(F), K5(M)–K6(M) pairs respectively. The percentages of reply elaboration in the K–E group were 23.4, 22.1, 23.9 and 28.1 in the K7(M)–E1(F), K8(F)–E2(M), K9(F)–E3(F) and K10(M)–E4(M) pairs respectively and for the K–NE group, the percentages were 20.7, 30.7, 19.0 and 21.5 in K11(M)–NE1(F), K12(F)–NE2(M), K13(F)–NE3(F) and K14(M)–NE4(M) pairs respectively. The function of reply elaboration was adopted in order to ‘elaborate his or her own statement to make it clear as a result of request’ (Samani et al., 2015, p.21).

Table 5.35. *The most frequent negotiation of meaning functions for the K–K group*

K–K group	Elaboration request	Reply elaboration
K1(M)–K2(F)	22.7	22.7
K3(F)–K4(F)	30.9	28.6
K5(M)–K6(M)	23.5	20.4
Average	25.7	23.9

Table 5.36. *The most frequent negotiation of meaning functions for the K–E group*

K–E group	Elaboration request	Reply elaboration
K7(M)–E1(F)	24.3	23.4
K8(F)–E2(M)	23.6	22.1
K9(F)–E3(F)	26.0	23.9
K10(M)–E4(M)	29.5	28.1
Average	25.9	24.4

Table 5.37. *The most frequent negotiation of meaning functions for the K–NE group*

K–NE group	Elaboration request	Reply elaboration
K11(M)–NE1(F)	22.0	20.7
K12(F)–NE2(M)	33.9	30.7
K13(F)–NE3(F)	22.3	19.0
K14(M)–NE4(M)	24.5	21.5
Average	25.7	23.0

During the negotiation of meaning process, the students regularly used the elaboration related pattern sequence, which includes elaboration request – reply elaboration – elaboration. These findings explain how the students were able to employ these negotiation tactics to ask for more elaborative information about what they were talking about. When an elaboration request occurred, the counterpart replied to this request with utterances containing more information to elaborate on their meaning in the conversation. By going through this process, they were stimulated to engage in the interactive conversation using negotiation for meaning strategies rather than quickly skipping to the next topic or other topics.

In particular, these results identified that in the process of elaboration, the students were able to adopt smartphone-enabled multimodal features such as sending photos or links to video clips. The excerpts in Table 5.38 below show examples of the consecutive pattern of utterances in relation to elaboration: elaboration request – reply elaboration – elaboration through the interactive MIM application. The texts to demonstrate these functions of negotiation of meaning in the examples are written in bold. The use of the

multimodal feature of photos is shown in the elaboration process (turn 132 in excerpt 42 and turn 334 in excerpt 43). To show how the discourse is coded based on the coding taxonomy, the types of negotiation of meaning and definition from Akayoğlu and Altun (2009) and Samani et al. (2015) are provided.

Table 5.38. *Example of the consecutive pattern in relation to elaboration*

Types of negotiation of meaning	Definition	Example
Elaboration request	Requesting elaboration if he or she does not have an idea about the speaker's utterance and requesting extra information.	Excerpt 42 (between K14 [M] and NE4 [M]): Friends 126 2013 년 12 월 21 일 오후 11:09, NE4: how about friendship with your classmates? kk 127 2013 년 12 월 21 일 오후 11:12, K14 : Well, I joined Kindo club when I was sophomore. 128 2013 년 12 월 21 일 오후 11:13, K14 : I really enjoyed Kindo with them. 129 2013 년 12 월 21 일 오후 11:13, NE4: what kind of club was that? i have no idea about that :) → <u>Elaboration request</u>
Reply elaboration	Elaborating his or her own statement to make it clear as a result of a request (elaboration request).	130 2013 년 12 월 21 일 오후 11:13, NE4 : or you mean Kendo? kk 131 2013 년 12 월 21 일 오후 11:14, K14: Not sure about an English name but it is a sports using sword-shaped wooden stick 1972460786.jpg → <u>Reply elaboration</u>
Elaboration	Elaborating the meaning of a previous statement no matter whether the previous statement belongs to him or her.	132 2013 년 12 월 21 일 오후 11:15, K14: I mean sport. → <u>Elaboration</u>  1972460786.jpg 133 2013 년 12 월 21 일 오후 11:16, NE4 : yeah, exactly Kendo, i love to join also

		<p>Excerpt 43 (between K13 [F] and NE3 [F]): Hometown</p> <p>331 2013 년 12 월 6 일 오후 5:38, K13: When the weather is cold, kuk-bab makes warm</p> <p>332 2013 년 12 월 6 일 오후 5:39, K13: How about mexico?? What is the traditional food?</p> <p style="text-align: right;">→<u>Elaboration request</u></p> <p>333 2013 년 12 월 6 일 오후 5:55, NE3: We have tacos. Enchiladas. My favorite food is mole</p> <p style="text-align: right;">→<u>Reply elaboration</u></p> <p>334 2013 년 12 월 6 일 오후 8:45, K13: 2129395327.jpg</p> <p>335 2013 년 12 월 6 일 오후 8:45, K13: 1308317467.jpg</p> <p style="text-align: right;">→<u>Elaboration</u></p> <div> </div> <p>2129395327.jpg</p> <div> </div> <p>1308317467.jpg</p> <p>336 2013 년 12 월 6 일 오후 8:45, K13: Oh taco looks really delicious!!!!!!!!!!</p> <p>337 2013 년 12 월 6 일 오후 8:45, K13: Second one is kuk-bab~~</p> <p>338 2013 년 12 월 6 일 오후 9:35, NE3: Oh yeah ive seen it</p> <p>339 2013 년 12 월 6 일 오후 9:35, NE3: But im a vegetatiab so i cant eat it :(</p>
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5.5.3.2 *The least frequently used negotiation of meaning strategy.*

In the exchanged message data, the negotiation of meaning function of vocabulary request was not observed, and vocabulary check and reply vocabulary were rarely observed. In the data of the K-NE group, the least frequently used functions were vocabulary check and reply vocabulary with only two pairs using this function with

percentages of 0.7 and 0.7 respectively for the pair K11(M)–NE1(F) and 0.6 and 0.6 respectively for the pair K12(F)–NE2(M).

Table 5.39 provides examples of the least frequently used meaning negotiation strategy relating to vocabulary and shows how those functions were coded based on the coding taxonomy framework of Akayoğlu and Altun (2009) and Samani et al. (2015). The messages indicating these functions of negotiation of meaning in the examples are written in bold.

Table 5.39. *Examples of the least frequent meaning negotiation strategy*

Types of negotiation of meaning	Definition	Example
Vocabulary check	Checking whether the other participants know the meaning of vocabulary or not.	<p>Excerpt 44 (between K11 [M] and NE1 [F]): University life</p> <p>59 2013 년 11 월 23 일 오후 5:54, NE1: so do u do campus life a lot????</p> <p>60 2013 년 11 월 23 일 오후 5:54, K11: A when will u go mongolia?</p> <p>61 2013 년 11 월 23 일 오후 5:55, NE1: after 4years? mbe</p> <p>62 2013 년 11 월 23 일 오후 5:55, K11: Um.... not so much. Becuz i have to study</p> <p>63 2013 년 11 월 23 일 오후 5:55, NE1: fighting</p> <p>64 2013 년 11 월 23 일 오후 5:55, K11: Do you know cpa?</p>
Reply vocabulary	Giving a meaning of a word or phrase as a result of a request.	<p>65 2013 년 11 월 23 일 오후 5:56, NE1: CPA? what is that?</p> <p>→<u>Vocabulary check</u></p> <p>66 2013 년 11 월 23 일 오후 5:56, K11: Certified public accountant. You dont know that? →<u>Reply vocabulary</u></p> <p>67 2013 년 11 월 23 일 오후 5:57, NE1: im not sure can u explain for me?</p> <p>68 2013 년 11 월 23 일 오후 5:58, K11</p>

		: Umm do yiu know account? 69 2013 년 11 월 23 일 오후 5:58, NE1 : yeah. i know 70 2013 년 11 월 23 일 오후 5:58, K11 : Cpa is a certification in accounting. In korea cpa is hard exam to pass 71 2013 년 11 월 23 일 오후 5:59. NE1 : aha!!! so u need to study to get that 72 2013년 11월 23일 오후 5:59, K11 : Yeah zzz
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As shown in excerpt 44, the function of vocabulary check was adopted by the non-English dominant speaker (NE1) in turn 65 to check the meaning of the vocabulary ‘CPA’ and the Korean student (K11) replied in reference to the vocabulary check in turn 66.

The main reason that vocabulary related functions were rarely used is as revealed in the interviews due to the fact that the Korean students had the opportunity to check their vocabulary and expression using a mobile dictionary on their smartphone while conversing with their counterparts, hence reducing the need to undertake the vocabulary check strategy. In other words, when students did not understand the meaning of a word, they checked the meaning themselves rather than asking their counterpart during the negotiation of meaning process.

5.5.4 Differences across the three groups.

5.5.4.1 *Quantity of negotiation of meaning across the three groups.*

The data indicated that there was a difference in the quantity of negotiation of meaning between the three groups. As shown in Table 5.40, the average percentage of negotiation of meaning was 7.73 and 9.67 in the K–K group and the K–NE group respectively. The average percentage of negotiation of meaning functions used by the K–E group was noticeably lower at 6.06%. The method to compute the rate of negotiation of meaning per group was adopted from the previous research (Samani et al., 2015):

$$\frac{\text{Frequency of Negotiation of meaning}}{\text{Number of words analysed}} \times 100 (\%)$$

The difference in the quantity of negotiation of meaning functions between the groups can be explained by the differing levels of English proficiency between the groups. There were more negotiation of meaning functions during interactions in the K–K group and the K–NE group than in K–E group. More negotiation of meaning implies more communicative difficulties because of misunderstandings in the discourse between the sender and receiver. Thus, the Korean students and their counterparts in these two groups (K–K and K–NE) needed more linguistic modification and more meaning negotiation to achieve mutual understanding of the conversations because they were all non-native speakers of English. In other words, English dominant speakers have a better grasp of English and, therefore, within their pairs they had less need to negotiate unclear meanings, they were able to communicate their message clearly themselves and were able to interpret most of the messages of their Korean counterparts.

This finding is consistent with that of Patterson and Trabaldo (2006) who demonstrated that the factor of language proficiency affects the quantity of negotiation for meaning. In a similar vein, this result corresponds with other studies indicating that NNS–NNS pairs do more negotiation of meaning than NNS–NS pairs (Varonis & Gass, 1985; Yule & MacDonald, 1990). In this study, pairs in the K–K group and K–NE group (both representing NNS–NNS communicative partners) were involved in more meaning negotiation than the pairs in the K–E group (NNS–NS).

Table 5.40. *Percentage of negotiation of meaning per group*

Group	Pseudonym	Frequency of negotiation of meaning	Number of words analysed	Percentage of negotiation of meaning
Korean–Korean (K–K)	K1/K2	97	950	10.21
	K2	110	1359	8.09
	K3	18	178	10.11
	K4	24	387	6.20
	K5	43	796	5.40
	K6	55	864	6.36
	Average			7.73
K–English dominant (K–E)	K7/E1	170	2512	6.76
	K8/E2	158	2783	5.67
	K9/E3	20	351	5.69
	K10/E4	66	1072	6.15
	Average			6.06
K–non-English dominant (K–NE)	K11/NE1	141	1282	10.99
	K12/NE2	158	1728	9.14
	K13/NE3	93	919	10.11
	K14/NE4	66	780	8.46
	Average			9.67

5.6 Summary

This chapter presented the findings from the groups in the case studies examining communicative activity in English via the MIM application, *KakaoTalk*. The results demonstrated that pairs in the K–NE group and the K–E group outperformed pairs in the K–K group in terms of the time spent and turns taken in exchanging messages. These findings indicate that the pairs of K–E and K–NE groups were more engaged in the communicative activity than the pairs of the K–K group by spending more time and being more involved in more frequent message exchanges. The results also showed that mixed-gender pairs spent more time and took more turns interacting than same-gender pairs across the three groups.

The findings also indicated that the students made use of the multimodal features of their smartphones during the communicative activities to support their conversations

by enhancing comprehension of their discourse and helping others to experience cultural differences. This included exchanging photos and linking to video clips. The Korean students also adopted different language styles that included the use of emoticons, punctuation and onomatopoeia to support their interactions on the MIM platform allowing them to effectively convey to their counterparts their emotional states and feelings.

Coding according to the framework of Akayoğlu and Altun (2009) and Samani et al. (2015) identified 13 different functions of meaning negotiation used in the conversations in these case studies. The results showed similarities in terms of the strategies for negotiation of meaning that the students used with their MIM application. One of the similarities is that elaboration request and reply elaboration were the most frequently used strategies of communication across the three groups while the least frequently used functions were vocabulary check and reply vocabulary. The easy access to the mobile dictionary on their smartphones enabled the Korean students to have the opportunity to check English words and phrases before posting messages, hence reducing the need to utilise functions related to vocabulary such as vocabulary check, reply vocabulary and vocabulary request in their conversations via *KakaoTalk*. The generally observed elaboration related pattern followed a regular sequence of elaboration request – reply elaboration – elaboration. It was also observed that multimodal features such as photos were used to elaborate discourses, thus helping the counterparts' understanding of messages.

On the other hand, there were differences across the three groups in the quantity of negotiation of meaning strategies used. There was more negotiation of meaning in the K–K group and K–NE group than in the K–E group. This could be due to the fact that Korean students and their counterparts in the K–K group and K–NE group needed more linguistic modification and meaning negotiation to achieve mutual understanding of conversations. This indicates that more communication (time spent and turns taken) does not always mean more negotiation of meaning as shown in the results that the K–E and K–NE groups engaged in more communicative activity via *KakaoTalk* while the K–K and K–NE groups were involved in more negotiation of meaning due to the need to resolve language problems during their interactive communications.

Chapter 6 – Korean University Students’ Perceptions of their Experiences Interacting in English via a Mobile Instant Messaging Application

6.1 Introduction

In this chapter, the findings from the interviews including the follow-up interviews, will be presented to address the key research questions:

3(a) What are Korean students’ perceptions of the benefits and difficulties in English interaction via a MIM application?

3(b) What are their recommendations for using a MIM application for English interaction in the Korean EFL context?

The interviews elicited in-depth information about Korean students’ perceptions of the benefits and difficulties related to interacting in English via *KakaoTalk* and their recommendations for improving the communication experiences.

6.2 Perceptions of Benefits of English Interactions via *KakaoTalk*

The Korean students commented that interacting in English by using the MIM application *KakaoTalk* contributed to a number of benefits. These benefits are categorised into six broad themes and the frequency and percentages of the students’ responses to each of these themes is shown in Table 6.1. The frequency of the responses was calculated according to the number of times each theme was mentioned by the Korean students during the interview session. Each of these themes is discussed below.

Table 6.1. *Korean students' (n=14) perceptions of benefits interacting in English via a MIM application*

Perceptions of interacting in English via a mobile messenger: Identified themes		Frequency of response	Percentage of total responses
Enhanced learning experiences	Learning from others	5	12
	Self-directed learning	7	17
More opportunities to use English		10	24
Enhanced effectiveness in developing vocabulary, writing and speaking skills in English		8	19
More comfortable way to communicate		6	14
More convenient way to communicate		4	9
More novel and innovative way to communicate		2	5
Total		42	100

6.2.1 Enhanced learning experiences.

As indicated by 29% of the total responses, the Korean students commented that the process of interacting in English, via *KakaoTalk*, is a way to enhance their English learning experiences in informal settings. They indicated that while they were communicating in English, via *KakaoTalk* such as keeping in contact with foreign friends, they could learn new English words, expressions and sentence structure from their communicative partners. In addition, the Korean students responded that they were engaged in a learning process by checking their grammar or searching for information on the topic of discussion during a conversation by using mobile dictionaries. As a result, the students viewed English communication, using the MIM application, as enhancing their learning experiences in terms of learning from their counterparts or self-directing their own learning. These two components are discussed below.

Learning from others.

The Korean students commented that they could learn useful English expressions including vocabulary from their counterpart's messages mostly because the message contents included the use of practical language to discuss aspects of their daily lives. This was something missing in the classroom communicative activities. An example of a quote from a Korean student (K12) indicating learning about useful expressions from her communicative partner is shown below:

'I have learned English vocabulary or expressions in the messages from my partner. They seem to be practical and spoken English that can be used on daily lives. Generally, those expressions were not taught at school.' [K12]

Similarly, the responses indicated that the Korean students viewed English words, expressions or sentence structures from their conversational partners as language inputs. They viewed such language inputs as valuable communicative attributes because they reflected everyday spoken English rather than formal written English. The quote below is an example of how a Korean student (K7) perceived English communication on the MIM platform to be an opportunity to learn from others:

'I think that the words and sentences from the counterpart are language inputs. They are useful words and sentences that can be adapted in real world situations. It provides the opportunity to learn English including words or expressions from my communicative partner.' [K7]

Self-directed learning.

A subset of the Korean students regarded English communication via *KakaoTalk*, as a process of self-directed learning, by checking English words, expressions and sentence structure, especially in relation to grammatical correctness. The students reported that prior to sending messages, they checked their English grammar usage, words or expression by using mobile dictionaries to correct their errors when conversing with their counterparts. This is because they wanted to write the English sentences correctly in order to enhance the communicative comprehension with their

counterparts (i.e. by using correct English usage forms). An example of a quote demonstrating this process of self-directed learning is shown below:

‘I feel grammar is the most difficult part in studying English. However, when interacting with my conversation partner, I was able to check grammar including English vocabulary or expressions by myself using mobile dictionary. This helped me communicate with the partner more clearly.’ [K3]

Moreover, when students realised that their English competence level was too low to communicate effectively, they pushed themselves to study English further to bring about improvement. For example, when student K13 did not understand the meanings of words used during her communicative interactions, she checked them with the mobile dictionary application in her smartphone. Hence, she was engaging in self-directed learning by accessing the abundant language resources available on the smartphone. The following is a quote from K13:

‘I felt my English level is very low while communicating with my counterpart because it took time to think of vocabulary and I needed time to make sentences as well. So I looked up many words and information on mobile dictionary. I think I need to study English more.’ [K13]

6.2.2 More opportunities to use English.

The Korean students valued the English communication using the MIM application as an opportunity to keep using English as indicated by 24% of the responses. Students indicated that enhanced opportunities to use English are important to improve their language ability. The quotes below illustrate students’ views on using English as much as possible.

‘among many aspects, English communication via a MIM application could give great opportunity to use English. I have some friends to make an effort to use English with other Koreans and interacting in English via a MIM application would be a move for them and me to interact in English continuously.’ [K14]

‘Communication in English using *KakaoTalk* offered me the opportunity to use English that is quite valuable for English learning because I could use English as much as possible. I think the opportunity to use English a lot improves my English ability.’ [K10]

‘Using English itself would be helpful for developing my communication ability. Interacting through MIM application makes me keep using English, thus I can have the opportunity to use English.’ [K6]

6.2.3 Enhanced effectiveness in developing vocabulary, writing and speaking skills in English.

The Korean students considered English communication via a MIM application, as an effective way to enhance their vocabulary, writing and speaking skills as shown in 19 % of the total responses.

Some responses revealed that interaction through *KakaoTalk* enabled the students to identify a real definition of vocabulary, when communicating in English. In particular, the students who communicated with English dominant speakers commented that it is an effective medium to assist them to understand the right usage of vocabulary in a real life situation. The quote below shows how a Korean student (K8) perceived their English communication via *KakaoTalk* enhanced their effectiveness in understanding vocabulary meaning:

‘During English interaction, I realised that the word of ‘appointment’ is used for formal meetings with someone not for informal meetings with friends. I have understood this word from a dictionary definition and sometimes have used it improperly. So, interacting in English via a MIM application would be effective for understanding the real meaning of vocabulary.’ [K8]

Other responses indicated that communicating via *KakaoTalk* could be helpful for verbal communication. These responses indicate that if students have had a positive

experience in using some English words or expressions previously through the MIM communication mode, it will give them more confidence when speaking in English in verbal communication. In other words, their prior experience in the MIM mode has a positive influence on their post experience verbal communications. In addition, the students indicated that communication via a MIM application is effective in improving writing skills because MIM communication is text-based communication. This result is similar to the findings of Kaneko (2009), who showed that participants perceived that CMC, a text-based mode of communication, was most helpful for improving writing skills as well as vocabulary. An example of a quote demonstrating how the communicative experience using *KakaoTalk* could improve writing and speaking skills is shown below:

‘I can experience thinking and using English expressions including vocabulary when exchanging messages through *KakaoTalk*. This can be helpful for me to be confident when writing and speaking in English later because I already used those expressions in advance when I interacted in English with my counterpart through *KakaoTalk*.’ [K1]

6.2.4 More comfortable way to communicate.

Another theme identified from the interviews, as expressed in 14 % of the total responses, is the comfortable environment the students felt they were in when communicating in English via *KakaoTalk*, particularly when compared to face-to-face interactions. As indicated by K12 below, this provided an opportunity for those students who may be too shy and/or reluctant to communicate in spontaneous face-to-face modes to converse in a way that suits their level of English language proficiency.

‘I had the opportunity to talk with my counterpart over the phone but it was quite difficult to understand what he was saying because of his English accent that is unfamiliar to me and to respond promptly. I realised that there is a big difference between communication over the phone and through the MIM application. Text-based communicating using a MIM application makes me more comfortable rather than over the phone cause I

can take time to think and respond to my partner's messages.'

[K12]

The advantage of communicating via a MIM application allowed students time to prepare their responses to check words or expressions and to search for information related to their conversation. Most of the students pointed out that they checked their messages prior to sending them. Shown below is an example from Korean student (K5) illustrating how communication through *KakaoTalk* contributed to his comfort level during English communication:

'long pause without any spontaneous response makes me uncomfortable when talking in English verbally. It is difficult for me to respond promptly in verbal communication. But text-based communication using a MIM application makes me comfortable because I have time to prepare responses and check the previous messages.' [K5]

6.2.5 More convenient way to communicate.

Identified in 9% of the responses was the theme of English communication via *KakaoTalk* being convenient due to the portability and accessibility that are unique attributes of smartphones. Students reported that using a MIM application for communication was convenient because it was easy to carry around (portable) and could be used to access the Internet for useful information (accessible). The students commented that portability and accessibility allowed them to feel that they could use their smartphone including the Internet anywhere and at any time they wanted to.

The quote below shows how K7 experienced enhanced convenience from using *KakaoTalk* to communicate in English, in particular increased portability and accessibility:

'interaction through a MIM application is convenient because it has portability and accessibility. Smartphone available for a MIM application is portable to keep and there is no limit for time and locations to communicate. I can also search information and send pictures during communication with my counterpart.' [K7]

6.2.6 More novel and innovative way to communicate.

Two of the Korean students also indicated that they perceived English communication via *KakaoTalk* as a novel way to communicate particularly when conversing with non-Koreans. Five percent of the responses indicated that some students found the concept of communication in English using a MIM application to be interesting because they had never experienced this type of communication mode before. As the example below illustrates, these students were interested in participating in this type of communicative activity in informal settings.

‘This was my first time communicating in English using the MIM application. So, this was a new experience to me and I think it is interesting to communicate in English with others through this unconventional method.’ [K11]

6.3 Difficulties Related to English Interactions via a MIM Application

The interviews in phases 2 and 3 investigated the Korean students’ views on the difficulties of English interactions using the *KakaoTalk* application and their recommendations for the use of a MIM application for English interaction.

The results of the interviews revealed that of the 14 Korean students interviewed about their experiences using *KakaoTalk* to interact in English, 12 indicated that they had difficulties whereas only two of the students did not report any difficulties. Table 6.2 displays the types of difficulties the Korean students experienced. The perceived difficulties could be categorised into five themes: technical difficulties; discomfort communicating with unfamiliar counterparts; delay in response; low communicative proficiency; and understanding the subtle nuance of messages. Some students indicated several types of difficulties in their communication activities via *KakaoTalk* while others mentioned only a single difficulty. Each of the difficulties expressed by the students are discussed below.

Table 6.2. *Korean students' (n=12) perceived difficulties when communicating in English via the MIM application*

Difficulty	Frequency of responses	Percentage of total responses
Technical difficulties	5	29
Discomfort communicating with unfamiliar counterparts	5	29
Delay in response	4	24
Low communicative proficiency	2	12
Understanding the subtle nuance of messages	1	6
Total	17	100

6.3.1 Technical difficulties.

Twenty-nine percent of the total responses related to issues of technical difficulties, such as the extra time needed to type correct punctuation (e.g. *that's, it's, can't, didn't*) using the keypad on their smartphones. The Korean students tended to use the correct English punctuation marks rather than omitting them for convenience even when texting in the informal context of the conversations, as illustrated by K1 and K7.

‘There was inconvenience to have to change the smartphone screen for punctuation marks or capital letters like *didn't, it's* or *I'm*. I normally used every punctuation mark on the computer keyboard but on the mobile keypad for using these punctuations, I needed to change the keypad mode to use them.’ [K1]

‘I feel it is uncomfortable to change the keypad in smartphone to write apostrophes such as *that's and it's*. However, I thought I need to write this grammatical mark without omitting them because my counterpart always used them correctly.’ [K7]

In addition to the difficulty of changing keypad settings on the smartphone to access punctuation symbols, complications arose regarding the use of the mobile dictionary and attempts to type effectively on the keyboard on small screens. The responses below illustrate these difficulties:

‘I felt uneasy having to type in English on small screen of smartphone. So, there were many mistakes and I needed to delete and write words or sentences again and again.’ [K8]

‘It was inconvenient to convert the keypad of smrtphone for using mobile dictionary. I usually used mobile dictionary to find English words or expressions during texting, so I needed to change to mobile dictionary mode and return to texting screen for continuing it.’ [K12]

6.3.2 Discomfort communicating with unfamiliar counterparts.

Students also indicated that they felt uncomfortable when communicating with counterparts that they did not know with 29% of the responses related to this difficulty. Even though the Korean students were interested in communicating with their partners, sometimes they felt uneasy when communicating with a person with whom they have had little association, as show in example below:

‘As I never met her before, I am not familiar with my counterpart. If I couldn’t respond to the counterpart’s messages, I felt uncomfortable and sometimes had responsibility to respond and continue communicating.’ [K11]

Although topics of communication were provided to the students as part of the study, this did not seem to be adequate content for conversations as K9 and K14 reported.

‘We had given topics for communications but sometimes it was difficult to find something to talk about. I do not know what to say because we do not have shared information between us.’ [K9]

‘It was not easy to communicate with an unfamiliar counterpart so I sometimes needed help from someone to assist with further conversation.’ [K14]

6.3.3 Delay in response.

A subset of Korean students (24% of responses) regarded delayed responses from their counterparts as one of the difficulties in communicating in English via *KakaoTalk*. According to the responses, the students were less motivated to communicate due to the delays in replies or feedback from their language partners. They tried to understand that their counterparts may have been too busy to respond, but if the delay happened frequently or became very long, their motivation to interact in English decreased due to the disjointed conversations. These disjointed conversations meant that they needed to re-read the previous threads to recall the conversations and follow up their interactions. Longer delays in reply from their language partners made it difficult to follow the flow of conversation within an ongoing topic. The quotes below from K3, K10 and K13, demonstrate this:

‘I did lose motivation to communicate in English when there was a long time gap to get responses, I even forgot my questions. Sometimes, there was one-day time gap to get reply about my questions. This sometimes precluded any further interaction or discussion and I felt the conversations just went around.’ [K3]

‘If the response from my communicative partner was delayed, I thought he was too busy to respond to my messages. It took three days to receive reply. That was the longest time gap.’ [K10]

‘The time that I could receive the response was long. I understood that she was very busy. I never received any reply from her several times.’ [K13]

6.3.4 Low communicative proficiency.

Low proficiency in English hindered the Korean students' effective communication as indicated by two students (12 % of responses). One student reported that it was difficult to express himself clearly or precisely. The other student who mentioned English proficiency as an issue explained that it was difficult to reply instantly. It took a significant amount of time to reply due to the time that was needed to write the sentences in English correctly. The examples below illustrate the issues related to low proficiency in English communication.

‘It was difficult to express myself in English due to my low proficiency to converse in English. I don’t know how to write in English effectively what I am thinking and trying to say. I could not express everything that I want to say.’ [K7]

‘It was not easy to send messages immediately to reply because of my low ability to communicate in English. My counterpart gave responses instantly but I needed time to reply them.’ [K12]

6.3.5 Understanding the subtle nuance of messages.

Only one student indicated that he had difficulties understanding some of the nuances of the messages including the meaning of words and expressions when used in informal situations. He realised that there were subtle distinctions between the meaning of words used in informal situations and the meanings directly from textbooks or dictionaries. This student had learned or memorised English words or expressions but had limited experience using them in everyday conversations. The Korean student (K1) reflected on how English interaction via *KakaoTalk* affected his understanding of the real usage of words or phrases in the various practical communicative situations.

‘It was hard to understand a sense of subtle nuances of the messages from my partner. I think there are some differences in meanings between what I learned at school and how they are really used in real situations. I haven’t had opportunities to apply my linguistic knowledge to practical usage.’ [K1]

Even though this difficulty was only raised by one student, the issue is important because it draws attention to the state of English language learning in the Korean context. It shows that Korean students learn English as a school subject with a focus on developing vocabulary, grammar and reading skills. However, English learners' communicative competency remains at a low level because they have little opportunity to use their linguistic knowledge in real life communicative situations.

6.4 Students' Recommendations Related to English Interactions via a MIM Application

The interviews identified five recommendations by the Korean students, on how to improve students' English interaction through *KakaoTalk*. These recommendations are listed in Table 6.3.

Table 6.3. *Korean students' (n=14) recommendations for improving their English communication experiences via a MIM application*

Recommendations	Frequency of response	Percentage of total responses
Teacher plays a greater role	5	31
Opportunity to meet their counterparts	4	25
More detailed guidelines for the topic	3	18
Group chatting	2	13
Feedback from the teacher or counterpart	2	13
Total	16	100

6.4.1 Teacher plays a greater role.

The first recommendation offered by five students was that teachers play a greater role in the students' communicative exercises using a MIM application. For example, if this communicative activity was introduced as an extra class activity, the teacher could set rules for the interactive activity such as fixed times to communicate on given topics. The students would then feel more motivated to be involved in this communicative

activity and would participate more actively. The recommendations by K1, K9 and K11 are included below:

‘Using MIM application is the best way to take an active part in the communication activity but if the teacher sometimes facilitates the activity by providing advice or feedback, it would be more helpful for continuing the conversation.’ [K1]

‘It would be better if a teacher or someone makes rules for communicating in English with a language partner regularly (e.g. 10 minutes of communication in English a day) and continuously (i.e. various and more detailed interaction topics during long term).’ [K9]

‘When the teacher is involved in the communicative activity by providing the guidelines (e.g. a method to keep the conversations going) the students may have responsibility to participate in the English communication and this affects students’ more active involvement.’ [K11]

6.4.2 Opportunity to meet their counterparts.

The second recommendation from the Korean students as noted by four responses, was that offline meetings with their counterparts before or during their text-based communication activities would assist with language learning. They believed that face-to-face meetings would help to increase their motivation to use their English skills in a practical way when using *KakaoTalk* later. These students indicated that getting to know their counterparts better would make them feel more comfortable communicating with them. K6, K10 and K14 provide examples of this recommendation:

‘I asked my counterpart to meet and have a meal together because I thought it would help communicate with him rather than just converse through texting method.’ [K6]

‘I think that it would be better to meet my language partner before commencing communication via a MIM application. This meeting can encourage me to communicate a bit more.’ [K10]

‘If I can meet my counterpart during English interaction in person, it would be a chance to know each other and it would be another chance to exchange different cultures. This might provide me with the opportunity to understand the counterpart from other cultures.’
[K14]

6.4.3 More detailed guidelines for the topic.

Korean students had three responses indicating that conversations would proceed more dynamically and frequently if better guidelines regarding the topics of conversations were provided. For example, detailed sub-topics (such as your classes or places you have lunch) can be delivered every day from within the general topic (i.e. university life). The detailed topics would provide the students with more varied ideas to inspire conversation rather than only providing a general idea to focus on the interactive activity. The following quotes illustrate this type of recommendation:

‘If the topic is given more frequently rather than one topic a week, the conversation will be more dynamic.’ [K3]

‘I think the detailed topics would be better to keep conversation more lively than one topic a week. More various topics would be helpful to induce various communications. More detailed topics can provide clues to continue communication rather than one general topic a week.’ [K5]

6.4.4 Group chatting.

The fourth recommendation relates to the activity type of group chatting. According to the students’ responses, group chatting would encourage them to communicate more frequently. If more than two participants were involved in the communicative activity, they could often communicate with others as opposed to the limited conversation that resulted from texting one-on-one. In one-on-one mode, if the counterpart replied late or not at all, the communications were inevitably delayed or ceased. Shown in the following example is K7’s recommendation of the activity of group chatting:

‘I think group chatting of three or four people makes conversation keep going because when one cannot reply, the other can reply. Moreover, when three people are involved in communication, they may interact with each other with more diverse communicative contents or topics.’ [K7]

6.4.5 Feedback from the teacher or counterpart.

The final identified recommendation was related to constructive feedback from a teacher or counterparts who have a higher English proficiency for enhancing students’ motivation and communication in English. Students appeared to be inspired to use more English when corrections or feedback were given regarding poor expression and incorrect grammar as illustrated in the following quote:

‘If the teacher or counterpart who is better than me in English ability corrects my English and gives feedback about expressions or grammar, I will be more motivated to use English and to continue interaction further. I think it would be helpful for my English learning.’[K1]

6.5 Summary

The findings from the interviews indicated that the Korean students perceived that English interaction via the MIM application, *KakaoTalk* provides several benefits. These benefits included enhanced learning experiences and greater opportunities to use English. Furthermore, communication in English via *KakaoTalk* was considered effective for the development of vocabulary, writing or speaking skills as well as being a comfortable or convenient way to communicate. Finally, the students perceived interaction in English via a MIM application as a more novel and innovative way to communicate.

However, some difficulties were reported by the Korean students relating to interactions in English via *KakaoTalk*. These issues were delayed responses from their counterparts and technical difficulties such as converting the keypad for punctuation. Additional difficulties included understanding the subtle nuance of messages, discomfort communicating with unfamiliar counterparts and low communicative proficiency.

The Korean students also offered recommendations to improve their English interaction using the *KakaoTalk* application. First, they proposed a role for teachers to encourage English communication using this mode such as an extra class activity and setting communication rules. The students also recommended more detailed guidelines be provided on each communication topic, an opportunity to meet their counterparts in an offline meeting, group chatting and feedback from their teacher or counterpart.

Chapter 7 – Discussion and Implications of the Study

7.1 Introduction

This research explored the feasibility of using the MIM application, *KakaoTalk* to enhance the English communicative opportunities and develop language skills of Korean students studying at a university in South Korea to address the research problem identified in Chapter 1. The problem identified was Korean EFL students' limited opportunities to use and practice English, both within and outside of the classroom that hinders their overall development of English skills and competencies.

7.2 Students' Existing Practices in the use of MIM Applications for English Communication

A preliminary investigation of 103 students at the university showed that all of the students owned a mobile phone with 98% of the cohort owning a smartphone that could access the Internet. This smartphone ownership rate is consistent with studies of young people in Korea showing 97.3% own a smartphone (Korean Information Society Development Institute, 2013). The findings of the survey revealed that some of the Korean students have had experience communicating in English with peers from different cultural backgrounds through social media and MIM applications such as *Facebook*, *WhatsApp*, *Skype* and *KakaoTalk*.

The survey indicated that the communicative activities by the Korean students with their foreign counterparts were largely for social purposes. While the findings of the survey indicated that Korean students were already participating in communicative activities using MIM applications outside of the classroom, it is not known how they interact with each other to negotiate meanings using the MIM applications on their smartphones. There are also limited reports in the literature on how students interact with each other using MIM applications particularly in the Korean EFL context. This study aimed to determine the pattern of these interactions and identify the benefits and issues related to using MIM as a means of increasing the opportunities for interaction in English to further develop Korean students' communicative and language skills. The implications of the research findings for teaching are discussed.

7.3 How Korean University Students Communicate in English Using the *KakaoTalk* MIM Application

As *KakaoTalk* was the most popular MIM application used by the students surveyed, it was adopted as the application for this study. The message observation phase of the study showed that the students' interactive approach to communication using *KakaoTalk*, was dependent on how they were paired with other students with either similar or different cultural and language backgrounds. A case study approach was adopted to explore students' communication activities in this study. The 14 participating Korean students were paired with other Korean students, English dominant or non-English dominant speakers (as illustrated in Figure 3.1, Chapter 3). Comparisons were made in terms of the similarities and differences in the patterns of communication between the pairs, in particular (i) the amount of time spent on messaging and the number of messages posted; and (ii) the strategies/functions used for negotiation of meaning.

7.3.1 Pairing of students and their communicative activity in English.

The study found differences in the patterns of communication between the three cases of paired-groupings (Korean–Korean; Korean–English dominant speakers and Korean–non-English dominant speakers) in terms of the amount of time spent on messaging and the number of messages posted. The findings showed that the pairs in the K–E and K– NE groups engaged in more communicative activity than the pairs of the K–K group by spending more time on exchanging messages and being involved in more frequent message exchanges. A possible reason for the K–K group spending less time communicating is that the pairs in the K–K group shared similar backgrounds both culturally and linguistically, hence they asked fewer questions and needed fewer explanations within the given topics (university life, hometown, travel, and friends). This resulted in a lesser amount of communication occurring.

An implication of the pairing findings is that teachers setting a formal assignment on English interactive communication should encourage their Korean students to find non-Korean students to work with as they undertake the assignment. At the university where this study was conducted, there are a large number of international students studying at the university who are interested in finding out more about Korean people

and culture. The Korean English teacher could collaborate with the international department at the university to organise partners for the Korean students to communicate with for specific projects.

However, the practical approach for a Korean teacher teaching English would be to pair the Korean students in his/her class with each other. In this case, in order to promote the Korean students' practice in communicating in English when paired with other Korean students, the teacher should pay attention to the types of task and topics delegated to the students. Specific tasks such as problem-solving, jigsaw, information-gap or other tasks where discussion and decision-making are required would encourage more English language use and more authentic communication between the Korean students. For example, through a problem-solving task, students would be required to exchange information and share their opinions, to find a solution to the problem that is challenging and meaningful for them. Furthermore, jigsaw and decision-making tasks facilitate interactions that negotiate meanings where the Korean students are actively employing strategies to convey meanings to their partner. In studies that investigated the relationship between the amount of negotiated interaction and different task types in technology-enhanced communication environments the amount of interaction that occurred increased in problem-solving and decision-making tasks (Blake, 2000; Jeong, 2011; Smith, 2003). This included an increase in the negotiation of meaning resulting in greater learner production of output. Similarly, Cho (2011) found that the jigsaw task was the most negotiation-provoking task for beginning-level learners while the information-gap task produced more negotiation of meaning for advanced-level learners.

The study also found that mixed-gender pairs were more involved in the communicative activities compared to same-gender pairs, with mixed-gender pairs taking more turns and spending more time exchanging messages. This result is consistent with research reporting that opposite gender dyads demonstrate much greater interaction than same-gender dyads (Gass & Varonis, 1985). It may be that, in the traditional sense, there is a natural attraction and intrinsic interest and curiosity to find out more about a communication partner of the opposite gender, hence motivating the mixed-gender pairs to spend more time communicating with each other. However, the conditions under which the mixed-gender pairs in the study were allocated were such that the students did not know each other, as they were paired by the researcher

randomly and the topics provided for communication were social. In the context of Korean English classes, mixed-gender pairs of Korean students will not be so important if the teacher designs tasks around problems to be solved or jigsaw tasks where the interactive activities are focused on the tasks rather than socialising.

7.3.2 Patterns of negotiation of meaning between student pairs.

Similarities in pattern.

The comparison of negotiation of meaning between the three cases of paired-groupings (K–K, K–E and K–NE) was performed to examine the similarities and differences in functions used for negotiation of meaning. The study showed similar patterns between the groups with the most frequently employed function of negotiation of meaning related to elaboration: elaboration request and reply elaboration. The frequency of communication exchanges identified that elaboration request and reply elaboration functions were used in 50% of negotiated meaning occurrences by the K–K and K–E groups and 49% by the K–NE group. This indicates that about half of the occurrences of a negotiation of meaning strategy were elaboration strategies regardless of how the students were paired.

These findings are in contrast to the findings of other studies that have examined patterns of negotiation of meaning. Akayoğlu and Altun (2009) found that the most frequently used categories by non-native speakers (NNS) of English were related to confirmation: reply confirmation and confirmation. Similarly, Patterson and Trabaldo (2006) identified confirmation check as the most frequently used category in IM online chats and Samani et al. (2015) found that confirmation was the most frequently used category in online chats using *Yahoo Messenger*. The confirmation strategies such as confirmation check and reply confirmation were also used by the students in this study and reply confirmation was the most frequent strategy in the confirmation category across the three groups.

The more frequently used strategies of elaboration by the students in this study imply that they were interested in keeping the conversation going when communicating with the *KakaoTalk* MIM application. It appears that by going through the process of adopting elaboration request and reply elaboration the students were actively engaged in interactive conversation that allowed them to adhere to the ongoing discourses on the

topic rather than confirming and ending the conversation quickly or skipping to other topics.

Another similarity across the groups found in this study related to the least frequently used function of vocabulary: vocabulary check, reply vocabulary and vocabulary request. This finding is consistent with the findings of other research (Akayoğlu & Altun, 2009; Samani et al., 2015) that showed vocabulary related functions (e.g. vocabulary request, vocabulary check and reply vocabulary) were never or rarely observed in their data. In this study, the main reason that vocabulary related functions were rarely observed may be due to the fact that the Korean students had the opportunity to check words and expressions using their smartphone's mobile dictionary during the negotiation of meaning process, hence reducing the need to undertake vocabulary check. This assertion is supported by the evidence obtained from the interviews with the Korean students in the research. In the interviews, the Korean students pointed out that prior to sending messages, they checked their English grammar usage, words or expression by using mobile dictionaries. They corrected their errors prior to posting the messages for their counterparts to read. In this way the students ensured that communicative comprehension was enhanced with their counterparts without the need to use the vocabulary related meaning negotiation functions. By being conscious of the need to express 'correctly' the Korean students were self-directing their own development of their English skills and demonstrated a desire to improve their communicative competencies.

Differences in pattern.

This study showed differences in the amount of negotiation for meaning strategies between the pairs of K-K, K-NE and K-E groups. The findings showed that the K-K and K-NE groups used functions of negotiated meaning on average 7.73% and 9.67% respectively compared to the K-E group of 6.06% (see Table 5.40 of Chapter 5). The percentage represents the total frequency of negotiation of meaning functions that were used in message exchanges with the rest of the exchanges being ongoing discussion between counterparts with no apparent meaning negotiation strategies being used. This indicates that K-K and K-NE pairs were engaged in more negotiation of meaning, than the K-E pairs. This data is consistent with findings from other studies (Varonis & Gass, 1985; Yule & MacDonald, 1990) where in face-to-face mode non-native speaker pairs

(NNS–NNS, i.e. equivalent to the K–K and K–NE groups of this study) outperform NNS–NS pairs (i.e. K–E group of this study) in terms of the amount of negotiation of meaning taking place.

Varonis and Gass (1985) showed in their study that in the face-to-face mode, the NNS–NNS pairs that shared different proficiency levels and different first language backgrounds engaged in more meaning negotiation by providing their language counterpart with more comprehensible input. The authors explained that speakers with lower levels of proficiency in the target language and who shared less language or social backgrounds, produced more negotiations in order to help their language partner understand better and to keep their discourse going. Patterson and Trabeldo (2006) further demonstrated that the factor of students' language proficiency influenced the amount of meaning negotiation. In their study, more negotiation of meaning occurred in Spanish chats than in English chats because the Spanish language ability of the American students was lower than the English language ability of the Argentine students. The language proficiency and its relationship to the amount of negotiation of meanings is also evident in this study where the pairs in the K–E group showed the least percentage of use of meaning negotiation strategies than the other two groups. The English dominant speakers who are native speakers of English had high proficiency in English and this leads to less language challenges and hence less requirement for negotiation of meaning in their communications.

Even though the K–English dominant group show less use of negotiation of meaning strategies compared to the other two groups (K–K, K–NE), this does not mean that the K–E group is less effective for interactive communication in the EFL context. As discussed previously (see section 7.3.1), the pairs in the K–E group spent a substantial amount of time communicating in English via the MIM mode and exchanged more frequent messages. Furthermore, as will be discussed in the next section, the pairs in this group used more frequent multimodal representations (photos, video clips) particularly for cultural experiences. This implies that the pairs in the K–E group engaged in more communicative activity through the *KakaoTalk* MIM application and utilised the visual and multimodal means appropriately to experience cross-cultural experiences between the two countries during interactive communication.

7.3.3 Smartphone instant messaging application enabling multimodal means of communication.

The influence of digital technologies on meaning negotiation in the last two decades has seen the concept of ‘multiliteracies’ emerging. The term ‘multiliteracies’ was first proposed by the New London Group (1996) to highlight two factors that are influenced by globalisation and technology: (i) the significance of cultural and linguistic diversity; and (ii) the multiplicity of communication modes. The former asserts that today’s society is becoming more linguistically and culturally diverse and meaning negotiation differs according to cultural and social contexts. The latter suggests that media and communication technologies enable meaning negotiation to be increasingly multimodal and in addition to written-linguistic modes, visual, audio and gestural patterns are also integral in the process of conveying meaning. These factors are highlighted in the use of a MIM application and in the way the Korean students and non-Korean students communicate with each other in this study.

The use of multimodal representations in communicative interaction between linguistically and culturally diverse students.

In this study, Korean students’ use of multimodal representations are shown in the photos and video clips exchanged during the period of communicative activity via *KakaoTalk*. These visual and multimedia representations were utilised to introduce their hometown, places they had travelled/visited, their friends and university life as they exchanged cultural experiences. The visual and multimedia features were more frequently used in the pairs of the K–E and K–NE groups. For cultural exchanges, students used text and exchanged images or photos to communicate about the different cultural festivities or traditions (e.g. Christmas or traditional food) between their two countries and through the images and videos they viewed different house and building features in their communicative partner’s hometown. This is consistent with the findings of previous research (Patterson & Trabeldo, 2006) indicating that in the Tandem Language Learning Project, students at universities in both Argentina and the USA utilised videos and photos for a cultural exchange activity. The visual images and videos were part of the negotiation of meaning strategies the students in this study used to assist their counterparts to understand their culture better.

Only one photo in this study was observed being used by the K–K group which indicates that between Korean students, photos or video clips were rarely shared during negotiated interactions. The sharing of photos or video clips may have been considered unnecessary because they already share the same cultural background and did not have the need to provide additional photos or video clips to help their counterpart visualise and understand their communications on topics relating to their hometown or university life.

These findings indicate that when sharing information with their language partners, a combination of text, visual images and multimedia (sound and image) representations, enabled by the smartphone and *KakaoTalk* application technology, was used more meaningfully and usefully in the K–E and K–NE groups than in the K–K group. The different modes of representations assisted the culturally and linguistically diverse pairs of students to understand better the cultural differences in the topics of conversation.









The negotiation of meaning data showed that the use of multimodal representations of photos and video clips often took place at the stage of elaboration, for example, posting an image to help the partner visualise a house in Canada. The use of multimodal features that are enabled by the *KakaoTalk* application allows students to participate more in negotiated interaction by stimulating inquiry. For example, more questions were asked about the videos/images that were attached extending their conversation not only by enhancing comprehensibility of discourse but also by experiencing different cultural aspects more clearly. Hence, teachers should encourage the use of multimodal representations in communicative interactions, by setting tasks that will embrace multimodal representations such as illustrating a solution to a set problem with a diagram or video record made by the students. Teaching the students when and where to integrate multimodal representations should be part of a language teacher's instructional strategies as we live in a multimodal society where communication uses multimodal representations to convey meanings. Furthermore, students could also use their smartphones to take photos and videos of interesting things or events, and bring these into the classroom for discussion.

While there are advantages, as indicated above in using multimodal representations in the students' communicative interaction, a concern is that students are

less engaged linguistically when communicating with images and multimedia representations. This is because it is relatively easy to add pictures or video clips that are visually descriptive and this eliminates the need to provide a description using text. Therefore, teachers need to be aware of this issue and provide students with guidance on what is required to promote language experiences in English via a MIM application.

7.3.4 Language styles in technology-enabled MIM communication.

In this study, the Korean students were found to utilise language styles such as emoticons, punctuation and onomatopoeia that are facilitated by the *KakaoTalk* application to assist with their negotiation of meaning during communication. There are advantages of using these features in English communication via a MIM application. Students' use of emoticons and punctuation as a visual aid allows them to transfer emotions or feelings, an important aspect of communication, in an effective and clear manner in the text-based MIM environment. Emoticons and punctuation would represent the digital form of gestural representation that is described by the New London Group (1996).

The findings showed that the Korean students frequently used emoticons to transfer their emotions and feelings states in a quick manner during interaction via the *KakaoTalk* application. They adopted various pictorial emoticons that are already installed in the *KakaoTalk* application such as    and  rather than the text-typed ones, such as :) or :P. They used  or  to show a stressful state of feeling and  or  for a pleasant feeling. As shown in Chapter 5, the Korean students commented that using emoticons was an easier way to show their emotions or feelings directly and spontaneously to their language partner in a text-based communication environment without having to type too many words. The students indicated that emoticons help to avoid misunderstanding and enhance comprehension, through clearer negotiated communication.

This is consistent with the findings of previous research (Park et al., 2014) that shows that senders of instant messages want receivers to understand their messages well, and this is achieved by using emoticons to prevent misunderstanding during text-based communication. However, Park et al. (2014) also pointed out that the use of emoticons

can be annoying, interrupt communication and make conversation less serious. Hence, students need to be taught or be made aware by teachers, the appropriate use of emoticons such as when and in what contexts to use them. For example, it would be inappropriate to incorporate them in formal contexts or with people they are unfamiliar with.

The Korean students also expressed the degree of their feelings in their text-based interactions by using punctuation marks. The findings showed that Korean students used an excessive number of exclamation and question marks to show a high degree of gratitude (e.g. “thanks !!!”) or a sense of awe (e.g. “half ????? it's a big city!!”). This is illustrated in the following quote:

K-English dominant group (between K9 [F] and E3 [F]): Your hometown

161 2013 년 12 월 12 일 오후 4:18, E3: well it's pretty huge too

162 2013 년 12 월 12 일 오후 4:19, E3: it's half the size of Korea actually

163 2013 년 12 월 12 일 오후 4:19, E3: :D

164 2013 년 12 월 12 일 오후 8:49, K9: **half ????? it's a big city!!** amazing. it is wonderfulness that a state of america have a independent rule. example is A city has a A rule. B citu has a B rule. USA has different rule. it is amazing! because Korea has one rule.

The Korean students indicated in their interviews that they could show the state of their feelings in more depth through the use of multiple punctuation marks to indicate more intense and stronger emotions.

Korean students also expressed their feelings in the text-based MIM communication mode by adopting alternative ways to mimic sound using onomatopoeia. In face-to-face communication mode back channels such as tone of voice, body movement or facial expressions, provide information and express intimacy thus helping communication (Harrison, 1989). In contrast, these back channels are not available in text-based MIM communication. The Korean students were able to describe sounds during their communicative activities by using Korean style onomatopoeia such as ‘ㄷㄷㄷ’. This enabled them to express the sound of laughter or giggling in the non-audible communication of texts in order to create a less serious conversational atmosphere. The use of onomatopoeia to represent sound enabled the students to keep

the conversation more life-like and verbal-like thus improving the receiver's interpretation of plain text. Similar use of onomatopoeia was reported in Cho's (2011) study that indicated that the use of Korean style onomatopoeia enabled the conversation to be rich rather than dry or dull, and further operated as a mitigator that prevented face-threatening actions, such as improper responses.

Thus, language style can be used as an alternative method to convey senders' feelings and emotions as well as play a role in maintaining an ongoing conversation that would appear authentic in text-based communications.

7.3.5 The impact of instant messaging on English language expressions in the formal environment.

While technologies enhance interactivity in communication, one of the concerns of using chat-style language with social media and IM applications is that students do not develop the appropriate language skills that are required in formal contexts, for example writing an essay for an assignment or writing a formal letter for a job application (Moody & Bobic, 2011).

Research on the use of social media for discipline-based learning in higher education has shown that there are positive impacts on learning (Dunn, 2013; Mok, 2012). However, research on the impact of abbreviated language use in IM by young people has shown mixed results. For example, Moody and Bobic (2011) stated that students are entering tertiary education with writing that is less precise than at any time in the last century. However, Aziz, Shamim, Aziz, and Avais (2013) and Tagliamonte and Denis (2008) showed that IM has no adverse effect on writing and that students were context conscious and able to make the switch back to the appropriate register or style when writing formally. In this study, the analysis of the Korean students' use of language in their conversational messages indicates that while there were some grammatical errors in their English language expressions, there was evidence of self-correction, for example, checking the smartphone dictionary to ascertain the correct spelling or English expressions. This evidence is obtained from the interviews of the research where students commented on the use of the smartphone dictionary for self-correction purposes. In addition, by employing negotiation of meaning strategies during communication the students were able to understand each other's utterances and keep

their conversations going. These findings suggest that Korean students using the *KakaoTalk* application were context-aware when communicating with peers of another culture and took more care to construct sentences to ensure that their counterparts understood their meanings. Hence, this study supports the findings of Aziz et al. (2013) and Tagliamonte and Denis (2008), that IM does not lead to inadequate language expressions in the formal context.

7.4 Students' Perceptions of the Benefits and Difficulties of Using *KakaoTalk* in their English Interaction with peers

The Korean students were interviewed to elicit the benefits and difficulties they have encountered in their communicative experiences.

7.4.1 Benefits the Korean students encountered.

The study showed that the Korean students were positive about their English interaction experiences using *KakaoTalk* for the following reasons:

1. *Learning from counterparts.* The MIM medium provided the students with an enhanced experience to learn more English from their counterparts. They learned new English words, English expressions and sentence structures from their partner's messages. They were also engaged in self-directed learning during the exchange of messages as they autonomously checked grammar and spelling or searched for information related to their conversation using mobile dictionaries. Thus, the Korean students regarded the communication using *KakaoTalk* as an effective way to learn English. The studies in the literature (Kukulska-Hulme et al., 2015; Pettit & Kukulska-Hulme, 2007) emphasised the importance of self-directed learning in language learning. According to the researchers, it is a crucial component that enriches language learning with learners accessing selected resources that meet the individual learner's interests and needs. Furthermore, Lai and Gu (2011) indicated in their research that students are able to regulate their language learning through technology. The students' self-regulated learning, supported by technology enabled them to learn the target language better in the non- compulsory context of out-of-class learning environments.

2. *Enhanced opportunities.* The Korean students perceived that the use of the MIM application enabled them to have more opportunities to use English in the Korean context. In the Korean context, the students do not have ample opportunities to use English including opportunities to communicate in English in their daily lives because it is not an official national language and they learn it as a foreign language. In the classroom setting, students learn English for many years at school but with a focus on vocabulary, reading comprehension, listening skills and grammar. Similarly, at university, the students' English language learning program is based on textbook activities and lectures. Even though the university students participate in group activities that encourage them to use English with a native speaking teacher during English conversation classes the short class time only provides very limited opportunities to use English in the classroom. In addition, in the classroom setting where communication is face-to-face, Korean students have difficulty interacting in English with their classmates or the teacher because of the intrinsic difficulties due to their low proficiency in the English language. Students who have low level English proficiency feel burdened by having to respond spontaneously in English in a face-to-face conversational environment. With these difficulties, Korean students tend to stop talking in English and revert to using their first language, Korean, during class time. In contrast to this, the Korean students in the study indicated that the text-based mode of English communication via a MIM application provided them with the opportunity to use English on a daily basis outside the classroom. In exposing themselves to English usage in the text-based mode on their smartphones, the students were pushed to keep thinking about various English words or expressions. This helped them to expand their scope of thinking in the English context that will lead to improvements in their communicative abilities.
3. *Enhanced vocabulary, writing and verbal communication skills.* English communication through the use of a MIM application was perceived by the Korean students to be an effective way of enhancing their vocabulary, writing and verbal communication ability. They recognised that there were subtle distinctions between definitions in textbooks or dictionaries versus real life situations. The students believed that in the traditional learning contexts using word definitions taken directly from dictionaries sometimes limited their understanding of the

English words and expressions. In the study, some of the students indicated that communication via *KakaoTalk* was a valuable experience because they had the opportunity to identify their mistakes in the use of English words or expressions. They were able to understand the right usage of vocabulary in a real life situation, particularly through communications with English dominant partners. Students also noted that communicating through *KakaoTalk* was effective for developing their English writing skills because the interactions were mostly based on text-based communication. Other studies have shown that research participants perceived CMC also a text-based mode of communication as most helpful for improving their writing skills as well as their vocabulary (Cho, 2011; Kaneko, 2009). The students in the current study also commented that communication via the *KakaoTalk* MIM application was helpful in assisting them to develop their English verbal communication skills. Once they had used English in text mode, they felt more confident when talking in English later. These findings suggest that prior experience in English communication in a text mode such as that in MIM has a positive influence on students' post experience verbal communication skills.

4. *A more relaxed way of communicating.* The Korean students felt more comfortable when communicating in English using *KakaoTalk* rather than in spontaneous face-to-face interactions where they need to give responses promptly. When communicating through the MIM application they had time to prepare their responses by checking words or expressions and conversing in a way that suited their English proficiency. The nature of MIM which is written-based communication allows students to have more time to construct sentences and to check and correct them before sending the message to their counterparts. In this regard, the communicative environment of the *KakaoTalk* application made the students feel comfortable during the communicative exchange. This finding concords with the research conducted by Cho (2011), who indicated that research participants perceived that online chatting developed their language competency because it allowed them to learn English in a comfortable and relaxed environment. Research conducted by Satar & Özdener (2008) and Sequeira (2009) found that students had enhanced communicative proficiency and better quality of language output with decreased levels of anxiety due to more time to construct their sentences in text chat.

5. *Convenience.* The Korean students considered English communication via a MIM application as a more convenient way to communicate. The enhanced convenience is due to the portability and accessibility to the Internet that enabled them to use their smartphones at anytime and anywhere with Internet access.
6. *Innovative way of communicating.* The Korean students perceived English communication via *KakaoTalk* as a novel and innovative way to communicate and practice English, particularly when conversing with non-Koreans. Some students indicated that it was an interesting experience because they had never previously communicated in English using a MIM application. They indicated interest in engaging in communicative activity in informal settings.

The benefits of using MIM applications in the EFL context as conveyed by the participants in this study suggest that teachers should be embracing the use of MIM applications on smartphones as a method to encourage more communication in English between their students or with other international students in the university. The students indicated that they were able to develop their English communicative skills with this type of activity.

7.4.2 Difficulties in using *KakaoTalk* for English interaction with peers.

The Korean students indicated the following difficulties in English interactions using *KakaoTalk*:

1. *Technical difficulties.* The Korean students reported experiencing difficulties that included changing keypad on the smartphone to access punctuation symbols and the mobile dictionary as well as typing on a small screen. The students tended to use the correct form of punctuation marks rather than omitting them for convenience even in informal text-based communication.
2. *Discomfort communicating with unfamiliar counterparts.* Although the Korean students indicated comfort communicating with *KakaoTalk* because it provided more time to construct their texts and they were interested in communicating with their counterparts, they also felt uneasy conversing with partners whom they did not know well.

3. *Delay in response.* The asynchronous nature of the *KakaoTalk* interactions resulted in frequent delays and disjointed conversations that decreased the students' motivation to communicate. The disjointed conversations meant that they needed to re-read the previous threads and to recall the conversations to follow up with their interactions after a long delay between messages. This type of experience is frequently reported in the literature (Haythornthwaite, Andrews, Fransman, & Meyers, 2016; Park & Bonk, 2007).
4. *Low communicative proficiency to interact in English.* The Korean students' low proficiency in English communication impacted on the effectiveness of their communication. This difficulty related to students' ability to express themselves clearly and reply in an instant manner. It required considerable time to construct the sentence in English correctly.
5. *Understanding the subtle nuance of messages.* The Korean students indicated difficulty in understanding real life usage of words or phrases in natural communicative situations. This could be explained by students having learned or memorised English words or expressions in formal learning settings but having limited experience applying them in everyday life.

The difficulties indicated above suggest that teachers need to design tasks aimed at enhancing students' interaction that will overcome these challenges. For example, to overcome the delay between pairs of students, group chatting with between three and five students is recommended. According to students' recommendations, group chatting, with more than two participants engaging in the communicative activity, enables participants to communicate more frequently, compared to paired arrangements where if the partner responds late or not at all, the conversation is delayed or ceased.

7.5 Students' Recommendations to Improve English Interaction Through *KakaoTalk*

This study identified the following recommendations by the Korean students related to English interactions via the MIM application:

1. *Teacher plays a greater role.* The teacher's role in the students' communicative activity using a MIM application could be enhanced by setting rules, fixing a time for the communication (e.g. 10 minutes a day for communication) or offering more detailed sub-topics rather than broad ones. It is believed that the teacher has a

positive impact on students' engagement in the communicative exercise by encouraging them to participate in the communication more actively and frequently. The detailed topics (e.g. your classes or places you have lunch) that can be suggested on a daily basis will possibly inspire the students with more ideas for communicative activity compared to general topics (e.g. university life).

2. *Opportunity to meet their counterparts.* The Korean students believed that a face-to-face meeting would increase their motivation to communicate in English via the *KakaoTalk* application. They explained that when paired with their counterpart, the opportunity to have an offline meeting either before or during texted interaction activity would have been helpful for enhanced participation. However, within the classroom environment students already know their peers, thus English communication using a MIM application could be beneficial as a bridge between face-to-face interaction in class and as an extra activity with counterparts outside the classroom. Sim et al. (2010) argued that low proficiency learners in online chatting produced more various syntactic and semantic modifications and more negotiated meaning for comprehensible input compared to learners in face-to-face environments. In this sense, text-based communication via a MIM application could be a way to provide low proficiency learners with further opportunity to negotiate meaning connecting their formal class with informal extra class activities out of the classroom.
3. *Group chatting.* The Korean students recommended a group chatting activity to encourage them to engage in more frequent communication by preventing delayed or ceased communication in one-on-one mode. Group chatting with more than two participants involved in the communicative activity possibly offers more frequent conversation with others as opposed to the limited conversation that resulted from chatting in the one-on-one mode.
4. *Feedback from the teacher or counterpart.* The Korean students self-corrected their text messages by checking grammatical errors and searching for information about the topic of conversation using mobile dictionaries and this helped them to learn vocabulary or English expressions that are practical language in daily lives. However, students commented that they needed more feedback from their teacher or their language partners who have a higher English proficiency to promote their

motivation to engage in the communicative activity. This means that when ungrammatical usage or poor expressions occur, students need corrections or feedback on their errors from the teacher or a counterpart who is proficient in English. Students believe that timely feedback motivates them to use more English and this indicates their intention to use correct English usage forms as much as possible when communicating in English in the MIM mode.

The students offered the above recommendations to improve their English interaction via *KakaoTalk* by reflecting on their positive experiences and challenges in English interactions using the MIM application. The findings suggest that teachers need to pay attention to students' real voices from their experiences in communicative activities when designing meaningful and suitable learning programs as extra class activities to promote more participation and develop English language skills.

7.6 Conclusion

Most Korean students at the university had ownership of a smartphone that could access the Internet. They had previous experience communicating in English with peers from different cultural backgrounds through social media and MIM applications for social purposes. *KakaoTalk* was the most popular MIM application used by these students and consequently this was the application that was adopted as the communicative platform for this study. However, limited studies on how students interact with each other using MIM applications, particularly in the Korean EFL context have been conducted, thus this study aimed to discover the students' interactions via a MIM application to increase the opportunities for interaction in English and to further develop their communicative and language skills.

The findings showed that the pairs in the K–E and K–NE groups engaged in more communicative activity than the pairs of the K–K group. This is because the pairs in the former groups are different both culturally and linguistically, thus they asked more questions and needed more explanations during conversations. For the pairs in the K–K group, it is suggested that specific tasks such as problem-solving, jigsaw, information-gap or decision-making types are provided in order to encourage more English language use, more authentic communication and more negotiation of meaning (Blake, 2000; Cho, 2011; Jeong, 2011; Smith, 2003).

This study showed similar patterns between the groups, with the most frequently employed function of negotiation of meaning related to elaboration: elaboration request and reply elaboration and the least frequently used functions relating to vocabulary. This implies that through the process of adopting elaboration, the students were actively engaged in conversation, by adhering to the ongoing discourses topic rather than ending the conversation or skipping to other topics. Rather than using the vocabulary functions, they corrected their errors prior to posting the messages by self-directing their own development of their English skills through the use of mobile dictionary on their smartphone.

The use of multimodal representations is part of the negotiation of meanings and it has advantages in terms of enhancing comprehensibility of discourse experiencing different cultural aspects and further potential to apply to the classroom as instructional strategies. However, teacher's awareness of the issues associated with using these features and their guidance in what is required to promote language experiences in English via a MIM application are needed when encouraging their students to use multimodal representations. Furthermore, language styles such as emoticon, punctuation and onomatopoeia were utilised as an alternative method to convey senders' feelings and emotions and they helped maintain an ongoing authentic conversation in the text-based MIM environment. This study suggests that Korean students are context-aware when communicating with peers from another culture and this is reflected in their use of English language via the *KakaoTalk* application as they are more careful to construct sentences so that their counterparts can understand their meanings.

Based on the benefits and the positive experiences of the students, this study suggests that teachers should be embracing the use of MIM applications on smartphones as one of the ways to encourage more communication in English between their students or with other international students in the university. In addition, teachers need to consider the challenges and recommendations for improving the English interaction via a MIM application and design meaningful and suitable learning programs as a method of enhancing the opportunity for their students to communicate in English and assist in developing their English language skills.

Chapter 8 – Conclusion

This chapter addresses concluding remarks that include the limitations of the study and directions for future research.

8.1 Introduction

This study investigated the use of the MIM application, *KakaoTalk* to enhance the English communicative opportunities for Korean undergraduate students and to understand how communicative interactions in English using the MIM application occur between the students. The study aimed to address the issue of the lack of opportunities in Korean classrooms for students to engage in conversations in English to improve their English communicative skills. In the Korean EFL context, students study grammar and vocabulary but have few opportunities to apply them to conversations in real life that are authentic. This study explored the feasibility of using a MIM application to enhance the opportunities for Korean students to communicate with peers to assist in their English language learning. The study also investigated how the students interacted with each other on the MIM platform in order to understand how communication via a MIM application can contribute to the development of English language skills. The study adopted a mixed method approach. A survey containing questions with numerical responses as well as open-ended questions was administered at the start of the research to find out the existing status of Korean students' MIM use in English communicative activities. Qualitatively, a case study approach was used to explore how Korean students interacted with other Korean students as well as with English dominant and non-English dominant students using the *KakaoTalk* application. Message observations of the students' communication in English and semi-structured interviews with 14 Korean students were conducted. Using an interpretive approach, themes were identified for how students interacted with each other on the MIM platform, the strategies they used for negotiation of meaning and their perceptions of the benefits and difficulties that resulted from their communicative experiences.

8.2 Summary of What the Study has Found

The main findings in this study are presented below along with recommendations for teaching English in the Korean EFL context, using a MIM application for interaction.

Firstly, the research showed that it is possible to make use of smartphones and the *KakaoTalk* MIM application to enhance opportunities to communicate in English and to develop English language skills for Korean students outside the classroom environment. The Korean students were able to have greater opportunities to use English authentically in real life situations with Koreans and non-Koreans via the MIM application. This interaction can compensate for the limited opportunity to use English in the classroom and in everyday lives. Furthermore, it promotes the opportunity for learning English as well self-directed learning. Students experienced an extended opportunity to learn more English, including new vocabulary, expressions and sentence structures from their counterpart's messages or through self-directed learning such as autonomous checking of grammar and searching for information related to the conversation. This demonstrates that MIM applications have practical implications for educational purposes in terms of genuine communication in a natural environment and self-directed learning. Therefore, the findings of the Korean students' positive experiences suggest that teachers should embrace the use of smartphones and MIM applications to increase opportunities for more interactive communication between Korean students and their peers (either other Korean students or international students).

However, as argued in the literature (Haythornthwaite et al., 2016; Park & Bonk, 2007), students indicated that delayed responses from students' language partners made them less motivated to communicate in English via the MIM application. If the delay happened frequently or became very long, their motivation to interact in English decreased due to the disjointed conversations. These disjointed conversations made it difficult to follow the flow of the conversation within an ongoing topic. Particularly, in one-on-one mode, if the counterpart replied late or not at all, the communications were inevitably delayed or ceased. To overcome this problem, when designing programs to encourage communicative activities outside the classroom, teachers can allocate students to small groups of 3-4 members to communicate with each other or undertake group project work using a MIM application. This relates to students' recommendations to interact in groups rather than pairs. Group work also addresses the perception of

disjointed messages conveyed by Korean students in the previous chapter. Group work might promote students' motivation to communicate in English by preventing disjointed conversations. Group work carried out as part of project work will also address the discomfort communicating indicated by Korean students as a negative component of the interactive experiences in paired communications.

Secondly, the way students are paired in the communicative process is important to enhance negotiated interaction. Pairing of Korean students with non-Koreans (e.g. English dominant or non-English dominant students) is a more effective means for interaction in English because the different backgrounds force the students to engage more in English communication and negotiation of meanings, hence leading to the development of their English skills. Teachers who set a formal assignment on English interaction can encourage their Korean students to find non-Korean students, who are international students studying at the same university. Due to cultural similarities, K-K student pairing is less effective in promoting communicative activities for language development. To solve this problem, it is recommended that teachers offer specific tasks such as problem-solving, jigsaw, information-gap or decision-making types to stimulate more meaningful conversations through the MIM application. This provides the opportunity for authenticity in the interactions between peers by encouraging the students to be involved in meaningful and authentic communicative activities. Students' engagement in communicative activities, in authentic and meaningful settings, was highlighted by Mustapha and Yahaya (2013) as a principal characteristic in CLT. These authors promote a learner-centred learning environment and emphasise meaning and use of target language. The provision of interactive tasks that enable students to engage in English language use in authentic context also helps to overcome the challenge of limited opportunities for interaction in the classroom setting which is due primarily to traditional teaching methods and the short class time.

Thirdly, the communicative strategies that the students used in their interactions and negotiation of meanings, via the MIM application, are similar to those found in face-to face and other technology-enhanced environments. The use of these communicative strategies has been shown to be crucial in the development of language skills and competencies because the process of meaning negotiation enables communicators to better understand each other by allowing increased comprehensibility

of language input through modified interaction (Ellis, Tanaka, & Yamazaki, 1994; Pica, 1994; Smith, 2003). To increase negotiated communication and track students' communicative activity, teachers need to ask the students to submit the exchanged messages as a part of their assignment. Teachers can give their students feedback on communication activity to encourage English communication using the MIM application. In addition, teachers can set communication rules such as fixing times to communicate or detailed guidelines on each communication topic to motivate the students to engage in extra class activity. This relates to students' recommendations of teacher's greater role in their communicative activity.

Fourthly, the smartphone and MIM technology broaden the communicative processes by enabling multimodal representations such as photos or video clips and the use of different language styles where emotions can be expressed through visuals such as emoticons and punctuation. A combination of text, visual images and multimedia representations is meaningfully used to support counterpart's comprehension of discourse and in particular to assist in authentic cross-cultural experiences (Patterson & Trabeldo, 2006), so that students from differing cultural backgrounds can understand cultural differences that were assigned as topics of conversation. Furthermore, technology-enhanced multimodal approaches in language learning appear to be more effective in elaborating utterances that need visual aids. It is more supportive for communicators to explain their discourse using multimodal features rather than just explaining through text-based descriptions. This is not possible in non technology-enhanced environments, such as face-to-face and paper-based communication. Thus, teachers can encourage their students to make use of multimodal representations and language styles during negotiated interactions and provide guidance of what is required to promote language experiences in English via a MIM application.

The findings from this study suggest that teacher initiatives can increase Korean students' opportunity to communicate in English, in order to develop their communicative skills and assist in English language learning. The pedagogical recommendations for teachers that emerge from this study are:

- Teachers need to consider using this platform of MIM application when developing curriculum activities, to assist in the development of students' communicative skills and English language learning, by extending their opportunities to communicate in English;
- For more engagement in English communication and negotiation of meanings, it is recommended that teachers pair Korean students with non-Koreans (e.g. English dominant or non-English dominant students);
- In the case of Korean students being paired with other Korean students, specific tasks (e.g. problem-solving, jigsaw, information-gap, or decision-making types) need to be offered to stimulate more meaningful and authentic conversations;
- Teachers need to ask their students to submit their exchanged messages as a part of their assignment, in order to track students' communicative activity, thus facilitating teacher feedback on students' communicative activities. Additionally, teachers can set communication rules to encourage students' English communication;
- Teachers can encourage their students to make use of multimodal representations and language styles during their negotiated interactions and need to provide guidance of what is required to promote language experiences in English via a MIM application;
- Teachers can allocate the students to small groups of 3-4 to promote students' motivation to communicate in English by preventing the disjointed conversations due to longer delays in reply from their language partners.

The findings from this study suggest that the implementation of these recommendations will improve Korean students' communication in English through extended opportunities to communicate in English, thus assisting in English learning and developing English language skills in the Korean context.

8.3 Limitations and Directions for Future Research

There are several limitations of this study and some of these are offered as areas of research interest to be explored in future studies.

Firstly, a larger number of pairs in each of the three groups could be included in future studies to provide a more comprehensive understanding of the patterns of negotiation of meaning through a MIM application and to increase the generalisation of these findings. This study concluded that the most frequent function of negotiation of meaning was related to elaboration and the least frequent function was related to vocabulary. This finding was based on a small number of pairs in total 11 pairs in the three groups (K–K, K–English dominant and K–non-English dominant). We may find a larger range of strategies of negotiation of meaning used rather than elaboration or vocabulary as the most or least frequently used functions. A larger number of pairs could demonstrate the patterns of negotiation of meaning in different ways. In addition, studies of a larger number of same-gendered pairs within these groups would inform us of ways of pairing to maximise interactions and learning opportunities. The counterparts of Korean students are located in Korea and this has an impact on the outcomes, given that they have some inherent interest in Korea and Korean language. So there can be some aspects that may not be generalised to other contexts.

Secondly, this study focused on English interaction based on communicative activities between pairs. The results concerning the patterns of negotiation of meaning and the use of multimodal representations and language features were found within the setting of paired communications. However, communication can frequently occur in group interaction settings where more than two people engage in conversation, thus leading to more frequent message exchanges, compared to the paired interaction setting. Therefore, future studies could investigate text-based interactions in other group sizes such as in small groups (e.g. 3-4 students) or large groups (e.g. more than 10 students or an entire class) to determine whether group size has an influence on interactive communication, patterns of meaning negotiation, and the utilised multimodal features in MIM applications.

Thirdly, this study compared the similarity and differences, in terms of functions used for negotiation of meaning among three cases of grouping (K–K, K–E, and K–

NE). Language development in terms of linguistic aspects of vocabulary or grammar during interaction was not fully considered in this study. Thus, future research could focus on investigating whether Korean students achieve improvement in their linguistic skills such as vocabulary, grammar or sentence structure in a longitudinal study of MIM interactions. A longitudinal study would allow for comparisons to be made in improvements in linguistic skills by assessing skill level prior to and at the completion of the interaction period. To explore linguistic improvement, enough time (e.g. a semester or a year) needs to be given for the communicative activity to have an impact on level of language development. To examine this, teachers could ask their students to export the exchanged messages to their email account to track how their students are communicating in English and measure improvements in linguistic skills in their English language learning. In addition, students' language proficiency could be tested prior to conducting research to investigate the language skill levels that will most likely benefit demonstrated by improved language development from opportunities to communicate in English in the MIM mode.

8.4 Contribution of the Study

The major conclusion drawn from the study is that Korean students were positive in their attitudes towards the enhanced opportunities that were afforded by *KakaoTalk* on their mobile devices. They indicated that they have learned more about the English language through the paired conversations they experienced. These findings will inform EFL teaching in Korea to enhance the English communicative opportunities for Korean university students using the *KakaoTalk* MIM application on their smartphones. This enhanced communicative opportunity will assist students' English language learning through English interaction via this platform. The students can develop English language skills by utilising several negotiation strategies and self-directing their English learning. The findings from this study inform language teachers or policy makers on how communication in English using a MIM application on smartphones can be implemented to assist Korean university students in their English learning.

References

- Aamri, A., & Suleiman, K. (2011). The use of mobile phones in learning English language by Sultan Qaboos University students: Practices, attitudes and challenges. *Canadian Journal on Scientific & Industrial Research*, 2(3), 143-152.
- Ahmad, S., & Rao, C. (2012). Does it Work? Implementing Communicative Language Teaching approach in EFL Context. *Journal of Education and Practice*, 3(12), 28-35.
- Akayoğlu, S., & Altun, A. (2009). The functions of negotiation of meaning in text-based CMC. In R. de Cassia Veiga Marriott & P. Lupion Torres (Eds.), *Handbook of research on E-learning methodologies for language acquisition* (pp. 291-306). Hershey, PA: Information Science Reference.
- Alcón, E. (2009). Incidental focus on form, noticing and vocabulary learning in the EFL classroom. *International Journal of English Studies*, 7(2), 41-60. Retrieved from <http://revistas.um.es/ijes/article/view/48981>
- Arnold, N., & Paulus, T. (2010). Using a social networking site for experiential learning: Appropriating, lurking, modeling and community building. *Internet and Higher Education*, 13(4), 188-196.
- Aziz, S., Shamim, M., Aziz, M. F., & Avais, P. (2013). The impact of texting/SMS language on academic writing of students – What do we need to panic about? *Elixir International Journal of Linguistics and Translation*, 55, 12884-12890.
- Bae, D., & Han, J. (1994). *The explications of the 6th English curriculum*. Seoul: Ministry of Education.
- Baron, N. S. (2000). *Alphabet to email: How written English evolved and where it's heading*. New York: Routledge.
- Baron, N. S. (2004). See you online. Gender issues in college student use of instant messaging. *Journal of Language and Social Psychology*, 23(4), 397-423.

- Barson, J., Frommer, J., & Schwartz, M. (1993). Foreign language learning using email in a task-oriented perspective: Interuniversity experiments in communication and collaboration. *Journal of Science and Technology*, 2(4), 565-584.
- Bax, S. (2003). The end of CLT: A context approach to language teaching. *ELT Journal*, 57(3), 278-287.
- Beasley, R. E. (2009). Short Messages Services (SMS) texting symbols: A functional analysis of 10000 cellular phone text messages. *The Reading Matrix*, 9(2), 89-99.
- Bernicot, J., Volckaert-Legrier, O., Goumi, A., & Bert-Erboul, A. (2012). Forms and functions of SMS messages: A study of variations in a corpus written by adolescents. *Journal of Pragmatics*, 44(12), 1701-1715.
- Bickman, L., & Rog, D. J. (1998). *Handbook of applied research methods*. Thousand Oaks, CA: Sage Publications, Inc.
- Bitchener, J. (2004). The relationship between the negotiation of meaning and language learning: A longitudinal study. *Language Awareness*, 13(2), 81-95.
- Blake, R. (2000). Computer mediated communication: A window on L2 Spanish interlanguage. *Language Learning & Technology*, 4(1), 120-136.
- Blake, R. (2005). Bimodal CMC: The glue of language learning at a distance. *CALICO*, 22(3), 497-511.
- Brown, H. (1994). *Teaching by principles – An interactive approach to language pedagogy*. Englewood Cliffs, NJ: Prentice Hall.
- Brown, H. D. (2007). *Principles of language learning and teaching*. New York: Pearson Education, Inc.
- Brown, B., & Laurier, E. (2013). Mobility, maps and mobile device use. *Proceedings of CHI 2013* (pp. 1-10). Paris, France: ACM Press.

- Burden, K., & Atkinson, S. (2008). Evaluating pedagogical 'affordances' of media sharing Web 2.0 technologies: A case study. In *Hello! Where are you in the landscape of educational technology? Proceedings ascilite Melbourne 2008*. Retrieved from <http://www.ascilite.org.au/conferences/melbourne08/procs/burden-2.pdf>
- Burnaby, B., & Sun, Y. (1989). Chinese teachers' views of Western language teaching. *TESOL Quarterly*, 23(7), 219-238.
- Burns, R. B. (1997). *Introduction to research methods* (3rd ed.). Melbourne, Australia: Addison Wesley Longman.
- Burns, R. B. (2000). *Introduction to research methods* (4th ed.). Frenchs Forest, NSW, Australia: Pearson Education.
- Bygate, M. (1987). *Speaking*. Oxford: Oxford University Press.
- Campbell, A. P. (2004). Using live journal for authentic communication in EFL classes. *Internet TESL Journal*, 17(2), 85-95.
- Canale, M. (1983). From communicative competence to communicative language pedagogy. In J. C. Richards & R. W. Schmidt (Eds.), *Language and communication* (pp. 2-27). London: Longman.
- Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics*, 1(1), 1-47.
- Carrington, V. (2004). Texts and literacies of the Shi Junrui. *British Journal of the Sociology of Education*, 25, 215-228.
- Cavus, N., & Ibrahim, D. (2009). M-Learning: An experiment in using SMS to support learning new English language words. *British Journal of Educational Technology*, 40 (1), 78-91.
- Celce-Murcia, M. 1991. Language and communication: A time for equilibrium and integration. In J. E. Alatis (Ed.), *Georgetown University Round Table on language and Linguistics 1991: Linguistics and Language pedagogy* (pp. 223-237). Washington, DC: Georgetown University Press.

- Chang, M., & Goswami, J. S. (2011). Factors affecting the implementation of communicative language teaching in Taiwanese college English classes. *English Language Teaching*, 4(2), 3-12.
- Chapelle, C. A. (2004). Technology and second language learning: Expanding methods and agendas. *System*, 32(4), 593-601.
- Check, J., & Schutt, R. K. (2012). *Research Methods in Education*. Thousand Oaks, California: Sage.
- Chen, Y. H. (2005). Computer mediated communication: The use of CMC to develop EFL learners' communicative competence. *Asian EFL Journal*, 7(1), 167-182.
- Cheong, J. H. (2005). Mobile internet acceptance in Korea. *Internet Research*, 15(2), 125-140.
- Cho, H. (2011). *Negotiation of meaning in synchronous computer-mediated communication in relation to task types*. Unpublished doctoral dissertation, Indiana University, USA.
- Choi, I. (2008). The impact of EFL testing on EFL education in Korea. *Language Teaching*, 25(1), 39-62.
- Choi, S. H. (1999). *Teaching English as a foreign language in Korea middle schools: Exploration of communicative language teaching through teachers' beliefs and self-reported classroom teaching practices*. (PhD), The Ohio State University, Ann Arbor: UMI. (AAT 9941302).
- Choi, S. H. (2000). Teachers' beliefs about communicative language teaching and their classroom teaching practices. *English Teaching*, 55(4), 3-32.
- Choi, Y. (2007). The history and the policy of English education in Korea. In Y. Choi & B. Spolsky (Eds.), *English education in Asia: History and policies* (pp. 33-66). Seoul: Asia TEFL.
- Church, K., & de Oliveira, R. (2013). What's up with WhatsApp? Comparing mobile instant messaging behaviors with traditional SMS. *Proceedings of the 15th international conference on Human-computer interaction with mobile devices and services, Germany*, 352-361.

- Collins, S. G. (2005). 'Who's this Tong-il?': English, culture and ambivalence in South Korea. *Changing English*, 12(3), 417-429.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods Approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods Approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods Approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W., Hanson, W. E., Plano Clark, V. L., & Morales, A. (2007). Qualitative research designs: Selection and implementation. *Counselling Psychologist*, 35(2), 236-264.
- Crookes, G. (1991). Second language speech production research: A methodologically oriented review. *Studies in Second Language Acquisition*, 13, 113-132.
- Crystal, D. (2001). *Language and the Internet*. Cambridge: Cambridge University Press.
- Crystal, D. (2008a). *Txting: The gr8 db8*. Oxford: Oxford University Press.
- Crystal, D. (2008b). Txting: frNd or foe? *The Linguist*, December, 8–11.
- De Jonge, S., & Kemp, N. (2010). Text-messaging abbreviations and language skills in high school and university students. *Journal of Research in Reading*, 35(1), 49-68.
- Deng, Z., Lu, Y., Wei, K. K., & Zhang, J. (2010). Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China. *International Journal of Information Management*, 30, 289-300.
- Denzin, N. K. (1989). *The research act: A theoretical introduction to sociological methods* (Version 3rd). Englewood Cliffs, NJ: Prentice Hall.

- Denzin, N. K., & Lincoln, Y. (2005). *Handbook of qualitative research* (3rd ed.). Thousand Oaks, CA: Sage.
- Derks, D., Bos, A., & von Grumbkow, J. (2007). Emoticons and social interaction on the Internet: The importance of social context. *Computers in Human Behavior*, 23, 842-849.
- Derks, D., Fischer, A. H., & Bos, A. E. R. (2008). The role of emotion in computer-mediated communication: A review. *Computers in Human Behavior*, 24(3), 766-785.
- Dörnyei, Z. (2003). *Questionnaires in Second Language research: Construction, administration, and processing*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Dresner, E., & Herring, S. C. (2010). Functions of the nonverbal in CMC: Emotions and Illocutionary force. *Communication Theory*, 20, 249-268.
- Dunn, L. (2013) *Teaching in higher education: can social media enhance the learning experience?* In: 6th Annual University of Glasgow Learning and Teaching Conference, 19th Apr 2013, Glasgow, UK.
- Easterby-Smith, M., Thorpe, R., & Lowe, A. (1991). *Management research: An introduction*. London: Sage.
- Ehrlich, E. (1987). *Schaum's outlines of theory and problems of punctuation, capitalization, and spelling*. New York: McGraw-Hill.
- Ellis, R. (1994). *The study of second language acquisition*. Oxford: Oxford University Press.
- Ellis, R. (1985). Teacher-pupil interaction in second language development. In S. M. Gass & C. G. Madden (Eds.), *Input in second language acquisition* (pp. 69-85). Rowley, MA: Newbury House.
- Ellis, R., Tanaka, Y., & Yamazaki, A. (1994). Classroom interaction, comprehension, and the acquisition of L2 word meanings. *Language Learning*, 44(3), 449-491.

- Eun, S. H. (2001). *Contextual autonomy in EFL classrooms: a critical review of English in the province of Jeollanamdo*. PhD thesis, Ohio State University, Ann Arbor: UMI. (AAT 3031198).
- Ewald, J. D. (2007). Foreign language learning anxiety in upper-level class: involving students as researchers. *Foreign Language Annals*, 40(1), 122-142.
- Fernandez-Garcia, M., & Martinez Arbelaiz, A. (2003). Learners' interactions: a comparison of oral and computer-assisted written conversations. *ReCALL*, 15, 113-136.
- Finocchiaro, M., & Brumfit, C. (1983). *The functional-notional approach: From theory to practice*. New York: Oxford University Press.
- Flattery, B. (2007). *Language, culture, and pedagogy: An overview of English in South Korea*. Retrieved from <http://www.chass.utoronto.ca/~cpercy/courses/eng6365-flattery.htm>
- Flick, U. (1998). *An introduction to qualitative research: Theory, method and applications*. London: Sage.
- Garrison, A., Remley, D., Thomas, P., & Wierszewski, E. (2011). Conventional faces: Emoticons in instant messaging discourse. *Computers and Composition* 28(2), 112-125.
- Gass, S. M. (1997). *Input, interaction, and the second language learner*. Hillsdale, NJ: Erlbaum.
- Gass, S. M., & Mackey, A. (2007). Input, interaction and output in second language acquisition. In B. VanPatten and J. Williams (Eds.), *Theories in Second Language Acquisition. An Introduction* (pp. 175-200). Mahwah, NJ: Lawrence Erlbaum.
- Gass, S. M., Mackey, A., & Pica, T. (1998). The role of input and interaction in second language acquisition: Introduction to the special issue. *Modern Language Journal*, 82, 299-307.
- Gass, S. M. & Varonis, E. M. (1985). Task variation and non-native / non-native negotiation of meaning in S. M. Gass & C. G. Madden, (Eds.), *Input in Second Language Acquisition* (pp. 149-162). Lawley, MA: Newbury House.

- Gass, S. M., & Varonis, E. M. (1994). Input, interaction, and second language production. *Studies in Second Language Acquisition*, 16, 283-302.
- Georgiev, T., Georgieva, E., & Smrikarov, A. (2004). *M-learning: A new stage of e-learning*. In *Proceedings of International Conference on Computer Systems and Technologies, Rousse, Bulgaria*. Retrieved from <http://ecet.ecs.ru.acad.bg/cst04/Docs/sIV/428.pdf>
- Ghanbari, B., & Ketabi, S. (2011). Practicing a Change in an Iranian EFL Curriculum: from Ivory Tower to Reality. *Iranian EFL Journal*, 7(6), 9-13.
- Gibbs, G. R. (2007). Analyzing qualitative data. In U. Flick (Ed.), *The Sage qualitative research kit*. Thousand Oaks, CA: Sage.
- Grandzol, C. J., & Grandzol, J. R. (2010). Interaction in online courses: More is not always better. *Online Journal of Distance Learning Administration*, 13(2). Retrieved from http://www.westga.edu/~distance/ojdla/summer132/Grandzol_Grandzol132.pdf
- Gregersen, T. S. (2003). To err is human: a reminder to teachers of language-anxious students. *Foreign Language Annals*, 36(1), 25-32.
- Gray, D. (2004). *Doing research in the real world*. London: Sage.
- Gromik, N. (2012). Cell phone video recording feature as a language learning tool: A case study. *Computers & Education*, 58, 223-230.
- Guilloteaux, M. J. (2004). Korean teachers' practical understandings of CLT. *English Teaching*, 59(3), 53-76.
- Hall, J. K., & Verplaetse, L. S. (Eds.). (2000). *Second and foreign language learning through classroom interaction*, NJ: Lawrence Erlbaum Associates.
- Hampel, R. (2003). Theoretical perspectives and new practices in audio-graphic conferencing for language learning. *ReCALL*, 15(1), 21-36.
- Hampel, R., & Hauck, M. (2004). Towards an effective use of audio conferencing in distance language courses. *Language Learning & Technology*, 8(1), 66-82.

- Han, S., & Kim, K. (2003). *Study on the educational utilisation of a mobile computing environment*. Seoul, Korea: KERIS.
- Hansen, E. A. (2001). Comparison of online and traditional interaction of students. *Online Conference on Teaching Online in Higher Education*. Retrieved from <http://www.ipfw.edu/as/tohe/2001/Papers/hansen.htm>.
- Hanson-Smith, E. (1999). Classroom practice: Content-area tasks in CALL environments. In J. Egbert & E. Hanson-Smith (Eds.), *CALL environments: Research, practice, and critical issues* (pp. 137-158). Alexandria, VA: TESOL.
- Harley, B., & Hart, D. (1997). Language aptitude and second language proficiency in classroom learners of different starting ages. *Studies in Second Language Acquisition*, 19, 379-400.
- Harmer, J. (2003). Popular culture, methods, and context. *ELT Journal*, 57(3), 288-294.
- Harrison, R. P. (1989). Nonverbal Communication. In S. Sanderson King (Ed.), *Human Communication as a Field of Study: Selected Contemporary Views* (pp. 113-126). NY: State University of New York Press.
- Hatch, E. (1978a). Acquisition of syntax in a second language. In J. C. Richards (Ed.), *Understanding second & foreign language learning: Issues & approaches* (pp. 34-69). Rowley, MA: Newbury House.
- Hatch, E. (1978b). Discourse analysis and second language acquisition. In E. Hatch (Ed.), *Second language acquisition: A book of readings* (pp. 401-435). Rowley, MA: Newbury House.
- Hatch, E. (1983). *Psycholinguistics: A second language perspective*. Rowley, MA: Newbury House.
- Haythornthwaite, C., Andrews, R., Fransman, J., & Meyers, E. M. (2016). *The SAGE Handbook of E-learning Research* (2nd ed.). London: Sage.
- Herring, S. C. (2003). Gender and power in online communication. In J. Holmes & M. Meyerhoff (Eds.), *The handbook of language and gender* (pp. 202-228). Oxford: Blackwell Publishers.

- Hiep, P. H. (2007). Communicative language teaching: Unity within diversity. *ELT Journal*, 61(3), 193-201.
- Hu, W. (2010). Communicative language teaching in the Chinese environment. *US-China Education Review*, 7(6), 78-82.
- Hymes, D. (1972). On communicative competence. In J. B. Pride & J. Holmes (Eds.), *Sociolinguistics*. Harmondsworth: Penguin.
- Iwashita, N. (2003). Negative feedback and positive evidence in task-based interaction. *SSLA*, 25, 1-36.
- Jaidka, K., Khoo, C. S. G., & Na, J. C. (2013). Literature review writing: How information is selected and transformed. *Aslib Proceedings*, 65(3), 303-325.
- Jeon, I-J., & Hahn, J-W. (2006). Exploring EFL teachers' perceptions of task-based language teaching: A case study of Korean secondary school classroom practice. *Asian EFL Journal*, 8(1), 123-143.
- Jeon, J. (2009). Key issues in applying the communicative approach in Korea: Follow up after 12 years of implementation. *English Teaching*, 64(4), 123-150.
- Jeong, N. S. (2011). The effects of task type and group structure on meaning negotiation in synchronous computer-mediated communication. In L. Plonsky & M. Schierloh (Eds.), *Selected Proceedings of the 2009 Second Language Research Forum*, (pp. 51-69). Somerville, MA: Cascadilla Proceedings Project.
- Jepson, K. (2005). Conversations and negotiated interaction in text and voice chat rooms. *Language Learning & Technology*, 9(3), 79-98.
- Johnson, K. (1982). *Communicative syllabus design and methodology*. Oxford: Pergamon Press.
- Johnson, B., & Christensen, L. (2012). *Educational research: Quantitative, qualitative, and mixed approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Jones, G., & Schieffelin, B. (2009). Talking text and talking back: "My BFF Jill" from boob tube to youtube. *Journal of Computer-Mediated Communication*, 14, 1050-1079.

- Jung-a, S. (2013). South Korean mobile messenger app expands reach into Asia. Financial Times. *Information Management*, 30, 289–300.
- Kaneko, A. (2009). *Comparing computer mediated communication (CMC) and face-to-face (FTF) communication for the development of Japanese as a foreign language*. Unpublished doctoral dissertation, The University of Western Australia, Australia.
- Kiernan, P. J., & Aizawa, K. (2004). Cell phones in task based learning: Are cell phones useful language learning tools? *ReCALL*, 16(1), 71-84.
- Kim, G. (2011). *Developing Communicative Competence with Authentic Materials for EFL Korean High School Students*. Unpublished master thesis, University of Oregon.
- Kim, H. J., & Yoon, M. N. (2014). Adopting smartphone-based blended learning: An experimental study of the implementation of Kakao Talk and Mocafé. *Multimedia-Assisted Language Learning*, 17(2), 86-111.
- Kim, S. Y. (2006). Korean sixth grade elementary school students' meaning negotiation in task-based CMC. *Multimedia-Assisted Language Learning*, 9(2), 99-127.
- Kim, S. Y. (2009). Questioning the stability of foreign language classroom anxiety and motivation across different classroom contexts. *Foreign Language Annals*, 42(1), 138-157.
- Klimanova, L., & Dembovskaia, S. (2013). L2 identity, discourse, and social networking in Russian. *Language Learning & Technology*, 17(1), 69-88.
- Kondo, M., Ishikawa, Y., Smith, C., Sakamoto, K., Shimomura, H., & Wada, N. (2012). Mobile assisted language learning in university EFL courses in Japan: Developing attitudes and skills for self-regulated learning. *ReCALL*, 24(2), 169-187.
- Koosha, M., & Yakhabi, M. (2013). Problems associated with the use of Communicative Language Teaching in EFL contexts and possible solutions. Retrieved from http://jfl.iaun.ac.ir/article_4185_364477de2495a8d078baabbd8629995a.pdf.

- Korean Information Society Development Institute. (2013). Retrieved from <http://www.kisdi.re.kr/kisdi/jsp/fp/eng/main.jsp>
- Korean Ministry of Education. (1992). *The 6th curricula: Middle school curricula*. Seoul: Author.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Oxford: Pergamon.
- Krashen, S. (1985). *The Input Hypothesis: Issues and implications*. London: Longman.
- Kress, G. R., & Van Leeuwen, T. (2001). *Multimodal discourse: the modes and media of contemporary communication*. London: Arnold.
- Krueger, R. (1994). *Focus groups: A practical guide for applied research*. London: SAGE.
- Kukulska-Hulme, A. (2009). Will mobile learning change language learning? *ReCALL*, 21(2), 157-165.
- Kukulska-Hulme, A., Norris, L., & Donohue, J. (2015). *Mobile pedagogy for English language teaching: A guide for teachers*. London: The British Council.
- Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL*, 20(3), 271-289.
- Kwon, O. (2000). Korea's English education policy changes in the 1990s: Innovations to gear the nation for the 21st century. *English Teaching* 55, 47-91.
- Lai, C., & Gu, M. (2011). Self-regulated out-of-class language learning with technology. *Computer Assisted Language Learning*, 24(4), 317-335.
- Lai, C., & Zhao, Y. (2006). Noticing and text-based chat. *Language Learning & Technology*, 10(3), 102-120.
- Lai, W. H. (2014). *Using mobile instant messenger (WhatsApp) to support second language learning*. Dissertation, University of Hong Kong.

- Larsen-Freeman, D. (2000). *Techniques and principles in language teaching*. Oxford: Oxford University Press.
- Larsen-Freeman, D., & Long, M. H. (1991). *An introduction to second language acquisition research*. Harlow: Longman.
- Leahy, C. (2001). Bilingual negotiation via e-mail: An international project. *Computer Assisted Language Learning*, 14(1), 15-42.
- Lee, L. (2004). Learners' perspectives on networked collaborative interaction with native speakers of Spanish in the US. *Language, Learning & Technology*, 8(1), 83-100.
- Lee, V., & Wagner, H. (2002). The effect of social presence on the facial and verbal expression of emotion and the interrelationships among emotion components. *Journal of Nonverbal Behavior*, 26(1), 3-25.
- Li, D. (1998). "It's always more difficult than you plan and imagine": Teachers' perceived difficulties in introducing the communicative approach in South Korea. *TESOL Quarterly*, 32(4), 677-703.
- Li, D. (2001). Teachers' perceived difficulties in introducing the communicative approach in South Korea. In D. Hall & A. Hewings, (Eds.), *Innovation in English language teaching*, (pp. 149-169). London: Routledge.
- Lightbown, P. M., & Spada, N. (2004). *How languages are learned*. Revised edition. Oxford: Oxford University Press.
- Lin, W-C., Huang, H-T., & Liou, H-C. (2013). The effects of text-based SCMC on SLA: A meta analysis. *Language Learning & Technology*, 17(2), 123-142.
Retrieved from <http://llt.msu.edu/issues/june2013/linetal.pdf>
- Lin, C. H., Warschauer, M., & Blake, R. (2016). Language learning through social networks: Perceptions and reality. *Language Learning & Technology*, 20(1), 124-147.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Newbury Park, CA: Sage.

- Ling, R. (2005). The sociolinguistics of SMS: An analysis of SMS use by a random sample of Norwegians. In R. S. Ling & P. E. Pedersen (Eds.) *Mobile communications: Renegotiation of the social sphere* (pp. 335-350). London: Springer.
- Littlewood, W. (1981). *Communicative language teaching: An introduction*. Cambridge: Cambridge University Press.
- Littlewood, W. (2007). Communicative and task-based language teaching in East Asian classrooms. *Language Teaching*, 40, 243-249.
- Lochland, P. W. (2013). Moving beyond communicative language teaching: A situated pedagogy for Japanese EFL classrooms. *TESOL Journal*, 4(2), 261-273.
- Lomicka, L., & Lord, G. (2016). Social networking and language learning. In F. Farr & L. Murray (Eds.), *The Routledge handbook of language learning and technology* (pp. 255– 268). New York, NY: Routledge.
- Long, M. H. (1981). Input, interaction, and second language acquisition. *Annals of the New York Academy of Sciences: Native Language and Foreign Language Acquisition*, 379, 259-278.
- Long, M. H. (1983a). Linguistic and conversational adjustments to non-native speakers. *Studies in Second Language Acquisition*, 5(2), 177-194.
- Long, M. H. (1983b). Native speaker/non-native speaker conversation and the negotiation of comprehensible input. *Applied Linguistics*, 4(2), 126-141.
- Long, M. H. (1985). Input and second language acquisition theory. In S. M. Gass & C. G. Madden (Eds.), *Input in second language acquisition* (pp. 377-393). Rowley, MA: Newbury House.
- Long, M. H. (1992, March). *Input, focus on form, and second language acquisition*. Paper presented at the American Association of Applied Linguistics annual meeting, Seattle, WA.
- Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413-463). San Diego, CA: Academic Press.

- Long, M., & Robinson, P. (1998). Focus on form: Theory, research, and practice. In C. Doughty & J. Williams (Eds.), *The Cambridge Applied Linguistics Series: Focus on Form in Classroom Second Language Acquisition* (pp. 15-41). Cambridge: Cambridge University Press.
- Luan, N. L., & Sappathy, S. M. (2011). L2 vocabulary acquisition: The impact of negotiated interaction. *GEMA: Online Journal of Language Studies*, 11(2), 5-20.
- Luor, T., Wu, L. I., Lu, H. P., & Tao, Y. H. (2010). The effect of emoticons in simplex and complex task-oriented communication: An empirical study of instant messaging. *Computers in Human Behavior*, 26(5), 889-895.
- Lyddy, F., Farina, F., Hanney, J., Farrell, L., & O'Neill, N. K. (2014). An analysis of language in university students' text messages. *Journal of Computer-Mediated Communication*, 19, 546-561.
- Lyu, Y. (2006). *Simulations and second/foreign language learning: Improving communication skills through simulations*. Unpublished master's thesis, The University of Toledo.
- Mackey, A. (1999). Input, interaction, and second language development: An empirical study of question formation in ESL. *Studies in Second Language Acquisition*, 21, 557-587.
- Mackey, A. (2006). Feedback, noticing and instructed second language learning. *Applied Linguistics*, 27(3), 405-430.
- Mackey, A., & Gass, S. M. (2005). *Second Language Research: Methodology and Design*. Mahwah, NJ: Lawrence Erlbaum.
- Markee, N. (1997). *Managing curricular innovation*. Cambridge: Cambridge University Press.
- Memari, M. (2013). How appropriates Communicative Language Teaching (CLT) in EFL Context (an Iranian Case Study). *Journal of Life Science and Biomedicine*, 3(6), 432-438.
- Merriam, S. (1998). *Qualitative research and case study applications in educations*. San Francisco, CA: Jossey-Bass.

- Mills, N. A. (2011). Situated learning through social networking communities: The development of joint enterprise, mutual engagement, and a shared repertoire. *CALICO Journal*, 28(2), 345-368.
- Mitchell, R., & Myles, F. (2004). *Second Language Learning Theories* (2nd ed.). NY: Oxford University Press Inc.
- Mok, J. C. H. (2012). Facebook and learning: Students' perspective on a course. *Journal of the NUS Teaching Academy*, 2(3), 131-143.
- Moody, R. H., & Bobic, M. P. (2011). Teaching the net generation without leaving the rest of us behind: How technology in the classroom influences students composition. *Politics & Policy*, 39(2), 169-194.
- Mubarak, A. A. A. (2016). Learning English as a second language through Social Media: Saudi Arabian Tertiary Context. *International Journal of Linguistics*, 8(6), 112-127.
- Mustapha, S. M., & Yahaya, R. A. (2013). Communicative language teaching (CLT) in Malaysian context: Its' implementation in selected community colleges. *Procedia – Social and Behavioral Sciences*, 90, 788-794.
- Nah, K. C. (2008). *Language learning through mobile phones: Design and trial of a wireless application protocol (WAP) site model for learning EFL listening skills in Korea*. Unpublished doctoral dissertation, University of Queensland, Brisbane.
- National Information Society Agency. (2013). *Marketing Inside, 2012*. Retrieved from http://eng.nia.or.kr/english/eng_nia.asp
- Ng, W. (2013). Conceptualising mLearning literacy. *International Journal of Mobile and Blended Learning*, 5(1), 1-20.
- Ng, W. (2016). Sustaining mobile learning at a personal level: Mobile digital literacy. In W. Ng & T. M. Cumming (Eds.), *Sustaining mobile learning: Theory, research and practice* (pp. 85-107). New York: Routledge.
- Nielsen (2013). The mobile consumer: A global snapshot. *The Nielsen Company*. Retrieved from <http://www.nielsen.com/content/dam/corporate/us/en/reports/downloads/2013%20Reports/Mobile-Consumer-Report-2013.pdf>

- Nik, A., Adams, R., & Newton, J. (2012). Writing to learn via text-chat: Task implementation and focus on form. *Journal of Second Language Writing*, 21, 23-39.
- Nishino, T., & Watanabe, M. (2008). Communication-oriented policies versus classroom realities in Japan. *TESOL Quarterly*, 42(1), 133-138.
- Nunan, D. (1999). *Second language teaching and learning*. Boston, MA: Heinle & Heinle.
- Oberg, A., & Daniels, P. (2013). Analysis of the effect a student-centred mobile learning instructional method has on language acquisition. *Computer Assisted Language Learning*, 26(2), 177-196.
- Oghuma, A. P., Chang, Y. H., Libaque-Saenz, C. F., Park, M. C., & Rho, J. J. (2015). Benefit-confirmation model for post-adoption behavior of mobile instant messaging applications: A comparative analysis of KakaoTalk and Joyn in Korea. *Telecommunications Policy* (2015). Retrieved from <http://dx.doi.org/10.1016/j.telpol.2015.07.009>
- Okabe, D. (2004). Emergent social practices, situations and relations through everyday camera phone use. *Proceedings of the International Conference on Mobile Communication and Social Change*. Seoul, Korea.
- Oliver, R. (1998). Negotiation of meaning in child interaction. *Modern Language Journal*, 82, 372-386.
- Oliver, R. (2002). The patterns of negotiation for meaning in child interactions. *Modern Language Journal*, 86(1), 97-111.
- Ong'onda, N. A., Matu, P. M., & Oketch, O. (2010). Punctuation as a sociolinguistic variable in text messages. *Sino-US English Teaching*, 7(9), 42-47.
- Ortega, L. (2009). Interaction and attention to form in L2 text-based computer-mediated communication. In A. Mackey, & C. Polio (Eds.), *Multiple perspectives on interaction: Second language research in honor of Susan M. Gass* (pp. 226-253). New York: Routledge.

- Ozsevik, Z. (2010). *The use of Communicative Language Teaching (CLT): Turkish EFL Teachers' perceived difficulties in implementing CLT in Turkey*. Unpublished master's thesis, University of Illinois at Urbana-Champaign.
- Park, Y. J., & Bonk, C. J. (2007). Synchronous learning experiences: Distance and residential learners' perspectives in a blended graduate course. *Journal of Interactive Online Learning*, 6(3), 245-264.
- Park, T. W., Kim, S. J., & Lee, G. (2014). A study of emoticon use in instant messaging from smartphone. In M. Kurosu (Ed.), *Human-Computer Interaction, Part III*, HCII 2014, LNCS 8512 (pp. 155–165). Switzerland: Springer International Publishing.
- Parsons, D. (2007). Mobile learning. In D. Taniar (Ed.), *Encyclopedia of mobile computing and commerce* (pp. 525–527). Hershey, PA: IGI Global Publishing.
- Patterson, P., & Trabeldo, S. (2006). Negotiating for meaning across borders with CMC. *Teaching English with Technology*, 6(2). Retrieved from file:///C:/Users/thomas/Downloads/4.%20Negotiating%20for%20meaning%20across%20borders%20with%20CMC%20(by%20Peggy%20Patterson%20and%20Susana%20Trabeldo)(2006-2)%20(1).pdf
- Pellettieri, J. (2000). Negotiation in cyberspace: The role of chatting in the development of grammatical competence. In M. Warschauer & R. Kern (Eds.), *Network-based language teaching: Concepts and practice* (pp. 59-86). Cambridge, UK: Cambridge University Press.
- Pennington, M. C. (2004). Electronic media in second language writing: An overview of tools and research findings. In S. Fotos & C. M. Browne (Eds.), *New Perspectives on CALL for Second Language Classrooms* (pp. 69-92). London: Lawrence Erlbaum Associates.
- Perry, D. (2012). *Facebook now reaches more than half of all Internet users. Tom's Guide*. Retrieved from <http://www.tomsguide.com/us/facebook-traffic-google-statistics-visits,news-14070.html>
- Pettit, J., & Kukulska-Hulme, A. (2007). Going with the grain: mobile devices in practice. *Australasian Journal of Educational Technology*, 23(1), 17-33.

- Pica, T. (1994). Research on negotiation: What does it reveal about second-language learning conditions, processes, and outcomes? *Language Learning*, 44(3), 493-527.
- Pica, T., & Doughty, C. (1985). The role of group work in classroom second language acquisition. *Studies in Second Language Acquisition*, 7, 233-248.
- Pica, T., Holliday, L., Lewis, N., & Morgenthaler, L. (1989). Comprehensible output as an outcome of linguistic demands on the learner. *Studies in Second Language Acquisition*, 11, 63-90.
- Pica, T., Young, R., & Doughty, C. (1987). The impact of interaction on comprehension. *TESOL Quarterly*, 21(4), 737-758.
- Plester, B., & Wood, C. (2009). Exploring relationships between traditional and new media literacies: Pre-teen texters at school. *Journal of Computer-Mediated Communication*, 14, 1108-1129.
- Plester, B., Wood, C., & Bell, V. (2008). Txt Msg n school literacy: Does mobile phone use adversely affect children's literacy attainment? *Literacy*, 42, 137-144.
- Plester, B., Wood, C., & Joshi, P. (2009). Exploring the relationship between children's knowledge of text message abbreviations and school literacy outcomes. *British Journal of Developmental Psychology*, 27, 145-161.
- Porter, P. A. (1986). How learners talk to each other: Input and interaction in task-centred discussions. In R. R. Day (Ed.), *Talking to learn: Conversation and second language acquisition* (pp. 200-223). Rowley, MA: Newbury House.
- Punch, K. F. (2009). *Introduction to research methods in education*. Los Angeles: SAGE.
- Renckly, T. R. (Ed.). (1996). *Sampling and surveying handbook: Guidelines for planning, organizing, and conducting surveys* (Internet ed.). Maxwell, AL: Air University.
- Rettie, R. (2009). SMS: Exploiting the interactional characteristics of near-synchrony. *Information, Communication & Society*, 12, 1131-1148.

- Rezabek, L. L., & Cochenour, J. J. (1998). Visual cues in computer-mediated communication: Supplementing text with emoticons. *Journal of Visual Literacy*, 18, 201-215.
- Richard, P. R., Cobo, P., Fortuny, J. M., & Hohenwarter, M. (2008). Training teachers to manage problem-solving classes with computer support. In J. Luca, & E. Weippl (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications* (pp. 3520-3530). Chesapeake, VA: AACE.
- Richards, J., Platt, J., & Platt, H. (1992). *Dictionary of language teaching and applied linguistics*. London: Longman
- Richards, J., & Rodgers, T. (1986). *Approaches and methods in language teaching*. Cambridge: Cambridge University Press.
- Richards, J. C., & Rodgers, T. S. (2001). *Approaches and methods in language teaching* (2nd ed.). Cambridge, UK: Cambridge University Press.
- Rosen, L. D., Chang, J., Erwin, L., Carrier, L. M., & Cheever, N. A. (2010). The relationship between “textisms” and formal and informal writing among young adults. *Communication Research*, 37, 420-440.
- Ross, H. A. (1992). Foreign language education as a barometer of modernization. In R. Hayhoe (Ed.), *Education and modernization: The Chinese experience* (pp. 239-254). Oxford: Pergamon.
- Rouhshad, A. (2014). *The nature of negotiations in computer-mediated and face-to-face modes with/without writing modality*. Unpublished doctoral dissertation, University of Melbourne, Australia.
- Rusina, V. (2008). Catering for the specific needs of elementary level Korean learners in the Australian ELICOS sector: A case study of a school in Sydney. *Asian EFL Journal*, November, 1-41.
- Samani, E., Nordin, N., Mukundan, J., & Samad, A. (2015). Patterns of negotiation of meaning in English as second language learners’ interactions. *Advances in Language and Literary Studies*, 6(1). Retrieved from <http://www.journals.aiac.org.au/index.php/all/article/view/607/535>.

- Sánchez-Moya, A., & Cruz-Moya, O. (2015). "Hey there! I am using WhatsApp": A preliminary study of recurrent discursive realisations in a corpus of WhatsApp statuses. *Procedia - Social and Behavioral Sciences*, 212, 52-60.
- Santamaría-García, C. (2013). *The discourse of social networking sites in university students' communication with their peers*. Retrieved from
- Satar, H. M., & Özdener, N. (2008). The effects of synchronous CMC on speaking proficiency and anxiety: Text versus voice chat. *Modern Language Journal*, 92(4), 595-613.
- Savignon, S. (1983). *Communicative competence: Theory and classroom practice*. Reading, MA: Addison-Wesley.
- Savignon, S. (2001). *Communicative language teaching: Context and concerns in teacher education*. New Haven, CT: Yale University Press.
- Savignon, S., & Berns, M. (1984). *Initiatives in communicative language teaching: A book of readings*. Reading, MA: Addison-Wesley.
- Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11, 129-158.
- Schmidt, R. (1993). Awareness and second language acquisition. *Annual Review of Applied Linguistics*, 13, 206-226.
- Seo, D. (2015). *Overcoming the challenges: How native English-speaking teachers develop the English speaking skills of university students in South Korea*. Unpublished PhD thesis, Edith Cowan University.
- Shamin, F. (1996). *Learner resistance to innovation in classroom methodology*. Cambridge: Cambridge University Press.
- Sharples, M., Taylor, J., & Vavoula, G. (2006). A theory of learning for the mobile age. In R. Andrews, & C. Haythornthwaite (Eds.), *The SAGE handbook of e-learning research* (pp. 221-247). London, UK: Sage.
- Sharwood Smith, M. (1986). Comprehension versus acquisition: Two ways of processing input. *Applied Linguistics*, 7, 239-256.

- Shortreed, I. M. (1993). Variation in foreigner talk input: The effects of task and proficiency. In G. Crookes & S. M. Gass (Eds.), *Tasks and language learning: Integrating theory and practice* (pp. 96-122). Clevedon, England: Multilingual Matters.
- Shudong, W., & Higgins, M. (2006). Limitations of mobile phone learning. *The JALT CALL Journal* 2(1), 3-14.
- Sienel, J., Kopp, D., & Rossler, H. (2004). *Multimodal interaction for next generation networks*. Retrieved from <https://www.w3.org/2004/02/mmi-workshop/Sienel-alcatel.pdf>
- Sim, T., Har, K., & Luan, N. (2010). Low proficiency learners in synchronous computer-assisted and face-to-face interactions. *Turkish Online Journal of Educational Technology*, 9, 61-75.
- Smith, B. (2003). Computer-mediated negotiated interaction: An expanded model. *The Modern Language Journal*, 87(1), 38-57.
- Smith, B. (2009a). The relationship between scrolling, negotiation, and self-initiated self-repair in an SCMC environment. *CALICO Journal*, 26, 231-245.
- Sowden, C. (2007). Culture and the 'good teacher' in the English language classroom. *ELT Journal*, 61(4), 304-310.
- Spilioti, T. (2011). Beyond genre: Closings and relational work in text-messaging. In C. Thurlow & K. Mroczek (Eds.), *Digital discourse: Language in the New Media* (pp. 67-85). New York: Oxford University Press.
- SPSS Inc. (2009). PASW Statistics for Windows, Version 18.0. Chicago: SPSS Inc.
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Stake, R. E. (2000). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The handbook of qualitative research* (pp. 435-454). Thousand Oaks, CA: Sage.
- Stevenson, M. P., & Liu, M. (2010). Learning a language with Web 2.0: Exploring the use of social networking features of foreign language learning websites. *CALICO Journal*, 27(2), 233-259.

- Stevick, E. (1981). The levertov machine: In R. Scarcella & S. Krashen (Eds.), *Research in second language acquisition* (pp. 28-35). Rowley, MA: Newbury House.
- Stockwell, G. (2008). Investigating learner preparedness for and usage patterns of mobile learning. *ReCALL*, 20(3), 253-270.
- Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of the platform. *Language Learning & Technology*, 14(2), 95-110.
- Stockwell, G. (2013). Tracking learner usage of mobile phones for language learning outside of the classroom. In P. Hubbard, M. Schultz, & B. Smith (Eds.), *Human-computer Interaction in Language Learning: Studies in Honor of Robert Fischer* (pp. 118-136). San Marcos, TX: CALICO.
- Su, Y-C. (2011). The effects of the cultural portfolio project on cultural and EFL learning in Taiwan's EFL college classes. *Language Teaching Research*, 15(2), 230-252.
- Sundaram, S., & Narayanan, S. (2006). Vector-based representation and clustering of audio using onomatopoeia words. *Proceedings of the American Association for Artificial Intelligence (AAAI) symposium series*. Arlington, VA.
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. M. Gass & C. G. Madden. (Eds.), *Input in second language acquisition* (pp.235-253). Rowley, MA: Newbury House.
- Swain, M. (1991). French immersion and its offshoots: Getting two for one. In B. F. Freed (Ed.), *Foreign language acquisition Research and the classroom* (pp. 91-103). Lexington, MA: D. C. Heath.
- Tagliamonte, S., & Denis, D. (2008). Linguistic ruin? LoL! instant messaging and teen language. *American Speech*, 83 (1), 3-34.
- Tallon, M. (2009). Foreign language anxiety and heritage students of Spanish: A quantitative study. *Foreign Language Annals*, 42(1), 112-137.

- The New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard educational review*, 66(1), 60-93.
- Thomas, G. (2009). *How to do your research project: A guide for students in Education and Applied Social Sciences*. London: SAGE Publications.
- Thornton, P., & Houser, C. (2002). M-learning in transit. In P. Lewis (Ed.), *The changing face of CALL* (pp. 229-243). Lisse, The Netherlands: Swets and Zeitlinger.
- Thornton, P., & Houser, C. (2005). Using mobile phones in English education in Japan. *Journal of Computer Assisted Learning*, 21(3), 217-228.
- Thurlow, C., & Brown, A. (2003). Generation Txt? The sociolinguistics of young people's text-messaging. *Discourse Analysis Online*, 1(1). Retrieved from [http://faculty.washington.edu/thurlow/papers/Thurlow\(2003\)-DAOL.pdf](http://faculty.washington.edu/thurlow/papers/Thurlow(2003)-DAOL.pdf)
- Tossell, C. C., Kortum, P., Shepard, C., Barg-Walkow, L. H., Rahmati, A., & Zhong, L. (2012). A longitudinal study of emoticon use in text messaging from smartphones. *Computers in Human Behavior*, 28(2), 659-663.
- Toyoda, S., & Harrison, R. (2002). Categorization of text chat communication between learners and native speakers of Japanese. *Language Learning & Technology*, 6(1), 82-99.
- Tudini, V. (Ed.) (2010). *Online second language acquisition: Conversation analysis of online chat*. London: Continuum International Publishing Group.
- van Lier, L. (2005). Case study. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 195-208). Mahwah, NJ: Erlbaum Associates.
- Varonis, E. M., & Gass, S. M. (1985). Non-native/non-native conversations: A model for negotiation of meaning. *Applied Linguistics*, 6(1), 71-90.
- Vasilopoulos, G. (2008). Adapting communicative language instruction in Korean universities. *The Internet TESOL Journal*, 14(8). Retrieved from <http://iteslj.org/Techniques/Vasilopoulos-CLT.html>

- Warschauer, M. (1998). Interaction, negotiation, and computer-mediated learning. In A. D. V. Darleguy & M. Svensson Lyon (Eds.), *Educational technology in language learning: Theoretical reflection and practical applications* (pp. 125-136). National Institute of Applied Sciences, Center of Language Resources.
- Wesche, M. B., & Ready, D. (1985). Foreigner talk in university classrooms. In S. M. Gass & C. G. Madden (Eds.), *Input in second language acquisition* (pp. 329-344). Rowley, MA: Newbury House.
- White, J. (2009). *The use of Facebook to improve motivation and academic writing*. Paper presented at the Proceedings of the Third International Wireless Ready Symposium, 28-32.
- Wolcott, H. F. (1994). *Transforming qualitative data: Description, analysis and interpretation*. Thousand Oaks, CA: Sage.
- Wolf, A. (2000). Emotional expression online: Gender differences in emoticon use. *CyberPsychology and Behavior*, 3, 827-833.
- Wu, K-H. (2010). The relationship between language learners' anxiety and learning strategy in the CLT classrooms. *International Education Studies*, 3(1), 174-191.
- Yin, R. K. (2003). *Case study research: Design and methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Yoon, K-E. (2005). CLT theories and practices in EFL curricular: A case study of Korea. *Asian EFL Journal*, 7(2). Retrieved from http://www.asian-efl-journal.com/Sept_04_yke.pdf
- Yuan, F. (2011). A brief comment on Communicative Language Teaching. *Journal of Language Teaching and Research*, 2(2), 428-431.
- Yule, G., & MacDonald, D. (1990). Resolving referential conflicts in L2 interaction: The effect of proficiency and interactive role. *Language learning*, 40, 539-556.
- Yunus, M. M., Salehi, H., & Chenzi, C. (2012). Integrating social networking tools into ESL writing classroom: Strengths and weaknesses. *English Language Teaching*, 5(8), 42-48.

Zaidieh, A. J. Y. (2012). The use of social networking in education: Challenges and opportunities. *World of Computer Science and Information Technology Journal (WCSIT)*, 2(1), 18-21.

Zhao, S. Y. & Bitchener, J. (2007). Incidental focus on form in teacher-learner and learner-learner interactions. *System* 35, 431-447.

Appendix A: Questionnaire

English version

All responses will be used only for the purpose of research and all information will be kept confidential. Please try to answer all the questions.

1. Please tick your gender.

A. Male _____

B. Female _____

2. Please tick your age group.

A. 18 ~ 20 _____

B. 21 ~ 25 _____

C. 26 ~ 30 _____

D. 31 or more _____

3. What is your major?

A. Humanities _____

B. Engineering _____

C. Education _____

D.. Others (*please specify*) _____

4. What year of study are you in?

A. First _____

B. Second. _____

C. Third _____

D. Fourth _____

5. Have you studied in any English-speaking country? (e.g. Canada, Philippines, America, UK, Australia, etc)

A. Never _____

B. 1-6 months _____

C. 7-12 months _____

D. More than a year _____

E. Please specific country _____

6. Have you learned English through any education program other than formal schooling and the university's education program?

A. Yes (*Specify program names(s) & English skill(s) learned e.g. grammar, reading, vocabulary, writing or listening*)

B. No _____

7. Have you communicated in English via a mobile phone network? (e.g. voice call, sms, etc)

A. Yes _____

B. No _____

8. Have you accessed the Internet through your mobile device?

A. Yes _____

B. No _____

If no, (i) please tell me why not _____

(ii) will you consider accessing the Internet through your mobile
device? _____

(please go to Question 10)

9. Have you studied English through your mobile Internet (inside /outside the classroom)?

A. Yes _____ If yes, what have you studied?

a. Vocabulary _____ b. Official English test (e.g. TOEFL or TOEIC) _____

c. Conversation _____ d. Grammar _____ e. College entrance exam _____

f. Others (please specify) _____

B. No _____

9.1 Have you interacted with others in English through your mobile Internet? (e.g. email,
mobile messenger, video call, etc)

A. Yes _____

B. No _____ (please go to Question 10)

9.2 How often do you interact with them in English through your mobile Internet? (Please
tick)

Every day	3-4 times a week	Once a week	2-3 times a month	Once a month	Others (please specify)

9.3 Where do you usually interact in English through your mobile Internet? (Please tick)

At university	Walking	On bus/subway /car	At home	At part time work	Other places (<i>please specify</i>)

9.4 When do you usually interact in English through your mobile Internet? (Please tick)

In the day time		In the night time	Weekends	In between classes	Travelling between home/ uni / work	Waiting (e.g. bus, subway, friends)
morning	afternoon					

9.5 How long have you interacted in English through mobile Internet?

- A. 1~ 4months_____ B. 5~12 months _____ C. More than a year _____
D. Others (*please specify*) _____

9.6 What kinds of mobile instant messaging (MIM) application(s) do you use to interact

in English via the mobile Internet? (e.g. Kakaotalk, Facebook, Twitter, What'sapp)

(*please specify*) _____

9.7

	Korean		Non English dominant (English not first language)		English dominant (English native speaker)	
Which group of people have you interacted with in English through MIM applications? (Please tick)						
How often do you interact with them in English through MIM applications? (Please tick)?	Every day	3-4 times a week	Once a week	2-3 times a Month	Once a month	Others(please specify)
Mode of MIM applications for English interaction	Text-based messages		Voice call		Video call	

9.8 Why do you communicate in English through MIM applications? (e.g. practicing English, buying items, keeping in touch with friends)

9.9 Do you have any difficulties in communicating in English using MIM applications ?

A. Yes _____ If so, what kinds of difficulties? _____

B. No _____

10. Do you think it is effective to communicate in English via MIM applications for English language learning?

A. Yes _____ If so, why do you think it is effective for English language learning?

B. No _____ If not, why do you think it is not effective for English language learning?

Thank you for filling in the survey. In the next phase, we are interested in finding out how Korean university students use mobile instant messaging (MIM) application to communicate in English. There will be opportunities for you to use English for communicating through your smartphones. If you decide to participate in the next phase of the research,

please put your e-mail address below.

Email: _____

Thank you for your contribution

설 문 지

설문지의 모든 답변은 오직 연구를 위한 목적으로 사용 될 것이며, 또한 모든 정보는 비밀로 보장될 것입니다. 질문에 모두 대답해 주시기 바랍니다.

1. 당신의 성별에 표시하십시오.

A. 남성 _____

B. 여성 _____

2. 당신의 나이에 표시하십시오.

A. 18~20 _____

B. 21~25 _____

C. 26~30 _____

D. 31 혹은 그 이상 _____

3. 당신의 전공은 무엇입니까?

A. 인문학 _____

B. 공학 _____

C. 교육학 _____

D. 그 외(자세하게) _____

4. 당신은 몇 학년입니까?

A. 1 학년 _____

B. 2 학년 _____

C. 3 학년 _____

D. 4 학년 _____

5. 당신은 영어권 국가에서 공부한 적이 있습니까?(e.g. 캐나다, 미국, 영국, 필리핀, 호주 등)

A. 전혀 없다 _____

B. 1-6 개월 _____

C. 7-12 개월 _____

D. 일년 이상 _____

E. 국가명 (자세하게) _____

6. 학교 그리고 대학교 이외의 기관에서 영어 교육을 받은 적이 있습니까?

A. 예 _____

(프로그램 이름, 학습한 영어 분야를 설명하십시오 e.g. 영어학원, 어학연수, 문법, 독해, 듣기, 작문, 어휘, 회화 등)

B. 아니요 _____

7. 모바일 기기를 통하여 **영어로** 의사소통 한 적이 있습니까? (e.g. 음성통화, 메시지 주고받기)

A. 예 _____

B. 아니요 _____

8. 당신의 모바일 기기를 통해서 **인터넷**에 접속 한 적이 있습니까?

A. 예 _____

B. 아니요 _____ 만약 그렇지 않다면,

(i) 이유를 설명하시오.

(ii) 모바일 기기를 통한 인터넷 접속을 고려하고 있습니까?

(모바일 기기를 통해서 인터넷에 접속 한 적이 없다면 10 번 질문으로 가시오)

9. 모바일 인터넷을 통하여 영어를 공부 한 적이 있습니까? (교실내/ 밖에서)(e.g. 동영상 강의 등)

A. 예 _____ 그렇다면, 어떤 공부를 했습니까?

a. 어휘 _____ b. 공인 영어 시험 (e.g. TOEFL 혹은 TOEIC) _____

c. 회화 _____ d. 문법 _____ e. 대학 입시 _____

f. 그 외 (자세하게) _____

B. 아니요 _____

9. 1 당신의 모바일 인터넷을 통하여 다른 사람들과 **영어로** 의사 소통 한 적이 있습니까?

(e.g. 이메일, 모바일 메신저, 영상통화등)

A. 예 _____

B. 아니요 _____ *(모바일 인터넷을 통하여 다른 사람들과 영어로 의사 소통 한 적이 없다면 10 번 질문으로 가시오)*

9. 2 얼마나 자주 당신의 모바일 인터넷을 통하여 그들과 **영어로** 의사소통 합니까? (체크표시 하시오)

매일	일주일 3~4 회	일주일 1 회	한달에 2~3 회	한달에 1 회	그 외 (자세하게)

9. 3 주로 어디에서 당신의 모바일 인터넷을 통하여 **영어로** 의사 소통 합니까? (체크표시 하시오)

대학교내에서	걷다가	버스/지하철/차에서	집에서	시간제 근무장소에서	다른 장소 (자세하게)

9.4 언제 주로 당신의 모바일 인터넷을 통하여 **영어로** 의사 소통 합니까? (체크표시 하시오)

낮 시간에		밤시간에	주말에	수업 사이에	집 / 학교 /시간제 근무하러 갈 때	기다릴 때 (버스 / 지하철/ 친구)
아침	오후					

9.5 얼마나 오랫동안 당신의 모바일 인터넷을 통하여 **영어로** 의사 소통 해 왔습니까?

A. 1~4 개월 동안 _____ B. 5~12 개월 동안 _____ C. 일년 이상 _____

D. 그 외 (자세하게) _____

9.6 어떤 어플리케이션을 사용하여 모바일 인터넷 (모바일 메신저) 으로 다른 사람들과 **영어로** 의사 소통합니까? (e.g. 카카오톡, 페이스북, 트위터, What's app)

(자세하게) _____

9.7

	한국인		영어 비원어민 (e.g. 중국인, 베트남인, 일본인 등)		영어 원어민	
당신의 모바일메신저를 사용하여 어떤 그룹 의 사람들과 영어로 의사 소통 합니까? (체크표시 하시오)						
당신의모바일메신저를 사용하여 얼마나 자주 그들과 영어로 의사 소통 합니까? (체크표시 하시오)	매일	일주일에 3~4 회	일주일에 1 회	한달에 2~3 회	한달에 1 회	그 외 (자세하게)
모바일메신저를사용하여 어떤 방법 으로 그들과 영어로 의사 소통 합니까? (체크표시 하시오)	메시지 주고 받기 (e.g. 카카오톡, 페이스북 what's app 등)		음성 통화 (e.g.카카오톡 보이스콜 등)		영상 통화 (e.g.스카이프 영상통화 등)	

9. 8 왜 모바일 어플리케이션을 통하여 **영어로** 의사 소통을 합니까? (e.g. 영어연습, 물건 구매, 대인관계 유지)

9. 9 모바일 어플리케이션을 통하여 다른 사람들과 **영어로** 의사 소통 하는 데 어려움이 있습니까?

A. 예 _____ 있다면, 어떤 어려움이 있습니까? _____

B. 아니요 _____

10. 모바일 어플리케이션을 통한 텍스트 기반 **영어 메시지** 이용 방법이 (e.g. 카카오톡) **영어 의사소통**을 증진시키고 영어 학습에 효과적이라고 생각합니까?

A. 예 _____ 그렇다면, 왜 효과적이라고 생각합니까?

B. 아니요 _____ 그렇지 않다면, 왜 효과적이지 않다고 생각합니까?

설문 조사에 참여해 주셔서 감사합니다. 본 연구의 다음 단계는 한국 대학생들이 영어 의사 소통을 위해서 어떻게 모바일 기기를 사용하는지에 관한 것입니다. 다음 단계에 참여하게 되면 모바일 메신저를 사용하여, 다른 사람과 영어로 의사 소통 할 수 있습니다. 다음 단계에 참여하기를 원하면, 아래에 이메일 주소를 적어 주십시오. 모든 개인 정보는 비밀로 보호 됩니다.

이메일: _____

감사합니다

Appendix B: Participant information statement for Korean students

English version



SCHOOL OF EDUCATION

Approval No 13 119

THE UNIVERSITY OF NEW SOUTH WALES

PARTICIPANT INFORMATION STATEMENT

Project title

The use of a mobile instant messaging (MIM) application for English interaction in the Korean EFL context

Dear student

My name is Jieun Hwang and I am studying for my doctoral degree (PhD) in the School of Education at the University of New South Wales (UNSW). My supervisors are Associate Professor Wan Ng and Professor Chris Davison.

You are invited to participate in a study investigating the use of (MIM) application for English interaction in the Korean EFL context.

If your class teacher agrees to involve your class in participating in a survey, you are invited to take part in the survey questionnaire. The aim of the questionnaire is to obtain information related to your demographic background, previous language learning and mobile Internet experiences, as well as the use of MIM applications for communicating in English.

If the teacher allows the researcher to have the last 15 minutes of your class to distribute the questionnaire, you are invited to complete the survey. Those who do not want to participate are allowed to leave. The survey will be administered anonymously and voluntarily.

There are no risks or disadvantages by being involved as a participant in the study. I cannot and do not guarantee or promise that you will receive any benefits from this study. Your participation in this research project is totally voluntary and you are not obliged to complete the survey.

At the end of the questionnaire you will be asked to participate in the second phase of the research. If you accept the invitation, you will be required to put your e-mail address on the survey.

If you have any queries regarding the research or questionnaire, please feel free to ask me and I will be happy to answer them (email: jieun.hwang@student.unsw.edu.au or phone: +61 [REDACTED]).

Your consent is confirmed by the completion and return of this survey under the National Statement on Ethical Conduct in Research Guidelines, section 1.9.

Complaints may be directed to the Ethics Secretariat, The University of New South Wales, SYDNEY 2052 AUSTRALIA (phone 9385 4234, fax 9385 6648, email ethics.sec@unsw.edu.au). Any complaint you make will be investigated promptly and you will be informed of the outcome.

Thank you very much.

Yours sincerely,
Jieun Hwang

PhD candidate
School of Education
University of New South Wales
Sydney, NSW 2052
Australia

Korean Version



SCHOOL OF EDUCATION

Approval No 13 119

THE UNIVERSITY OF NEW SOUTH WALES

PARTICIPANT INFORMATION STATEMENT

연구주제

한국에서 영어 의사 소통을 위한 모바일 어플리케이션 사용

안녕하십니까?

저는 University of New South Wales (UNSW), School of Education 박사 과정에서 공부하고 있는 황 지은 입니다. 저의 지도 교수님은 Professor Wan Ng and Professor Chris Davison 입니다.

본 연구의 목적은 영어 의사 소통을 위한 한국 대학생들의 모바일 메신저의 사용에 관해 조사하는 것입니다.

만약 교사가 동의하면, 여러분은 본 설문 조사에 참여 할 수 있습니다. 설문 조사의 목적은 언어 학습 경험과 모바일 인터넷 사용, 모바일 메신저를 이용한 영어 의사 소통 경험에 관한 것입니다.

교사가 수업 마지막 15 분 정도 설문지 배부를 허락하면, 여러분은 설문지 작성에 참여할 수 있습니다. 설문 작성을 원하지 않는 학생들은 하지 않아도 되며, 본 설문 조사는 익명으로, 그리고 자발적인 참여로 진행됩니다.

본 연구에 참여함으로써 받을 위험이나 불이익은 없습니다. 또한 본 연구에 참여함으로써 받을 어떠한 이익도 보장하거나 약속할 수 없습니다. 본 연구에 대한 참여는 전적으로 자발적인 참여로 이루어지며, 원치 않으면 설문 조사 참여에 관한 강제성은 없습니다. 만약 본 연구나 설문 조사에 관한 질문 사항이 있으면, 언제든지 알려 주시면 기꺼이 답변해 드릴 것입니다. (email: jieun.hwang@student.unsw.edu.au or phone: +61 [REDACTED]).

National Statement on Ethical Conduct in Research Guidelines, section 1.9 에 따라 설문지를 작성하여 제출함으로써 참여자의 동의가 이루어 집니다. 모든 불편 사항은 대학 윤리 위원회, The University of New South Wales, SYDNEY 2052 AUSTRALIA (phone 9385 4234, fax 9385 6648, email : ethics.sec@unsw.edu.au) 로 보내 집니다. 모든 불편 사항은 즉시 조사 되고 그 결과를 받게 됩니다.

감사합니다.

Jieun Hwang

PhD candidate

School of Education

University of New South Wales

Sydney, NSW 2052

Australia

Appendix C: Interview questions

English version

1. Can you tell me something about yourself? (age, major)
2. Why do you study English? (e.g. to go abroad for studying, to get a better job, to get good marks at school, to enter graduate school)
3. Can you tell me about your English class in university?
4. Have you ever experienced using mobile instant messaging (MIM) application to interact in English with others ?
5. What do you think of English interaction using a MIM application?
6. Are there any benefits/difficulties in English interaction using MIM application? (If yes, what kind of benefits /difficulties?)
7. Why do you use those features of a smartphone for interaction in English with peers using *KakaoTalk* ?
8. Why do you use those language styles when interaction via the MIM application?
9. Do you think interaction in English via the MIM application is effective for enhancing English communication and assisting in English learning in the Korean context? (why/not?)
10. Do you have any recommendation to improve English communication experiences through the MIM application?

Korean version

1. 자신에 대하여 설명해 주세요 (나이, 전공)
2. 왜 영어 공부를 합니까? (외국 유학, 좋은 직장, 좋은 성적, 대학원 진학을 위해)
3. 당신의 대학 영어 수업에 관하여 말해 주세요
4. 모바일 어플리케이션을 사용하여 영어로 의사 소통 한 적이 있습니까?
5. 모바일 어플리케이션을 사용하여 다른 사람들과 영어로 의사 소통 하는 것에 대하여 어떻게 생각 합니까?
6. 모바일 어플리케이션을 통하여 다른 사람들과 영어로 의사 소통 하는 데 좋은점/어려운 점이 있습니까? (있다면, 어떤 좋은점/어려움이 있습니까?)
7. 모바일 어플리케이션(카카오톡)을 사용하여 다른 사람들과 영어 의사 소통을 할 때 왜 그러한 스마트폰의 특징들을 사용합니까?
8. 모바일 어플리케이션을 사용하여 다른 사람들과 영어 의사 소통을 할 때 왜 그러한 언어적 특징들을 사용합니까?
9. 영어 의사 소통 증진과 영어 학습을 도와 주기 위해서 모바일 어플리케이션 사용이 효과적이라고 생각합니까? (왜/ 아니면)
10. 모바일 어플리케이션을 이용한 영어 의사 소통 향상에 관하여 어떠한 제안, 의견이 있습니까?

Appendix D: Participant information statement & consent form for Korean students

English version



SCHOOL OF EDUCATION

Approval No 13 119

THE UNIVERSITY OF NEW SOUTH WALES

PARTICIPANT INFORMATION STATEMENT AND CONSENT FORM

Project title

The use of a mobile instant messaging (MIM) application for English interaction in the Korean EFL context

Dear student

My name is Jieun Hwang and I am studying for my doctoral degree (PhD) in the School of Education at the University of New South Wales (UNSW). My supervisors are Associate Professor Wan Ng and Professor Chris Davison.

[Participant selection and purpose of study]

You are invited to participate in a study investigating the use of a MIM application for English interaction in the Korean EFL context and exploring how Korean students exploit features of a smartphone / language styles for communicating in English.

If you accept the invitation, I am seeking to observe/ interview the participants. You have been chosen for message observation and interviews because you have experiences in using a MIM application to interact in English with others.

The second phase of the research is message observation and interview phase. If you decide to participate in this phase, you will be paired with another participant and will be involved in text-based exchange through your Smartphone on given topics, for example your university life or travel experience that you have had. You will use *KakaoTalk*, mobile instant messaging (MIM) application, for this interactive communication. You will be asked to send the strands of your interactive messages in text version to the researcher at the end of the topic. You could edit what you do not wish to be read before sending the messages. This observation will take 4 weeks. During the observation period, two interviews will be conducted to obtain more detailed information about how you exploited features of

a smartphone or language styles and your perception of communicating in English via MIM application. Each interview will take approximately 20 minutes. With your permission, all interviews will be audio recorded and transcribed for analytical purposes.

In phase 3 which is at the end of the project, you will be invited to participate in a final interview to elicit your view, expectations and recommendations about text-based English communication via MIM application. Each interview will take approximately 20 minutes.

The three interviews will take a total of 60 minutes and will be conducted in the Korean language in a room at the university or a cafe near the university.

There are no risks or disadvantages by being involved as a participant in the study. I cannot and do not guarantee or promise that you will receive any benefits from this study.

Your participation in this research project is totally voluntary and you are not obliged to take part in interaction observations and interviews if you choose not to do so.

[Confidentiality and disclosure of information]

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission, except as required by law. With your permission, the interview will be audio recorded and transcribed to ensure the accuracy of your responses for data analysis later only with your consent. I plan to publish and present the results of this study in academic journals, conferences, and my PhD thesis. In any publication, information will be provided in such a way that you or your university cannot be identified.

Complaints may be directed to the Ethics Secretariat, The University of New South Wales, SYDNEY 2052 AUSTRALIA (phone 9385 4234, fax 9385 6648, email : ethics.gmo@unsw.edu.au). Any complaint you make will be investigated promptly and you will be informed out the outcome.

[Feedback to participants]

Should you wish to receive a summary of the study, please email me, PhD student Jieun Hwang at jieun.hwang@student.unsw.edu.au. You may also contact my supervisor, Associate Professor Wan Ng, School of Education, The University of New South Wales (UNSW) Sydney 2052 Australia (email: w.ng@unsw.edu.au).

[Your consent]

Your decision whether or not to participate will not prejudice your future relations with the University of New South Wales. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without prejudice. If you have any questions, please feel free to ask us. If you have additional questions later, Prof. Wan Ng (email: w.ng@unsw.edu.au or phone: 9385 4234) or Ms. Jieun Hwang (email: jieun.hwang@student.unsw.edu.au) will be happy to answer them.

You will be given a copy of this form to keep. Thank you very much.

Yours Sincerely

Jieun Hwang

PhD candidate

School of Education

University of New South Wales

Sydney, NSW 2052

Australia

PARTICIPANT CONSENT FORM

Title of project: The use of a mobile instant messaging (MIM) application for English interaction in the Korean EFL context

You are making a decision whether or not to participate. Your signature indicates that, having read the information provided above, you have decided to participate. Please tick as appropriate:

- ☐ I consent to being interviewed individually
- ☐ I consent to sending interaction messages through my mobile device
- ☐ I consent to my interview being audio recorded
- ☐ I do not consent to my interview being audio recorded
- ☐ I do not consent to sending interaction messages through mobile device

.....

Signature of Research Participant

.....

(Please PRINT name)

.....

Date

REVOCATION OF CONSENT

Title of project: The use of a mobile instant messaging (MIM) application for English interaction in the Korean EFL context

I hereby wish to **WITHDRAW** my consent to participate in the research proposal described above and understand that such withdrawal **WILL NOT** jeopardise any treatment or my relationship with The University of New South Wales.

.....

Signature

.....

Date

.....

Please PRINT Name

The section for Revocation of Consent should be forwarded to

Prof. Chris Davison

School of Education

University of New South Wales

Sydney, NSW 2052, Australia



SCHOOL OF EDUCATION

Approval No 13 119

THE UNIVERSITY OF NEW SOUTH WALES

연구 참여 설명 및 동의서

연구주제

한국에서 영어 의사 소통을 위한 모바일 어플리케이션 사용

안녕하십니까?

저는 University of New South Wales (UNSW), School of Education 박사과정에서 공부하고 있는 황 지은 입니다.
저의 지도교수님은 Professor Wan Ng and Professor Chris Davison 입니다.

[연구 참가자 그리고 연구목적]

본 연구는 영어 의사 소통을 위한 한국 대학생들의 모바일 메신저 어플리케이션의 사용에 관한 것으로 영어로 의사 소통을 하기 위하여 어떻게 스마트폰 기기의 특징을 활용하고 있는지 조사하는 것입니다.

본 연구의 두번째 단계는 의사 소통 관찰과 인터뷰입니다. 만약 본 단계에 참여하면 다른 참여자와 짝을 이루어 주어진 주제로 메시지 주고 받기에 참여하게 됩니다. 본인의 스마트폰 기기를 사용하며 그 주제는 대학생활 혹은 여행경험 등에 관한 것입니다. 의사 소통을 위해서는 모바일 메신저 카카오톡을 사용하게 될 것입니다.

주어진 주제로 의사 소통 후에는 해당 메시지를 연구자에게 보내도록 요청됩니다. 읽혀 지기를 원치 않는 내용들은 메시지를 보내기 전에 수정(편집) 할 수 있습니다. 본 의사 소통 관찰은 총 4 주 정도 소요 될 것입니다. 의사 소통 관찰 중에 영어의사 소통의 위하여 어떻게 스마트폰 기기의 특징을 이용하는데 관한 좀 더 자세한 내용을 위해서 두번의 인터뷰가 있을 예정입니다. 각 인터뷰는 20 분 정도 소요 될 것입니다. 허락과 동의를 받은 후에 모든 인터뷰는 차후의 자료 분석을 위한 자료 전사를 위하여 녹음 될 것입니다.

본연구의 마지막 단계는 모바일 기기를 이용한 text 기반 영어 의사 소통에 관한 참여자의 의견, 기대, 추천 등을 위하여 인터뷰가 실시 될 것입니다. 인터뷰는 약 20 분 정도 소요 될 것입니다.

본 연구에서는 3 번의 인터뷰가 총 60 분에 걸쳐 진행되며, 대학 강의실이나 대학 근처의 카페에서 한국어로 실시 될 것입니다.

본 연구에 참여함으로써 받을 위험이나 불이익은 없습니다. 또한 본 연구에 참여함으로써 받을 어떠한 이익도 보장하거나 약속할 수 없습니다. 본 연구에 대한 참여는 전적으로 자발적인 참여로 이루어지며, 원치 않으면 의사 소통 관찰과 인터뷰 참여에 관한 강제성은 없습니다.

[정보의 비밀보장과 공개]

본 연구와 관련된 모든 정보는 비밀로 보장되며, 사전 허락을 받은 후에 공개 되어 질 수 있습니다. 또한 사전 허락을 받은 인터뷰는 차후의 자료 분석을 위한 자료 전사 목적으로 녹음 될 것입니다. 본 연구의 결과는 학술저널, 학술대회, 그리고 박사논문 발표를 위해 출간 될 예정입니다. 출간 될 때 참여자의 이름, 대학명은 표시되지 않습니다.

모든는 불편사항은 대학윤리위원회, The University of New South Wales, SYDNEY 2052 AUSTRALIA (phone 9385 4234, fax 9385 6648, email : ethics.sec@unsw.edu.au) 로 보내집니다. 어떠한 불편 사항은 즉시 조사 되고 그 결과를 받게 됩니다.

[참여자 피드백]

본 연구에 관한 요약 내용이 필요하면 저에게 이메일을 보내 주십시오 PhD student Jieun Hwang at jieun.hwang@student.unsw.edu.au. 또는 저의 지도 교수님께 연락 하실수 있습니다 Associate Professor Wan Ng, School of Education, The University of New South Wales (UNSW) Sydney 2052 Australia (email: w.ng@unsw.edu.au).

[참여자 동의]

본 연구의 참여 여부는 차후의 New South Wales 대학교와의 관계에 어떠한 영향도 미치지 않을 것 입니다. 만약 참여를 결정한 후에라도 어떠한 불이익도 없이 참여에 관한 철회, 참여 중단을 할 수 있습니다.

만약 본 연구에 관한 추가 질문 사항이 있으면, 언제라도 알려 주시면 기꺼이 답변해 드릴 것입니다. (email: jieun.hwang@student.unsw.edu.au or phone: +61 [redacted]). 또는 저의 지도교수님께 Associate Professor Wan Ng, School of Education, The University of New South Wales (UNSW) Sydney 2052 Australia (email: w.ng@unsw.edu.au) 연락 하실 수 있습니다.

보관을 위하여 본 양식의 사본을 드릴 것입니다.
감사합니다.

Jieun Hwang

PhD candidate

School of Education

University of New South Wales

PARTICIPANT CONSENT FORM

연구 주제 :한국에서 영어 의사 소통을 위한 모바일 어플리케이션 사용

참여 여부에 관한 것으로, 참가자의 서명은 위에 제공된 정보를 읽었으며, 참여 의사를 표시하게 됩니다. 관련 사항에 표시 하십시오.

- ☐ 개인적 인터뷰에 동의합니다
- ☐ 모바일 기기를 통한 메시지 전송에 동의합니다
- ☐ 인터뷰의 녹음에 동의합니다
- ☐ 인터뷰의 녹음에 동의하지 않습니다
- ☐ 모바일 기기를 통한 메시지 전송에 동의하지 않습니다

.....
참여자 서명란

.....
성명

.....
날짜

동의 철회

연구 주제 : 한국에서 영어 의사 소통을 위한 모바일 어플리케이션 사용

본 연구 참여 동의의 철회를 원하며, The University of New South Wales 와의 관계에 어떤 불이익이 없음을 이해합니다.

.....
서명

.....
날짜

.....
성명

동의 철회는 이곳으로 전달됩니다 Jieun Hwang, School of Education, The University of New South Wales (UNSW), SYDNEY 2052 AUSTRALIA (jieun.hwang@student.unsw.edu.au).

Appendix E: Participant information statement & consent form for international students

English version



SCHOOL OF EDUCATION

Approval No 13 119

THE UNIVERSITY OF NEW SOUTH WALES

PARTICIPANT INFORMATION STATEMENT AND CONSENT FORM

Project title

The use of a mobile instant messaging (MIM) application for English interaction in the Korean EFL context

Dear student

My name is Jieun Hwang and I am studying for my doctoral degree (PhD) in the School of Education at the University of New South Wales (UNSW). My supervisors are Associate Professor Wan Ng and Professor Chris Davison.

[Participant selection and purpose of study]

You are invited to participate in a study investigating the use of mobile instant messaging (MIM) application for English interaction in the Korean EFL context and exploring how Korean students exploit features of a smartphone / language styles for communicating in English.

If you decide to participate in this phase, you will be paired with another participant and will be involved in text-based exchange through your smartphone on given topics, for example your university life or travel experience that you have had. You will use *KakaoTalk* mobile messenger for this interactive communication. You will be asked to send the strands of your interactive messages in text version to the researcher at the end of the topic. You could edit what you do not wish to be read before sending the messages. This texting /sending texts to the researcher will take 4 weeks.

There are no risks or disadvantages by being involved as a participant in the study. I cannot and do not guarantee or promise that you will receive any benefits from this study.

[Confidentiality and disclosure of information]

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission, except as required by law.

I plan to publish and present the results of this study in academic journals, conferences, and my PhD thesis. In any publication, information will be provided in such a way that you or your university cannot be identified.

Complaints may be directed to the Ethics Secretariat, The University of New South Wales, SYDNEY 2052 AUSTRALIA (phone 9385 4234, fax 9385 6648, email : ethics.sec@unsw.edu.au). Any complaint you make will be investigated promptly and you will be informed out the outcome.

[Your consent]

Your decision whether or not to participate will not prejudice your future relations with the University of New South Wales. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without prejudice. If you have any questions, please feel free to ask us. If you have additional questions later, Prof. Wan Ng (email: w.ng@unsw.edu.au or phone: 9385 4234) or Ms. Jieun Hwang (email: jieun.hwang@student.unsw.edu.au or phone: +61 [REDACTED]) will be happy to answer them.

You will be given a copy of this form to keep. Thank you very much.

Yours Sincerely

Jieun Hwang

PhD candidate

School of Education

University of New South Wales

Sydney, NSW 2052

Australia

PARTICIPANT CONSENT FORM

Title of project: The use of a mobile instant messaging (MIM) application for English interaction in the Korean EFL context

You are making a decision whether or not to participate. Your signature indicates that, having read the information provided above, you have decided to participate. Please tick as appropriate:

- ☐ I consent to sending interaction messages through my smartphone
- ☐ I do not consent to sending interaction messages through my smartphone

.....

Signature of Research Participant

.....

(Please PRINT name)

.....

Date

REVOCATION OF CONSENT

Title of project: The use of a mobile instant messaging (MIM) application for English interaction in the Korean EFL context

I hereby wish to **WITHDRAW** my consent to participate in the research proposal described above and understand that such withdrawal **WILL NOT** jeopardise any treatment or my relationship with The University of New South Wales.

.....

Signature

.....

Date

.....

Please PRINT Name

The section for Revocation of Consent should be forwarded to

Prof. Chris Davison

School of Education

University of New South Wales

Sydney, NSW 2052, Australia

Appendix F: An advertisement to recruit international students

English version



SCHOOL OF EDUCATION

Approval No 13 119

Research Participants Needed

We (Prof. Wan Ng and Ms Jieun Hwang) would like to invite you (international students) to participate in a study related to the use of mobile instant messaging (MIM) application for English interaction in the Korean EFL.

Study Rationale and procedure

The study aims to investigate the university students' use of a MIM application for English interaction in the Korean EFL context.

To facilitate this study, you will be involved in text-based exchange through your own smartphone on given topics for 4 weeks.

People, who have experiences in using MIM applications to interact in English with others, will be preferred. You will interact with Korean university students using *KakaoTalk* MIM application for this interactive communication.

Confidentiality

Your participation and information collected will remain anonymous.

If you are interested, please contact Ms Jieun Hwang jieun.hwang@student.unsw.edu.au

Glossary

ESL:	English as a Second Language
EFL:	English as a Foreign Language
Turn:	The sequence of the messages that the students exchanged
MIM:	Mobile instant messaging
CMC:	Computer-mediated communication
MALL:	Mobile-Assisted Language Learning
CLT:	Communicative language teaching
TBLT:	Task-based language teaching
SLA:	Second language acquisition
SCMC:	Synchronous computer-mediated communication
F2F:	Face-to-face
SMS:	Short message service
IM:	Instant messaging
NS:	Native speaker
NNS:	Non-native speaker
K–K:	Korean–Korean
K–E:	Korean–English dominant
K–NE:	Korean–non-English dominant