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**Situating Korean EFL Teacher Education in a CMC Environment:
Online Exchanges between Preservice English Teachers and
Elementary School Students**

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by

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Dissertation

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Dedication

I would like to dedicate this work to my dearest parents
who have given me so much love and support.

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The University of Texas at Austin, 2011

Supervisor: Diane L. Schallert

The purpose of this study was to gain insight into the characteristics of student-teacher interactions between Korean EFL preservice teachers and elementary school students during online exchanges and of the preservice teachers' overall impressions and perceptions of teaching English to elementary school students and interacting with them online. The participants in this study were 31 Korean preservice elementary school teachers and 10 Korean elementary school students who were learning English as a foreign language. Ten groups with an average of three preservice teachers were paired with one child partner per group and engaged in one-on-one email exchanges, mostly using English, in discussing English books. Data came from multiple sources, including transcripts of the online exchanges between the preservice teachers and the child partner, preservice teachers' collaborative dialogue scripts, their responses to questionnaires, their group reflection journals, individual final reflection papers, and researcher field notes. These data were analyzed using a combination of inductive and deductive data analysis methods. Through inductive analysis using the constant comparative analysis method (Glaser & Strauss, 1967; Lincoln & Guba, 1985), I derived themes that captured the experience of online interactions and the strategies that the preservice teachers used to maintain the exchange. Through deductive analysis, I identified groups that were more and less successful and described their experiences.

Results indicated that the online exchanges with elementary students provided Korean EFL preservice teachers opportunities to practice teaching skills, as well as to develop close personal and social relationships with their child partners. Also, how the preservice teachers approached the exchanges and their specific online “actions” seemed to make a difference in their child partners’ responses, thereby yielding results in which some groups were more successful and others less successful. The preservice teachers reported that their participation in the project was beneficial for them as future elementary teachers of English and that they enjoyed interacting with their child partners online. Finally, the participation in the project appeared to have many benefits for the preservice teachers’ professional development, including newly-gained insights into the benefits of using technology as a valuable instructional tool in their future teaching practices as well as an increase in their confidence in using English to teach English to elementary students.

Table of Contents

List of Tables	xiii
CHAPTER1. INTRODUCTION.....	1
Background	1
Rationale of the Study.....	4
Research Questions	9
CHAPTER2. LITERATURE REVIEW	11
Theoretical Framework.....	11
The Input and Output Hypotheses in Second Language Acquisition ..	11
Interaction Hypothesis.....	13
Socio-Constructivism.....	14
Review of Empirical Literature	18
Features of CMC.....	18
Why Use CMC?: Research Findings in CMC.....	19
CMC and Language Development.....	20
Equality of and Increased Student Participation in CMC.....	23
Students' Improved Attitudes and Motivation in CMC	25
CMC and Cultural Awareness	26
Additional Benefits of Using CMC	27
CMC and Children.....	29
Issues in CMC Research:Transferability of CMC Skills to Oral Proficiency	30
Limitations of CMC.....	31
CMC in Teacher Preparation	33
CHAPTER3. METHOD	40
Research Setting.....	40
Participants.....	41
Preservice Teacher Participants	41
Elementary School Student Participants	43

Paring of the Participants and Procedures	46
The Researcher's Role.....	51
Data Sources	53
Printsout of CMC Transcripts.....	53
Questionnaires.....	53
Background Survey for the Child Participants	54
Preservice Teachers' Collaborative Dialogue Scripts	54
Group Reflection Journals	54
A Final Reflection Paper.....	55
Field Notes.....	55
Data Analysis	56
Ensuring Data Trustworthiness and Credibility.....	59
CHAPTER4. RESULTS	62
Section 1: The First Five Themes	62
Theme 1: CMC Afforded the Korean EFL Preservice Elementary School Teachers a Chance to Practice a Student-Centered and Communicative Approach	62
Theme 2: CMC Afforded the Preservice Teachers a Chance to Be Actively Involved in the Continuous Process of Self-Reflection as a Future Elementary English Teacher.....	68
Theme 3: The Preservice Teachers and Elementary Students were able to Different Degrass Build Personal and Social Relationships between Them by Interacting in CMC Mostly Using English.....	74
Theme 4: To the Degree that Preservice Teachers Created Democratic Reciprocal Teaching and Learning Relationships during CMC, the Elementary Students Had More Opportunity to Practice Their English in a Communicative Way	87
Theme 5: The Preservice Teachers' online "Actions" Affected How the Elementary Students Responded in Their Emails.....	93
Strategy 1: The Preservice Teachers Asked Specific Questions Using Simple English Sentences.....	94
Strategy 2: The Preservice Teachers Showed a Great Deal of Interest in Their Child Partners' Personal Lives	99

Strategy 3: The Preservice Teachers Kept a Balance between Book Talk and Social Talk	102
Strategy 4: The Preservice Teachers Encouraged the Children's Use of English by Relating the Content of the Book to the Children's Personal Experiences	105
Strategy 5: The Preservice Teachers Were Closely Attentive to Every Aspect of the Child Partners' Messages	108
Strategy 6: The Preservice Teachers Provided Much Encouragement and Many Compliments to the Students	114
Strategy 7: The Preservice Teachers Opened Themselves Up to Their Child Partners.....	116
Strategy 8: The Preservice Teachers Frequently Used a Variety of Non-Verbal Cues or Symbols	118
Strategy 9: The Preservice Teachers Made Their Email Messages Visually Appealing to their Students	122
Strategy 10: The Preservice Teachers Strategically Approached Their Child Partners' English Errors during Their Interactions in CMC.....	123
Strategy 11: The Preservice Teachers Strategically Used Their First Language, Korean, during CMC.....	128
Section 2: Description of More Successful Groups and Less Successful Groups	131
The More Successful Groups.....	132
Group B.....	133
Description of Group B.....	134
Group C.....	141
Description of Group C.....	144
The Less Successful Groups.....	151
Group E.....	152
Description of Group E.....	153
Group F	159
Description of Group F	161
Section 3: Korean EFL Preservice Elementary Teachers Professional Development as a Result of Participating in an Online Exchange	167

Recognition of the Usefulness of Technology as a Valuable Instructional Tool in the Future Teaching Practices	168
Opportunity to Reflect on the Elementary Children' English Ability	171
Increased Consideration of Pedagogical Perspectives in Teaching Children in English	174
An Increase in the Preservice Teachers' Confidence in Using English with Elementary Students	183
Perceived Improvement in Preservice Teachers' English	184
Realization of Preservice Teachers' Own Needs to Study More English	186
Envisioning Themselves as Future Teachers of English at the Elementary School Level	189
CHAPTER 5. DISCUSSION	195
Discussion of the Findings	195
Factors Contributing to Successful CMC Exchanges	195
Effects of Group Collaboration, Asynchronous CMC, and the Preservice Teachers' Beliefs	199
Potential Value of Online Exchanges between Non-Native Preservice Teachers and Elementary School Students in EFL Settings	201
The Preservice Teachers' Attitude toward the Use of Computer Technology in Future Practices	207
Implications for EFL Teacher Educators and Preservice Teachers	209
Limitations of the Study	213
Implications of Future Research	214
Appendix A. Pre-Questionnaire for the Preservice Teacher Participants	216
Appendix B. Post-Questionnaire for the Preservice Teacher Participants	220
Appendix C. Background Survey for the Child Participants	226
Appendix D. Description of the Reading Materials Used in the Study	230
References	231
Vita	238

List of Tables

Table 1:	Preservice Teacher Participants' Background Information.....	42
Table 2:	Preservice Teachers' Computer Usage and Beliefs of Using Technology in Classrooms.....	43
Table 3:	Elementary School Students' Background Information.....	46
Table 4:	Pairing of the Participants.....	46
Table 5-1:	Number of Words per Message in Each Exchange for Group B....	135
Table 5-2:	Number of Words per Message in Each Exchange for Group C....	144
Table 5-3:	Number of Words per Message in Each Exchange for Group E....	153
Table 5-4:	Number of Words per Message in Each Exchange for Group F....	161

Chapter 1

Introduction

“Minjoo was so cute and innocent. I felt as if I had gone back to my younger days. I had so much fun during our email exchanges, and although I am not a real teacher yet, the fact I had this opportunity to communicate with an elementary school child meant a lot to me.”

(Tachyun, Translated from his final reflection paper)

Background

With the rapid development of computer technology, the use of technology has become increasingly important in language teaching and learning. In particular, since computer-mediated communication (CMC) has shown its potential for use in foreign/second language classrooms, the use of CMC tools in L2 language classrooms has become increasingly popular in recent years. Increasingly, language teachers have been encouraged to find ways to use CMC and to explore the potential power of CMC in order to enhance instruction and improve student learning.

However, in order to use technology effectively in the classroom, language teachers must have the necessary technical competence and pedagogical knowledge. In order to help students to acquire literacy that is necessary in the new millennium, language teachers themselves need not only to be familiar with such technology tools as CMC, but also to learn how to use them more effectively when teaching students. According to the National Council for Accreditation of Teacher Education’s (NCATE) Task Force on Technology and Teacher Education (2001), classroom teachers will be the ones who are responsible for the

effective use of technology to improve students' learning. TESOL teacher educators are in agreement with NCATE. Acknowledging that the skills that are needed when teaching online are different from those needed when teaching face-to-face, Hampel and Stickler (2005) stated the following:

Online tutors have to not only help students to develop their technical skills in using the virtual environment but also constantly be aware of benefits and challenges of online learning. They have to be familiar with the technology and know about the implications that the medium has in the context of teaching a language. They have to rely on their expertise as a language teacher as well as knowing how to use virtual environments in the context of useful approaches to language learning (e.g., the communicative approach). (p.315)

Chapelle and Hegelheimer (2004) also stated that “teachers attempting to increase learners’ communicative competence through CMC need to know how to use communication tools such as chat rooms, bulletin boards, e-mail, and electronic mailing lists” (p.298).

In keeping with the globalized push to encourage the use of technology in educational environments, the Ministry of Education, Science, and Technology (MEST) in Korea has made ongoing efforts since the early 1990s to create classroom environments in which elementary and secondary school students can develop their knowledge and skills in the use of computers as well as Internet resources. In particular, since July 2000, every elementary and secondary school in Korea has been provided with at least one computer lab equipped with free or almost-free internet access. From the same year, computer literacy has been taught as a compulsory subject starting from the 1st grade of elementary school.

Also, computer education has been provided to low-income students free of charge (Ministry of Education and Human Resources Development & Korea Education and Research Information Service, 2007)

Another sociological influence related to this study is the major change in Korea's English language policy. This policy shift is in addition to the emphasis on the use of technology in the classroom. Changes include the introduction of English language education at the elementary school level and of English-only teaching at all levels of instruction. In the case of Korea, English language instruction was first introduced in 1997 as an academic subject into elementary schools starting at the third grade. Since then, the topics of how elementary school children acquire English as a foreign language and how to meet the diverse needs of younger learners have received much attention in the field. In addition, recently, there is an increasing demand for English education in public elementary schools to be offered at even lower levels, down to the 1st grade, and for the hours of English classes to be expanded in order to meet the demands of parents and save the parents the expenses of private lessons. According to MEST, more than 30% of the public elementary schools were offering English classes to 1st and 2nd graders through after school programs and extracurricular activities. From year 2006 to year 2008, 1st and 2nd graders were taught English in 50 selected public elementary schools to see the effectiveness of teaching English to students in lower grades (MEST, 2008). Private elementary schools in Korea have been offering English classes to all levels of students from 1st grade to 6th grade. Recently, national elementary schools have taken the same actions as the private schools. Thus, teacher preparation for preservice elementary school teachers has become a

significant concern. With these changes in policy, English teachers, particularly at the elementary school level, have been under continuous pressure to develop ways to teach elementary school learners more effectively and to use English only in the classroom when teaching English.

Rationale of the Study

Meeting the needs and suggestions to incorporate technology in teacher education programs, some researchers have investigated the use of CMC tools in TESOL teacher education programs. Much of the research in this area has focused on preservice teachers' learning and reflecting about their profession while interacting with their peers, with teacher educators, or their professors online. In such research, the computer-mediated communication setting has offered a space where preservice teachers could share their professional teaching skills and build a professional community with the intent of sharing their knowledge among peers. CMC has also been seen as a space where non-native teachers of language can practice their language skills with native speakers of the target language and increase socio-cultural awareness. In addition, some teacher educators have employed CMC into their teacher education program in order to provide the preservice teachers firsthand experience of CMC settings so that they could apply it to their future classrooms (e.g., Kehmi-Stein, 2000; Lee, 2009; Nunan, 1999).

Although teacher educators have attempted to incorporate CMC as a part of professional preparation, there are still limited data about the use of CMC in the teacher education curriculum for EFL/ESL teachers (Kamhi-Stein, 2000). In particular, what is missing in the current literature is that there has not been much research in which

preservice teachers are communicating with their future target language learners, or young learners like their future students using technology in L2 settings. Legutke, Muller-Hartmann, and Ditzfurth (2007), who proposed experiential learning for preservice teachers by developing action-oriented models for Information and Communication Technologies supported EFL classrooms, claimed that student teachers in EFL settings need to be allowed to experience “the very process that they are supposed to initiate with learners in their prospective classrooms” (p. 1132).

In fact, one important rationale that teacher educators and researchers have been using when introducing CMC to their preservice teachers in previous studies, is that preservice teachers need to have the opportunity to get a sense of what their potential students might be experiencing while they are engaged in online discussions. Then, it would make much more sense to see CMC as an instructional medium between preservice teachers and their future target learners rather than with only their peers as the preservice teachers’ first-hand experience would provide them with understanding of CMC as well as the future target language learners. More and more foreign language teachers in EFL settings would be experiencing CMC with their students. This study I conducted and describe here was focused on just such a situation.

Because new technologies have become increasingly present in education and more and more teachers are turning to online environment to conduct their lessons, it is likely that teachers and students will have many more opportunities to interact with each other online, either one-on-one or one-to-many. This makes investigating the nature of teacher-

student interaction online much more important. Thus, my study attempted to add to the understanding of teacher and student interaction in a virtual environment through CMC.

Such a use of CMC was expected to increase opportunities for preservice teachers to learn the advantages and disadvantages provided by the environment when working with the target learners, thereby narrowing the gap between theory and practice. Preservice teachers were expected to develop teaching strategies to deal with difficulties in teaching in a CMC environment. In fact, few teacher educators and researchers have attempted to provide preservice teachers with field experiences in which they are interacting with students similar to their future target learners at least not in an L2 setting. In an L1 setting, Wilson (2010) investigated preservice teachers' experiences and learning in an online book club in which pairs had discussed a child-selected book via email exchange. The researchers reported positive change in both preservice teachers' and children's perceptions about reading. Also, the online book clubs provided a safe environment in which preservice teachers "allowed for talk to develop, reflecting the understanding that preservice teachers had constructed about how to interact with young readers in a literature discussion" (p.689). Doering and Beach (2002) reported on a project on helping preservice teachers acquire literacy practices using various technology tools involved in working effectively with students. The web-based communication, with collaboration with students, allowed preservice teachers to develop a relationship with students. The study also showed that these preservice teachers used different kinds of literacy practices, such as engaging in role play.

Student teachers in my study who were learning to become elementary school teachers of English were engaged in one-on-one email exchanges to discuss English books using English. Therefore, the literature on tutoring in L1 settings provides additional rationale for conducting this study. Although tutoring in the existing literature is not usually an online activity, the fact that a future teacher in my study was interacting with a young English learner in one-on-one email exchanges may be seen as similar to a one-on-one tutoring situation. In fact, studies involving cross-age tutoring have shown that a one-on-one teaching and learning situation is one of the most effective methods of instruction (Bloom, 1984; Cohen, Kulik & Kulik, 1982; Wasak & Slavin, 1993) and that it has a positive impact on the attitudes of both tutors and learners (Juel, 1996). For example, Bloom (1994) compared students' learning in a classroom in the traditional manner and student learning with a tutor. The students in the tutoring situation performed better in math than the students in the traditional classroom instruction. Thus, Bloom recommended that teachers develop instructional methods that are as effective as one-on-one tutoring. Juel (1996) reported that college students who themselves were poor readers, and who tutored elementary school children with reading difficulties, showed improvement in their vocabulary and comprehension skills, as did the skills of the tutored children. In addition, it has been showed that one-on-one tutoring gives preservice teachers the opportunity to hone their teaching skills, as well as to increase their confidence levels (Hedrick et al., 2000).

Another rationale for conducting my study was, as explained earlier, related to the English-only policy in Korea. The MEST in Korea proposed that by 2010, Korean English teachers should use English as the only medium of instruction in English classes at all

levels. Since the MEST announced the English-only policy, Korean English teachers have been under continuous pressure to be prepared to use English only in classroom settings. Furthermore, educational authorities and teacher educators in Korea have been searching for ways to improve Korean non-native English teachers' English proficiency by giving them the opportunity to communicate with native English speakers. For Korean non-native English-speaking teachers who do not have much access to native English speakers, CMC has been seen as an alternative and effective way to increase their English proficiency by allowing them a chance to interact with native English speakers. However, when the situation is viewed from the perspective of student teachers, these preservice non-native English teachers will need not only to practice English with native English speakers, they will also need to be exposed to the kind of English their future target language learners use, as well as the kind of English they will need when interacting with these young learners both in a classroom setting and an online environment.

Particularly, preservice teachers in the study were faced with a variety of challenges in order to communicate effectively with their future target students in English through technology. They had to learn how to use students' first language more judiciously with the children while communicating with them in English in order to have more effective interactions with their child partners. Although involved in a virtual environment, the student teachers had the opportunity to reflect on when and how much to use English and Korean, a skills that may prove helpful when teaching in the classroom. In this sense, the design of my study in which student teachers in Korea had the opportunity to communicate with students like their target students over a certain period time was a perfect setting in

which to practice their English and get to know about their target students' English use. My hope was that such experience would boost their confidence in using English and even improve their English.

Finally, the child participants of the study, considering the results of previous studies, were expected also to benefit from participating in the online exchange with young adults planning to become teachers. As discussed, working with tutors has proved to be helpful for the learners as well as the tutors themselves in L1 literature. In addition, current research has found numerous potential linguistic and affective benefits of CMC on students' language performance. The most commonly found benefits of using CMC in language classes were increased and equalized participation among language learners, language learners' increased output, and learners' improved attitude and motivation (e.g., Chun, 1992; Kelm, 1992; Kern, 1995; Sullivan & Pratt, 1996; Warschauer, 1996). More details of these studies are presented in the next chapter.

Research Questions

The focal point of my study was on how preservice teachers talked to their target students online in order to maintain effective conversation without the advantage of visual cues, such as body language and eye contact, and whether what they did would help or hinder the children in generating their thoughts and expressing themselves. Therefore, the first research goal was to investigate the interactions between Korean EFL preservice teachers and students like their future target students at the elementary school level when engaged in one-on-one email exchanges in discussing English books using English.

Another principal focus of my study, the second research goal, was to learn about Korean preservice teacher participants' overall impressions and perceptions of teaching English to young students online.

Prompted by the preceding research goals, the following overarching research questions guided my study:

- 1) What is the nature of interactions between Korean EFL preservice teachers and their child partners when they were engaged in one-on-one email exchanges?
- 2) What are preservice teachers' perceptions and impressions of teaching children online?

Chapter 2

Literature Review

This literature review begins with a review of the theoretical frameworks that guided this study. Then, I continue by discussing the empirical literature the following areas: 1) features of CMC; 2) Why use CMC? : Research findings in CMC; and 3) CMC in teacher preparation.

Theoretical Framework

The Input and Output Hypotheses in Second Language Acquisition

Several SLA theories support the use of computer-mediated communication (CMC) as language learning opportunities. First is Krashen's (1982) Input Hypothesis as related to CMC. According to Krashen's Input Hypothesis, exposure to comprehensible input is necessary for second language acquisition to take place. Krashen (1985) claimed that as long as learners are provided with sufficient comprehensible input, the necessary grammar is automatically acquired and learning will take place. In other words, language learners acquire language by hearing and understanding messages that are slightly above their current English language level, what he referred to as $i + 1$. To support his claim, Krashen (2004) pointed to studies on reading in a second or foreign language and on language learners moving abroad for a certain period of time. According to him, when language learners are exposed to large amounts of free reading in the target language, their

vocabulary, grammar, and writing improved. In addition, staying in the target countries for a length of time also showed a positive effect on the learners' language acquisition.

Another theory that supports the use of CMC in language learning is Swain's (1985) Output Hypothesis. Swain argued that learners need opportunities to produce their output in meaningful and contextualized ways rather than simply passively receiving the language. According to Swain (1995), problems that arise while producing output trigger a learner cognitive processes that are involved in second language acquisition. Swain found that children in a French language immersion program in Canada who had been exposed to a rich source of comprehensible input for several years were lacking grammatical accuracy when they spoke and wrote despite their native-like reading and listening skills. She interpreted these results as providing strong counter evidence to Krashen's Input Hypothesis, and she concluded that in order for learners to increase their language proficiency, they need to have sufficient opportunities to produce language via speech or writing. Swain (1985) further described the function of output in acquiring language by saying, "Its role is, at minimum, to provide opportunities for contextualized, meaningful use, to test out hypotheses about the target language, and to move the learner from purely semantic analysis of the language to a syntactic analysis of it" (p.252).

CMC can provide a learning environment in which learners can be exposed to a large amount of input by their peers and teacher as well as ample opportunities to produce their opinions in a low anxiety environment (Beauvois, 1998; Kern, 1995; Warschauer, 1996), which satisfies the basic principles of both the Input and Output hypotheses of SLA. Quite a few previous studies have shown that students in a CMC environment have produced

much more language than when they were in face-to-face discussions (Chun, 1994; Kern, 1995; Warschauer, 1996).

Interaction Hypothesis

One additional SLA theory that supports the use of CMC in language classrooms is Long's (1985) Interaction Hypothesis. Whereas Krashen (1985) stressed the importance of the role of input and Swain (1985) emphasized the role of output, Long (1985) insisted that in order for language acquisition to occur, interaction between learners or learners and teacher is necessary. According to Long, interaction is important because it provides essential conditions for mastery of the second language. Interaction not only provides learners with opportunities to receive comprehensible input, but also to produce modified output, and to receive various forms of feedback as part of the learning process. Long provided three important factors needed to have a meaningful interaction: 1) comprehensible input is necessary for acquisition; 2) negotiated interaction makes input comprehensible; 3) comprehensible output helps learners to move from semantic processing to syntactic processing. Long (1996) also added that "especially negotiation work that triggers interactional adjustments by the Native Speaker or more competent interlocutor facilitates acquisition because it connects input, internal capacities, particularly selective attention, and output in productive way" (p. 451-2). During interaction between interlocutors, participants negotiate meaning when communication breakdown occurs in order to avoid conversational trouble. They make changes in their language by asking questions, clarifying meaning, and requesting information.

Kern and Warschauer (2000) claimed that CMC provides “an ideal medium for students to benefit from interaction, because the written nature of the discussion allows greater opportunity to attend to and reflect on the form and content of the communication (p.15).” From an interactive perspective, Smith (2004) also pointed out several potential benefits that CMC can offer to language learners during interaction: it can provide rich input, promote pushed output, provide plentiful and dynamic feedback, focus learners’ attention on certain aspects of the target language, and enhance noticing (p.371).

Researchers found that meaningful interaction and negotiation of meaning occur in CMC. There is an abundance of evidence showing that CMC can also provide opportunities for interaction and collaboration among learners in the classroom just face-to-face interaction can. For example, several studies on CMC found that language learners did actively negotiate meaning when they encountered communication breakdowns (e.g., Blake, 2000; Kitade, 2006; Pellettieri, 2000; Smith, 2003)

Socio-Constructivism

Another major theoretical framework informing my work is the general theoretical approach called *socio-constructivism*. Socio-constructivism emphasizes the roles that language and social interaction play in individuals’ cognitive development including language development. Acknowledging the effectiveness of language learners’ authentic and meaningful interaction with others, SLA researchers and educators have started to turn their attention from a purely cognitive view of language learning to a more social view. Current conceptualizations from a socio-cultural or socio-constructivist view draw much on Vygotsky’s work and on his views that put children’s social interaction at the center of the

process. Vygotsky (1978) claimed that an individual's mental functioning derives from interactions that he/she has with others. He argued that "every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; the first, between people (interpsychological), and then inside the child (intrapsychological)" (p. 57). Therefore, frequent and meaningful interactions with more knowledgeable others are crucial for the child's language development. Vygotsky asserted that with the help of others in a supportive environment, children are able to achieve more than they would be able to achieve by themselves. He used two concepts to describe this phenomenon; zone of proximal development and scaffolding. ZPD is defined as "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86). Scaffolding is defined as the role of teachers or more knowledgeable others to help the learners to accomplish what "they could not have reached on their own" (Vygotsky, 1978). However, scaffolding is only effective when it is done in a learners' ZPD and when there is active participation going on between learners and more knowledgeable others (Salomon & Perkins, 1998). Effective ways of scaffolding include "intensive interaction, rapid feedback, highly personalized and situationally contingent guidance, encouragement, and the elicitation of responses from the student in the form of explanations, suggestions, reflections, and consideration rather than the provision of ready-made information, directions, error corrections, or answers" (Salomon & Perkins, 1998).

Socio-constructivism greatly supports the use of CMC in a language learning context that provides participants ample opportunities to interact, negotiate, as well as collaborate, through interactions with other participants. Because it was found that students have more equal opportunities to participate and express their opinions in CMC as compared to whole-class face-to-face settings (e.g., Chun, 1994; Kelm, 1992; Kern, 1995; Warschauer, 1996), students may have more opportunities to work within their ZPDs to co-construct knowledge together in an online environment. CMC helps to fill “the gap between what the learner could accomplish and what he or she could accomplish in cooperation with others who are more skilled and experienced” (Warschauer, 1997). Namely, the peers or the teacher may play the role of more knowledgeable others and help learners appropriate new knowledge and change understandings while learners are engaged in CMC discussions. Chapelle (2003) also emphasized what CMC can offer to students in relation to ZPD by stating that CMC enables learners to “communicate with proficient speakers of English, knowledgeable informants, and interesting interlocutors, none of whom might be available in the classroom” (p.24).

In summary, Kelm (1996) pointed out that CMC followed “many of the principles expressed in language acquisition theories” and concluded as follows:

....present a natural language environment with concrete referents, promote communication among peers, provide expansive feedback, allow correction to be independent from communication, treat network communications as experiential learning activities and allow socialization and communication to take precedence over form. On balance, the implementation of

electronic networks has the potential to assist language instructors in reaching their goal of bringing individuals together (p.19)

Review of Empirical Literature

Features of CMC

According to Herring (1996), computer-mediated communication (CMC) occurs when “communication takes place between human beings via the instrumentality of computers” (p.1). CMC is divided into two forms: synchronous and asynchronous communication. In a synchronous communication mode, communication takes place in real time between participants, such as text or voice online chat and instant messaging (e.g., MSN or Yahoo messengers). In this communication mode, messages are typed, sent, and received on the spot without delay, meaning both senders and receivers have to be logged into chat rooms at the same time in order to communicate. In contrast, asynchronous communication has a time lapse. The senders and receivers do not have to be attending to each other at the same time to communicate. Senders can take time to compose their messages, and receivers can read these and send their responses at their own time and convenience. Email, listserves, discussion forums, and bulletin boards are the most common examples of asynchronous communication.

CMC is often referred to as a hybrid form of communication having both features of spoken and written language. Many researchers have analyzed the particular features of CMC. Beauvois (1998) stated that CMC is “*Conversation in slow motion* that allows students time to reflect and compose before communicating—something that is not possible in oral exchanges of information” (p. 93). Warschauer (1997) described CMC as an effective tool that can encourage the participants’ reflection as well as interaction due to such aspects of CMC as that it is easily transmitted, stored, archived, reevaluated, edited,

and rewritten. Smith (2003) claimed that the “written nature of computer-based discussions allows a greater opportunity to attend to and reflect upon the form and content of the message, while retaining the conversational feel and flow as well as the interactional nature of verbal discussions” (p. 39). Chapelle (2003) agreed with Smith by stating that CMC “allows the learner time to reflect on the language (both during and after production) while engaging in interaction” (p. 24).

Specifically, Gonzalez-Bueno (1998) identified several features of language produced via email; a) a greater amount of language; b) more variety of topics and language functions; c) a higher level of language accuracy (at least at the beginning level); d) more similarity with oral language; e) more student-initiated interactions; f) more personal and expressive language use. The author also added that due to the availability of computers at home, students wrote longer sentences and discussed more personal topics rather than talking about the usual school activities.

Finally, Warschauer (1997) differentiated CMC from other communication media in terms of five distinguishing features: 1) text-based and computer-mediated interaction, 2) many-to-many communication, 3) time and place independence 4) long distance exchanges, and 5) hypermedia links.

Why use CMC?: Research Findings in CMC

Since CMC was introduced into language classrooms in the 1980s, foreign language researchers and educators have investigated the potential power of CMC in promoting students’ language learning and development. In order to determine the effectiveness of

using CMC in the learners' language acquisition process, researchers have found a great number of benefits, as well as limitations of CMC as compared to face-to-face settings.

CMC and Language Development

Several studies focused on students' language development associated with a variety of aspects using CMC. In his study of Portuguese language learners, Kelm (1992) found an increased amount of language produced by language learners during CMC, nearly 120 comments every session. Just as the quantity of language produced by the learners increased, the capacity to read large chunks of language increased as well. Because students had to read many comments in a short time, they were learning to read for meaning. Notably, these language learners during CMC were not reluctant to use certain specific speech patterns that are known to be avoided by interlanguage speakers. That is, CMC seemed to serve as an effective tool for the students to practice their language in a less stressful environment. Students reported using "more complex sentence structure," "putting words and phrases together much better than before," and "practicing sentence structure." Finally, although the students did not frequently correct their peers' errors online, they seemed to pay closer attention to correcting their own errors for getting their message across. Chun (1994) was one of the early researchers who reported the effectiveness of CMC in her first year German language class. In CMC interaction, it was found that students produced different kinds of speech acts, asked more questions, and gave more feedback to their fellow students. In addition, learners' sociolinguistic competence, including greeting and leave taking, requesting confirmation or clarification, and

apologizing, was demonstrated during CMC. Thus, Chun concluded that CMC provides language learners with the opportunity to develop their interactive competence and discourse skills. Focusing on learners of French, Kern (1995) attempted to compare the quantity and characteristics of the discourse that was produced by the students during CMC sessions and oral class discussions. The quantity of output between CMC and oral discussions was strikingly different. Students in CMC produced much more language than they did in oral discussions. Students took two to three and a half times more turns in CMC sessions than in oral sessions. Kern also reported an overall higher level of sophistication in students' written language in terms of the morphosyntactic features and the variety of functions expressed in their French. In addition, students in CMC took more turns and produced two to four times more sentences than those in the traditional oral discussions.

Comparing asynchronous computer-mediated discussions and face-to-face discussions, Beauvois (1998) found similar results to those found in Kern's (1995) study. Her findings showed increased learner participation, greater quantity of language output, and greater complexity of language output during CMC. Students in CMC tended to talk about the discussion topics more thoroughly and more openly than those in the oral discussions. In addition, students' use of their L1, English, was much less frequent in computer-mediated discussions than in the oral discussions. Similarly, with intermediate ESL students, Sullivan and Pratt (1996) conducted a comparative study of two different environments: a CMC classroom doing all activities, including class discussions and writing assignments, using computers, and a traditional oral classroom. The result of the 15 week-period investigation showed that although the number was small, there was a

statistically significant increase in the quality of writing in the students' writing in the CMC classroom. In addition, the authors noted that students in the CMC classroom tended to spend much more time engaging in discussions than those in the traditional oral classroom indicating even more increase in the students' writing skills in the CMC classroom. Warschauer (1996) also compared small group discussions online to discussions face-to-face with 16 ESL students. Students who were participating in online discussions showed more syntactic and lexical complexity and more formality, such as "in my opinion" and "therefore," in their use of written language than those in the face-to-face discussions.

Wang (1998) compared a group of students using email with a group of ESL students using paper-and-pencil for their dialogue journal during a period of nine weeks. Wang found that the email group asked more questions and used more language functions than the paper-and-pencil group. The messages produced by the email group were more conversational and informal than those produced by the paper-and-pencil group. The author speculated that this conversational atmosphere of writing via email might have affected the greater number of messages written by the email group. Focusing on grammatical and lexical accuracy, as well as quantity of language, Gonzalez-Bueno and Perez(2000) also compared the language produced by learners of Spanish as a second language who were divided into an email group and a paper-and-pencil group. The authors found that students in the email group produced significantly more language than those in the paper-and-pencil group, indicating that the email exchange had a positive impact on the amount of language produced by the students. However, quantitative analysis showed no significant differences between the two groups with regard to the number of grammatical and lexical errors. In

another study, Stockwell and Harrington (2003) investigated email exchanges between university Japanese learners as a foreign language and native language speakers over a five week data collection period. The results indicated that over about 15 online exchanges, there was an improvement in syntactic usage of Japanese and vocabulary when measured both quantitatively and qualitatively.

Equality of and Increased Student Participation in CMC

Empirical researchers shown that the nature of CMC affects the dynamics of student participation and the amount of instructor contribution. Comparing CMC with face-to-face interaction, many researchers have reported there to be an equalizing effect of the CMC tool, thereby increasing student participation from all members of the group and reducing the role of the teacher during CMC interaction (Beauvois, 1992; Kelm, 1992; Kern, 1995; Sullivan & Pratt, 1996; Warschauer, 1996).

Both Beauvois (1992) and Kelm (1992) reported students' increased participation during CMC, particularly of shy students who are reluctant to participate in front of others. Kelm added that CMC played the role of a great equalizer because "students can read comments at their own pace, type their responses at their leisure, and wait to send messages only when they are completely satisfied with what they have written" (p.448). Decreased presence of the instructor during CMC was also observed in both studies. Beauvois asserted that nobody, not even the instructor, could dominate the CMC discussion.

Kern (1995) found that whereas every student participated in CMC sessions, four to five students dominated class discussions during oral sessions. Students took two to three

and a half times more turns in CMC sessions than in the oral sessions. Sullivan and Pratt (1996) with ESL students also support this finding with 100% of the students in the CMC classroom participating whereas only 50% participated the traditional oral classroom. Not so surprisingly, to the degree students' participation rate went up, the role of the teacher during discussion was reduced in the CMC classroom. While the teacher took 65% of the total turns in the oral class, it turned out that the teacher took only 15% in the CMC class. In his study with ESL students, Warschauer (1996) also reported an increased and more equal participation in CMC due to the active participation of normally silent students. He found that Japanese students who rarely participated in face-to-face discussions increased participation in CMC mode.

According to Warschauer, Turbee, and Robert (1996), CMC “allows more equal participation by those who are often excluded or discriminated against, including women, minority, the disabled, shy students, students with unusual learning styles, and students who are apprehensive about writing” (p. 5). Thus, although oral discussions lead to relatively unbalanced student participation patterns with a few students monopolizing the floor, CMC often shows a more balanced participation patterns encouraging all the students to participate in the discussions.

Finally, although the decreased presence of the teacher's authoritative role in CMC was seen as a benefit of using CMC, because it fosters a learner-centered learning environment in support of students' autonomy, Kelm (1992) claimed that, at times, the teacher needs to take an active role in CMC discussions. When the teacher is present during

the discussions, students seemed to feel more comfortable because the teacher is available to help when they encounter problems with language-related questions.

Students' Improved Attitudes and Motivation in CMC

In addition to the linguistic gains and improvement in students' participation patterns, some researchers reported affective benefits of CMC, particularly in students' attitude and motivation. When they used CMC, language learners improved their motivation and attitudes in several studies (e.g., Beauvois, 1994/1995; Kern, 1995; Warschauer, 1996). Learner-centered CMC stimulates students' interest in language learning and improves their attitudes and motivation. For example, Beauvois (1994/1995) used a questionnaire to investigate French learners' attitudes toward participating in online discussions. The questionnaire was designed to ask students' attitudes toward computer use, stress, online participation, group interaction among other topics. Most students in the study reported they experienced an anxiety-free atmosphere while participating online using French. Students "talked" a great deal in CMC, particularly male students who were rather reticent in the face-to-face discussions. Having had more frequent conversation with their classmates led the students to feel a sense of comradeship and support for each other. This kind of bonding appeared to help the students improve their motivation for learning a foreign language. Beauvois put it this way, "the students participating in this study experienced the positive affect of belonging to a community of speakers of a foreign language and the pride of producing together coherent, readable documents in that foreign language, thus creating a new sense of the classroom discourse community" (p.185-6).

French language learners in Kern's (1995) study also reported that they had enjoyed using computer technology in communicating with their peers. They also thought that student-to-student interaction in CMC stimulated their interest in learning and became a motivating force to them in learning a foreign language. Thus, the students who were often hesitant to speak up during oral discussions were found to participate more actively in CMC sessions. Positive attitudes using CMC also were found in the ESL students of Warschauer's (1996) study. The students participating in online discussions reported that they could express themselves freely and articulate their opinions more comfortably and creatively as compared with oral discussions. They also reported they did not feel stress during online discussions. For those students, CMC (Interchange program in this study) was easy to use. Kelm (1996) described how CMC can create a natural language learning environment for students in which the students can focus entirely on content. He introduced one anecdote in which one of his students and a student in another university had found a common interest during an email correspondence project and ended up writing emails to each other using Portuguese for the entire semester. Finally, students participating in email correspondence in the studies of Gonzalez-Bueno and Perez(2000) and Wang (1998) reported improved attitudes toward learning the target language and seemed to enjoy working with computers.

CMC and Cultural Awareness

Along with the linguistic and affective benefits of using CMC in language learning settings, some efforts have been made to demonstrate the effectiveness of CMC in

enhancing the cultural competence of L2 learners (Gray & Stockwell, 1998; Lee, 1997). In Lee's (1997) study, 124 intermediate Spanish language students searched the Internet for sources relevant to Hispanic culture for their project and had an email exchange with native speakers, peers, and their instructors to discuss their ideas and opinions related to Hispanic culture based on the readings. Based on a questionnaire and interview that sought the students' reactions to the application of the Internet and CMC for their learning of culture, Lee reported several positive outcomes. Exploring the target culture using CMC not only allowed the students to understand Hispanic culture more in depth, but it also increased their motivation and interest for learning both the culture and the language in a dynamic way. Gray and Stockwell (1998) found enhanced cultural awareness after a five-week period of email exchanges between undergraduates in two universities in two different countries. Eighteen advanced Japanese learners in Australia and 19 native Japanese speakers in a Japanese university exchanged emails to discuss assigned topics including dining out, dating, and socializing, using Japanese exclusively. In the open-ended post-questionnaire, the students expressed an enhanced cultural awareness as well as openness to the other culture.

Additional Benefits of Using CMC

CMC was also found to foster the negotiation of meaning. Several studies corroborated the results from studies of face-to-face interaction in that, during CMC interaction, students actively negotiated meaning when they encountered problems in communication (Blake, 2000; Kitade, 2006; Pellettieri, 2000; Smith, 2003). For example, in

his study of intermediate Spanish learners, Blake (2000) found a considerable amount of incidental negotiation occurring among students during synchronous CMC interaction. Similarly, Pellettieri (2000) also found seven dyads of Spanish language learners who were participating in CMC negotiating meaning when communication breakdowns occurred. Smith (2003) found that his ESL students spent one third of their total turns to negotiate meaning during synchronous CMC. In these studies, most of the negotiation interaction occurred when there was a problem with lexical items. During asynchronous CMC interactions among 24 native and nonnative English speaker dyads, Kitade (2006) found the English learners demonstrated distinctive features of negotiation routines from synchronous CMC, such as abandoning negotiation and the location of signals and responses in the message.

In several studies, students reported increased confidence in using the target language and less anxiety than during face-to-face discussions (e.g., Kelm, 1992; Warschauer, 1996). By contrast, Arnold (2007) involved 56 German language learners in a study of whether CMC reduces foreign language communication apprehension. The control group participated in six face-to-face discussions whereas the two experimental groups participated respectively in six synchronous and six asynchronous discussions. Although the students did report reduced anxiety and an increase in their self-confidence in the self-report data, the pretest and posttest questionnaires using the Foreign Language Classroom Anxiety Scale (FLCAS, Horwitz et al, 1986) indicated no significant difference in reduction of anxiety between the control and experimental groups. However, the author pointed out that there were no students with high levels of communication apprehension

among the participants in the study, which may have affected the study's ability to detect any reduction of anxiety in the CMC groups.

Finally, because of the unique feature of CMC of being easily transmitted, stored, and archived, an additional benefit of using CMC in the classroom is that both teacher and students can keep the hard copy of their written messages, thereby encouraging students to notice and repair mistakes (Kelm, 1992; Beauvois, 1992, 1998).

CMC and Children

Few studies have reported positive outcomes when students used CMC in both L1 and L2 settings (e.g., Bowen, 1994; Koh, 2007; Morris, 2005; Nix, 1998). When students used CMC, there was improvement in the children's writing skills (Nix, 1998) and in the children's higher order skills in their writing including organizing, developing, and clarifying (Bowen, 1994).

Morris (2005) investigated 46 5th grade children (mean age 10.6 years) and their interaction and corrective feedback during CMC in an elementary Spanish immersion class. The children were paired, and each pair completed a jigsaw task while interacting online. Interaction via CMC was found to be effective for L2 development by providing young language learners with increased opportunities to use the target language, provide feedback to each other, and correct each other's lexical and syntactic errors using negotiation. In fact, over half of the students' negotiation moves in order to correct errors led to immediate repair of errors. Koh (2007) also investigated ESL children's experiences and impressions when they had interaction via CMC. Nine elementary ESL students (mean age 11 years)

were divided into two groups and each group participated in 10 online chat sessions. The results of the study indicated that although they engaged in an activity for a relatively short time, the children did not have difficulty in conversing with their peers using computer technology. They not only were already proficient and ready to use the CMC medium but also seemed to enjoy chatting online with their peers. Although, at times, the children's behaviors, such as teasing and playing around, triggered an unpleasant atmosphere for learning, these learners reported that the CMC experience was "fun" as well as potentially helpful for them to improve their English.

Issues in CMC Research: Transferability of CMC Skills to Oral Proficiency

Acknowledging the types of utterances that are produced in CMC that resemble spoken discourse, researchers, such as Beauvois (1992) and Chun (1994), have suggested the possibility of the transferability of written competence gained from the CMC modes into oral proficiency. Since then, a few researchers have attempted to examine the effects of CMC on the development of language learners' oral language skills, and they found promising results that demonstrate the hypothesis raised by the researchers. Focusing on 58 3rd semester Spanish language learners, Payne and Whitney (2002) tested the hypothesis that synchronous CMC might have positive effects on students' oral proficiency. This 15 week-long study had an underlying assumption that chatting would develop the same cognitive mechanisms as second language speech does. Using a quasi-experimental and pretest-posttest design, the control group had 4 hours per week of classroom instruction and the experimental group had 2 hours of chat and 2 hours of classroom instruction. The instructional content was the same for both groups. The results of the speaking pretest and

posttest showed significantly improved oral proficiency for the experimental group. The authors concluded that “the oral proficiency gains of the experimental group indicate that a direct transfer of skills across modality from writing to speaking does occur” (p. 23).

Abrams (2003) conducted a quasi-experimental study to investigate whether CMC had a positive impact on the oral performance of German language learners. Ninety-six students of intermediate German comprised three groups: a control group (no CMC), a synchronous CMC group, and an asynchronous CMC group. These groups of students participated in three entire-class oral discussions for the course of one semester. The students’ oral performances during the discussions were measured in terms of the amount of language output, lexical richness, lexical density, and syntactic complexity. Results showed a significant increase in the amount of language produced by the synchronous CMC group in later oral discussions, compared to the other two groups (no CMC and asynchronous CMC groups). Abrams concluded that SCMC seemed to have furnished the students an opportunity to present their ideas more easily, and that this affected their motivation and attitude toward the language task and learning the language itself. These increased abilities, therefore, seem to be helpful in improving fluency in speaking. Notably, although the SCMC group produced significantly greater language output when measured quantitatively, the quality of their produced language was not significantly better than the other comparison groups. Abrams suggested the need for further research on this issue with long-term use of SCMC.

Limitations of CMC

Kern (1995) who reported noticeable linguistic benefits in using synchronous CMC with foreign learners also mentioned some drawbacks of using CMC. He stated that, during computer-mediated discussions, the teacher's authority was decentralized. Therefore, learners in CMC tended to pay less attention to grammatical accuracy, and as a result, the students read flawed language. There was a lack of coherence and continuity of the discussions during CMC. Having recognized the benefits, as well as the drawbacks of using CMC among foreign language learners, Kern insisted that teachers need to "reconcile for themselves the inherent tension between the conversation of traditional roles and the destabilization of hierarchy and power" (p.470).

According to Lewis and Atzert (2000), for the students who are already having difficulty in learning a foreign language, adding the additional burden of learning and using computing technology extensively can make those students feel anxious and frustrated. This tendency would be stronger for students who had low levels of computer literacy and who self-evaluated themselves as having poor to fair computer skills.

Flaming, characterized as "bold, offensive, or crude comments, not typically found in oral conversations" (Kelm, 1992), was frequently observed as one of the limitations of using CMC in L1 instructional settings (Sproull & Kiesler, 1991). Due to the anonymity of CMC and the lack of social cues in CMC, some students who were not accustomed to having such freedom to express themselves in the classroom tended to use more aggressive and stronger language than they would in face-to-face discussions. In an L2 setting, with 75 German college language learners participating in synchronous CMC, Abrams (2003) looked for evidence of flaming during the course of one semester. Although she found

some flaming behaviors during computer-mediated interaction between learners, the number was quite low and the occurrence of flaming decreased as the students came to know each other better. Thus, Abrams claimed that educators should not fear flaming behaviors of students during CMC. Instead, they should find ways to utilize flaming for improving students' language ability as well as to reduce the number of occurrences of flaming. Abrams suggested that selecting less provocative as well as less personal topics for the discussion may reduce the amount of flaming during CMC.

Kelm (1992) observed similar behaviors of students online. Some students initially attempted to make some possibly inappropriate comments in order to see "what they could get away with saying on the computer" (p.448). However, Kelm reported that they generally came back to the topic of discussion with others once these students realized that they had complete freedom to say whatever they wanted to say.

CMC in Teacher Preparation

Researchers have touted the benefit of using CMC in language teacher education programs; however, a limited amount of research has been undertaken to examine the effectiveness of CMC in language teacher preparation. Nunan (1999) examined the potential of CMC in teacher education programs. In his study, four native English speakers and four native Japanese speakers in a distance TESOL program participated in both synchronous and asynchronous CMC discussions. Results showed that CMC provided a space that allowed these students to make connections between the knowledge acquired in textbooks and their teaching experience in the real world. Nunan also found that, in the beginning of the course, these CMC sessions were more teacher-dominated, similar to the

face-to-face classroom setting. However, as the course developed, students started to take more control of their own learning process.

Kamhi-Stein (2000) used CMC tools in her teaching methods course in a TESOL education program, and compared students' participation patterns in asynchronous web-based bulletin board (BB) with those in whole-class, face-to-face discussions. The participants in the study were 20 students enrolled in a teaching methods course. Among the 20 students, 13 were non-native speakers of English. First, participation patterns for the instructor and the students in the two modes were different. In the face-to-face discussion, the instructor took more control of the interaction, and a typical IRE pattern was seen. On the contrary, in CMC, students' contributions in the discussion were much higher than their instructor's. In addition, in CMC, the students initiated more interactions, and there was a great deal of evidence of the students collaborating and supporting each other. Finally, the author investigated students' attitudes toward participation in web-based BB discussions. The students showed highly positive attitudes, believing the online discussions allowed them to "hear multiple voices and perspectives." In particular, non-native speaking students said that the CMC tool reduced the cultural and linguistic barriers that they had often experienced in face-to-face discussions. Overall, the author concluded that the integration of CMC into a teacher education program helped the future teachers develop professional knowledge through collaboration with their peers and a mentor teacher using technology.

Similarly, Lee (2009) explored the effectiveness of online discussion forums in her foreign language teaching methods courses. Thirty-two student teachers in the teaching methods course and eight experienced high school language teachers engaged in weekly

threaded discussions. The results showed that collaborative online exchanges between expert teachers and student teachers helped the student teachers to construct knowledge of teaching principles and practices. The exchanges with expert teachers also facilitated student teachers' critical thinking and reflections in understanding the subject matter due to the expert teachers' scaffolding. The student teachers showed a positive attitude toward this online exchange with expert teachers and their peers. They believed that the exchange helped their understanding of the course materials and development of their pedagogical knowledge.

Freiermuth (2001) also investigated the interaction among groups of native and nonnative speakers of English in an English teacher preparation course in order to see if there were differences between the two groups in terms of the nature of the interaction. Similar to previous research, student teachers in the course showed a more equalized participation pattern in CMC than in face-to-face interaction settings. Biesenbach-Lucas (2003) explored the perceptions of native and non-native students in asynchronous CMC in teacher training classes. Both native and non-native students reported a positive effect in promoting social and academic benefits. Interestingly, although the non-native students reported that the online discussion was helpful in understanding the course material better, they did not believe that having participated in online discussions with their native-speaking peers was helpful in practicing their English.

Some other studies in language teacher preparation in CMC looked at how preservice language teachers engaged in the CMC discussions cognitively as well as socially. For example, Arnold, Ducate, Lomicka, and Lord (2005) reported the findings of two studies

that investigated cross-institutional asynchronous forums in a language teacher education program. The studies were conducted in order to investigate social presence in two different online communities and how the new teachers could benefit from participating in these online communities. In the first study, six participants from University #1 and University #2 participated in 10 discussion forums on reflective teaching. In the second study, a different class of 23 participants from University #2 and University #3 participated in weekly exchanges. These participants were either beginning teachers or student teachers and represented various nationalities including American, French, Italian, German, and Spanish. Using Rourke, Anderson, Garrison, and Archer's (2001) framework, the authors found clear evidence of students developing social presence, including affective, interactive, and cohesive interactions through the use of CMC. The students in CMC actively engaged in a social activity to build their communities. The majority of the participants also reported that after having participated in this activity, they were more inclined to integrate CMC into their own language classrooms. Thus, Arnold et al. concluded that CMC was indeed a "viable tool for FL teacher education." In the study by Arnold and Ducate (2006), preservice language teachers in methods courses at two different universities participated in CMC. The analysis of the preservice teachers' online discussions revealed evidence of both cognitive presence and social presence. That is, the preservice teachers not only succeeded in acquiring a cognitive understanding of topics that they were discussing but also showed a high degree of social interaction during CMC.

The next four projects I describe all involve preservice teachers in online environments. Although these preservice teachers were not training to be language teachers

and though the exchanges all occurred in the participants' L1, the projects are helpful in demonstrating the extent to which online learning can support the preparation of teachers.

Doering and Beach (2002) reported on a project in which English preservice teachers were helped to acquire literacy practices using various technology tools involved in working effectively with students. The preservice teachers and middle school student worked together to do a multi-genre writing project, such as a biographical sketch and a newspaper report. The groups communicated using asynchronous CMC about the project and about their personal matters whenever they were not working each other offline. Engaging in conversation with each other online helped preservice teachers not only to develop a personal relationship with their students, but also to finish the project on time because the preservice teachers were able to monitor their students' progress both on- and offline.

Using Bakhtin's theories of language and learning and Gee's notions of identity and group membership, Assaf (2005) investigated how one preservice teacher shaped her identities as a reading teacher while discussing articles on literacy instruction with her peers online. Assaf reported how the preservice teacher was able to identify and negotiate her dynamic identities coming from her past experiences, values, and beliefs during CMC with other preservice teachers, and how these influence her development as a teacher. The author also pointed out that exploring the preservice teacher's identity in this way can provide "new insights for conceptualizing how novice teachers learn to think and act in a teacher education program" (p.208-209).

Focusing on three case studies with different students, Kim and Schallert (2011) showed how caring relationships between a teacher and students in a teacher preparation program, depending upon several complex factors, can be developed differently during CMC interactions. The factors included expectations and perceptions of the students and the teacher, how deeply the students were engaged in interactions with their teacher online, and how they interpreted each other's words. Kim and Schallert stressed the potential of CMC and argued that dependent upon these factors, the online environments can turn into either a powerful space for students and teacher to build caring relationships or a "troubling" space filled with each other's misunderstanding, as well as an "insignificant" space in building a relationship with their teacher.

Finally, in a project that comes closest to my own, Wilson (2010) investigated preservice teachers' experiences and learning in a one-month online book club in which 23 preservice teacher and child dyads discussed books using email. Wilson initially divided the pairs into two groups in order to find factors that might contribute to the success of online book discussions. Using a criterion of success that a dyad had exchanged the minimum required number of messages, she assigned dyads to a successful and less successful group. In addition, her thematic analysis using Lewis' (2001) categories and Noddings' (1999) conversation types revealed what characteristics differentiated the dyads that were successful or less successful, including preservice teachers' efforts to engage in both formal and ordinary talk and to take on different roles during interactions with the students. Overall, Wilson concluded that online literature discussion "allowed for talk to develop, reflecting the understanding that preservice teachers had constructed about how to

interact with young readers in a literature discussion” (p.689). Wilson also added that both the preservice teachers and children had learned about how “setting up experience with texts and fellow learners” using technology in a classroom can be “an interesting and integral part of classroom life.”

In summary, several researchers attempted to investigate the potential of CMC in teacher education programs and found its potential to create productive online learning communities. The studies that incorporated CMC into teacher education curricula showed similar results: CMC allowed student teachers to reflect on their teaching practices in terms of both the theoretical and the practical side and discuss their concerns by collaborating with their peers or their mentor teachers; CMC also provided them with a sense of community by reducing their feelings of isolation (Kehmi-Stein, 2000).

Chapter 3

Method

This chapter presents the research methodology that I used for data collection and data analysis. I begin with a general overview of the research setting of this study. Then, I provide a detailed description of the participants of the study and the project by which they provided me with data, followed by data sources and data analysis. Finally, I present strategies that I used to ensure the credibility of the study.

Research Setting

The participants in this study were Korean college students and elementary school students who were learning English as a foreign language in Korea. The study was conducted in a local university in a rural area of Korea. The school is one of the national universities of education in Korea that provides training for students to become public school teachers at the elementary level. Recently, the school has been making an effort to offer practical English classes that could help improve its students' English, classroom English in particular. The college student participants were enrolled in one of these English practice classes at the university in the fall of 2009. The main focus of this class was to learn and practice the classroom English that the students, who were studying to become elementary teachers, would likely use in their future English classrooms. The class met on Fridays for 2 hours. I was the instructor for the class, and designed an online exchange as a requirement that my students had to complete as a course assignment. The class consisted of lectures using a designated textbook that had been chosen for the class, along with

supplementary materials and various activities, including group work and brief presentations. The class was designed for the preservice teachers in such a way that they could practice their English as much as possible. Due to time constraints, the online exchanges with elementary-aged students were carried out as an out-of-class assignment.

Participants

Preservice Teacher Participants

As shown in Table 1, of 31 preservice teachers, six were men, and most of the participants were within the 20 to 24 age group. Except for two participants, all the participants were in the second semester of their first year in college. On average, the participants had been studying English for approximately 12 years. As for their attitudes toward studying English, the majority had favorable attitudes with 19 of them reporting that they liked studying English. Although most of the participants reported that they liked studying English, they did not perceive their English ability as being high. The majority regarded their English either as so-so or poor. Only three participants thought that their English was good. However, it should be noted that in my estimation, many of the preservice teachers' perceived English ability did not reflect their actual English ability. For example, Minhee (pseudonym, all names have been changed), whose English was one of the best among the preservice teachers, rated her own English ability as so-so. Finally, when the preservice teacher participants were asked to rate their own confidence level in using English as a medium of instruction, the majority of them rated themselves either a 2 or 3 on a scale of 1 through 5, low or so-so in confidence.

Table 1. Preservice Teacher Participants' Background Information (N=31)

Category	Description	N
Gender	Male	6
	Female	25
Age	19-24	26
	25-29	3
	30 or over	2
Academic Year	Freshman	29
	Sophomore	0
	Junior	0
	Senior	2
Years studying English (Mean)		12
Confidence level of using English as the medium of instruction (Rating from 1- do not feel confident to 5-very confident)	5	0
	4	3
	3	11
	2	13
	1	4

As shown in Table 2, the participants in the study were frequent users of computers and comfortable using computers for a variety of purposes. The majority reported that they used a computer every day, and the average time spent on computers per day was two hours. What they did with computers varied: searching for information, chatting with friends via Messenger, doing homework, or watching movies, etc. Although most participants did not have experience in using technology when tutoring students, the vast majority of the participants supported the use of technology in the EFL classrooms, to some extent.

Table 2. Preservice Teachers' Computer Usage and Beliefs of using Technology in Classrooms

Category	Description	N
Frequency of using computers	Everyday	23
	4 or 5 times	4
	2 or 3 times a week	4
	Others (sometimes)	1
Experience of teaching/tutoring students using technology, such as Email	Yes	3
	No	23
Opinions of using technology (e.g., computer) in EFL classroom	Strongly support	6
	Somewhat support	22
	Do not support	1
	Other opinions	1
	No answer	1

Elementary School Student Participants

The elementary school students were recruited through personal contacts, including close acquaintances who were mothers of elementary-age children, as well as through personal contacts of some of the college students including a local teacher in an elementary school nearby. My criteria for selecting participants included that the elementary students possess enough English ability to read at least simple English picture books and know how to type in both Korean and English. They, however, did not necessarily have to be good at English. Second, both the students and their guardians had to agree to participate in the project, thereby showing their willingness to commit themselves to the online exchange with the preservice teacher participants. Finally, older elementary school children were preferable, although it was not essential. Because the project would be done outside any

classroom context, I needed to select older children who would be interested in the email exchanges enough to participate after school and on weekends.

In fact, during participant recruitment, I had originally hoped to recruit a whole class of elementary school students in order to match the number of the preservice teacher participants as well as to help the elementary students more easily by having them together in one place. Thus, I contacted several elementary schools that placed much emphasis on English education, but all my requests were rejected, either by the schools' teachers or their principal. The teachers' main concern over including the online project was the matter of their time constraints. They not only had a curriculum to follow, but also had students with varied levels of English proficiency. The teachers felt that inclusion of the online project in their classes would take up too much of their class time. In addition, it appeared that some teachers were hesitant and wary of opening their classrooms to a stranger. One of the principals turned down my request because she would prefer the students to have online exchanges with native English-speaking teachers, rather than non-native Korean English teachers. Thus, I decided to recruit elementary student participants using informal channels.

Ultimately, ten elementary students participated in the study. Among them, seven were girls. The range of the participants' ages varied from 7 to 12 years old. The majority of the participants were sixth graders. The child participants had been studying English for an average of 4 years. They were currently studying English for about 3 hours per week in school, and all the participants were either doing private tutoring at home or going to private English institutes to study English. As for their English ability, four of the participants thought that their English was either good or very good, and none of the

participants thought their English ability was poor. When asked whether they liked studying English, six of 10 participants indicated they like studying English very much. Three of the participants said that they do not really like studying English. Of these three participants, one added that although he did not like studying English, he liked reading English books. Another participant also said that she only liked studying speaking and taking conversation classes but did not like studying grammar.

As far as computer skills were concerned, all of the children were quite comfortable using computers. The elementary-aged children were in computer literacy institution for on average a little more than one hour per week in school. The range of the child participants' frequency of using computers varied widely. Two children, Sujin and Junghee, were the most frequent computer users, as shown in their comments that they used computers every day. The least frequent computer user was Haemi, who reported computer use for less than one hour per week. The children seemed to know how to use computers for various purposes. Most reported that they often visited their school websites to check their homework and leave messages for their classmates and teacher. Some participants reported that they also visited Korea's social network, such as Cyworld.co.kr and Buddybuddy.co.kr. All except for one child participant, Jaehoon, who used his mother's email address, had their own email addresses and reported that they frequently exchange emails with friends and teachers. As for typing skills, some children indicated that typing in English was slower or more uncomfortable than typing in Korean. Some children including Jieun and Haemi reported that they rather felt comfortable typing both in Korean and in English. Most of the participants had had some experience of using computers when

studying English, reading English books online, listening to CDs, and studying on commercial educational websites, as the most frequent activities.

Table 3. Elementary School Students' Background Information

Name of the Students	Gender	Age	Grade
Minji	Female	12	6 th
Sujin	Female	12	6 th
Jieun	Female	11	5 th
Junghee	Female	12	6 th
Haemi	Female	9	3 rd
Minho	Male	10	4 th
Haejung	Female	12	6 th
Minjoo	Female	12	6 th
Jaehoon	Male	7	1st
Sungmin	Male	10	4 th

Pairing of the Participants and Procedures

A group of on average three preservice teachers paired with each one elementary student.

Table 4. Pairing of the Participants

	Preservice teachers (Gender)	Child partner (Gender)
Group A	Jaehee(F), Haejung(F), Jungsoo(M)	Sujin(F)
Group B	Eunji(F), Jungmi(F), Sumin(F), Jongsuk(M)	Jieun(F)
Group C	Minhee(F), Junho(M), Hayoung(F)	Minji(F)
Group D	Kyeungeun(F), Sojung(F), Haesook(F)	Haemi(F)

(Table continues)

Table 4. (Continued)

Group E	Juhyun(F), Hyunjin(F)	Haejung(F)
Group F	EunAh(F), Haejin(F), Taeyeon(M)	Minjoo(F)
Group G	Younghee(F), Youngjun(M), SeungAh(F)	Minho (M)
Group H	Eunyoung(F), Hyunmi(F), Saehwa(F)	Sungmin(M)
Group I	Semi(F), Dongho(M), Mija(F)	Jaehoon(M)
Group J	Kyungchul(M), Haeyoon(F), Bokyung(F), Yoojin(F)	Junghee(F)

The 37 Korean EFL preservice teachers were originally divided into 12 groups of two, three, or four preservice teachers. These groups were paired with one child partner apiece, yielding a total of 12 partnerships, charged with exchanging about six to 10 e-mails to talk about an English book mostly using English. Of these original 12 partnerships, two groups were excluded from data analysis due to insufficient data for the current study. As a result, the data for a total of 31 preservice teachers and 10 elementary students were analyzed. There were several important reasons why a group of preservice teachers were paired with one child instead of pairing dyads consisting of one preservice teacher and one child. First, it was difficult for me to find an equal number of elementary school children and the preservice teachers. Secondly, I believed that this kind of group activity would make a good collaboration experience for future teachers of elementary students. It would aid in their professional development as well as provide quality instruction for the child participants. Because it might be confusing for the elementary students to deal with multiple voices online, each group of preservice teachers took on the persona of one imaginary teacher to represent themselves. Thus, it should be noted that as I present results

of the study, I mix singular and plural references/forms, as in “she seems to think of us as a friend (s) to her more than as a teacher (s)” or “...consider us as a real teacher(s).”

The preservice teachers were encouraged to use mostly English, but they also had the autonomy to choose to use Korean when they felt it was needed. Before sending a message, the preservice teachers were asked to discuss with each other what to write in the message for their child partner either online, using programs such as MSN messenger, or in face-to-face discussion with their group members. Those who used chat programs for discussions were asked to submit the transcript of the conversation. Those who met in person were asked to record their conversations and submit the recordings to me. In case they could not record the conversations, they had to write a summary of their discussion as well.

As a medium of communication between the preservice teachers and the children, an asynchronous CMC mode, email, was chosen by taking into consideration that the participants are going to discuss English books that they were reading together mostly using English. The nature of asynchronous CMC provided the participants sufficient time to read a chunk of a book and create a message at their own convenient time. In particular, for the preservice teachers, extra time was given to them to prepare in groups for the next message and reflect on their teaching and interactions with their students.

As for the books that were the basis of the exchange, I selected a list of books that might be appealing to the children. The level and the genres of the books that I chose varied from simple picture books to graded readers, taking the children’s different levels of English proficiency into account. The books were *Chrysanthemum* (Henkes, 1991), *How to lose all your friends* (Carlson, 1997), *The boy who cried wolf* (Ross, 1992), *Junie B. Jones*

and the stupid smelly bus (Park, 2007), *The story of toilets, telephones, and other useful inventions* (Daynes, 2005), and *Bear hunt* (Browne, 1994). I had purchased many of these books from a used book store in the US and provided them to the participants. Most of the books that I had selected for the project were readily available in the local libraries and easily accessible in local book stores in Korea as well. Some preservice teachers provided new books for their child participants as presents before entering the project. For selection of the books for children, preservice teachers either sent out the list of books to their child partners for the child's selection, or they selected a book they felt might be suitable for their child partners' age.

Because all the child participants were very busy with various after-school activities and lived in diverse areas of the country, it was impossible to gather them together in one place in order for me to help them send email messages from the same location. In addition, restricting myself to child participants from only one location would have defeated the purpose of using email—that is, connecting people from a distance. Thus, except for one child who I assisted in sending emails to his partner, the children worked on their own when sending emails. This was possible because, as mentioned earlier, although some children were a little slow in typing in English, all were familiar with using computers. Most of them already had an email address and were frequently corresponding with friends or teachers and doing homework using computers. According to these participants, from first grade on, their classes had their own websites, and they checked their homework every day by logging on the website. They also often communicated with their classmates and teacher online.

As noted earlier, for the preservice teachers, this online exchange was carried out as a class assignment. Availability of computer facilities or computer skills was never an issue for the preservice teacher participants in the study. There was a computer lab in the same building where they were taking classes, and most of them had their own computers or laptops in their residences. Likewise, the child participants had access to computers and the Internet from home. In addition, as shown in the students' profiles, all of the participants regularly used computers and although their typing skills varied, they knew how to type in both Korean and English. Although the children were encouraged to use as much English as possible, they were free to choose to use Korean if they had difficulty in expressing their thoughts in English or if they felt uncomfortable using only English. If they needed any help with computers or English, they could turn to their partners, their parents, or siblings to ask for help.

As a facilitator and an observer, I also assisted one of the child participants, Jaehoon, eight times in sending his emails to his partner. Jaehoon was added as a participant when an original participant gave indications of losing interest. Because I had to find another child participant who was suitable for my study on very short notice, I included Jaehoon, a 1st grader, who had been initially excluded when screening participants due to his young age although he met most of the requirements of my study. Jaehoon possessed a very high level of English ability for his age, particularly his listening and reading skills. He did not have much difficulty in typing in both Korean and English. Because of his young age, Jaehoon's mother agreed to help him send emails to his partner. However, I decided to assist him in sending emails. Because I was not able to gather the children in one place, I wanted to

observe at least one student to find out how he/she received, read, and responded to the email exchanges.

For a total of eight times, I observed Jaehoon writing and sending emails to his partner from his home using his mother's laptop or mine. Whereas other participants had their own email addresses, he had so far been using his mother's email address. Thus, I created a new email account for him for this project as a matter of convenience. Because he had been using computers to study English from a very young age, he did not have any problems in writing emails and reading the emails he received from his partner. Except for the first time we met, I did not have to give him much help. He easily opened his email, read his partner's messages by scrolling down, and wrote his replies in English. At times, he asked me if I could print out his partner's email message, and he typed his replies while reading the print-out. He also asked the meanings of a few English vocabulary words that the preservice teachers had used. In order for him to write as much English as possible, I told him to ask his questions directly of his preservice teacher partner. The task did not take too long, only about 15 to 20 minutes, because he was a fast reader and did not write long sentences or try to elaborate on his answers. Thus, I mostly acted as an observer and ensured that Jaehoon read and responded to his partner mostly using English.

The Researcher's Role

Merriam (1998) noted that researchers can assume several stances while collecting data. As an instructor of the participating preservice teachers, I facilitated the online exchanges between them and their elementary school child partners. In order to facilitate

the online exchanges smoothly so that both sets of participants could benefit from the project, I tried to help the preservice teachers in terms of both practical and psychological aspects. That is, I provided timely advice whenever the preservice teachers expressed difficulties during email exchanges. The preservice teachers often reached me for help through various channels, including during classroom break, via email, as well as by sending me phone messages, as I instructed them to do so at the beginning of the project. For example, some preservice teachers sent me the messages that they had written for their child partners and asked me to review them to check if they were written correctly. Some preservice teachers wanted to check if they were on the right track after exchanging a few emails with their child partners. Some preservice teachers talked about how short their child partners' replies were to their messages. Some preservice teacher groups complained that they were not getting their child partners' emails in a timely manner. In these cases, I mostly told the preservice teachers to take a look at their previous messages to their child partners and see what they could change.

Providing psychological support, such as listening to their stories, encouraging them, giving compliments, and cheering up the preservice teachers throughout the project was also a major part of my role as a facilitator. I maintained a friendly tone whenever I talked to the preservice teachers, so that I could be approachable. Although most of the email exchanges proceeded smoothly, at times, the preservice teachers were frustrated and puzzled by their child partners' email messages. Some preservice teachers expressed their ongoing feelings or thoughts about participating in the project. In addition, because I did not want the preservice teachers to be too influenced by my input, I tried to offer multiple

suggestions or options so they would have to find their own solutions. I worded my comments in ways, such as “How about doing it this way?” or “Have you thought about doing this instead of this?”

Data Sources

The data of this study came from multiple sources, including the CMC transcripts, preservice teachers’ collaborative dialogue scripts, questionnaires, preservice teacher group reflection journals, preservice teachers’ individual final reflection papers, and my field notes. The combination of these data allowed for a fuller understanding of the Korean EFL preservice teachers’ online exchanges with elementary children as well as for triangulation of the data.

Printsout of CMC Transcripts

The primary source of data was the actual email messages between the preservice teachers and their elementary child partners. Every time they finished exchanging emails, the preservice teachers sent copies along with their group reflection journals to me via email. They were also encouraged to submit a paper version of the email exchanges. The messages were printed out and filed into folders for each group.

Questionnaires:

Just before starting the online exchanges, I administered a pre-questionnaire to the preservice teachers designed to find out their backgrounds in learning and teaching English,

computer use, as well as their feelings before participating in this project. The questionnaire was written in English and Korean (see Appendix A). At the end of the semester, after completing the email exchanges with their child partners, the preservice teachers were asked to fill out a post-questionnaire which was designed to determine their experiences and feelings regarding the project. The questionnaire was also written in English and Korean (see Appendix B).

Background Survey for the Child Participants

This study was mainly focused on examining the Korean preservice teachers' experiences. However, I also wished to find out the children's baseline skill levels in English as well as their computer abilities and motivation to study English, so I had them also fill out a brief background survey written in Korean (see Appendix C).

Preservice Teachers' Collaborative Dialogue Scripts

Preservice teachers had a choice of holding discussions in person or chatting online using a Messenger service while composing messages for their child partners. Thus, they submitted either printed-out chat transcripts or the recordings of their conversations, using mostly their cell phones as recording devices during their collaborative dialogue. These data sources served to help me understand the email messages that they had written.

Group Reflection Journals

The preservice teachers wrote group reflections on their online experience every time they exchanged messages with their child partners. These reflections were submitted me along with the email messages that they had exchanged. These reflections helped me to understand the features of their interactions, emotional reactions toward the children's email messages, difficulties they were experiencing, and other aspects of the task activity in the CMC environment. One preservice teacher group chose to write their reflection journal in English. For that group, when quoting their words, I did not correct their English.

A Final Reflection Paper

The preservice teachers wrote individual final papers after they had completed their online exchanges with their child partner, overall reflections on their online experiences over the semester. Because they were written individually, I was able to find out more specific details about the preservice teachers' experiences, including their trials and errors along the way, and also feelings they had about their child partners during the project. Again, when I quoted the words of the preservice teachers who wrote their final reflection papers in English, I did not correct their English.

Field Notes

For the purposes of data triangulation and capturing details of the study, I wrote field notes continuously throughout the study. In the field notes, I wrote everything that was related to my study's process, from designing the study to conversation with the participants. First, I divided the notes into two columns. On the left side, I documented any observations, incidences including questions or complaints I heard from my participants,

small successes and failures during the process. On the right side, I put down my thoughts and feelings about what I had written on the left side. This reflection process helped me to recall details needed for analysis. Finally, I kept any email exchanges with my participants and printed them out and attached them to my field notes for later reference.

Data Analysis

On a macro scale, when I analyzed my data, I used a combination of inductive and deductive analyses methods within a paradigm of qualitative data analysis. In order to identify recurrent patterns and common themes, I used the constant comparative analysis method (Glaser & Strauss, 1967; Lincoln & Guba, 1985). As many qualitative researchers, such as Merriam (1998) and Creswell (2003) have stressed, I began to analyze and interpret my data as an ongoing process while collecting data. In order to provide a thick description of data, I did not treat data sources separately but looked at all the data sources including email transcripts, questionnaires, and reflection journals as a whole and tried to identify main themes that I saw as emerging from these multiple data sources. According to Merriam (1998), “The researcher begins with a particular incident from an interview, field notes, or document and compares it with another incident in the same set of data or in another set. These comparisons lead to tentative categories that are then compared to each other and to other instances” (p.159). As Merriam suggested, I began my data analysis with the email transcript of one group, then moved to another participants’ email transcripts, and continued through other participants’ email transcripts. Specifically, I took the data of one group interaction and compared it with all the other groups in order to find similarities and

differences. In order to understand better the nature of the email transcripts of the participants, I also read and reread the preservice teachers' pre-dialogue transcripts, reflection journals, final reflection papers, as well as questionnaires. During this process, I wrote key concepts and recurrent patterns in the margins of the data sources or on blank sheets. Then, I assigned codes and categories and modified them as the data analysis proceeded. While closely examining and comparing the data within and across each data source, I often asked myself, "What seems to be going on here? What makes this document the same as or different from the previous one that I coded?" (Strauss & Corbin, 1990, p. 73). This process continued until I had compared all the groups with one another. Also, in order to identify the preservice teachers' perceptions about interacting online with elementary students, I analyzed the preservice teachers' final reflection papers, group reflection journals, questionnaires, and pre-collaborative dialogue transcripts one more time. I again wrote key concepts and recurrent patterns in the margins of the data sources or on blank sheets. Then, I engaged in a process of coding and recoding the data until themes began to emerge. Until I obtained a rich and full picture of the data to the point that I was satisfied, I continued this whole process by repeatedly engaging with the data. After completing a thorough data analysis, I tried to find disconfirming evidence from all my data that I might need to reinterpret. Finally, I tried to find patterns and explanations using the final analytical process, conclusion drawing and verification (Miles & Huberman, 1994).

Whereas data were analyzed inductively using the constant comparative method, the second pass through the data identified and discussed more and less successful groups following Wilson (2010) and depended on a deductive analysis techniques. While I was

engaged in the process of analyzing data, I was able to identify certain characteristics that the groups who had more dynamic and productive interactions had displayed. Based on the findings of the initial data analysis, I was able to sort all the groups into three different categories: more successful groups, less successful groups, and the groups in the middle. Therefore, tracing the data back to the recurrent themes that had emerged, I identified four main criteria for selecting more and less successful groups. Finally, using a recursive analysis of the entire data sources, I explained each group case-by-case.

In order to see how many words the child participants produced during CMC with their preservice teacher partners, I calculated the number of words produced by each group. Although the children were encouraged to use mostly English, they had the freedom to choose to use Korean when they found difficult to express their thoughts using only English. Thus, the amount of English words produced by each participant varied. Hence, differentiating between the overall total words produced by the children and the total of solely English words produced by the children was important. First, I counted the total number of words, including English words and Korean words. Then, I counted only the English words produced by the child participants. In addition, as I was counting the number of words, I found that sometimes, some children's email messages contained sentences produced by the preservice teachers. This occurred because some child participants copied their partners' sentences directly from the email messages they had received and pasted them into their replies to the preservice teachers' questions. Because these sentences were not produced by the child participants themselves, I did not include them in the total number of words, whether they were written in English or not. Finally, I did not include

emoticons, symbols, and numbers into either the total number of words or the total number of English words produced by the participants. I calculated the number of words produced by the preservice teachers in the same way.

Ensuring Data Trustworthiness and Credibility

Creswell (2003) suggested that qualitative researchers should use at least two of the following verification procedures when conducting studies and emphasized that these eight procedures are not listed in order of importance: 1) prolonged engagement and persistent observation, 2) triangulation, 3) peer review or debriefing, 4) negative case analysis, 5) clarifying researcher bias, 6) member checks, 7) thick description, and 8) external audits. Among those techniques, I employed the following techniques to ensure credibility of my study.

First, I employed a triangulation technique by collecting multiple sources of data, including email messages, pre- and post-questionnaires, group reflection journals, preservice teachers' final reflection paper, collaborative dialogue transcripts, and field notes. Constant comparison of those multiple data sources was very helpful in providing corroborating evidence and in confirming the findings. Patton (1990) explained the significance of using triangulation for ensuring credibility of findings: "Triangulation is a powerful solution to the problem of relying too much on a single source or method, thereby undermining the validity and credibility of findings because of the weakness of any single method" (p.193). Second, as a facilitator of the project, I was engaged in the context during the entire time the data collection took place. During that time, I gradually established

relationships with preservice teacher participants through class meetings, email exchanges, and talking to them during the class breaks. Through constant interactions with participants, I did my best to facilitate the online exchange with the children to be as smooth as possible. Thus, although I was not able to observe the actual scene in which the participants were sending messages, I had few problems in understanding what was going on with the project. In addition, email messages and recordings or transcripts of the preservice teacher participants' collaborative dialogue helped me grasp a picture of what the participants were doing at the computer. Although the focal participants of my study were the preservice teacher participants, I also acted as an observer of one elementary age student. By assisting and observing one child as he sent emails to his partner, I was able to imagine what the other children might be doing at the computer.

Third, as another strategy to establishing credibility of my data, I also used peer debriefing. Throughout all stages of analysis and interpretation of data, I discussed my interpretations of data and the themes that were emerging with my dissertation chair. In the process, any discrepancies were discussed and resolved through consensus. Finally, I continuously engaged in member checking throughout the data collection periods. Taking into account critiques of researchers, such as Morse (1994), I did not use a direct method of member checking to clarify my interpretation of data. These researchers criticized the possibility that the process of member checking may lead to confusion rather than confirmation, because directly asking participants' views on their initial assessment may have an impact on their responses or may change their opinions. However, through various channels, including email exchanges, phone calls, or informal conversations between

classes, I asked my participants casual questions, such as whether they were enjoying the email exchanges with their child partners, what kinds of difficulties they were encountering, and what kinds of strategies they were using in order to understand the preservice teachers' experiences. This process served in the role of memberchecking.

Chapter 4

Results

This chapter presents the findings of the study organized in three parts. In the first section, I present five major themes that emerged as a result of data analysis. These themes underscore the nature of the CMC interactions between Korean EFL preservice teachers and child participants. Then, in the second section, I present the description of more successful groups and less successful groups according to criteria chosen based on the analysis of data. Finally, in the third section, I provide the preservice teachers' perceptions of and impressions about participating in online exchanges with elementary students.

Section 1: The First Five Themes

Theme 1: CMC Afforded the Korean EFL Preservice Elementary Teachers a Chance to Practice a Student-Centered and Communicative Approach.

For decades, various approaches and methods have been promoted among second and foreign language educators as more effective ways of teaching second or foreign language learners. Among numerous teaching SLA approaches, the communicative approach represented a “paradigm shift within language teaching” in the 20th century, and the core principles of the approach have been “widely accepted around the world” (Richards & Rodgers, 2001, p. 151). The core principle of the communicative approach is that meaningful communication supports learners' language acquisition and that language activities must focus on the learners' authentic needs to communicate information and

ideas. Some of the characteristics of the communicative approach taken from Finocchiaro and Brumfit (1983) are as follows:

1. Language learning is learning to communicate.
2. Judicious use of the native language is accepted where feasible.
3. Translation may be used where students need or benefit from it.
4. The target linguistic system will be learned best through the process of struggling to communicate.
5. Language is created by the individual, often through trial and error.
6. Fluency and acceptable language is the primary goal: Accuracy is judged not in the abstract but in context.

Along with the communicative approach, one approach that has received much attention in language teaching is the student-centered approach. A student-centered approach is a teaching approach that places the student in the center of the learning process. Thus, teachers focus on creating a learning environment in which students' thought, feelings, and experience are valued. In this approach, teachers play the role of a facilitator who guides students to become active participants in their own learning and to learn at their own pace. In addition, learning is more individualized rather than standardized based on the needs of the students.

In the current study, CMC afforded the Korean EFL preservice teachers a safe and authentic environment to practice a student-centered as well as a communicative approach. In the conventional language classroom, because the ratio of teacher and student is at least 1:30, it is difficult practically for teachers to focus on each learner's needs, ability, as well

as interest, thus, it is not an easy task for teachers to maximize the learners' language learning experience. However, the nature of one-on-one online dialogue between interlocutors afforded the Korean preservice teachers a chance to practice a student-centered approach. During this online exchange, the Korean EFL preservice teachers were, in a sense, "forced" to learn how to listen closely to what their child partners were saying in order to encourage them to continue to participate in the interaction with them and help them to use more English with the goal of improving their child partners' English skills. Because their communication occurred via CMC, the preservice teachers had to pay careful attention to every statement that their students made in order to create a better experience. Whether their child partners' English was good or not, whether their child partners were expressive or not, the preservice teachers had to find ways to motivate their partners and meet their abilities as well as their needs in order for them to continue to participate in this project. Adjusting to the needs of children also meant helping the children to learn at their own pace, not the teachers' pace. In order to help students learn at their own pace, the preservice teachers had to be extra attentive to what their students said and how they felt.

In addition, the nature of asynchronous CMC, having a time lapse between sending a message and receiving a response to it, allowed the preservice teachers to realize the student-centered approach even better. The preservice teachers had plenty of time to read and scrutinize their child partners' messages so that they could write better email messages that met their child partners' needs, as well as their level of English. This also meant that the asynchronous mode of communication did not allow these preservice teachers to practice a teacher-directed approach, the more common approach they may have known, to

the degree they usually would have. They had to take turns while dialoging; that is, the preservice teachers could not help but wait for their child participants' reply to their messages. This meant that the preservice teachers did not have as much control in this learning process as they would have if they were in a regular classroom setting. This unique characteristic of CMC allowed some preservice teachers learn to give up their authority as a teacher or a one-way transmitter of knowledge. In contrast to conventional classroom settings where the teacher seizes more power to control the classroom atmosphere, the preservice teachers could not continue to sustain interaction unless their child partners contributed to their learning. This naturally led the preservice teachers to realize a student-centered approach in teaching English, and they also recognized this phenomenon. Many participants wrote in their journals that they were able to actualize the theory they had learned in teaching methods. Jaehee, one of the preservice teachers, reported in her final reflection paper that because she had to communicate with the child online without meeting her in person, meeting her child partner's needs and level was even more important.

Through this email exchange, I learned how to interact with children on their level, which I could not learn even after reading several thick educational books and writing numerous reports as class assignments. (Jaehee, Translated from her final reflection paper)

If the preservice teachers were only used to the idea of teaching many students at one time, this online exchange provided them with the opportunity to learn to meet one student's English and cognitive ability, needs, and interests. By doing so, the hope is that they would become more sensitive to the idea of a student-centered approach, and also they would

make efforts to satisfy each student's different needs in their future classrooms, seeing that individual learners also possess unique interests, styles, needs, and goals. Youngjun, another preservice teacher also saw the interconnectedness between CMC and student-centered approach during CMC with his child partner.

Since student-centered approach is the trend in today's education, if the circumstances (computer and Internet) allow and students show interest, CMC can be a very effective way of teaching students. (Youngjun, Translated from his final reflection paper)

Sumin also stated that when the group members of preservice teachers had conflicting opinions when composing email messages, it was helpful for them to reach a consensus when they viewed the issue from the student's perspective. She also added that one thing she learned through interaction with her child partner was that the degree to which she showed interest in the child partner and tried to communicate with the child partner at his or her level, the child partner also showed improvement in her responses. Many of the preservice teachers expressed their interest in implementing online one-on-one exchanges with elementary students in their future classrooms where it will be difficult to satisfy the needs of all the students with differing abilities in the classroom.

In addition to an actualization of the student-centered approach, the preservice teachers were also practicing the communicative approach while interacting with children online. As the principles of the communicative approach suggest, through a meaningful conversation with the preservice teacher partners, these children were encouraged to talk about their real life situations via CMC. In order to get their message across to their partners, the children had to struggle to compose English sentences through trial and error,

at times using their native language. For example, as shown in Examples 1 and 2, in the online exchanges of Group B, in an environment where fluency was emphasized, the child freely talked about her daily life and thoughts using English. When she needed to give an extra explanation, she used Korean without any hesitation. When looking at the preservice teachers' reply, their efforts to create a meaningful and fruitful conversation with the child in English are clearly seen rather than focusing on the accuracy of the child's English. Although the child did not use perfect English to communicate with her partner, by trying to make her interlocutor understand what she wanted to say, the child would have greater opportunity to improve her everyday communication skills.

Example 1)

- 1 S: Hello John Keating~!
- 2 Yesterday, it is my worst day.
- 3 I am went to the my friend's birthday party.
- 4 We ate the pizza. It is very delicious.
- 5 Then, we were went to the park. (well, it isn't a good day.)
- 6 It's rainy! so, I can't go to the 로데오거리[Rodeo Street].
- 7 But my friend go to the 로데오거리ㅍ.ㅍ[Rodeo Street T T].
- 8 PreT: It's very regrettable thar you can't go to the 로데오거리.[Rodeo Street]
- 9 I hope you will go to the 로데오거리 next time and have a good time^^

Example 2)

- 1 S: I'll introduce two experience.
- 2 First, one of my favorite food was '식혜' [Shikhye: Korean traditional sweet
- 3 rice drink] then one day, I thrown it up. because I had '급체'[Geupche: an
- 4 acute/severe indigestion]. So now '식혜' isn't my favorite food anymore.
- 5 Second, My favorite animal was 'Dog'.
- 6 But one day, Dog bite me in the my finger.

- 7 So, now dog isn't my favorite animal anymore.
- 8 How about you?
- 9 PreT: Oh, It's sorry to hear that 식혜&a dog are not favorite thing to you !
- 10 Because I love 식혜&dogs .
- 11 Puppies are very cute and lovely, aren't they?
- 12 Anyway, there were very fun information. ^.^
- 13 Thanks, Jordan.

In this kind of environment where a student-centered and communicative approach were actualized, the children experienced an opportunity to use their English communication skills, therefore, they are likely to be more motivated in their English learning.

Finally, the comment of Sumin, one of the preservice teachers, clearly demonstrates how the preservice teachers' online activity was a good practice of both a student-centered and communicative approach.

Everything we worked for was not for only children, it was also for us. This project gave us and our child partner an opportunity to express our daily lives in English as well as to think about how to meet our child partner's ability. And this was definitely a good experience in preparation for our future teaching. (Sumin, Translated from her final reflection paper)

Theme 2: CMC Afforded the Korean EFL Preservice Elementary Teachers a Chance to Be Actively Involved in the Continuous Process of Self-Reflection as a Future Elementary English Teacher.

Data from the preservice teachers' collaboration dialogue, group reflection journals, and final reflection papers, as well as pre- and post-questionnaires suggested that CMC

allowed the Korean EFL preservice elementary teachers to engage actively in a continuous self-reflection process as future elementary English teachers. First, throughout the project, the preservice teachers were able to have a first-hand experience with the type of learning and teaching relationships that they would likely encounter in their future classrooms, which seemed to provide a perfect environment for them to be involved in a continuous self-reflection process. The asynchronous nature of the CMC in which these preservice teachers participated also facilitated this process because of several characteristics, such as its flexibility and archivability. Meskill (2009) described the unique affordances of CMC when used in second language teaching and learning situations, which included thinking more carefully and complexly, composing more thoughtfully, editing and revising, archiving for future reference, illustrating and illuminating effective instructional moves that include student turns. As Meskill pointed out, engaging in CMC with their future target students had several other advantages that face-to-face interactions would not have had. Whereas in-class interactions with students usually become one incidental experience for both the teachers and students unless they were video-taped, these preservice teachers could revisit archived conversations over and over again and make positive and important changes by analyzing their messages as well as their partners.' Every time they received students' replies, they took time to reflect on what worked and what did not work and tried to change their strategies the next time they send out messages. By being involved in this kind of recursive process, the Korean preservice teachers were able to engage in an active and continuous self-reflection process as future elementary teachers of English.

Among the preservice teachers, Juhyun and Hyunjin engaged in the most active process of self-reflection after communicating with Haejung, an elementary school partner online. Although both preservice teachers and the student were among the most motivated to learn English and had high level English skills, their interaction via CMC was not as successful as they had expected it would be. Juhyun and Hyunjin spent their time planning their lessons and employed a variety of strategies. In addition, they had several small successes over the interaction. However, Haejung who wrote long and considerate messages in the beginning started to write shorter and simpler messages and finally ended up not sending a last reply to the preservice teachers. It appeared that this change in Haejung's messages forced these preservice teachers to go into a deep process of reflection to find out what had gone wrong and what they needed to learn from the interaction. Hyunjin attributed Haejung's change during CMC to the fact that they had failed to establish a close relationship with their partner and did not put enough effort to keep her interests in mind in continuing this online activity until the end. Juhyun in her reflection paper pointed out all the possible factors that may have contributed to their seemingly unsuccessful email exchange. Surprisingly, those were the factors that I also had found as some of the contributors of why their online interactions might not have been successful. As much as she was enthusiastic about this project, Juhyun not only found out what might have gone wrong in CMC with Haejung, but connected the failure with the educational theory she had learned in class and further, with her future teaching practices as she wrote in her reflection paper.

Sadly, we have overlooked so many things while interacting with Haejung. First of all, we should have continuously complimented and encouraged, for example: “Wow, your English is improving,” “You write emails in English very well,” “Your spelling is very accurate” “You understand this book very well,” “You are doing very well,” etc. in order to increase Haejung’s confidence in using English. I blame myself not giving enough compliment and encouragement to Haejung. Also, when looking back, we have not provided enough feedback regarding Haejung’s personal stories. This probably made it difficult for us to establish an emotionally close relationship with Haejung. One more thing that I find so frustrating is that Hynunjin and I only tried to check Haejung’s understanding of the book and overlooked the possibilities of teaching her English by talking about her personal stories. When looking from the perspective of educational theory, we only focused on the cognitive part, ignoring other parts such as the student’s emotions. Overall, I think we did not make sufficient efforts to meet our child partner’s needs. I hope she did not feel that communicating with us was like doing a fill-in-the-blanks worksheet. Even though we have made mistakes, I believe I will be able to turn this trial-and-error experience into a more positive experience by applying what I have learned here to my future classroom. ...I would like to continue to exchange emails with Haejung if she wants to do so.

(Juhyun, Translated from her final reflection paper)

If these preservice teachers had not used the medium of CMC that allowed them revisit the archived data repeatedly, this degree of reflection, which might greatly influence their future teaching practices, might not have occurred.

Besides using CMC as a space for the participants to interact with their future students, the fact that the preservice teachers had to collaborate in thinking about every utterance they were going to make to their child partners and write those utterances in groups seemed to make the preservice teachers be much more reflective about their own teaching experience. Writing a group reflection journal every time they sent an email to the child partners as well as writing an individual final paper also facilitated reflection on the preservice teachers' learning.

Participating in CMC with children similar to their future target students seemed to have a great impact on the professional development of the Korean EFL preservice teachers by providing them with a space to engage in an active and ongoing self-reflection process. What was noteworthy during their reflective process was that many preservice teachers were frequently making connections with this CMC experience and their future teaching practices in many different ways, envisioning themselves as future teachers of English. For example, Youngjun wrote several ideas of how to implement this email exchange in his future classroom in various ways because he recognized the potential of this online activity. He suggested that because he would have to deal with a large number of students at one time, he could divide students into different groups let them discuss the same book together, and write what they have discussed online, and sharing their discussions with him as well as other groups of students. Haejung also stated how valuable she thought this online experience was as a future elementary English teacher and thought about ways to complement the weakness of the traditional classroom learning environment:

This project provided me with an amazingly wonderful experience as a future elementary English teacher. This project, in fact, has become a strong source of motivation, not only for a future elementary English teacher, but for a foreign language learner. I felt very rewarded because I was able to teach the child English as well as build a personal relationship. It was never on my mind that I could be of help to the children in terms of English by using email...After participating in this online exchange, I realized that I could utilize this activity in my future classrooms. For example, in the classroom, I will have to instruct a class of at least 30 students with different levels of English. That means I will not be able to satisfy every need of each student at every level, and I may end up having some students who might need extra help from me. So, having one-on-one interactions using email with these students (i.e., talking about English books or cartoons) would be a wonderful way for me to help those students intellectually as well as emotionally. In addition, it will save much of my time as well. (Haejung, Translated from her final reflection paper)

In the case of Group G, two preservice teachers shared different ideas of adopting online exchanges with their future students during their collaboration.

SeungAh: I think it is going to be fun to send emails to my future students during vacation

Younghee: Yes, remember? We used to write letters to the teachers as homework.

Since these kids are so good at using computer, students could write letters to us by email instead of by regular mail.

SeungAh: I agree with you! We could definitely use this activity in our future classrooms. (Group G, Translated from their 4th collaborative dialogue)

In the preservice teachers' reflections on envisioning themselves as future elementary teachers of English, several points were repeated. These points will be further discussed in Section three.

Theme 3: The Preservice teachers and Elementary Students Were Able To Different Degrees Build Personal and Social Relationships between Them by Interacting in CMC Mostly Using English.

Data from email exchanges, the preservice teachers' reflection journals, and questionnaires suggested that the Korean EFL preservice teachers and elementary students were able to build personal and social relationships between them by interacting via CMC mostly using English. Most preservice teacher participants reported that they either felt an emotional connection or formed a closer relationship with their child partners as the project progressed. Sharing each other's personal stories seemed to be one of the major factors that these participants felt connected them to and drew them closer to their partners. Many preservice teachers mentioned that the more they talked about children's personal stories and daily lives, the more they came to know their child partners; thus, they felt closer to the children. This seemed to make them enjoy corresponding with them in a meaningful way.

For instance, Minji, the child partner, who talked about her family in her 3rd email message, as the session progressed, appeared to feel even closer to her teacher partner (Example 3). In her 8th and 9th email messages, she shared her affection toward one of the student teachers who was visiting her school at the time (Examples 4 & 5)

Example 3)

3rd email exchange:

- 1 S: Teacher, Sorry. These days I'm very gloomy.
- 2 ...My dad is kind, but these days not very(??) [these days, he is not so kind.]
- 3 My mom is scolding, but these days I love her!!
- 4 because she know my mind.

Example 4)

8th email exchange

S: ~씨를보면흐뭇한지계속웃음이나와요!! 이건도대체어떤감정이죠?

[Whenever I see him, I can't help it. A smile comes across my face!! What kind of feeling is this?]

Example 5)

9th email exchange

S: Teacher I'm sad. Because I say that him (제가말했던그교생선생님이[the student teacher I was talking about]) tomorrow, he will not come to my school.

Just as Minji felt a personal connection with her partner, the preservice teachers in her group felt a personal connection with her. Minhee, one of the preservice teachers, talked about her feelings toward Minji's message which seemed to be very personal.

I remember our child partner's messages in which she mentioned exam pressure and in which she confessed her affection toward one of the student teachers who visited

her school. I was very happy that she was thinking of us as good and trustworthy persons. (Minhee, Translated from her response to the post questionnaire)

All the preservice teachers, Junho, Minhee, and Hayoung in Group C talked about how they became closer to their child partner and how that affected their feelings about exchanging emails with their child partner.

The child talks much more about her private life now when compared to the beginning...She seems to think of us as friend to her more than as teacher.(Group C, Translated from their group reflection journal)

By the fact that the child frequently talks about other things besides the books we are reading together, such as the movie she saw during the weekend and things that happened at school, although the child did not meet us in person, we felt that she has increased her affection for us over the repeated exchanges and considers us as a real teacher. (Group C, Translated from their 6th group reflection journal)

Now, we have become closer and shared many personal stories. We found ourselves enjoying exchanging emails with the child even more. (Group C, Translated from their 7th group reflection journal)

I feel we became much closer to Minji...especially when I look at her being excited to talk about her personal stories. (Minhee, Translated from their 7th collaborative dialogue)

Some preservice teachers aspired to build close personal and social relationships with their child partners, believing that the child would want to talk more and share more stories with them if the child felt emotionally closer to them. Sumin described what her group did in order to form a better relationship with their child partner, Jieun.

What we considered as the most important thing was to feel emotionally connected with our child partner. Thus, we tried to become closer to our child partner by sharing her problems, everyday incidences, and her thoughts about the book. So when Jieun talked openly about herself and her daily life, I felt happiness which could not be described in words. (Sumin, Translated from her final reflection)

Some preservice teachers also reported that CMC with an elementary age student provided a safe space for them to practice how to approach their future students one step closer so that they could form emotionally and socially close relationships with them, which were very different from their own experiences as students. Jaehee reminisced about her relationships with her teachers when she was a student writing about how difficult it was for her to approach her teachers personally and what she had promised to do when she became a teacher later.

During CMC with Sujin, I had to realize it takes a lot of courage to approach her as a “friend” figure rather than a “teacher” figure. It reminded me of how difficult it was for me to approach my teachers and talk about my problems or stories to get advice from them...therefore, I would like to become a teacher who is more like a “friend” whom any kid can easily approach. (Jaehee, Translated from her final reflection paper)

Ironically, Jaehee was reminded of her relationships with her teachers in the past while she was interacting with her partner as a teacher. Because she remembered how difficult it was for her to take an initial step to approach her teachers as a student, she wanted to be the one who approached her child partner as a friendly figure rather than an authority figure. In fact, Group A to which Jaehee belonged was one of the groups in which the preservice teachers established emotionally closer relationships with the child partners than other preservice groups. The connections to her past memories with her teachers led her to understand her child partner better and, as a result, to work hard to build a social and emotional relationship with her child partner.

Some groups established relationships quickly while some struggled to build a closer relationship with their child partners. Group B quickly formed a personally close relationship with their partner, Jieun. The preservice teachers in this group worked on building a relationship with her from the very beginning by opening up themselves.

Example 6)

- 1 PreT: I'm your English teacher John Keating.
- 2 I want be your friend through English books.
- 3 I want to share your thoughts and feelings in the book story.
- 4 Please think of me as your best friend.

Although they introduced themselves as “your English teacher” (Line 1) in the beginning, the preservice teachers clearly stated their wishes to be Jieun’s best friend who can share her thoughts and feelings while reading books together (Lines 2, 3, 4) in their very first email message. In response to her preservice teacher partner’s “inviting” and “friendly” tone, in her 3rd email exchange, Jieun also shared her feelings and what had happened to her.

Example 7)

- 1 S: Hello John Keating~!
- 2 Yesterday, it is my worst day.
- 3 I am went to the my friend’s birthday party.
- 4 We ate the pizza. It is very delicious.
- 5 Then, we were went to the park. (well, it isn’t a good day.)
- 6 It’s rainy! so, I can’t go to the 로데오거리.[Rodeo Street]
- 7 But my friend go to the 로데오거리ㅠ.ㅠ [Rodeo Street]

In this message, as soon as she had said hello to her partner, Jieun began to pour out what had happened to her that day, what she called “my worst day,” on which she lost the chance of going to Rodeo Street with her friends due to the bad weather. Based on the child’s message, it seems that Rodeo Street had been something she had looked forward to going

with her friends. Her tone of “voice” in her message clearly shows her emotional state that she could not wait to talk to her virtual friend about what had happened to her that day as if she were talking on the phone with a very close friend. Her tone of “voice” was alive and vivid, and easily reflected how frustrated she might have felt that day. Here, she used non-verbal cue $\pi\pi$ (Korean alphabet which is an equivalent of T T in English and indicates sadness or frustration as if eyes are crying). Her use of this non-verbal cue made her feelings stand out even more. An additional interesting characteristic of their message in particular is that she had made many more mistakes in her English than usual. As shown in Example 7, she used *am* and common other verb *went* together (Line 3). Similarly, she used *were* and *went* together (Line 5). In contrast, throughout the online exchange, Jieun’s English was very consistent and she did not make many typos or obvious grammar errors although her English was not perfect. She knew the correct use of present and past verbs, indicating her emotional state at the time when she was writing the message and how eager she was to share her story with her “friend.” After this email exchange, the preservice teachers wrote about their emotional attachment with their child partner.

Exchanging conversation with Jieun is very fun, actually. We felt very close although we have never met her before. In this email exchange, because Jieun talked about what had happened with her to us, we felt that we have become very close friends with her. We hope that we develop our relationship even better than now. (Group B, Translated from their 3rd group reflection journal)

In the 5th email exchange, they became even closer as shown in Example 8. After the child, Jieun found out that the age difference between her and her teacher is 9 years, she clearly

told her partner what kind of relationship she wanted to have with her teacher by saying, “I want to get friend with you” (Line 6). The preservice teacher group also was not offended by her child’s cute request to become friends with them. They sent a friendly email to approve her request (Lines7, 8, 9)

Example 8)

- 1 S: P.S Excuse me, how old are you????><
- 2 PreT: I’m 21 years old. The age gap between us is 9.
- 3 When you become a 21—year old woman, I’ll become 30 years old !!!
- 4 It’s terrible, isn’t it? T.T
- 5 S: ...I am little surprised.
- 6 And Though the age gap between us is 9, I want to get friend with you.
- 7 PreT: And I want to be your friend, too!
- 8 I have already thought I get a friend who is very smart and pretty. Heart
- 9 So you can treat me comfortably as you do now.

The preservice teachers’ response is quite different from some other preservice teachers who expressed a need to limit their role as just a tutor or teacher and did not allow becoming emotionally close to their child partners during online sessions. In this case, although they became ‘friends’ with each other, the role of the teacher and the role of the student stayed the same. That is preservice teachers most of times led the conversation and asked questions about the book they were reading. Regarding this situation, Jongsuk, one of the preservice teachers in the group attributed the use of CMC as one of the crucial factors for being able to build a closer relationship by stating “Because we had communicated via

CMC without seeing each other, we probably were able to overcome the age difference and became close.”

It was very clear that the preservice teachers in this pair tried to treat their child partner as equal. They expressed their vulnerability and true feelings to their partner. Interestingly enough, the child partner was mature enough to comfort her preservice teacher partner. As the example below shows, the preservice teachers were no longer taking a role of “teacher,” but a hard-working and tired student who needed a friend to share their stories. In her reply, the child partner, Jieun comforted her partner by saying “I think you’re very tired” and encouraged her by saying “cheer up!”

Example 9)

- 1 PreT: On these days, your mails are joy of my life.
- 2 I’m having a hard time finishing a lot of assignments.
- 3 Those are driving me crazy. T.T
- 4 S: I think you’re very tired.
- 5 But, Cheer up! Keating~!
- 6 I’m cheering you^^

The last email the pair exchanged (See example 10) also showed how they were emotionally attached to each other and how emotional they became about writing their last message to each other.

Example 10)

- 1 PreT: Well, Jamie, it’ll be our last e-mail.
- 2 I feel that our time goes very fast, don’t you?
- 3 I was happy to know you although we have known each other in short time...

4 I hope that it was useful time to you.
5 Please keep in touch!
6 I love you Jamie!
7 Have a nice winter vacation!
8 S: It's time to end it already.
9 I'm so sad. T.T
10 ...Thank you John Keating~
11 Anyway, I love you too.
12 and Thanks for your kindness.^^
13 I'll never forget it.

This was definitely a very emotional moment between them. The preservice teachers did not hesitate to express their true feelings using phrases such as “I love you Jamie!” The child also was very responsive to the teacher’s message by telling them back “I love you too.” The child, Jieun also did not forget to thank her friend, mentor, and teacher. In their final reflection journal, the preservice teachers expressed their feelings as follows: “While writing our last email to Jieun, we came to realize how we emotionally had become close to her in such a short time.” In fact, they could have stopped sending email to their child partner when they had finished their 8th exchange, but the preservice teachers felt that they were not quite comfortable stopping there. As long as time allowed, they wanted to exchange more emails with their child partner. They not only had 10 email exchanges but also, in their group reflection journal, they expressed the possibility of continuing this email exchange with Jieun during winter vacation. One of their reflection journals clearly indicates the pleasure of establishing a positive rapport with their student.

Getting to know about one student is just an amazing feeling. There are no words to describe that pleasure we are having at this moment. Every time, we find out

something new about her. As we sense that the child likes us, we also have deeper affection toward her. Isn't this the very trusting relationship we can have between teacher and student? When we show our sincerity, students seemed to sense our sincerity somehow. We believe that this principle we learned here will be applied when we go out to the teaching field in the near future. (Group B, Translated from their group reflection journal)

Likewise, the preservice teachers in group A also made a conscious effort to establish good rapport with their child partner from the very beginning. These preservice teachers tried to approach their child partner Sujin by introducing themselves as an angel of the English World. By giving the child the role of princess of English World, the preservice teachers created an environment in which their child partner maintained interest and was free to express what she wanted to say. As a result, the preservice teachers and their child partner were able to build a close relationship in a short time and exchange a substantial amount of messages using English. They believed that by doing so, they would be able to approach her in a friendlier way than just being "an English teacher." Their efforts seemed to have paid off when reading Sujin's email messages. Those messages showed many traces of Sujin's affection toward her partner that seemed based on the close relationship they had established (see Example 11).

Example 11)

1 S: Oh~! Catherine I have surprise news!

2 I make a internet friend.

- 3 Her name is Judy.
- 4 My brother told me internet pen pal site.
- 5 I introduced myself internet and Judy sent mail to me.
- 6 She lives in England.
- 7 She is 62 years old.
- 8 But she is O.K, I call her “My friend Judy”~
- 9 I’m really happy^^
- 10 ...ㅋㅋㅋ [giggling]

- 11 오늘은 Judy한테도편지를써야해서 Catherine에게편지를길게못쓸것
- 12 같아요. 미안해요^^ 하지만, Catherine도 Judy만큼좋아하는거알지요.
- 13 Catherine에게편지쓰는데 20분걸렸으니까 Judy에게도똑같이 20분동안
- 14 편지쓸거예요. ㅋㅋ그니까서운해하면안돼요~~ 그럼안뇽~~~
- 15 그럼 bye bye~~~

- 11 [I will have to stop writing here today because I also need to write a letter to Judy.
- 12 I’m sorry^^ But, you know I like you as much as I like Judy. Since I had spent 20
- 13 minutes to write you a message, I am going to spend 20 minutes exactly the same
- 14 time I had spent to write you a message for Judy. giggling. So don’t be sad.
- 15 Then, bye bye~~~]

Sujin’s message shows how caring she is toward her teacher partner. As Example 11 indicates, Sujin had met another email partner, a 62-year-old lady from England through the Internet, probably after finding her email exchange with the preservice teachers interesting and useful. Although she is sharing her excitement and happiness with her partner, she seemed concerned about her partner’s feelings, and showed how considerate she was for her partner’s feelings--in her mind, the preservice teachers might feel hurt because she had made friend online. She was very frank and did not want to hurt her partner’s feelings. She directly explained how she felt about her partner by stating “you

know I like you as much as I like Judy” (Line 12). In addition, she added that she would spend the exact same time to write a message to her partners (Lines 13, 14). If she had not had an emotional attachment with her preservice teacher partner, this kind of conversation would not have taken place.

In their last email exchange, Sujin confessed that her partner was like her own sister and showed much affection toward her partner.

Example 12)

- 1 S: Catherine πππ we end the book πππ
- 2 I'm sad.
- 3 Time is fast.
- 4 Catherine, I want have sister, you was sister to me.
- 5 I was very fun talk you.
- 6 English is little difficult but you gave me many fun english games and teach English easy.
- 7 So, I was very fun. but πππ it is too short time.
- 8 Catherine, 심심할때연락해요. [Please email me when you have free time]
- 9 Next time, let me introduce Judy to you.
- 10 Catherine~ 이번영어수업이끝났어도요, 가끔씩메일보낼테니까답장
- 11 줄꺼죠?[Although our English classes are ended, I will send you email from time to time. Please reply back to me!]
- 12 Catherineπππ I'll miss you.
- 13 byeπππ

Although this project was started with an external goal that the participants would read the same book together and discuss it, as the sessions went by, most of the email exchanges proved that it was, after all, exchanges between human beings. Thus, most of the

preservice teachers and elementary students were able to different degrees build personal and social relationships between them by interacting in CMC mostly using English. However, as stated earlier, contrary to the groups who were able to build a close personal and social relationship, there were some groups who struggled to build a closer relationship with their child partners or there were some groups a close relationship did not develop. In the next section, I will further present why this may have happened to those groups.

Theme 4: To the Degree that Preservice Teachers Created Democratic Reciprocal Teaching and Learning Relationships during CMC, the Elementary Students Had More Opportunity to Practice their English in a Communicative Way.

To the degree that preservice teachers created democratic and reciprocal teaching and learning relationships during CMC, the child partners seemed to enjoy having conversations with their teacher partners. This led them to use more English in a communicative way that likely would not have occurred otherwise. In the groups where democratic reciprocal teaching and learning relationships were observed, the child participants showed certain characteristics.

- 1) *The elementary age children frequently initiated questions taking an active role in their learning process and the questions imposed by the children, consequently led to other set of conversations.*

Example 13)

- 1 S: But Julia, I have oe more question. =>Initiated by student
- 2 Victoria's role is captain? so Victoria is mean?
- 3 Sorry, but tell me about my question.

- 4 PreT: I'm going to answer your questions. =>Preservice teachers answer for the question
- 5 Victoria isn't captain
- 6 Victoria is just an ordinary student. She has a bouncy personality and little
- 7 regard for the feeling of others
- 8 Have you ever made fun of someone's name? Have you ever wilted because of
- 9 name? Or Do you have a friend who has a unique name? =>student's question
triggers teachers to ask related further questions
- 10 S: I am going to my name and my friend's unique name.
- 11 I am never wilted to my name. I am love to my name.
- 12 My friend name is 서지나(Seo Jina)
- 13 I think she's name is unique. .=>let student involve in more language use

As shown in the above example from Group D, because the preservice teachers in Group D attempted to create a democratic reciprocal relationships with their child partner, Haemi, all the way through, the child partner not only responded actively to the questions that her “teachers” asked, but also often initiated questions and conversation. Such exchanges enabled the child partner to practice her English in a communicative way. Creating a friendly learning environment through a personal and social relationship that the preservice teachers had established with their child partner also helped the elementary children use English in a freer and more communicative way. Many of the children voluntarily talked about a wide range of topics of their personal stories and concerns using both English and Korean as if they were chatting with friends. In this process, learners became active and responsible participants in their own learning, breaking from the teacher-led, one-way instruction.

2) *Korean EFL elementary children had opportunities to take risks and reach beyond their potential in using English with the help of their preservice teacher partners.*

Creating a high level democratic and reciprocal relationship between preservice teachers and child partners made seemingly difficult tasks for the child possible to carry out, thereby expanding their potential to use English. The democratic and reciprocal relationship combined with the carefully constructed questions of their preservice teacher partners, enabled the children to take risks in making new sentences using the English knowledge they already had, as shown in Example 14.

Example 14)

- 1 PreT: Because of school friends, Chrysanthemum is so sad.
2 Her name is made fun of by her friend again and again, especially Victoria.
3 I think her name is so beautiful, isn't it? I want her to cheer up.
4 Do you have an idea to cheer her up? What can we do for her?
5 S : I think her name is beautiful too.
6 And I think she cheer up away,, um, I think she show flower Chrysanthemum
7 for her friends, then her friends are think 'Flower Chrysanthemum name and
8 appearance is pretty.. Ah, Chrysanthemum's name is same to Chrysanthemum!
9 her name is very pretty!! So she have many friends.
10 PreT: And It's so nice that you're worried about Chrysanthemum and cheer her up!
11 You're warm-hearted.

As described in Example 14, the preservice teachers in Group D were successful in creating a democratic reciprocal relationship with their child partner, and this kind of relationship made both the preservice teachers and child feel successful in participating in this activity. In the above example, the preservice teachers did a very good job of summarizing the content of the book and asking for ways to cheering Chrysanthemum and help her. This kind of question made it possible for the child to sympathize with the feelings of the

character of the book and think of ways to help her, thereby encouraging the child to engage in a creative thinking process. The child's idea about her partner's questions was that if Chrysanthemum brings a picture of the flower which is very pretty, her friends will stop teasing her and as a result, she will have many friends. Finally, although the child's English was not perfect, she succeeded in expressing her creative ideas using English, and the preservice teachers did not forget to respond to the child's brilliant answer and give her compliments.

The preservice teachers' tone was consistently friendly, collaborative, as well as caring, which would be some of the most important conditions for creating a democratic and reciprocal learning environment. In lines 1 through 4, after kindly giving a summary of the book to the child, the preservice teachers expressed their feelings and hopes about Chrysanthemum asking for the child's agreement by saying, "I think her name is so beautiful, isn't it? I want her to cheer up." Then, the preservice teachers asked for the child's ideas by saying, "Do you have an idea to cheer her up? What can we do for her?" emphasizing "we" instead of "you." Thus, although it appears to be quite a difficult task to express her ideas in English, the child did a great job of making her preservice teachers understand using only English. Thus, we can say that the democratic and reciprocal relationship that the preservice teachers had created over the sessions combined with their questions pushed the student to use her English that otherwise might have been difficult. Both the teachers and student would not have found how much she can do with English. By making longer contributions in English, the child also would feel proud of herself in her accomplishments in English.

3) *Besides talking about the books they were reading together, Korean preservice teachers and child participants also talked about personal matters.*

As noted, having a closer personal relationship with their child partners successfully led these preservice teachers to form a democratic reciprocal teaching and learning relationship with them as well. Under this kind of learning environment, the child participants seemed to regard their preservice teacher partners as a close friend and often exchanged their personal life stories. This enabled the child participants to engage naturally in useful daily conversation in English, which provided them with more opportunity to practice their English in a communicative way. Examples can be seen throughout the transcripts.

By contrast, email interactions that resembled the traditional IRE pattern did not let the child produce more English. In contrast to Groups D or A, the preservice teachers in Group G failed to create democratic reciprocal teaching and learning relationships during CMC by limiting their role to that of a “questioner” who only checks for the child partner’s understanding of the book (Example 15). In addition, they made their messages too formal and intimidating by putting numbers right next to the list of questions. Rather than using a friendly conversational tone that other preservice teachers adopted in their messages, their tone throughout CMC maintained an authoritative tone that was far from a democratic atmosphere.

If a reciprocal teaching and learning relationship were to establish between teacher and students, a student’s active contribution to his or her learning is also required along with teachers’ guidance. The members of Group G also failed to form a reciprocal teaching

and learning relationship with their partner by asking only factual questions that required only short responses from the child partner (Lines 14, 17...). Not surprisingly, the child partner provided only short answers to his partner's list of questions as if he were solving exam problems, which reduced the child's opportunity to use English in a creative and communicative way.

Example 15)

- 1 PreT: 1. How many pocket does her outfit have?(그녀가입은옷에는주머니가
2 몇개있나요?)
3 p.22
4 2. How many pocket did you outfit have?(너가입은옷에는주머니가몇개있니?)
5 3. What's her class time?(지금그녀는무슨시간인가요?)
6 4. What's music teacher's name?(음악선생님의이름은무엇인가요?)
7 5. Do you like music?(음악을좋아하니?)
8 p.23
9 6. What's the role chrysanthemum in the musical class?(뮤지컬에서크리센11
 터멈의역할은무엇인가요?)
10 S: Hi. teacher. It's me henry. Long time no see. It's too cold,isn't it? Then now I'll
11 give you 7th mail.
12 p.21
13 1. How many pocket does her outfit have?
14 -It's seven
15 p.22
16 2. How many pocket did you outfit have?
17 -5pockets(바지는 2개, 코트는 3개에요^^) [There are 2 on my pants and 3 on my
 coats^^]
18 3. What's her class time?
19 -music class
20 4. What's music teacher's name?
21 -Mrs. Twinkle.

- 22 5. Do you like music?
23 -Yes, I love it.
24 p.23
25 6. What's the role chrysanthemum in the musical class?
26 -She was chosen as a daisy.

Theme 5: The Preservice Teachers' Online "Actions" Affected How the Elementary Students Responded in Their Emails.

In order to sustain online communication with elementary students and allow the students to engage actively in the interaction, the Korean preservice teachers employed a variety of strategies along the way, and those strategies were portrayed as teachers' "actions" toward their child partners. These strategies differed across groups, and interestingly, the elementary students' responses seemed to be affected by these strategies. Some of the strategies, such as asking factual questions about the content of the book, were used by all the preservice teacher groups whereas some strategies, such as asking questions about the children's personal lives were employed by some of the preservice teacher groups than others. The use of different strategies seemed to make a difference in the elementary school participants' email messages. Some of the strategies were more successful in generating students' responses and creating a closer rapport with them than other strategies. A successful email exchange in English with children required a consistent effort on behalf of both the preservice teachers and students. Because it was communication between an adult and child, what the teachers did appeared to be more important in this process. Thus, in this section, I will present the strategies employed by the preservice teachers and made their online interaction more effective to which the elementary students responded more

Strategy 1: The Preservice Teachers Asked Specific Questions Using Simple English Sentences.

When the preservice teachers asked specific questions using simple English sentences, rather than general and open-ended questions, the students tended to answer the questions, thereby creating a more interactive atmosphere and encouraging students to engage in conversation. When the preservice teachers' questions were too general, the students either did not respond to the questions or answered very briefly. Example 16 demonstrates a successful conversation between the preservice teachers and the child partner when asked several specific questions using simple English sentences.

Example 16)

- 1 PreT: Sujin, Do you have best friends?
- 2 How many they are?
- 3 Why do you like them?
- 4 ...What do you do to make your friends happy?
- 5 ...Sujin~! what 'friend' means to you?
- 6 Sujin : I have one best friend.
- 7 She's name is 김하진[Hajin Kim].
- 8 She is very fun girl.
- 9 She always tell me fun story.
- 10 And I help her homework.
- 11 Yesterday, I help her study english test.
- 12 She got good english grade.
- 13 I was very happy^^
- 14 She calls me 수진[Sujin] teacher. ㅋㅋ(KK)
- 15 I think friend is amusement park와같아염. [I think "friend" is the same as an amusement park]

16 Because friend 함께있으면 happy and fun.[Because it is fun to be with friends and I feel happy when I am with them.]

These preservice teachers' specific questions brought out creative answers from their child partner, Sujin, and also gave her the opportunity to figure out how to express her thoughts in English. Those English questions were crafted appropriately given the level of the elementary student's English. Instead of asking one big general question "tell me about your best friend" that might have elicited a brief response from the child not knowing what really to say, by providing five specific questions about the topic, Sujin was able to generate a much longer response regarding the topic. In particular, questions like "why do you like them?" or "What 'friend' means to you?" were helpful not only for Sujin to express her thoughts using English in a creative way but for the development of her thinking skills. Asking specific questions to the students not only scaffolded the students to produce more English but also allowed the preservice teachers to get to know about their student personally. This eventually became a stepping stone to building relationship in the partnership.

By contrast, when the preservice teachers' questions were not specific enough, the student did not attempt to elaborate ideas further, thereby reducing the opportunity for the child to use more English. The preservice teachers in Group J had difficulty constructing a productive book talk with their child partner, Junghee, throughout their email exchange, although they managed to establish a personal relationship with her. One of the main reasons that these preservice teachers struggled to engage their child partner in a more

extended book talk appears to be the way they phrased their questions as shown in Examples 17 and 18.

Example 17)

- 1 PreT: Please tell me what the story is, If you cannot write e-mail in English, just
- 2 send me a mail in Korean^^
- 3 Junghee: ...At page 3, “sometimes he put on his dinner jacket...” I don’t understand.
- 4 Um.. the wolf eat jacket??? But the wolf is wearing jacket in this picture...
- 5 Next page, “and came over the mountains.. for dinner.” I don’t know (came
- 6 over).

Example 18)

- 1 PreT: Today, I will send pictures about story.
- 2 You think about this picture. It will be fun!!!
- 3 S : Hmm...
- 4 I see pictures !
- 5 I think wolf eat boy ! because 뼈다귀이씨요..[there is a bone]
- 6 weW!!!! teacher very scary story.....

These preservice teachers tended to ask general questions rather than asking specific questions about the content of the story. For example, as shown in Example 17 the preservice teachers asked Junghee to summarize the content of the story book they were reading together by saying “Please tell me what the story is” (Line 1). Overwhelmed by such a “big” question, Junghee kept writing “I don’t understand” (Lines 3, 5). Asking an elementary student to summarize what was read may have been too difficult for her to perform without any prior lesson, particularly in English. Again, in the next email, the preservice teachers asked Junghee to describe the pictures they had sent (Line 2 in Example

18). Junghee tried to describe what she saw in the pictures mostly using English. However, overwhelmed by the preservice teachers' request, the English sentences that she did produce did not extend to more than two sentences. Due to this question patterns, Junghee appeared to lose her interest in answering questions regarding the book and only wanted to talk about other things, such as her daily life. Although this child did not have as advanced English ability as some of the other child participants did, if the preservice teachers' questions had been more specific, she would have had much more opportunity to express her thoughts in English.

It also happened that some groups changed their strategy in asking questions in order to increase their child partner's "talk" time. For example, after receiving a reply from their child partner, Haemi, the first time, the preservice teachers in Group D were a little disappointed because the message was short, and Haemi did not give an answer to some of the questions they had asked. Thus, in order to elicit longer responses from the child partner, the preservice teachers decided to ask more questions of Haemi. Here is the reflection journal that they wrote about their initial impression and change in their plan in asking questions after reading Haemi's reply.

We opened the reply with some expectation. Frankly speaking, we felt little disappointment when we first saw the e-mail. Because, it was shorter than we expected and she even didn't introduce herself. But we decided to ask one more time. The sentence which mixed with Korean was very cute. We could feel that she is trying to use English. We will ask more questions to get a long answer. We

are really excited to teach such a cute and lovely girl [Group D, group reflection journal].

So, the group composed an email as shown in Example 19, asking more specific questions than in the first email.

Example 19)

1 PreT: I received your mail.

2 You did very well, but I want to know more about you.

3 Your hobby, your family, your friends or your school life and so on.

4 Everything about you is OK. Tell me more about you.

5 S : My Korean name is Kim Haemi, and my english name is Emily. I am 10 old.

6 I like dragonfly, read a book, eat food, and study. But I don't like spider, and go

7 mountain. My favorite books is 노빈손[Robinson Crusoe] series book. This

8 book about 노빈손's adventure. So I like this book.

The length of the preservice teachers' sentences was shortened but the number of questions increased (Lines 3 and 4). This worked well for the child partner because the child's "talk" time increased. Haemi who did not talk about herself in detail in the previous message sent out a much longer message to the preservice teachers (Lines 5~8). After receiving this longer message, Group D attributed their success to changing their strategy from asking a broad open question to asking specific questions, as they wrote in their reflection journal.

This time we were very happy because she wrote a letter very well. Last time, we wanted to know more about her so we asked 2 times, and at last she introduced

herself. Her favorite book, hobby, likeness and so on. We felt more friendly about her. (Group D, 2nd group reflection journal)

Strategy 2: The Preservice Teachers Showed a Great Deal of Interest in Their Child Partners' Personal Lives.

The children seemed to enjoy exchanging emails with the preservice teachers who were very interested in their personal lives. Throughout the online exchange, the children seemed to enjoy discussing their own stories with their preservice teacher partners in English. When chatting about their personal lives, they did not appear to be self-conscious about their English. These stories included anything that had happened around them, such as what had happened at school, with their parents, or their current emotional states. Showing interest in their child partners' personal lives not only led the preservice teachers to be engaged in communication in a comfortable environment, but it allowed adults and children to become emotionally closer. In addition, because the participants were able to talk about diverse topics about their daily lives, both the preservice teachers and elementary students had sufficient opportunity to use their English in a communicative way. On the part of the elementary students, having a real audience, a teacher figure showing care toward them seemed to make them more excited to write email messages. Examples 20, 21, 22, 23, and 24 reflect this bonding.

Example 20)

1 PreT: You will go to the middle school next year. Are you excited?

2 I was very excited when I enter middle school.

3 I was really happy to get my uniform because I did not wear uniform in the

- 4 elementary school.
- 5 S : I am worried about enter the middle school.
- 6 Because I enter the middle school. maybe I should study hard. and busy!!

Example 21)

1. PreT: How was your test? Did you do well?
- 2 I think you got high score on the exam.
- 3 Because you are very good at English!
- 4 S :Ummm... The test was (생각보다는)easy [the test was easier than I had
- 5 expected it to be]. But I can't well the test...?

Example 22)

- 1 PreT: These days, it is very cold. Take care of your health.
- 2 How many people who got H1N1 (신종플루) are there in your class?
- 3 S : And my class is no one to H1N1! but first grade, and second grade is many!
- 4 Maybe 9?

Example 23)

- 1 PreT: By the way, who is your best friend in your class?
- 2 can you introduce your friend to me?
- 3 I'm curious about you. ^ ^
- 4 S: ...I'll introduce my best friend.
- 5 She was not in our class.
- 6 But I like her. Of course, she is clever and kind.
- 7 also cute. And have pet, named Rose(she is a cat).

Example 24)

- 1 PreT: In November, there is **PEPERO DAY, 11th November!**
- 2 **Do you have any special plan for that day? or Do you have someone you**
- 3 **want to give? I just wonder.**
- 4 S: In PEPERO day, I don't have special plan, and not give PEPERO.
- 5 Because I am forget the PEPERO day.
- 6 But, I get PEPERO to my friend and my sister.

7 PEPERO is delicious and yummy!

*Pepero Day: The day is an occasion on which people, especially couples, exchange Pepero, a famous Korean biscuit stick coated with chocolate in order to show appreciation and love to the ones they love.

The topics of questions asked by the preservice teachers with regards to elementary students' personal lives were diverse ranging from the H1N1 virus to entering middle school. The preservice teachers in Example 20 tried to elicit their child partner's response by asking about her feelings about entering middle school. The child openly talked about her anxiety toward becoming a middle school student due to the pressure she expected about studying. Similarly, in Examples 21 and 22, the preservice teachers showed interest in how their child partner had done on a test and the child's health. In particular, because H1N1 was a big issue at the time, the preservice teachers wanted to warn their child partner to take care of her health. In addition, by showing interest in the child partner's best friend, the preservice teachers in Example 23 wanted to show their child partner that they cared about her. As a final example (Example 24), the preservice teachers also showed their interests in what their child partner was planning to do on a special day. The preservice teachers' questions naturally enabled the child partner to think about the day and things related to the day, so as to practice describing what had happened in their daily lives using English. Although the children's English was not grammatically perfect, by replying to these messages about their everyday lives, the children used English in a communicative way in a relaxed atmosphere with the added benefit that the participants could build a closer personal relationship with each other.

Strategy 3: The Preservice Teachers Kept a Balance between Book talk and Social Talk.

Another thing that appears to have made a difference in the children's responses to their partners' messages was how the preservice teachers organized their messages. In the beginning, both the preservice teachers and children understood the talk to be to discuss the books they were reading together. In terms of organizing their messages, the preservice teachers took different approaches across groups: some groups only talked about the book, some tried to keep a balance between book talk and social talk, and some mostly engaged in social talk. Among these groups, the groups in which the preservice teachers kept a balance between book talk and social talk were able to sustain more effective communication by keeping their child partners' interest during CMC. These preservice teachers' balanced talk also encouraged the children to engage in various conversational topics from the content of the book to their daily lives, and thus cultivate and practice their English skills. By engaging in social talk with the child partners, the preservice teachers were more successful in building a personal and social relationship with them as well. For example, conversations of groups B and D consisted of a good mix of book talk and social talk.

Example 25)

- 1 PreT: Hi, Haemi.^^
- 2 I thank for your introduction.
- 3 I read that you like the dragonfly. How interesting!!
- 4 Maybe you could catch dragonfly, right?
- 5 Actually, I am afraid of dragonflies. I don't have any experience catching insects,

- 6 I envy you.
- 7 Your English name is pretty and easy. I'll call you Emily from this time.
8 It's already November! Time goes so fast.
9 In November, there is PEPERO DAY, 11th November!
- 10 And I 'm going to answer your questions.
11 Victoria isn't a captain.
12 Victoria is just an ordinary student. She has a bouncy personality and little
13 regard for the feeling of others
14 Have you ever made fun of someone's name? Have you ever wilted because of
15 name?
16 Or Do you have a friend who has a unique name?
- 17 You should read page 6-10 this time.
18 But you may read those pages already!
19 Did you understand the words like 'giggle', 'wilt' and 'dreadful'?
20 I thought those words are little difficult.
21 Can you tell me the meaning of these words?
22 Refer to a dictionary if you don't know...
- 23 Bye. See you~

As shown above, the preservice teachers in group D seemed to keep a good balance of social talk and book talk. Of the four paragraphs, two were about topics unrelated to the book, such as the child partner's English name. In the 3rd and 4th paragraphs, the preservice teachers asked about the content of the book including one of the characters of the story and new vocabulary. Throughout their nine email exchanges, the preservice teachers managed to balance book and social talk almost half and half, like in Example 25, and, by doing so, they maintained their child partner's interest and motivation in exchanging emails with

them. Engaging the elementary age child who has a relatively short attention span in a variety of topics seemed to make the child not lose interest in the activity.

By contrast, in the groups whose focus was only on the book they were reading together, the preservice teachers failed to sustain the child partner's active engagement in exchanging emails, thereby reducing the opportunity to have effective online conversation with their child partner. Example 26 presents a typical email message in one of the groups that the preservice teachers had written to their child partner, Sujin.

Example 26)

1 PreT: Hello! Amanda~~

2 How are you?

3 Autumn is the best season for reading. Do you agree?

4 Did you read the book page 3 to 9?

5 Do you understand the story?

6 Are there any difficult words or sentences?

7 Then, How did primitive man live? They build a great toilet?

8 The Roman had a much better idea. How was their toilet?

9 Can you explain difference between primitive man's toilet and The Roman's
10 toilet?

11 The silver pots or toilet boxes were convenient but someone had to empty them.

12 How would you feel if you were empty them?

13 Have a nice weekend!

*Amanda: Sujin's English name

It can be seen that, except for a short greeting, the preservice teachers' focus was only on the content of the book. As soon as they had said "how are you?" (Line 2), their message was filled with questions about the book. In particular, these preservice teachers neither provided feedback regarding the previous message that they had received from their child

partner nor asked about Sujin's personal life, such as what were happening to her at school, friends, and family, thereby failing to maintain her interest all the way through the semester. As a result, it appeared that the child partner gradually lost her interest and motivation in exchanging emails with her partner, and the length of the emails dropped considerably as the session went on. Because Sujin was one of the child participants who showed high interest in learning English via email with preservice teachers, the change in Sujin's messages was very noticeable. The preservice teachers reported their frustration about the change in how Sujin wrote her messages in their group reflection journal: "We were surprised that the length of the email message had gotten shorter as if she had lost her interest in this activity. We were not sure if this was due to the Email tool we are using or what we are doing" [Translated from their group reflection journal]. In their 7th email, they decided to reduce talking about the content of the book and talked instead about the upcoming Christmas holiday in order to attract Sujin's interest. Seeming to have been applied too late, the strategy did not work, and Sujin replied again with a very short message.

Strategy 4: The Preservice Teachers Encouraged the Children's Use of English by Relating the Content of the Book to the Children's Personal Experiences.

The preservice teachers also attempted to connect to their child partners by relating the content of the book to students' personal experience, thereby naturally increasing students' interest in talking to them about books and incorporating more social talk into the conversation. When involved in such exchanges, the children not only seemed to

understand the content of the book better but also tended to write more and longer sentences in English as compared to the children who were asked to answer only factual questions regarding the book or to summarize the book's story. Here are several examples of the preservice teachers in Group D asking questions that related the book to the children's personal experience.

Example 27)

- 1 Pre-T: Chrysanthemum's favorite dinner was macaroni and cheese with ketchup.
2 What is your favorite food? Do you usually eat your favorite food when you
3 feel bad?
4 S: My favorite food is "cold noodle". Because it is sweet and sour.
5 And I never eat my favorite food when my feel bad.

The preservice teachers asked specific questions about the child's favorite food and if she also eats when she feels down as the character of the book does (Lines 2, 3) This question led the child, Haemi to talk about her favorite food and even triggered talk about why she likes the food the most (line 4)

Example 28)

- 1Pre-T: She even dreamed that she really was a Chrysanthemum.
2 I'm sorry to Chrysanthemum but the picture that she turned into a
3 Chrysanthemum is so cute. kkk
4 Do you have a dream often? What's the best or worst dream?
5 S: My worst dream is kind of 좀비 [Zombie]
6 In my dream, when I eat water or touch water, then I change to the 좀비 [Zombie].
7 So I am sad I dream that dream.

8 I never want to 좀비 [Zombie] dream.

Example 29)

1PreT: And at epilogue, they played musical.

2 Have you been playing musical or drama (연극)? Or have you been to see it?

3 Was it enjoyable? Tell me about your experience.

4 S: I have been playing musical.

5 When I am 2 grade, In exhibition of student works I play musical 강아지똥 [Gang-A-Ji-Dong/Doggy poo].

6 I am very shy, but now I am be proud of 강아지똥 [Doggy poo] musical.

7 And I want see a many funny musical.

8 Katherine, do you see a funny musical?

9 PreT : Actually, I haven't ever watched. So I'm going to watch on this Christmas. It'll

10 be exciting!

In Example 28, Chrysanthemum dreamed that she had turned into a flower, a chrysanthemum, after having been teased by her classmates. So, this time, the preservice teachers asked about any bad dreams their child partner had had (Lines 1, 2, 3 & 4). Haemi did a good job of describing her worst dream in which she turns into a ghost when she drinks water or touches water and shared her feelings about that as well (Lines 5, 6). Similarly, the preservice teachers attempted to relate the book's ending, which was about the character putting on a musical, and Haemi's personal experience (Example 29). This attempt was successful in that Haemi talked about playing in a musical when she was in 2nd grade in English and engaged her in reflective talk. She even volunteered the same question of her partner using English in a creative way (Line 8).

By contrast, when the preservice teachers asked factual questions about the content of the book, although it did stimulate the child partner to use English, such questions did

not provide the child partner with an opportunity to elaborate on her thoughts further, which reduced the chance of using more English, as demonstrated in Example 30.

Example 30)

- 1 PreT: Do you remember a big bus in chapter 3? What does it look like?
- 2 S : The bus look like...
- 3 I was very big inside, and the seats didn't have any cloth on thm.

These preservice teachers in Group C asked the child partner to describe a “big bus” in the book, which is a simple factual question, and the child partner ended up writing only two short sentences as compared to their child partners who wrote more than four sentences in English when asked questions related to their personal experience.

Strategy 5: The Preservice Teachers Were Closely Attentive to Every Aspect of the Child Partners' Messages.

These Korean EFL preservice teachers exhibited great care and seemed attentive to every aspect of the child partner's messages, from answering every question to responding to every utterance made by their child partner. And, whenever the preservice teachers were attentive, the children responded with more frequent and longer messages. In addition to the content of the book, the children's messages consisted of a variety of topics, such as their personal and school lives as well as what was currently on their mind including their worries and stress. In this way, CMC seemed to set up a context that was not much different from the conventional classroom setting. Those students whose every statement was greeted fully by their preservice teacher partner appeared to enjoy email exchange

much more than those who did not have such a responsive adult partner. Some of the groups attended to every single statement made by their child partners and tried to respond to every utterance, many times with great enthusiasm. Showing sincere reactions, often with great enthusiasm, seemed to reinforce what the children did and became a strong motivational force that seemed to have a reciprocal effect on the interaction with each other. The examples below show how the preservice teachers in different groups kindly and sincerely responded to their child partners' utterances.

Example 31)

- 1 S : ...I like dragonfly, read a book, eat food, and study. But I don't like spider, and
2 go mountain.
3 PreT: I read that you like the dragonfly. How interesting!!
4 Maybe you could catch dragonfly, right? Actually, I'm afraid of dragonflies. I
5 don't have any experience catching insects. I envy you.

Example 32)

- 1 S : Ah,! I forgot the News, I am finish the 'Harry Potter and the goblet of fire'
2 I'm proud of it.
3 PreT: I'm proud of you, too! How could you read all of that book? It's amazing.

Example 33)

- 1 S : Yesterday, It is my worst day...It's rainy! so, I can't go to the 로데오거리[Rodeo St.]
2 But my friend go to the 로데오거리ㅠ.ㅠ[Rodeo St.]
3 PreT: It's very regrettable that you can't go to the 로데오거리[Rodeo St.]
4 I hope you will go to the 로데오거리[Rodeo St.] next time and have a good time^^

Some groups paid attention to even the smallest things their child partners had said. They responded to the children's messages as a sister and friend. In Example 31, when the child

introduced herself, she stated that she liked dragonflies. Although the statement could easily have been ignored, the preservice teachers, first, showed interest by saying “How interesting!!” with two consecutive exclamation marks (Line 3). When the child partner proudly talked about the book that she had been reading recently, the preservice teachers did not forget to comment on her accomplishment by showing their astonishment, thereby sending a motivating message (Example 32). The preservice teachers also expressed their sympathy and tried to console their child when she talked about her feelings about her bad day (Example 33)

Example 34)

- 1 S :I want grow man quickly because I accomplish my dream And I earn a lots of
- 2 money So I comfort my family.
- 3 Last time, my dream is a diplomat, but Now, I don't like diplomat.
- 4 Now, I didn't my sure dream, but I think one day, I find my sure dream.
- 5 PreT: I read your mail very joyfully. Your thought is right. Please think and experience
- 6 more and then decide your dream.

Example 35)

- 1 S :So, December 7th is 교내경시[school-wide contest]. And December 16th is
- 2 last exam.
- 3 So, I'm always stydy hard.. It is so sad..
- 4 PreT: There are too much burden for exams.
- 5 I didn't sleep well because of exam when I was 14 years old.
- 6 I hope that you will overcome stress of exam.

Example 36)

- 1 S : ...민정[Minjung], 현미[Hyunmi] is very selfish...
- 2 Well, do you have friend like this people?
- 3 PreT: ...you have a big worry about your selfish friend. πππ

- 4 Of course I have a selfish friend. (Selfish people make a trouble in human
5 relations.)
6 But they have a good point that you didn't know that before.
7 I think we should develop the habit of seeing the good in people.

The preservice teachers also responded to the children's messages as a mentor, senior, and advisor. When the child expressed confusion over choosing a future dream, the preservice teachers tried to encourage her to keep looking for her dream by saying, "Please think and experience more and then decide your dream" (Example 34). When the children were expressing feelings of stress coming from pressure from an exam or relationships with friends, the preservice teachers tried to provide appropriate advice for them by showing empathy with what they were going through, as shown in Examples 35 and 36. Particularly, the preservice teachers' collaborative dialogue before sending the message in Example 36 also showed their sincerity and enthusiasm in responding to the child's messages. The preservice teachers took the child's question about her selfish friends very seriously and tried to give good advice as an adult as well as a mentor.

Sumin: Jieun wrote about her selfish friends?? What's on an elementary student's mind is very similar to what's on ours. We also often experience the same thing as her.

Jongsuk: You're right. What should we tell her then?

Jungmi: We are like her mentor. We should not say only bad things about those friends.

Sumin: I agree with you. We should give her good advice.

...Those friends will have good points as well. We can tell her this.

Jungmi: Sounds good! We can tell her that she should try to find good things about them...

Jongsuk: Definitely. She wanted to know our opinion (Group B, Translated from their collaborative dialogue).

When the children needed practical advice, the preservice teachers were a big help to the children as well. For instance, as shown in Example 37, the preservice teachers in Group A were asked advice on writing email to a native speaker of English. After carefully discussing what to say to their child partner, the preservice teachers provided advice with encouragement, meant to give the child partner comfort and courage to continue to have a conversation with the native speaker. Likewise, in Example 38, the child partner liked the background of the email message that her preservice teacher partner had sent, and the preservice teachers also kindly responded to the child's cute request.

Example 37)

S : Catherine, Judy is the British. So, she can't understand Korean.
그럼영어로바꾸기어려운말은어떻게하죠? ^^ [Then, what should I do when there are expressions that would be difficult for me to express in English?]

PreT: And I will give you tips for writing a mail in english.

First, Write a short sentences.

Second, Don't be afraid of writing wrong sentence.

You are not a native. So you can make a wrong sentence.

Don't be afraid of that.

Just write what you want to say.^^~

Example 38)

S : I want beautiful background too.
How make beautiful background?
I want to explain.

PreT: ...If you want to make the pretty background, Use Naver mail.
You can make the pretty background in 'Naver mail Editor'. It's really simple and easy.

In this kind of exchanges as shown in the above examples, the children likely felt excited to read what their preservice teacher partners had to say to them in their reply. They may have looked forward to what their partners would write in response to their previous message with excitement. It is also possible that employing this strategy would have provided emotional well-being and comfort for many child participants. These preservice teachers tried not to miss anything about their child partner. This contributed to the child partner and the preservice teachers establishing a closer relationship and the child partner to write English sentences in a communicative way.

Unfortunately, some preservice teachers tended to forget to respond to some of their child partner's utterances, thereby making their conversation not so coherent in the next email. For example, the preservice teachers in the Group E did not respond to any of their child partner's utterances from her previous messages except for when the child partner asked a direct question, as seen in Example 39.

Example 39)

1 PreT: You will read the story of toilets.
2 Do you have funny happenings or episodes in the toilets?
3 Can you tell me what happened?
4 S : I have a funny episodes in the toilets.

- 5 Once upon a time, my grandmother's house has a Korean chamber pot.
6 One day night, my cousin excrement in the Korean chamber pot!!
7 It's so dirty.

The preservice teachers asked a question related to the book that may have piqued their child partner's interest and encouraged her to use English in a creative way in their message. The group was reading a book about the invention of the toilet, and as can be seen in lines 2 and 3, the preservice teachers asked the child partner if she had ever had any interesting episodes related to the toilet. Thus, the child partner talked about an incident that had happened with her cousin related to a chamber pot at her grandmother's. However, in their reply, the preservice teachers did not say anything about their child partner's episode or express any emotion, such as 'how interesting!' or 'Yuck!,' and simply moved to the next pages of the book. This pattern from the preservice teachers continued throughout the online exchange, making their conversation much drier and less cohesive than the conversations of some other groups. Perhaps, as a result, their child partner lost interest in writing messages whereas other groups' email exchanges very much resembled face-to-face conversation with attentive and emotionally expressive responses.

Strategy 6: The Preservice Teachers Provided Much Encouragement and Many Compliments to the Students.

Many English teachers will agree with how important it is to provide consistent encouragement and compliments to students in the process of learning English as a foreign language. Because the child participants in the current study were learning English in the

EFL (English as a Foreign Language) context, providing consistent support by complimenting and encouraging the young learners would play an important role in maintaining an effective interaction between the preservice teachers and the children.

Except for a few groups, many of the preservice teachers seemed well aware of the importance of overtly providing encouragement and compliments to their students during the online exchange. In the groups where the conversation between the preservice teachers and children was more interactive, much encouragement and many compliments were observed in the messages. Here are some examples of such positive feedback in the conversations.

Example 40)

<p>Encouragement about English use and reading English books</p>	<p>-We read half of this book together. You are doing very well. I glad for your great [co]operation. -Although you can't understand the novel perfectly now, -I am sure that you will be able to improve your English. -You can understand it because your English is excellent. -Good luck for your final exam. You can do well! Fighting! -I am proud of you, too! How could you read all of that book? It's amazing. -Although you can't understand the novel perfectly now, I am sure that you will be able to improve your English.</p>
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<p>Encouragement to respond to the previous email.</p>	<p>-I hope to receive your e-mail until Sunday. -Take care and please answer my letter by saturday. -I will wait your mail.</p>
--	---

Compliments	<p>-First, I really want to praise about your mail! Homework was perfect, too!!</p> <p>-Chapter 2 was little more difficult.^ But you did a good job.</p> <p>-You made good sentences^^!! Excellent!!^ _ ^</p> <p>-Chapter 2 was little more difficult.^ But you did a good job.</p> <p>-Last time, there were excellent questions!</p> <p>-Your English is excellent. I was so impressed by your email.</p> <p>-Chapter 2 was little more difficult.^ But you did a good job.</p> <p>-Your answer is right!! How clever you are!^^</p> <p>-What a bright student you are! Good job. Jamie</p> <p>-I'm really happy. Your english ability grow up.</p> <p>- You are so smart!!</p>
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These preservice teachers gave many compliments to their child partners every chance they had: when they saw improvement in their child partners' English, when the child partners understood the book well, when the child partners wrote good answers to the preservice teachers' questions. As for encouragement, much of it was devoted to reading English books and developing students' English ability. A few comments were to encourage the child partners to respond to their emails. Because the participants were communicating only via email, not meeting in person, the importance of providing sufficient compliments and encouragement to the child participants seemed crucial.

Strategy 7: The Preservice Teachers Opened Themselves Up to Their Child Partner.

Although some preservice teachers tried to keep a rather distanced teacher-and-student relationship, some preservice teachers opened themselves up to their child partners by frankly showing their emotions and by sharing past experiences and personal stories with their child partners. The children in the groups in which preservice teachers opened

themselves up to their child partner early enough also developed open relationships. By contrast, some preservice teachers kept their personal side to themselves and took the stance of the teacher only intending to maintain an authority front to their child partners. As a result, the former dyads quickly established rapport whereas the latter dyads had difficulty building rapport, which eventually influenced the amount of the children's English use during CMC.

For example, the preservice teachers in Group B aspired to become personally close to their child partner when they started this project because they believed that establishing a close relationship with their child partner would lead to successful interactions. As one of the strategies to become personally and socially closer to their child partner, the preservice teachers often showed their emotions and shared personal experiences with their child partner.

Interestingly, these preservice teachers never seemed to hide their true feelings to their young child partner. For example, if they had waited for quite a long time to get the child's email, they expressed their feelings using words as well as using non-verbal cues by explicitly stating "I'm waiting for your mail so long." They also added non-verbal cue, "T T," which symbolizing crying or sadness in order to emphasize their words. In the same way, they expressed their joy in finally getting the child's reply by saying, "But I'm very happy to receive it. Thank you." They also did not hesitate to say things like "I'm excited to communicate with you," "Oh these days, your mails are joy of my life." This kind of open sharing of emotions seemed to motivate the child partner to want to write responses as quickly as possible because she knew how much her adult partner liked the exchange and

waited for her reply. In addition, as if they were talking to their close friend, the preservice teachers talked about their everyday feelings, such as “I’m having a hard time finishing a lot of assignments. Those are driving me crazy. T.T,” or “I hate cloudy day. It makes me gloomy.”

Before or after asking questions regarding students’ personal stories, preservice teachers did not hesitate to share their own past experiences with the students. As shown in the example below, when the child partner shared a story about her favorite teacher, the preservice teachers also talked about their favorite teacher and explained why they liked the teacher very much.

Example 41)

PreT: How do you think about “Mrs.” who is Junie’s homeroom teacher?

And do you remember the past homeroom teacher who is very kind to you?

S: ...And I had very kind homeroom teacher. Her name is 김수미(Sumi Kim). She’s my 1st grade home teacher. She very liked me. So I liked her too. Of course, I like her also now.

PreT: So, in your mail, I can read something about your past homeroom teacher.

I met a nice teacher like you when I was a third year student in middle school.

Her name was 임하경(Hakyung Im). She always had a wit and positive thinking.

Also she taught Korean very well than any other teachers did.

For that reason, a lot of my classmates loved her so much as I did.

I miss her and want to meet her.

I have a plan to meet her with my friends in this vacation. ^^

Strategy 8: The Preservice Teachers Frequently Used a Variety of Non-Verbal Cues or Symbols.

One finding that I found noteworthy is that because the conversations were occurring online using a message board, the quality of textual features seemed to play a vital role in sustaining the email exchange and establishing an emotional base for the relationship. The following two strategies showed this very well.

The preservice teachers in the study used a variety of non-verbal cues, exclamation marks, or symbols during CMC. Among the groups, the preservice teachers who seemed to create closer personal and social relationships with their child partners used many more non-verbal cues to express their feelings and emotions than other groups. The email messages of the groups of A, B, and D were filled with smiley faces and heart symbols. These preservice teachers were good at choosing emoticons appropriate for each utterance, which may have helped their readers feel what the message intended to convey. This also made the preservice teachers' utterances vivid and more like face-to-face exchanges. By contrast, some preservice teachers made no or little of non-verbal cues, sending emails that looked cold, emotionless, and dry.

Interestingly, the use of non-verbal cues or symbols was so contagious that the children in the groups in which the preservice teachers made frequent use of non-verbal cues also used them more often than other children. Sometimes, the children adopted the non-verbal cues or symbols that the preservice teachers had used, and sometimes, the preservice teachers adopted the emoticons that the children had used in a previous message, another way to indicate that both participants were closely paying attention to signals in each other's messages. As can be seen in Example 42, the non-verbal cues used by the preservice teachers in Group A include ^^*, ^*^, ^U^, ^__^, and ^_____^*, etc.

Example 42)

1 PreT: Let's go to the English world!^^*

....

2 S: Hi? My Angel^^*

...

3 PreT: Hello^^*^My princess Sujin~

4 Congratulations^^~

5 You asked good questions!!^^~

6 Don't forget 'the gerund' spell.^^~

7 ^^~See you again**

8 See you soon~^U^

9 S: Hi Catherine~! Your answer was thank you.^__^

10 I can't understand. Grammar is very difficult.

11 But, Catherine's grammar is very easy and fun^__^

12 I'm very waiting this Christmas^^

13 Catherine ^^~ Good night^_____^^*

Interestingly, the participants adopted the non-verbal cues of their interlocutor. For example, the child partner who only had used the non-verbal cue ^^, after her preservice teachers used ^^* (*means 'dimple' when attached next to the eyes), adopted the smiley face with a dimple in her next email (Lines 1, 2). The child partner may have thought that the new emoticon is prettier and may have wanted to use it in her email as well. In the same vein, the preservice teachers also adopted their child partner's non-verbal cues, as when the child partner used different smiley face patterns from “^^,” “^__^” and “^_____^^”. The preservice teachers who had not used __ (indicates “mouth” under smiley eyes) started to use “^__^” in their subsequent messages.

Some preservice teachers used a few special symbols in order to express their emotions to their child partner with the use of various kinds of emoticons. For instance, the preservice teachers in the groups such as Groups A and B often used ♥,♡, ★ either at the beginning or at the end of their sentences to express their affection toward their child partners as indicated in Example 43. Interestingly, simply putting such symbols to the preservice teachers' utterances seemed to add some friendliness to them.

Example 43)

Pre-T: I'm waiting for your mail so long. T . T But I'm happy to receive it. Thank you ♥

I have already thought I get a friend who is very smart and pretty ♥

See you, Jordan ♥

Please work hard not for me, but for you ! ♥

♡Dear. My princess

♡Dear. Sujin

★Dear. My little princess

Hi Emily~♥

To lovely Emily ♥

The messages of those who had used a variety of non-verbal cues, exclamation marks, or symbols seemed full of expression and emotions so that the conversations with

the children appeared to be much livelier than other messages. It also seemed that the more preservice teachers used such non-verbal cues, the more their child partners seemed to feel that their preservice teacher partners were approachable.

Strategy 9: The Preservice Teachers Made Their Email Messages Visually Appealing to Their Students.

Some of the preservice teachers put extra effort into making their email message visually more appealing to their child partners. The most frequently used approach by the preservice teachers was to put space between paragraphs, a strategy that may have been helpful to the young English learners who may have needed the spacing to follow what the message meant easily. Some preservice teachers underlined, highlighted, or made sentences bold in order to attract students' attention or to engage their students (see Examples 44, 45, and 46). These strategies also were used when the child partners did not answer some of the questions asked in a previous message. For instance, as shown in Example 44, because the child partner did not introduce herself despite the preservice teachers' request, in their next email, the preservice teachers not only asked specific questions but also underlined those questions so that their child partner could not overlook them. In response, the child partner talked about herself in more detail, going beyond what the preservice teacher had asked.

Example 44)

Pre-T: I received your mail.

You did very well, but I want to know more about you.

Your hobby, your family, your friends or your school life and so on.

Everything about you is OK. Tell me more about you.

Example 45)

Pre-T: But you may read those pages already.

Did you understand the word likes ‘giggle’, ‘wilt’ and ‘dreadful’?

I thought those words are little difficult.

Can you tell me the meaning of these words?

Refer to a dictionary if you don’t know.

Example 46)

Pre-T: This time, Chrysanthemum meets Mrs. Twinkle.

Mrs. Twinkle is a turning point in this story. She makes Chrysanthemum love her name again. She’s wise teacher.

Do you have a memorable teacher? Or do you have any good experience with teacher? Could you tell me about this?

When the preservice teachers made their email messages visually more appealing, the child partners usually did not miss answering their partners’ questions. However, some email messages were tightly written without any space, making it difficult for the child participants to follow the content of the message. Although the messages were written in easy English, quite lengthy messages written without any space or marks seemed to overwhelm young students and caused them to lose track of what they really needed to answer or not.

Strategy 10: The Preservice Teachers Strategically Approached Their Child Partners’ English Errors during Their Interactions in CMC.

Because the participants exchanged email mostly using English, how to approach the child partners’ English errors during CMC was also one of many things that these

preservice teachers had to consider. These preservice teachers strategically approached their child partners' English errors during their interaction in CMC. Some groups chose not to correct their child partners' English because they believed that correcting the child partners' English errors frequently would affect their confidence in using English and prevent them from having an interactive conversation with them. On the other hand, some groups chose to correct the child partners' English, and they also used different strategies. First, in terms of organization, some groups separated the error correction part from content. One group, Group D, corrected their student's errors on the child's previous message and attached the correction as a file with the next email message so that their response to the student's email message and error correction would be separated. It appeared that separating error correction from content actually helped the participants to have a smooth conversation between them. By contrast, other preservice teachers put error correction and their message in one space without any distinction between the content and error correction.

Among the preservice teachers who chose to correct their student's English on their message board without separating their conversation about the content of the book, there were also different strategies used. Two distinct error correction approaches were identified in the data: correcting a student's errors directly and correcting a student's error indirectly (recast).

Example of Preservice teachers directly correcting student's errors

The following are several examples of the preservice teachers directly correcting students' English in their reply. They usually copied and pasted the student's sentences and rewrote grammatically correct sentences with extra explanations.

Example 47)

1) PreT: I found your mistakes, so I want you to know correct sentence.

“The wolf eating, wearing clothes, running to the people”

⇒ the wolf is eating, wearing clothes, chasing people.

2) PreT: Among your writings, there were mistakes.

You wrote ‘I’m find thank you.’

But find is incorrect, fine is correct. (find (x) → fine (o) ^^)

3) PreT: minjoo, you wrote ‘I’m read a book ‘The boy who cried wolf.’

You can’t write two verbs in a sentence.

So, not ‘I’m read a book’ but ‘I read a book’. ^^

Example of preservice teachers recasting a student's errors

Some preservice teachers including Juhyun and Hyunjin provided corrective feedback using recast when they encountered their partner's English errors as can be seen in Example 48. These preservice teachers intentionally wrote the correct version of sentences in the following email message without directly informing the child of her error, hoping, according to their reflection journal, that their student would pick up their intention. The child partner first wrote “Thank you for write e-mail for me. I’m so happy to learning English together (Lines 2 and 3).” In order to correct the use of the verb after “for” and “to,” the preservice teachers wrote “Thank you for your e-mail. I’m happy to know about you.” without any direct explanation about the change (Lines 4 and 5). Surprisingly, the child partner wrote correct sentences in her reply just as the preservice teachers had

intended (see the lines 6 and 7). It was apparent that the child had closely read her teacher's email message and had made an effort to write correct sentences modeling her teacher's sentences.

Example 48)

1 S: Hello~! Mary~

2 Thank you for write e-mail for me^^

3 I'm so happy to learning English together.

4 PreT: Thank you for your e-mail.

5 I'm happy to know about you.

6 S: Thank you for your e-mail.

7 I'm so happy to write for you.

*Mary is the child partner Haejung's English name

Witnessing that their attempted effort resulted in a successful student-generated repair, the preservice teachers were very pleased and became even more motivated. They wrote in their reflection journal:

We were very surprised when we saw Haejung's English sentences because she actually corrected her English after modeling our sentences. We had intentionally put the corrected expressions hoping that she could notice that her sentences needed to be fixed. Surprisingly, Haejung noticed the difference between her sentences and ours and wrote correct sentences in her reply. We were very pleased with her improvement. (Group E, Translated from their group reflection journal)

In her final reflection paper, Juhyun, one of the preservice teachers in Group E, wrote why their group chose to use recast when dealing with their child partner's English errors. The preservice teachers wanted to prevent their child partner from feeling ashamed of her

English mistakes by directly pointing out that what she had written wrong. As pointed out, the preservice teachers who did not choose to correct also had a similar reason.

Interestingly, sometimes students' questions to the preservice teachers initiated the error correction. That is, some students, like Sujin who seemed very eager to learn, voluntarily asked their partners if what they had written was grammatically correct. For example, Sujin wanted to say that her best friend, Heechul, had immigrated to Australia, but she did not know the English expression "emigrate." As she explained in their exchange in Example 49, she looked up the word "emigration" in the dictionary and then put the word "go" in front of the word "emigration." Surprised by the child's proactive behavior, the preservice teachers tried to provide appropriate help.

Example 49)

- 1 S: My best friend 희철[Heechul] go emigration Australia.
2 (Catherine! go emigration 이민가다 맞나요? 잘 몰라서 영어 사전에서 이
3 민이랑 단어를 찾아서 가다를 붙였는데....ㅠ) [Catherine! Is "go emigration" the compatible
expression of 이민가다 in English? Because I did not know how to express 이민가다
in English, I looked up the dictionary and found the word 'emigration' and put "go"
to the word...ㅠ]
- 4 PreT: First, Sujin, I'm teaching right expressions to you.
5 => your sentence: My best friend 희철 go emigration Australia.
6 *이것도 맞는 표현이지. 하지만 이렇게도 쓸 수 있단다.^.* [that is correct, but you can
express it in a following way]
7 >> My best friend 희철 emigrated into Australia/ 또는[or] / He moved from
8 Korea to the Australia.

Nevertheless, overall, most of these preservice teachers did not pay much attention to correcting students' English errors. However, when they thought that there were some errors that were basic and essential for future language learning, such as the use of past tense verbs or of possessive cases, they corrected the errors. Even the preservice teachers who chose to correct the children's English did not seem to want such corrections to get in the way of their conversation.

Strategy 11: The Preservice Teachers Strategically Used the First Language, Korean, during CMC.

In this project, the Korean EFL preservice teachers were encouraged to use English whenever possible during online exchanges with their child partners. This meant that they had to choose if they were going to utilize Korean, their native language, and if so, how and when. The majority of the preservice teacher groups used mostly English, except for a few certain occasions: when they called out their partner's name (Example 50), when they wanted to make sure their child partners understood the meaning of the words or expressions that they were using (Examples 51 and 52), when they had to give clear instructions for the project (Example 53), when they had to explain English grammar, or when they were asked questions that seemed to need extra explanation (Example 49)

Example 50) Dear 민지[Minji]/ Hello, 민지/Hi, 민지

Example 51) How many people who got H1N1(신종플루) are there in your class?

Example 52)

Thanks for your agreement

*agreement(동의)

Are you ready to follow me?

*follow(따라오다)

When I was chased by monster, 피터팬 rescued me.

*be chased(쫓기다) *rescue(구하다)

She can advise wisdom of life to you.

*wisdom of life(삶의지혜)

And you are a diligent student.

*diligent(성실한, 부지런한)

Example 53) P.S. 지은아, 혹시메일내용중에이해안가는부분이있으면답멜에써주렴.

해석이나보충설명을해줄게.

답메일쓸때는지은이가쓸수있는만큼최대한영어로쓰되,

어려움표현이있으면한글로해도된다.^^

[P.S. Jieun, please let me know in your reply if you have difficulty understanding any part of my message. I will be happy to provide you with a Korean translation or explain more about it next time when I send you an email. In addition, although it would be very nice if you try to use English when you write me back, you can always write in Korean if you find it difficult to express yourself in English.~^^]

In the case of Group A, after looking through 6th grade English textbooks, the preservice teachers put Korean translations under the English expressions that they thought might be difficult for their child partner's level as shown in Example 52. In the case of Group B, the preservice teachers composed email messages mostly using English, but in their first email, they put "P.S." at the end of their message and gave instructions that would be helpful to carry out the project successfully in Korean as shown in Example 53.

Although most preservice teacher groups strategically used both English and Korean in order to maximize their child partners' comprehension of their messages, two groups used a strategy of attaching the Korean translation version of their entire email message written in English. Their reasons for attaching a Korean translation version appeared in the

transcript of the conversation among the preservice teachers. They believed that because they were interacting with an elementary student, the student should be able to have something to which to refer when encountering difficulty understanding their English.

Section 2: Description of More Successful Groups and Less Successful Groups

After identifying five themes and coding the data, I was able to classify the groups as those that were more successful and those that were less successful employing several criteria. In this section, I present a detailed description of the more successful groups and less successful groups according to the criteria that seemed salient from my analysis of the data.

Of the ten partnerships, except for the E group who failed to receive an eighth reply from their child partner, all groups succeeded in having at least eight email exchanges with the children. However, as indicated in Section 1, how the preservice teachers approached the children and what they did during online exchanges made a difference in their child partner's email responses. Thus, in Theme Five, through intensive data analysis, I identified 11 specific strategies that seemed to be more successful in eliciting the children's responses in English, as well as in helping the children to elaborate their thoughts using English. Interestingly, in the partnerships who had established close personal and social relationships, children used more English in order to express their thoughts, thereby writing longer responses than other children. In these partnerships, the preservice teachers used the strategies that I had identified as being more effective much more frequently than did the preservice teachers in the other partnerships. It can also be said that a variety of strategies that preservice teachers employed and the stance they had assumed during the exchange with their child partners provided an open, carefree, and supportive environment in which these Korean elementary students could use English creatively and practice their English.

Therefore, I developed the following criteria and used them to distinguish the groups as those that were more successful and those that were less successful. The more successful groups were Groups A, B, C, and D, and the less successful groups were Groups E, F, and H, with the other three groups falling somewhere in the middle. Among these groups, I will describe Groups B, C, E, and F in more detail.

Before presenting these groups, however, I want to describe criteria I used to evaluate groups as more or less successful groups: (1) presence of strategies that were successful in generating students' email messages; (2) evidence of building a personal and social relationship between teacher and child partner; (3) evidence of having supportive and reciprocal conversation between the two parties; and (4) numbers of words produced by the children during email exchanges. These conditions were closely interwoven together. The more there was evidence of using the identified strategies, the more successful the exchange became—preservice teachers and their child partners were able to establish closer relationships with each other, thereby creating supportive and reciprocal conversation and generating longer responses. In addition, the 2nd and 3rd categories were particularly important in deciding whether a group was successful or not because I believe they seemed to represent the essence of teacher caring as Noddings (1984) described it. Under these conditions, students, especially young ones, can learn better and produce more in the target language. Finally, the number of words produced by the children was relevant because the point of the experience was to provide an opportunity the children to practice their English.

The more successful groups

Group B

Group B consisted of four preservice teachers, Eunji, Jungmi, Sumin, and Jongsuk, along with their child partner, Jieun.

Preservice teacher participants

The preservice teacher participants in Group B ranged in age from 19 to 28 years old. Jungmin and Sumin were in their early 20s; Jongsuk was in his late 20s and was the only male participant in the group. The participants had studied English about 14 years. Of the four participants, only Jungmi displayed a very favorable attitude toward studying English, as shown by her comment that she loved studying English. For Sumin, the only fun part about studying English was conversation practice. These participants perceived their English ability either as so-so or poor, and, except for Jungmi who chose a neutral response (3), indicated low levels of confidence in teaching English by using English, choosing either a 1 or 2 on a scale of 1 (Not confident) to 5 (Very confident).

All these participants were frequent computer users. They reported computer use every day for various purposes, and their average time spent on computers per day was two hours. The main activities for which these preservice teachers used computers on a daily basis were surfing the Internet to find information, listening to music, watching movies, and chatting with friends via Messenger. Notably, Sumin reported that she had her own homepage so she spent time maintaining her homepage. Although no one in this group had the experience of teaching students using technology, they all tended to believe in the use of technology in EFL classrooms to some degree.

Child participant

Jieun

Jieun was an 11-year-old fifth grader. She had been studying English since she was six years old with a private tutor at home. At the time of the study, she was studying English two hours every week in her school. She was also studying English with her private tutor at home using English books. She stated that she loved learning and studying English because she thought learning a language other than her native language made her unique. She also added that she liked to read English books as well. As for her computer skills, she began using computers when she was eight years old. At the time of the study, she was taking a computer class an hour every week in school. She reported that she used the computer between one and two hours every day. During that time, she usually searched for English words using an online dictionary and visited her school homepage. According to her, her homework was always listed on the school homepage and she often did her homework using computers. She also had her own email address and frequently exchanged emails with her friends and teacher. She mentioned that she often studied English using computers, watched educational CDs, and read English books online. She reported that she felt comfortable typing both in Korean and in English.

Description of Group B

The preservice teachers in Group B were the most open to their child partner, often talking about personal stories and sharing emotions with their child partner. Jieun, the child

partner, was also equipped with good English and computer skills. When the project was introduced to her, she was already accustomed to studying English using computers, often reading English books online and frequently exchanging emails with her peers and teachers. In addition, she was very expressive and seemed mature for her age. The chemistry between the teachers and student was obvious. All participants in this group were eager teachers and learners and highly motivated to do their jobs. Their collaborative dialogue was full of lively discussions that enabled their child partner to create good email responses. This partnership had a total of ten email exchanges, thereby exchanging the most frequent emails. Jieun produced an average of 121 English words per session.

Table 5-1. Number of Words per Message in Each Exchange for Group B

	Preservice teachers (English only/Total words)		Child partner (English only/Total words)	
	English only	Total words	English only	Total words
1st	113 words	147 words	142 words	143 words
2nd	195	195	111	115
3rd	161	161	138	152
4th	129	133	106	106
5th	117	117	101	103
6th	165	165	142	142
7th	153	153	179	180
8th	216	216	77	80
9th	188	188	105	108
10th	110	112	107	108
Mean	155	159	121	124

During the first collaborative dialogue among the preservice teachers before sending out the first email message, the preservice teachers discussed their main concerns regarding

the email exchange they were about to start with their child partner. These were on what to focus when writing the message to the child and how much the child would be able to understand their English message. Jongsuk worried about the possibility that the child partner would only understand 70% of their message. Thus, these preservice teachers talked about ways to ensure that they were effective at communicating with their child partner and still using mostly English. Here are the options that they discussed: choose the easiest words when writing; put Korean subtitles under the sentences written in English; and exchange more frequent emails to ask if the child understood the meaning of the message. As shown in Example 53, the preservice teachers, in their first email, wrote specific directions in Korean about what to do in case she did not understand their message written in English. They also reassured the child that she could use Korean if it was too difficult for her to manage in English.

These preservice teachers named themselves “John Keating” taking the teacher’s name from the movie “*Dead Poets Society*.” As the preservice teachers seemed to identify themselves with a teacher who was radically different from the commonly-held stereotype of teachers, it appeared that this group wanted to be a friendly figure, not an authority figure, when approaching their student. From the very beginning, they tried hard to portray themselves as a good or best friend to the child, and the child also seemed to enjoy this unique friendship. In fact, Sumin wrote in her reflection paper that the thing that her group considered the most important was, indeed, establishing rapport with their student. Hence, as shown in Example 54, in order to implement the strategy of becoming close to the child

partner, they chose to approach Jieun as an online “friend” whom they could help in reading English books as well as chat, rather than as a “teacher.”

Example 54)

Pre-T: Hi, Jieun.

I’m your English teacher John Keating.

I want to be your friend through English books.

I want to share your thoughts and feelings in the book story.

Please think of me as your best friend.

...

Responding to the preservice teachers’ efforts to create a close personal and social relationship with Jieun, in her second message, Jieun spontaneously sent her own picture and asked her partner to send her a picture as well. She said, “And Keating, I want to see your picture. I will send my picture to you.” She then attached a picture of her and herself and little sister holding each other and explained who she was and who her sister was by using arrows.

Throughout the total of 10 online exchanges, the preservice teachers employed a variety of strategies, ranging from giving direct instructions to the student on what to do to providing encouragement and compliments. In particular, these preservice teachers employed most of the strategies that were identified as more effective in generating students’ responses, which made their email interaction more successful than some other groups. For example, as mentioned briefly, these preservice teachers opened themselves up

by being emotionally expressive and sharing personal experiences in order to become closer to Jieun as shown in Strategy Seven in Theme Five. In addition, the preservice teachers were also very good at keeping a balance between book talk and social talk. They usually would start their conversation with small talk focusing on a variety of concerns in Jieun's daily life at home and in school and, then, smoothly move to the topic related to the book. In the questions regarding the book, they sometimes put question marks in order to differentiate from their social talk (Example 55 and 56). Because they believed that Jieun's English was quite advanced for her age, they mostly asked questions about the book in relation to the child's personal experience rather than simple factual questions, thereby increasing opportunities for Jieun to use English in a creative way. The preservice teachers naturally made connections between the content of the book and the child's personal experience. Here are a few conversations that they shared while reading the book "Crysanthemum."

Example 55)

- 1 Pre-T: Q1. Have you ever though how happy your parents are when you were born?
- 2 I guess you're blessing to your parents.
- 3 Jieun: Q1. Yeah, I thought about when I am born.
- 4 My father said, He was very happy, so he was worte the letter to me.
- 5 Of course I don't know what was that mean.

Example 56)

- 1 Pre-T: Q3. Have you ever been teased about your name? If you were not, is there a
- 2 friend who is teased about his name? Then, how do you think about his feelings?
- 3 Jieun: Q3. Of course! Our class's boys were always teased me.
- 4 My name is start at Song, so my nickname is veal or Guppy.

Group B made their email messages visually appealing by appropriately using paralinguistic cues, exclamation marks, or symbols, making their messages look much more lively and friendly, as if they were talking face-to-face. In addition, as can be seen in Example 57, the preservice teachers put spaces between paragraphs so that the child would not feel overwhelmed when she saw their messages. The preservice teachers also used various smiley emoticons (Lines 5, 6, and 8) as well as the symbol ♥(Lines 1, 7 and 9).

Example 57)

1Pre-T: My friend, Jordan ♥

2 How was your today?

3 I had a nice day because I went to bed early yesterday.

4 I think it's very important to sleep well to human.

5 Do you think so?^^

6 ...Can you understand my thoughts? ^.^

7 ...What a bright student you are! Good job, Jordan ♥

8 ...That's it. ^^

9 Have a nice day Jordan ♥

The preservice teachers and Jieun established a close personal and social relationship between them, and, by doing so, created an environment in which Jieun appeared

genuinely to enjoy communicating with the preservice teachers and expressed her thoughts without much hesitation (see Theme 2 for a description of how the preservice teachers and Jieun established a close relationship each other). Jieun contributed to producing an effective online interaction by frequently initiating conversation and asking questions as well as by actively responding to what the preservice teachers had asked (see Examples 1, 8, and 9). Example 58 shows how this kind of democratic and reciprocal relationship helped resolve a misunderstanding that occurred during their conversation.

Example 58)

- 1 S: I had a bad day. So today is very gloomy.
- 2 Because one adult very rude to me.
- 3 He told me that I'm so young.
- 4 I don't think to me so young. T T
- 5 I want to grow up more fast.<=
- 6 Pre-T: Do you want to grow more?
- 7 ...So, if you want to grow faster, you had better do stretching frequently.<=
- 8 It's good for your growing. And you know, take more calcium! ^^
- 9 S: You didn't understand my idea. T T <=
- 10 I mean, I want to grow older.<=
- 11 But I want to grow taller too.^^
- 12 Pre-T: Anyway, I misunderstood your expression, Sorry^^; <=
- 13 When I was young as you are, I want to grow older too.

In Example 58, Jieun was talking about her depressing day and she was trying to say that she wanted to grow up quickly and become an adult because somebody had treated her rudely. In this example, a misunderstanding occurred because the preservice teachers misunderstood the meaning of the word *grow* used by Jieun in her email message because

the English word *grow* has two different meanings, to grow up in terms of maturity and to get taller. However, it was very clear that although Jieun's English wasn't perfect, the fact that she had said *young* and *grow*, she meant "to grow up in terms of maturity" (Line 5). Jieun addressed the fact that her partner misunderstood her message (Lines 9 and 10). By doing so, she enabled the preservice teachers to notice their mistake and apologize for their misunderstanding, and resolved it. The preservice teachers admitted their mistake right away and apologized to their partner with the emoticons of ^^ indicating their embarrassment (Lines 12 and 13).

The child could have easily ignored the preservice teachers' misunderstanding of her message or she could have overlooked the misunderstanding entirely. However, the democratic and reciprocal relationship that the preservice teachers and Jieun had created through the past exchanges may have helped her be attentive to the content of their email messages and may have let her take the initiative to resolve their misunderstanding. This example also showed that the participants were very sensitive to each other's emotions, explicitly indicating their close personal and social relationship. Although Jieun expressed a little frustration, using the non-verbal cue T T, she, right away, said "But I want to grow taller too.^," with a little smile as if she were telling her teacher, "That is okay." She also probably wanted to mitigate her partner's embarrassment.

Group C

If the persona that the preservice teachers in Group B portrayed was that of a cheerful and lively English teacher, the preservice teacher groups in Group C, which I am

going to introduce next, as a second successful group showed the persona of a calm but encouraging English teacher within their online communication with their student. Group C consisted of three preservice teachers, Junho, Minhee, and Hayoung along with their child partner, Minji.

Preservice teacher participants

Group C was heterogeneous in terms of gender and age with two female preservice teachers and one male preservice teacher. Junho (the only male) was 19 years old, and Minhee and Hayoung were in their late 20s and 30s respectively. Having studied English for an average of 17 years, all the participants displayed favorable attitudes toward studying English. Among them, Minhee particularly reported that she liked studying English very much. Despite their positive attitudes toward studying English, these participants displayed low confidence in their English ability as well as in teaching English using English as a medium of instruction. Junho and Hayoung rated their English ability as poor and Minhee rated her English ability as so-so. In terms of the level of their confidence in teaching English using English, all three chose two on a scale of one to five. With regards to the use of computers, these preservice teachers reported everyday use of computers to be about one hour to one hour and 30 minutes. Junho and Hayoung said that they mainly used computers with friends or family via Messenger. Minhee reported that she used computers everyday for checking emails, reading news, and shopping. Junho had had an experience of mentoring multi-cultural students through computer programs, and he believed that technology use was necessary when teaching English. Minhee also had had experience of

teaching students using technology, such as using content from various websites, and she expressed a strong belief in using technology in EFL classrooms. Finally, Hayoung did not have any experience in teaching students using technology, but she reported that she strongly supported the use of technology when teaching English.

Child participant

Minji

Minji was a 12-year-old sixth grader. She had been studying English since the age of seven in a private English institute. At the time of the study, she was studying English two hours every week in her school and, after school, she was taking a two hour class in a private English institute every day. Minji stated that she found enjoyment whenever she became better at using English. She seemed to be quite confident about her English ability, rating her production skills as “Good.” With regard to reading English books, she reported that although she did not love reading them, she did not mind reading them, either. As for her computer skills, she learned computer skills for the first time when she was eight years old in an afterschool program. She was currently taking a computer class for one or two hours every week in school. She reported using a computer for about 30 minutes every other day. What she did most on the computer was homework from her private English lessons. She mentioned that she often used the computer when studying English and exchanged emails with her friends. She also had had the experience of exchanging emails with preservice teachers who came to do field teaching at her school.

Description of Group C

Table 5-2. Number of words per message in each exchange for Group C

	Preservice teachers (English only/ total words)		Child partner (English only/total words)	
1st	125 words	127 words	140 words	147 words
2nd	114	119	42	58
3rd	137	139	108	110
4th	111	112	51	51
5th	165	171	80	118
6th	149	170	78	138
7th	188	189	96	108
8th	168	194	83	116
9th	146	147	70	153
Mean	145	152	83	111

In contrast to the preservice teachers in the first group who wanted to be seen as more of a friend figure to their child partner, Group C preservice teachers seemed to want to maintain a teacher figure. However, they also made an effort to establish a close relationship with their child partner by naming themselves “Teacher Bear” and sustained a kind and responsive tone throughout their conversation. As a result, the preservice teachers and the participant, Minji, quickly established a relationship with each other, and, by doing so, they were able to talk about many things beyond the book they were reading together.

Group C engaged in a total of nine exchanges, and Minji was one of the most active participants, producing an average of 83 English words per online exchange. Just like most other sixth graders who participated in the project, Minji was very good at both English and computer skills. Thus, Minji appeared to take to this online exchange with the preservice

teachers quite easily and found pleasure in doing so, and yet able to balance her school work with doing this online activity. For example, she would let the preservice teachers know that she was writing a shorter message than usual due to an upcoming exam. Her second and fourth email messages were particularly shorter than those written at other times, consisting of 58 words and 51 words, respectively. Considering that the average number of words produced by Minji was 111 words (total words), those numbers were significantly less than usual. In her second email message, the child used “P.S.” to put her explanation of why she was writing a shorter letter to her partner, writing, “p.s. Sunday, I have test... So, I write a short letter. Sorry!” Again, although she did not explicitly talk about why she wrote a short letter in her fourth reply, she also used a postscript to add to this message: “P.S. As soon as my last exam. I want to hear your fighting!!”

Similar to the preservice teachers in the other successful groups, the preservice teachers in Group C also attempted to employ many different strategies that would sustain the conversation with their child partner and improve her English skills. Notably, these preservice teachers consistently did their best to be responsive to every aspect of Minji’s email messages, showing interest in Minji’s daily life at home and at school, and keeping a good balance between book talk and social talk. They also asked specific questions so that Minji could easily answer them and continuously gave her compliments and encouragement. As a result, the preservice teachers and Minji seemed to develop a close relationship.

The preservice teachers asked questions about the student’s personal life, such as how she did on a test (as in Example 21), how she spent the weekend, as well as her

feelings about entering middle school (as in Example 20). In response to these preservice teachers' questions, Minji shared her worries about entering middle school and wrote excitedly about a bizarre episode that had happened at her school. The preservice teachers in this group were very good at showing their interest in their child partner's personal life and asked questions about her every time they sent an email. Minji seemed to love the attention coming from her teacher partner, so her messages almost always included episodes of what had happened to her that week, as Example 59 below illustrates:

Example 59)

Pre-T: How was your weekend? Did you do something special?

I hope you had happy time.

Minji: First, this weekend I saw the movie. The movie was "Good morning, president." It was interesting.

But 즐겁지만은않았어요. [But it was not just fun though]

Today, my class friends (classmate? friends is boy) is hurt!!

주먹으로창문을쳤는데깨져서자살시도한것처럼손목에두줄이생겼습니다.

그런데그아이가울지않았다는게정말신기했어요!! [When the classmate hit the window with his fist, he was injured. He got two scratches on his wrist as if he had attempted to commit suicide. Nevertheless, it was amazing that he did not cry!!]

Because the preservice teacher participants shared a similar educational and cultural background with the child, they easily empathized with the situation that their student was describing and often shared their own experiences with the student, as shown in the example below.

Example 60)

- 1 Minji: So, December 7th is 교내경시[School-wide examination]. and December 16th
2 is last exam.
3 So, I'm always study hard... It is so sad..
4 Pre-T: How was the exam? Did you get a good score?
5 I know that the score is important. Remember it is not everything.
6 There are too much burden for exams.
7 I didn't sleep well because of exams when I was 14 years old.
8 I hope that you will overcome stress of exam.

When Minji expressed her feelings about a series of exams coming up in school (Lines 1 through 3), the preservice teachers tried to show their empathy by sharing their own experiences. In addition, the preservice teachers provided the wisdom of their advice to Minji by saying, "I know that the score is important. Remember it is not everything" (Line 5).

Minji seemed to be enjoying "chatting" with her partner. After reading Minji's email, the preservice teachers wrote in their reflection journal that they decided to continue to exchange emails with Minji even after the project was over because it was just too hard to stop sending emails to her so suddenly.

An interesting feature of the messages in this group was that the child partner increased her use of Korean as the session went on even though she kept writing some portions of her messages in English. Minji's messages were nearly entirely in English until the fifth email message, after which more Korean appeared, particularly, in the sixth and eighth emails. As the pair exchanged more emails and became closer, Minji started to use more Korean. In the beginning, even with the first email, the sentences were few and short,

and only her name was in Korean. However, as the project neared its end, from the sixth email exchange on, Minji started to use more Korean, particularly when she talked about her personal stories, such as things that had happened in her school or with friends. From the seventh email exchange, the frequency of Minji talking about her personal stories or asking personal questions greatly increased. Example 59 above shows how Minji wrote her message using both Korean and English, giving the impression that she was too excited to use only English when she had too much to describe. Here is another example that was written both in English and Korean. It is a part of Minji's final message.

Example 61)

- 1 Minji: My school activities are little exciting, thesedays!!
- 2 Because 21~23: I'm going to picnic!
- 3 And 23 is vacation ... *방학식이뭘쥬? [How do I say 'BangHaksik [a Korean academic term which means end of semester assembly]' in English?]
- 4 Anyways 24 is Christmas eve? (철자가맞는지확인해주세요![Please check if I am spelling this correctly]) And 25 is Christmas!!
- 5 Also, 27 is my father's birthday!! I like 연말[the end of year]!!
- 6 Because 졸업+설날+크리스마스+현장학습+방학!!!![graduation+New Year's Day + Christmas + field trip + vacation]Wow!! It's amazing?? (어메이징인가? 그거철자도가르쳐주세요)[Amazing? Please tell me if I am spelling this correctly as well]
- 7 Oh!!정작할예기를못했네요!! 아무튼장기자랑연습도해요! 그래서시
- 8 험공부를못하는게아쉽지만!! 그래도시험공부는집에서할수있으니
- 9 까!! haha!! [I haven't even started to say what I intended to say!! Anyway, we practice a talent show coming up soon! I am sorry that I do not have enough time to study for the test because of all that stuff. But it is okay. At least, I can study at home!!]
- 10 Umm..these days, H1N1(신종플루)가많이수그러들었어요![the spread of

- 11 H1N1 has recently slowed down!]몇달전에는겨울에는더신종플루가활
 12 발해질거라더니!백신때문인가요? [I was told that H1N1 is going to spread more
 rapidly during the winter time! Has Vaccine slowed down the spread of H1N1?]
 13 음...이제는시험공부할시간~ [Um...It's time for me to go back to study for the test]
 14 So, I will tell you!
 15 Say good bye*(by GD)

In this final email message, although the preservice teachers did not explicitly ask, Minji started to talk about her plans for the final month of the year. When she listed what was coming up for the month, the tone of her voice was very excited. Her frequent use of repeated exclamation marks and expressions, such as “wow!” “It’s amazing,” “oh,” “haha” demonstrated her state of mind clearly. She even stated that “I haven’t even started to say what I intended to say!!” (Line 7) because she had begun with something else. She continued to bring up a new topic, the spread of H1N1. As shown in Example 62, Minji, who had started her messages using English spontaneously, began to code-switch between English and Korean as if she was deeply engaged in conversing with her teacher partner.

Despite the change of language use in Minji’s email, the preservice teachers kept using mostly English in their responses. The preservice teachers noticed the change in Minji’s language use and attributed the child’s increased use of Korean to their close relationship. However, they did not mention anything about it to Minji. The preservice teachers reflected that there should be some solutions for students such as their child partner. Here is a part of their final group reflection journal.

Recently, Minji has been talking about her personal story quite a bit. We were thinking that she probably felt that we are very close. Maybe we became too close, as we see Minji starting to use more Korean than she did earlier...We’re a little

worried that her English ability will not improve any more. (Group C, Translated from their 9th group reflection journal)

In their last email exchange, Minji expressed her desire to continue the email exchange even during her exam period, which showed that she was enjoying the online interaction with her preservice teacher partner, and that this activity was helpful for her. Because English would be included in the final exam, she wanted to exchange emails using English more frequently during her exam period. She also added that her parents did not know about this schedule change. Here is her request to continue the email exchange, and she wrote this part entirely in Korean after the P.S.

Example 62)

P.S. 시험기간에는 더 메일을 많이 주고받아야 할 것 같아요!! [I think we will have to exchange emails more frequently during my exam period.]

왜냐하면요... 원래 영어 시험은 안 치는데, 영어 시험을 기말에 넣는다고 해서요!! [That is because... Originally, we do not take an English test, but this time, English subject will be included during the final exam period]

이건.. 저희 부모님한테도 이야기 안 한 거예요!! [I haven't told my parents about this yet!!] 아셨죠? [Okay?]

Regardless of the use of Korean by Minji at the end of the project, Group C was still selected as a more successful group because the child still used English more than half of the time, and all the other criteria were met. It seemed clear that the preservice teachers and Minji had established a close personal and social relationship. The child's affection toward her partner and excitement over their conversation were indicated by the increase in her

social talk as the exchanges went on. However, limiting the use of Korean, especially for advanced language learners, such as Minji, who have the potential to write more in English during online exchanges emerged as an issue for the preservice teachers.

One thing to note is that the preservice teachers in more successful groups did one thing in common, giving many compliments and much encouragement to their child participants whenever they could. When the children wrote longer messages than before, when they tried to write their thoughts in English, or when they asked questions about the book they were reading, the next message came with praise and recognition for their accomplishments. This probably became good motivation for the children to continue to engage in the project.

The Less Successful Groups

The less successful preservice teacher groups were Group E and Group F. Even though these groups have been designated as less successful groups based on the outcome of the email exchanges, these preservice teacher participants were neither negligent nor lazy. Yet, although these preservice teachers were devoted, what they did was quite different from what the more successful groups did, and the results of the online exchange were also quite different from those in the more successful groups. The number of email messages written by the child participants was fewer than those in the more successful groups even considering the students' different English levels seemingly affected by the online behaviors of the preservice teachers had affected how the children responded in their

messages. However, it needs to be pointed out that the less successful groups are not by any means “unsuccessful.”

Group E (the group that only focused on the book talk)

Group E consisted of two female preservice teachers, Juhyun and Hyunjin, along with their child partner, Haejung.

Preservice teacher participants

Juhyun was in her early 30s and Hyunjin was 23 years old. The preservice teachers had studied English an average of 16 years. To the question of whether they liked studying English, Juhyun reported that she liked studying English very much, but Hyunjin showed a more moderate attitude, writing her comment that she did not hate studying English. Both participants reported their self-perceived English ability as so-so, yet expressed a relatively high level of confidence in teaching English using English, choosing a neutral response (3) on a scale of one through five. Both participants were frequent computer users, like many other participants in the study. Juhyun used computers about three times per week for one or two hours, mostly searching for information she needed. Hyunjin also used computers one or two hours, four or five times per week, to read the news or visit her friends’ blogs. Neither Juhyun nor Hyunjin had taught students using digital technology, but they were positive toward the use of technology in teaching English.

Child participant

Haejung

Haejung was a 12-year-old female sixth grader. She had started to learn English when she was nine years old with a private tutor using a workbook. At the time of the study, she was studying English for four hours in school. After school, she studied with a private tutor at home for one hour every day. She liked to study English because she thought it was fun to learn English. On par with her enjoyment of studying English, she was quite confident of her English skills. She reported that she was quite good at speaking and writing. She also reported that she liked to read English books. Regarding computer skills, she had acquired them by herself when she was a fourth grader, and at this time, she was taking a computer class for one hour per week. She stated that she could type both Korean and English without too much difficulty although typing in Korean was easier. She freely used her computer every weekend for about an hour and a half. She often took English classes online and enjoyed doing Cyworld (Korea's social networking site). She added that she had her own email address and frequently corresponded with family members, teacher, and friends.

Description of Group E

Table 5-3. Number of words per message in each exchange for Group E

	Preservice teachers (English only/ total words)		Child partner (English only/total words)	
1st	138 words	139 words	90 words	90
2nd	107	107	60	69
3rd	95	95	98	125
4th	87	117	44	67
5th	191	232	86	86

(Table continues)

Table 5-3. (Continues)

6th	196	196	47	47
7th	266	285	36	40
8th	184	205	N/A	N/A
Mean	158	172	67	75

Group E was identified as one of the less successful groups based on the following criteria: the gradual reduction in the number of words that the child produced and little evidence of building a social/personal relationship between teacher and student by the end of the email project, thereby resulting in a failure to create reciprocal conversation between the two parties.

The preservice teachers and student in this group exchanged a total of seven emails with an eighth email from the preservice teachers that was never answered by the child partner. Haejung produced an average of 67 English words across the online exchange. Haejung's English was one of the best among the child participants. Thus, considering her level of English, she might have been expected to write more. As shown in the table above, the number of words per message for Haejung decreased dramatically in the sixth and seventh exchange, and, in the end, she did not reply to the preservice teachers' last message.

As stated, Haejung's English proficiency was one of the best among all of the children. She was preparing to take an entrance exam to enter an international middle school the following year. Because English is used as the only medium of instruction in an international school, she was highly motivated to learn English as well as to participate in this email exchange. In addition, she was the only child participant who did not use any

Korean at all during CMC, which may be a sign of her strong will to maximize this learning opportunity as a valuable experience. The preservice teachers, Juhyun and Hyunjin, also expressed a high interest in this online activity and showed enthusiasm for the activity by making specific lesson plans for every email exchange.

In the early stage of the project, the group's future appeared to be rosy. The communication between the preservice teachers and Haejung was more smooth and interactive than that of most of the other groups who were trying to adjust to each other. For example, as described in detail in Theme 5 in the prior section, when correcting Haejung's English errors, the preservice teachers chose to recast Haejung's English by intentionally writing the correct version of sentences in the following email message without directly pointing out her errors. Surprisingly, Haejung seemed to notice her own English errors and wrote correct sentences in her reply, modeling the preservice teachers' sentences (refer to Example 48). As a result, the preservice teachers were very pleased and showed high motivation to continue this project with Haejung.

However, things changed as the sessions went on. As described earlier, Haejung began writing shorter messages. Her responses to the preservice teachers' questions started to become very brief, which was completely different from the earlier messages. It appeared that she had lost interest as well as her enthusiasm for this online exchange in the middle of the project. In addition, the bond that the preservice teachers and child partner appeared to have early in the project faded away, and the preservice teachers seemed to fail to establish a close personal and social relationship with her.

Unfortunately, these preservice teachers failed to employ most of the strategies shown to be more effective in generating children's active responses. First, Group E's email messages were nearly always focused only on the book content that they were reading together, thereby failing to keep a balance between book talk and social talk (see Example 26 for one of the typical email messages that the preservice teachers wrote to their child partner). Throughout the online exchanges, the preservice teachers neither asked questions about Haejung's personal life at home and in school, family, or friends nor shared anything personal about themselves, thereby failing to maintain her interest all the way through. As a result, it appeared that the child partner gradually lost interest and also lost motivation for exchanging emails with her partner. The length of the email messages dropped considerably as the sessions progressed.

Next, these preservice teachers were not very responsive to Haejung's messages. In particular, they did not respond to any of the answers that Haejung wrote about their question. It seems reasonable to conjecture that this probably caused the child to lose her motivation to continue writing long and thoughtful responses to their questions. As shown in Example 63, in her first email, as requested by the preservice teachers, Haejung introduced herself and wrote what *inventions* are (Lines 4 through 10). However, the preservice teachers' only response to this well-written message was "I am happy to know about" (Line 13). Without providing any response to Haejung's thoughts about inventions, they simply moved on to the next lesson by saying "You will read the story of toilets" (Line 14).

Example 63)

- 1 Pre-T: ...Before starting, I want to know about you. Could you introduce yourself?
2 ...What are inventions? What is the most useful inventions in the world?
3 I'm looking forward your answer.
4 Haejung: ...Now, Let me introduce my self. My name is Haejung, and my English
5 name is Rebecca. I am going to DongA elementary school in sixth grade.
6 I want to be a Christian missionary and gospel singer.
7 And I think inventions are like magic. because scientist make very convenient
8 and very exciting.
9 And the most useful invention is a light bulb because light bulb is light up
10 anywhere.
11 Thank you
12 Pre-T: Thank you for your e-mail.
13 I'm happy to know about you.
14 You will read the story of toilets...

It is not difficult to imagine that Haejung was excited to receive a first reply from her partner by email and that she wanted to know what the teacher thought of her answers written in English. She might have spent quite a long time in writing her sentences correctly. Then, receiving a message with such little response and support to her own message might have taken away the excitement that Haejung once had. Example 39 in the prior section presents another example and illustration of an episode in this group. In general, the preservice teachers in Group E failed to provide plenty of compliments or encouragement to Haejung.

Third, as indicated in Example 63, the preservice teachers used a minimum number of emoticons and did not put any space between their sentences or paragraphs, so that their emails appeared to be dry and visually unappealing to the reader. The child may have

started to feel that the email exchange was simply another extension of the private English class she was taking.

As the length of their child partner's email messages became shorter, the preservice teachers began to consider reasons to explain the reduction. When the preservice teachers received short emails, they wrote the following in their group reflection journals:

We were a little disappointed because the length of Haejung's message suddenly got shorter. We were thinking that Haejung might have lost her interest about exchanging emails with us. (Group E, Translated from their 6th group reflection journal)

We were getting worried that Haejung's reply is getting shorter. Did she lose her interest in this project? We were not really sure whether it was because of this tool 'email' we are using or because we were doing something that demotivated her as a teacher. We were also thinking that she might have been distracted since Christmas and winter vacation is right around the corner... We had better talk about something that might interest her, such as Christmas and reduce the portion of book talk in order for her not to lose her interest in exchanging emails using English. (Group E, Translated from their 7th Group reflection journal)

Not only did the child begin to write shorter messages than were expected of her, but she also began to send her emails later than desired. Until the fourth email exchanges, the child had sent her replies within one to three days after the preservice teachers had written to her. However, from the fourth email on, the child's email replies came later and later.

The child partner's change in her responses was so obvious that it soon forced Juhyun and Hyunjin to become actively engaged in a continuous process of self-reflection as future elementary English teachers (see more details in Theme 2). Interestingly enough, they started to scrutinize their messages and the child's messages in order to recognize what they had done wrong or what they might have done differently during the CMC exchange. In their reflection journal, they wrote that although they did not exclude exterior reasons to explain why the student might have not responded to their email promptly, such as taking exams, they concluded that they had failed to maintain the student's interest during their email exchanges. As a result, although they were put into the less successful groups category as regards to the email exchanges with their student, by the time they wrote their final reflection papers, they had learned a great deal more than they had anticipated in terms of teaching children English and using CMC.

Group F (the group that focused on correcting the student's English)

Group F consisted of two female preservice teachers, EunAh and Haejin, and one male preservice teacher, Taehyun, along with a child participant, Minjoo.

Preservice teacher participants

Haejin and Taehyun were 19 years old and EunAh was in her early 20s. The participants had studied English for an average of 10 years. The two female participants, EunAh and Haejin, reported that they enjoyed learning English. To the same question, Taehyun said so-so. Regarding their English ability, all three participants perceived their

English ability as either poor or so-so. In terms of the level of their confidence in using English as a medium of instruction when teaching English, EunAh displayed the highest level of confidence among her group members by choosing 3 on a scale of 1 to 5. As for computer use, Taehyun reported that he used computers every day about one to two hours, mostly to search for information online. EunAh reported that she used computers for about three to six hours per week, and Haejin reported that she only occasionally used a computer but when she did so, she used it for two hours. All group members did not have any experience in using technology to teach students, but they had positive attitudes toward the idea of using technology when teaching English. Particularly, EunAh showed a strong belief in the use of technology in the EFL classroom.

Child participant

Minjoo

Minjoo was a 12-year-old female student. She had started to learn English when she was nine years old from her homeroom teacher in her school. At the time of the study, she was studying English for two hours every week in her school. After school, she went to a private English institute to learn speaking and grammar. She also added that she memorized English vocabulary items at home. She said that she liked to converse in English but that she did not like studying English grammar. She had learned her computer skills for the first time when she was eight years old from her older brother. She was currently learning computer skills about one or two hours every week in school. She felt quite comfortable typing in both English and Korean. She used a computer four times per week mostly for

doing homework. She had her own email address and often exchanged emails with her friends. She had the experience of studying English using educational websites through the computer.

Description of Group F

Table 5-4. Number of words per message in each exchange for Group F

	Preservice teachers (English only/ total words)		Child partner (English only/total words)	
1st	174 words	191 words	73 words	73
2nd	57	57	36	36
3rd	149	149	29	29
4th	140	157	38	38
5th	139	139	76	76
6th	68	68	36	36
7th	70	72	31	41
8th	131	177	55	55
9th	147	198	38	38
Mean	119	134	46	47

Group F exchanged a total of nine email exchanges, and the child partner produced an average of 46 English words per session ranking quite low among the child participants. The English of the child partner, Minjoo, was not as good as that of the other sixth graders who participated in the project, and she often made typos during online exchanges. Minjoo's English appeared to be fine so long as she wrote simple sentences. However, when she started to use more complex sentences, she seemed to forget all the rules of English grammar. However, she knew quite a few English idioms or expressions. For

example, she frequently used expressions such as “take care!” and “It’s freaking cold,” which she may have heard from native speakers, perhaps the teachers in private institutes. She also seemed to rely heavily on using a Korean-English dictionary when composing sentences because she used many words that are not frequent everyday conversational terms.

The group named themselves “Harry Potter” and embarked on their email exchanges with Minjoo. The group was put into the less successful groups category despite the preservice teachers’ efforts and the nine exchanges they completed because it seemed that the preservice teachers failed to help their child partner reach her potential to produce English in a more creative and communicative way. Furthermore, the preservice teachers did not attempt to employ creative strategies to help their child partner use more English, using none or very few of the strategies that had proven to be more effective in other groups. The main characteristic of Group F’s email exchange can be described as a teacher giving feedback to a student’s English writing rather than engaging the student in a meaningful conversation. That is, a large portion of the messages consisted of the preservice teachers’ correcting Minjoo’s English writing, mostly focusing on the form and not on the content of the message that Minjoo was trying to deliver. All that the preservice teachers cared about seemed to be correcting the child’s English, thereby interrupting the flow of conversation so that they had little opportunity to build a close personal and social relationship with the child partner.

In addition, except for a couple of email exchanges where the preservice teachers asked Minjoo some specific personal questions related to the book content, they mostly

wrote statements rather than using a question format in their messages. Earlier data analysis showed that when the preservice teachers asked many specific questions using simple English to the elementary children rather than asking general questions, the children tended to respond more and make longer contributions to their online conversation. Needless to say, the strategy would apply even more when interacting with children of lower English ability. The messages of these preservice teachers mostly consisted of giving either their impression about their child partner's previous message or encouraging words for the child partner to continue to write messages. Error correction was also a big part of the email messages. Therefore, they often failed to ask any question, in particular, any direct question, thereby reducing the child's opportunity to use English. The following, the third exchange, is a typical example for Group F.

Example 64)

- 1 PreT: Hi Minjoo~
- 2 : It's good to see you *again by e-mail.
- 3 : I *got your *reply well.
- 4 : Its not *easy to read a English book
- 5 : ...I *guess that you *feel hard to express yourself in English
- 6 : *as you are an elementary student.
- 7 : But I am happy *to find out your effort to express your thought.
- 8 : Everything is okay but... *Among your writings, there were *mistakes.
- 9 : You wrote 'I'm find thank you.'
- 10 : But find is *incorrect, fine is *correct. (find (x) → fine(0) ^^)
- 11 : And you wrote 'It is teachings.'.
- 12 : This *sentence's correct expression is

13 : '*This books lesson is instructive.'

14 : ...And next time we will talk about the book 'The Boy Who Cried Wolf.'

15 : I'm already *looking forward to your reply.

16 : You take care of yourself, too.

17 Minjoo: Hi,teacher!

18 : I am sorry for late reply

19 :teacher~

20 : I'm not good English.

21 : but somewhat detail 안다 [I know]

22 :...It's frekin cold.

23 : take care~~~~

24 : bye~!

In Example 64, after greeting Minjoo (Lines 1 and 2), almost half of the message space was used to provide Minjoo encouragement to continue to participate in the activity (Lines 3 through 7). One third of the space was utilized to correct Minjoo's English errors (Lines 8 through 13). The rest of the email space was used to introduce what would happen in the next email and saying good-bye to Minjoo (Lines 14 ~). As shown in the above example, the preservice teachers did not ask any questions, and it was not surprising that the child did not say much in her reply, regardless of her English ability, except to admit that she was not good at English. Therefore, whether the preservice teachers had intended so or not, the conversation very much resembled a teacher-centered approach in which the teacher gives a presentation not involving a student's active participation during class, thereby not providing sufficient opportunity for her to express her thoughts using English.

As a result, the conversation between the two parties stayed at a superficial level, not establishing a close personal relationship with each other.

Of the nine email exchanges, there were a few times when these preservice teachers were successful in helping the child partner to produce more English as well as to write English in a creative way. In particular, in the fifth email exchange, the child produced 76 words whereas her average number of words was 46. As mentioned above, the preservice teachers did not usually ask questions that would elicit their child partner's longer responses. However, in their fifth email exchange, they asked their child partner personal questions related to the book's content, and the questions were specific enough to encourage the child to respond with her thoughts in English. Thus, although Minjoo did make many errors in English and typos in her message, it was the first time she seemed to break out of her comfort zone and to write her thoughts using only English.

Example 65)

1 PreT: We can *learn a lesson, *'Do not lie to others' *from the boy in the book.

2 : *Have you ever lied to others?

3 : What was the *reason that you lied?

4 Minjoo : teacher!

5 : yes, I have

6 : So my mom hope me never lie.

7 : I have a promise wite friend.

8 : however, I'm watched TV an appointed place late

9 : my friend very angry

10 : So i've lost my key and I can't find it anywhere lied

11 : Thank you for your listening.

This example clearly showed Minjoo's potential for improving her English in response to how the preservice teachers wrote their email messages. The preservice teachers asked if she had ever lied to others and if she had, for what reason had she lied. Using only English, Minjoo talked about a past incident in which she had to tell a lie to her friend. According to her, she had arrived late to meet her friend because she had been watching TV. When her friend became really angry, she had to make up a story telling her that she was late because she had lost her key.

Another reason that these preservice teachers failed to scaffold their child partner to produce more English may have something to do with how they wrote their English sentences. Although they agreed that Minjoo's English was not very good, they often used English expressions that did not match Minjoo's level of English. Then, during the entire exchange, they either underlined the expressions or placed the symbol * in front of these expressions and gave a Korean translation rather than trying to come up with easier expressions using words at the child's level. Dealing with English messages filled with difficult expressions along with Korean translations may have overwhelmed this child whose English was not good.

Section 3: Korean EFL preservice elementary teachers' professional development as a result of participating in an online exchange

The online exchange provided the preservice teachers the very experience that they would be likely to have in their future classroom. In fact, all the preservice teachers reported that having the online communication with elementary age students was beneficial for them in many different ways as future elementary teachers of English. Most importantly, not only did they feel that the participation in the project was beneficial, but the majority of the preservice teachers said they enjoyed interacting with their child partners online and would like to continue exchanging emails if their partners wished to do so. As described in Theme 2, the use of email as a communication tool with the children allowed these preservice teachers to engage in meaningful reflections regarding what they had learned as future elementary English teachers. From the analysis of the preservice teachers' responses to the post-questionnaire, the group reflection journal entries, as well as their final individual reflection papers, I was able to identify several themes regarding what impact participation in the project had on the Korean EFL preservice teachers' professional development. Those themes include the preservice teachers' newly-gained insights about the benefits of using technology as a valuable instructional tool in their future teaching practices, an increase in the preservice teachers' consideration of instructional perspectives on teaching Korean elementary children, an increase in the preservice teachers' confidence in using English with elementary students, perceived improvement in their English, realization of their own needs to continue to study English, and an envisioning of themselves as future teachers of English to elementary school children.

Recognition of the Usefulness of Technology as a Valuable Instructional Tool in the Future Teaching Practices

The preservice teachers' participation in the email exchange with the future students contributed to their recognition of the usefulness of technology as a valuable instructional tool in their future teaching practices. Interestingly, although all the preservice teachers had been active users of computers, email, as well as chatting tools, most of them expressed surprise regarding the possibility of using email in teaching children English. They confessed that they were quite surprised by the fact that a simple communicational tool, email, could be so easily used with elementary age students. Before the project started, many of the preservice teachers were skeptical about the use of email with elementary age students as an educational tool although they seemed to agree that simple technology should be adopted in their classrooms in the current digital era. However, once the project began, the preservice teachers began to see what email could offer as an instructional tool to supplement what the conventional classroom setting had to offer.

Contrary to our expectation that email exchange with children would not work well due to the absence of physicality, the conversations between our child partner and us actually is working quite well. We realized that if the teachers prepare themselves well for the online project, both the teachers and students will greatly benefit from the opportunity...It is also interesting for us to find out that establishing a personal relationship with the child online is possible, just as we do in the actual classrooms. (Group B, Translated from their 4th group reflection journal)

Of the many benefits that the preservice teachers had perceived, in particular, two major themes were frequently mentioned. One was that they saw students becoming more active agents of their own learning, and the other was that teacher and students can converse in a more democratic relationship, encouraging freer expression of opinions on the part of students. For example, Eunji expressed a strong desire to use technology, such as email, in her future teaching practice due to the benefits that she had experienced during her online exchange with an elementary age student.

Although I love teaching students through face-to-face meetings, I think using a computer has its own strengths. I realized how active the students can be in their own learning during email exchanges. It seemed that communicating online with us got rid of the pressure that the students might have felt if we met in person. My child partner also seemed free of the constraints including differences in age and status and freely expressed her thoughts as well as opinions during our interaction. (Eunji, Translated from her final reflection paper)

Recognizing CMC as a valuable instructional tool in many different ways, the preservice teachers came up with various ideas for how they could use the tool in their future classrooms. One of the most commonly shared ideas among the preservice teachers was related to a unique feature of CMC, which is that it provides students with individualized and differentiated instruction through one-on-one interaction, independent of time and place. Because these preservice teachers were expecting a future classroom where they would have to deal with more than 30 students with differing abilities or interests in the near future, many expressed their desire to use CMC for some of the elementary

students who might fall behind during regular instruction. Having expressed this idea, Haejung also reflected on how valuable this online experience was for a future elementary English teacher in thinking about ways to complement the weaknesses of the traditional classroom learning environment.

This project provided me with an amazingly wonderful experience as a future elementary English teacher. This project, in fact, has become a strong source of motivation, not only for a future elementary English teacher, but for a foreign language learner. I felt very rewarded because I was able to teach the child English as well as build a personal relationship. It never crossed my mind that I could be of help to the children in terms of English by using email...After participating in this online exchange, I realized that I could utilize this activity in my future classrooms. For example, in the classroom, I will have to instruct a class of at least 30 students with different levels of English. That means I will not be able to satisfy every need of every student at every level, and I may end up having some students who might need extra help from me. So, having one-on-one interactions using email with these students (i.e., talking about English books or cartoons) would be a wonderful way for me to help those students intellectually as well as emotionally. In addition, using email also will give me freedom from time and place when teaching those students. This will reduce my workload as a teacher. (Haejung, Translated from her final reflection paper)

Another preservice teacher, Saehwa, came up with the idea of using asynchronous discussion as a discussion board for her students, realizing that the children may be able to express their opinions more freely than in actual classroom settings:

While I was exchanging emails with my child partner, many various but simple ideas came to mind, which I had not thought about before...I think opening discussion boards in which the children can freely discuss various controversial topics could be very beneficial for my students. (Saehwa, Translated from her final reflection paper)

Further, Haesook accepted teaching children using email as a “brand-new teaching skill” by stating, “I thought that teaching by e-mail is ineffective, but it’s brand-new teaching skill. I want to try again.”

Finally, responses to one of the post-questionnaire items also confirmed what the preservice teachers had reported in their reflections. The majority of the preservice teachers agreed with the statement, “This project helped raise my awareness about the use/integration of technology, such as email and chatting tools in my classroom.” These Korean EFL preservice teachers seemed to have realized that inexpensive technology tools, such as email or online messenger, could become a helpful instructional tool.

Opportunity to Reflect on the Elementary School Children’s English Ability

The Korean EFL preservice teachers reported that the fact that they had communicated mostly using English led them to have the opportunity to think about current elementary students’ English ability. Although their perceptions about current elementary

students differed according to their respective child partners' English abilities, what SeungAh said in her reflection paper represented well the majority of the preservice teacher participants' thoughts about current elementary students' English ability.

What I liked about this project was the fact that I had plenty of opportunity to think about current elementary students' English ability. Because I have not had a field teaching experience yet and did not have any opportunity to teach elementary students, I did not really know about their English ability. Although students have different English ability, it seemed to be true that today's children's English is generally improved due to the early exposure to English education by attending private English institutes or English kindergarten. (SeungAh, Translated from her final reflection paper)

Although these preservice teachers agreed that current elementary school children's English skills were surprisingly good, they also noted that there were frequent grammar mistakes in their child partners' English, often resulting in sentence fragments, no matter how well the children generally wrote in English. What they were most surprised by was not the children's English ability itself but the fluency in their English and confidence in using English regardless of the correctness of grammar. The preservice teachers recognized that how the children approached English was quite different from how they had approached English. They noticed that the children did not seem to be afraid of making mistakes in their English and took risks in expressing what they wanted to say using English. For example, Jongsuk reflected on his child partner's English in terms of her attitude rather than her actual English skills. He wrote:

Elementary students' English was better than I had imagined. But what surprised me was not the students' English but their confidence in using English. Although they neither wrote flawless English sentences nor used advanced English vocabulary, the way they expressed their thoughts in English with little fear of making mistakes appeared to be much better than us, university students. (Jongsuk, Translated from his final reflection paper)

He attributed the reason for why the children seemed to be so fearless when using English to the children receiving early exposure to the target language, English. Jungmi and the other preservice teachers in Group B echoed what Jongsuk had said. Jungmi reported, "After receiving Jieun's message, I have to admit that I was quite surprised. For a 5th grader, her English was quite fluent despite her grammatical errors" [Translated]. The preservice teachers in Group B also commented, "Our child partner's English was not perfect but it appeared that she was good at English because she expressed what she wanted to say with ease and quite fluently" [Translated]. Other preservice teachers, such as Mija and Dongho were in agreement, stating similarly "children these days seemed to use English quite easily, and we even thought that the English written by our child partner was cute" [Translated].

Contrary to most preservice teachers, those who had exchanged emails with child partners whose English was not as advanced as some other children pointed out that their child partners wrote messages that were too short, consisting of simple English sentences. They also sometimes found it difficult to understand the child's messages fully, due to the sentence fragments. Nevertheless, even these preservice teachers seemed to be quite

satisfied that their child partners had tried their best to write their thoughts mostly using English, even when they could have written in Korean.

Increased Consideration of Pedagogical Perspectives in Teaching Children English

The online exchanges with elementary school children allowed the Korean EFL preservice teachers to have ample opportunity to interact with the children in the target age they would be teaching in the future and to think about ways to teach them English more effectively. In order to have an effective interaction with elementary school children, it was important that the preservice teachers learn to adjust their instruction to the needs of their child partners. For the preservice teachers, this was a perfect opportunity to practice and enhance their teaching using English in a non-threatening environment.

During CMC, the preservice teachers were continuously confronted with the need to make correct pedagogical decisions for their child partners. In general, they had to think about what kinds of questions they should ask, how to ask them, as well as how to respond to the messages sent by the child partners. Their questions included such concerns as: Should we correct his/her English grammar? If so, how much? Would he or she understand this expression? What kinds of words would encourage him or her to continue enjoying reading English books? Some questions were designed to meet children's English abilities, and some were to meet their emotional needs. Although it was not possible for them to resolve every question that they had while writing email messages, by repeatedly reading their child partners' messages and discussing the numerous issues that surfaced with their own group members, the preservice teachers were able to experience pedagogical growth.

In particular, the preservice teachers' efforts to meet their child partners' level of English and cognitive abilities as well as social and emotional needs were obvious in their reflection processes.

Adjusting to the level of language abilities and cognitive abilities of young students

During online exchanges with the elementary school partners, the preservice teachers were practicing to adjust English instruction to their partners' English abilities as well as cognitive levels. In their reflection journal entries and final reflection papers, the preservice teachers frequently talked about the importance of meeting their child partners' English abilities, and their trials and errors in this process. Throughout the interaction, the preservice teachers seemed to be aware of their partners' capabilities, and this pattern was more apparent, in particular, at the early stage of the email exchange in which the preservice teachers had to figure out their child partners' English ability.

In fact, one of the main concerns of the preservice teachers during their collaborative dialogue was how to compose message in order for them to have more smooth and interactive exchanges that would meet their child partners' English and cognitive levels. Younghee described their group members' efforts to adjust their instruction to their child partner's needs.

When composing messages for our child partner, we tried not to use difficult words or expressions in an attempt to meet our child partner's English ability. We kept asking ourselves numerous questions, such as "Which English expression would be

easier for him to understand?” or “What about this word? Would it be too difficult for him?” (Younghee, Translated from her final reflection paper)

Here is one of the several collaborative dialogues that took place among the preservice teachers in Group H showing the preservice teachers’ efforts to meet their child partner’s English ability.

Hyunmi: What about asking what kind of music he likes? or kind of music genre...

Eunyoung: But I am not sure how much elementary students would understand the expression “music genre”. What do you think?

Saehwa: Right. Then, what about asking if he likes his music teacher instead? Or we can ask something else. (Group H, Translated from their collaborative dialogue.).

As shown above in their collaborative dialogue, these preservice teachers were trying to come up with the questions that they were going to ask their child partner in their email message. They were discussing whether their elementary school partner would understand the word “genre.” Having decided the word might not be in the child’s vocabulary, they decided to ask an easier question. Because they wanted to communicate smoothly with an elementary age student, the preservice teachers were very sensitive to the words they were going to put in the messages.

The preservice teachers in Group J also shared their trial-and-error experience in meeting their child partners’ level of English.

When we read Junghee's email message telling us that she had difficulty understanding our email, we had to reflect on what we had done looking at the message we had sent. Although we spent quite a long time composing a message that would meet Junghee's level of English such as choosing easy words and expressions, it turned out that the level of the message we had composed for her was not quite suitable for her. Thus, we made up our minds to write simpler sentences using easier words than the ones we had used before. (Group J, Translated from their 3rd group reflection journal)

In fact, the preservice teachers in Group J realized that they had failed to meet the needs of their child partner, Junghee's, in terms of her interest and level of English. In response, during the online exchanges, the preservice teachers had to change their strategies quite often to sustain the interaction with Junghee. Fortunately, Junghee, unlike some other child participants, was outspoken about what she needed, did not like, or found difficult during email exchanges in which she used both English and Korean. Therefore, through trial and error, the preservice teachers were able to establish a quite close relationship despite the seemingly unorganized conversation.

The preservice teachers who had Jaehoon, the youngest child participant in the study as a partner, were also constantly trying to meet the child's linguistic as well as cognitive abilities. During their collaborative dialogue, these preservice teachers kept expressing the difficulty of writing English sentences that would meet their child partner's level. They reported that trying to find easy English words that would meet their child partner's level

was the most difficult aspect of the project for them. They reported in their reflection journal:

We tried to write sentences using the easiest English words and this was the most difficult for us to do. Whenever we composed an email message for our child partner, we spent quite some time trying to figure out which words we should use for him. (Group I, Translated from their reflection journal)

The attempts to match their instruction to their child partner's English were sometimes observable in the email messages the preservice teachers sent to their child partners. The preservice teachers in Group D, for instance, wanted to check their child partners' understanding of the book they were reading or of their email messages. Thus, these preservice teachers chose to ask directly about their child partner's understanding from time to time. One of the examples is shown below.

Example 66)

1 PreT: **Did you understand the words like 'giggle', 'wilt' and 'dreadful'?**

2 I thought those words are little difficult.

3 **Can you tell me the meaning of these words?**

Because these preservice teachers thought that some of the words in the text might be difficult for their child partner, they asked if the child knew the words and requested she tell them the meaning of those words in her reply. Asking the child partners simple questions for check-up actually made the conversation between them smooth by meeting the child partner's current needs.

Notably, the preservice teachers also learned that although the students were perceived to possess high English skills for their age, due to their insufficient knowledge of the native language, using difficult vocabulary terms or trying to convey abstract or complex ideas in English was sometimes inappropriate for the students' language development as well as their motivation level, as illustrated in Example 67.

Example 67)

- 1 Pre-T: When I was young as you are, I want to grow older too.
2 But, now I want to go back at that time. Adult have special rights that children
3 haven't. but, they have a big&heavy thing that is called 'responsibility'.
4 But the other people who is older than me say that they want to go back to the
5 time when they're in my age.
6 Jieun : ...I agree with your opinion. but it's difficult to me^^;;

The elementary child partner, Jieun, in Group B was the one I have described as showing a high level of maturity for her age during email exchanges, consoling and cheering her partner up when the preservice teachers expressed their feelings of sadness to her. Jieun had expressed her wish to become an adult quickly in a previous message. In response to the child partners' wish to grow older quickly, as shown in lines through 2~5 in Example 67, the preservice teachers tried to make their child partner understand that becoming an adult is not always a good thing, due to the responsibilities that adults have to take on. However, the message that the preservice teachers attempted to deliver seemed to be beyond the capacity that Jieun could understand by using only English. Thus, the child expressed having difficulty in grasping the meaning of the message that her partner had

tried to convey by saying, “..it’s difficult to me^^;;” (Line 6). In order to express her frustration, she also put the non-verbal cue “^^;;” right next to her sentence (The combination of two eyes (^^) and sweating (;;) means someone is sweating due to frustration or embarrassment).

Right after receiving the child’s reply, the preservice teachers wrote about their child partner’s reaction to their message in the group reflection journal. They wondered whether their child partner still would have had difficulty understanding the message if they had explained the same thing in Korean and, thus, had to realize the limitation of conveying abstract concepts to elementary age students by using only English.

A similar instance occurred during the exchange between the preservice teachers in Group D and their child partner. The preservice teachers in Group D were so excited about their child partners’ English improvement and enthusiasm toward the interaction with them that, in the final email message, they generated quite long English paragraphs in order to express their feelings about their experience.

Example 68)

1 PreT: This is eighth e-mail which I write to you....

2 It was really wonderful time to me. It was a precious experience as a potential
3 elementary school teacher. And I am thankful for your faithful attitude. I am
4 proud of you! I hope that you grown up too through this project. I hope that I
5 have helped you a lot.

6 Haemi : Sorry, Julia, next mail’s mean is I don’t know...

Although there were not many difficult words in the preservice teachers’ message, talking about the preservice teachers’ feelings and hopes appeared to be quite different from simply

talking about the book or the child's daily life. It seemed that Haemi had difficulty grasping such expressions as "your faithful attitude" (Line 3) or "grown up too through this project" (Line 4). These expressions appeared to be somewhat abstract and hard to convey using only English compared to the expressions that the preservice teachers had used before. The above two examples illustrate instances of partial communication breakdown mostly due to a mismatch between the adults and the child's English and cognitive ability. Although the two children's English was good for their ages, their English abilities did not allow them to grasp some of the messages the preservice teachers were trying to express.

Not so surprisingly, after the project ended, several preservice teachers reported that choosing English words and structures and writing sentences that would meet the child's level of English were more difficult tasks than they had imagined at the start of the project.

Meeting the children's social and emotional needs

One of the most valuable learning experiences that many of the Korean EFL preservice teachers pointed out as future elementary teachers of English was that CMC with current elementary students provided them with an opportunity to practice how to interact with their future students. Learning how to interact with their future students also meant learning how to form relationships with elementary students, which seemed an essential step in having a productive and sustained online communication. In order to have a productive and sustained communication with the child partners, the preservice teachers, sooner or later, recognized how important it was to respond to their child partners' social and emotional needs. Thus, the preservice teachers discussed a great deal about ways to

keep their partners' interest along the way and become closer to them. Clear evidence of the preservice teachers' attempts to have an interactive exchange with their child partners and to meet their social and emotional needs can be seen in some of their strategies. These included taking a personal interest in the child partners' lives and opening themselves up to their child partners. These groups who employed these strategies during online exchanges experienced more success in eliciting responses from their child partners and establishing a relationship.

Two preservice teachers, Juhyun and Hyunjin, specifically mentioned how they had realized, through trial and error, how important it was to meet elementary age students' emotional and social needs along with their academic needs. The online communication with their child partner did not work as they had expected. After the project had ended, the preservice teachers reflected on their experience and concluded that one of the main reasons why their online exchange was not successful was that they had failed to meet their child partner's social and emotional needs. They felt that they had concentrated only on the book's contents and failed to provide sufficient emotional support in sustaining conversation with the child partner, such as providing compliments, encouraging the child, and showing personal interest. Hyunjin reflected that they should have focused more on how to keep the child's interest level as well as stimulate her interest until the end of the project. Another group member, Juhyun, concluded that "when looking from a perspective of educational theory, we only focused on the cognitive part, ignoring other parts, like the student's emotions. Overall, I think we did not make sufficient effort to meet our child partner's needs" [Translated].

An Increase in Preservice Teachers' Confidence in Using English with Elementary Students

Some preservice teachers reported that their anxiety about using English with elementary school children had decreased and their confidence in using English had increased after participating in the online exchange. According to their final reflection papers and post-questionnaire, the preservice teachers had been quite apprehensive at the beginning about interacting with children using mostly English, due to their perceived lack of English ability. However, after the project had ended, quite a big difference was found in their perceptions in terms of their confidence in using English with elementary school children. Although they still did not believe that their English was “perfect,” the preservice teachers realized that in order for them to converse with their future students in English, they did not need to use the “perfect” English that they always thought they would need to have. This kind of change can be obtained only through first-hand experience such as the one these preservice teachers had gained through participation in this study.

The preservice teachers' response to the post-questionnaire item “My confidence teaching elementary students and interacting with them mostly using English has gone up” also confirmed what the preservice teachers had indicated in their reflections with regards to increased confidence in using English with elementary children. Twenty-four preservice teachers agreed with the item whereas only one preservice teacher disagreed.

Hyunjin, who had, in the beginning, reported a lack of confidence in her English ability, reflected, “The fact that I did not have much trouble in communicating with my

child partner in English during online exchange gave me confidence in using English with elementary age children that I did not have before” [Translated]. Jongsuk, who was very concerned about his poor English skills, echoed what Hyunjin said: “I always thought that my English was not good enough. But, then, after I realized that there was little problem with communicating with my child partner using my current English ability, I gained more confidence in my English” [Translated]. Similarly, Jaehee indicated that she had dropped her prior preconception that she had to use flawless English when teaching children English. The change in her beliefs lessened her anxiety, thereby increasing her confidence in using English with children. She reported:

After conversing with my child partner in English, I became free of the misconception that I have to use not only fluent but perfect English when teaching children English. This change lessened my anxiety in using English with students. (Jaehee, Translated from their final reflection paper)

Apparently, having had direct interactions with students like their future students using English appeared to provide a boost in confidence to most of these preservice teachers.

Perceived Improvement in Preservice Teachers’ English

As many of the preservice teachers reported that they gained confidence in using English with their future students, some participants reported that their own English skills had actually improved by using English through frequent email exchanges and talking about various topics, including texts, daily lives, and personal interests. The preservice

teachers were in consensus that their continuous involvement in the language led to the improvement in their English. In particular, the preservice teachers reported that their English improved in general, as well as their teacher's English that they may need to use in their future practices with elementary age children.

Junho reported that devoting time and effort to creating email messages using English actually helped him improve his English and gain confidence in using English with elementary age children. Junho's reflection was remarkable when looking at his initial feelings toward his English ability:

When I first learned about this project, I was not sure if I could do well on the project. It was quite an overwhelming task for me because my English was not very good. I did not know many English words and my English reading skills were not that good, either. One thing that I knew for sure was that the project was new and appeared to be interesting, so I decided to do my best no matter what...While my group members and I were composing email messages in English, we had to pay more attention to our English since we were sending an email to a real elementary student. Thus, we put much time into composing English sentences by continuously checking grammar and looking up new words in the dictionary. I feel like I gained confidence in both teaching English to my future students as well as in using English through this process. (Junho, Translated from his final reflection paper)

Jahee also pointed out the effect of having an authentic conversation with a real audience in the target language in improving her language skills, as opposed to sitting at a

desk studying the language through books. She said, “I could see improvement in my English by actually trying to express what I want to say in English rather than studying English through textbooks” [Translated].

Furthermore, some preservice teachers reported that while they were trying to come up with English expressions that might be easier for the elementary children to understand, their English usage appropriate for the age of the elementary children probably increased. They also mentioned an increase in their sense of responsibility that they should use correct English as much as possible as a teacher, and this actually contributed to the improvement of their English, by trying to use more exact words and expressions during the online exchange. Kyungeun’s response illustrated this belief.

I was able to practice not just English, but English expressions that I would need when teaching students English in a real classroom setting. In addition, I paid attention not to make mistakes while writing English sentences for my child participants. This whole process helped me improve my English. (Kyungeun, Translated from her responses to the post-questionnaire)

Realization of Preservice Teachers’ Own Needs to Study More English

All the Korean EFL preservice teachers mentioned that they felt a strong need to study English more as a result of participating in the online project. When asked on the post-questionnaire, all the preservice teachers answered that their participation in the online exchange had affected their motivation to improve their English, including classroom English for elementary school children. Communicating with the children at the target age

they would be teaching in English, rather than with either their peers or teachers, allowed them to think seriously about their own English ability as future elementary teachers of English.

According to the data, two major factors appeared to contribute to self-realization of the preservice teachers on this matter. First, by directly interacting with elementary students using English, the preservice teachers learned current elementary age children's English ability. This led many of them to examine their current English ability in terms of whether they were ready to teach elementary students English through the medium of English. Specifically, they realized that they needed to work harder to improve their English in order to become capable English teachers because most of the child participants' English was surprisingly good. The preservice teachers had anticipated that today's children's English would be more advanced compared to when they were young due to early exposure to English education. The successful exchanges with children were even more of an awakening experience to see what today's elementary children were actually capable of doing. Jungsoo, who had confessed that he did not like studying English because he believed that he was not good at English, shared how he came to the realization about his own need to study English as a future elementary teacher. He stated:

My child partner's English was better than I had expected. Before getting her first email, I kept thinking, "An elementary student is an elementary student. Her English cannot be so surprising." Because I was kind of looking down on elementary students' English ability until now, I could not help but be surprised at my child partner's English proficiency. Thus, I came to the realization that I would

need to improve my English in order to teach current elementary students' English well. (Jungsoo, Translated from his final reflection paper).

Jungsoo also added that regardless of his feelings toward English, he was now willing to put more time into studying English in order to provide quality English instruction to students. SeungAh echoed what Jungsoo had said:

What was great about the online exchange was that I had sufficient opportunities to think about today's elementary students' English abilities throughout the entire exchange. Because I have not had a field experience yet and did not have any opportunity to teach elementary students, I did not really know how proficient these students' English would be at...It seemed that many of the students have been learning English in private institutes or English kindergartens. Thus, as much as current elementary students' English has improved, I really have to hone my English skills. (SeungAh, Translated from her final reflection paper)

Younghee, another preservice teacher's experience was not much different from that of Jungsoo and SeungAh. She said, "I was quite disappointed in my current English ability during the email exchange. In order to become a helpful teacher to my future students, I made up my mind to study English harder" [Translated].

Secondly, as a result of the preservice teachers' first-hand experience in the online interaction, they realized that interacting with elementary age children using mostly English is actually quite doable. That is, the seemingly daunting task of teaching and interacting with elementary students mostly using English became, for the preservice teachers, something they saw they could possibly do. Having completed what the preservice teachers

had thought to be too difficult to do may have increased their motivation to study English even harder. As an example, the preservice teachers in Group I had expressed their lack of confidence in English. According to them, after they had exchanged an email for the first time with their child partner, they felt that they could continue to exchange emails with the child although they felt awkward and it took them quite a long time to compose the first message. Then, they confessed their strong motivation to study English because they wanted to use good English expressions freely with their students.

Envisioning Themselves as Future Teachers of English at the Elementary School Level

Although the preservice teachers were never directly asked, I found that they frequently envisioned themselves as future teachers of English by constantly connecting the current online exchange with their future teaching practices. It was a popular topic of discussion during the group collaborative talk prior to sending the email, and it was also consistently mentioned in their group reflection journal entries and their final reflection papers. It seemed that constant involvement with the students they were going to teach in the future made these preservice teachers think about a variety of situations that they might face in their future classrooms.

To Youngjun, participating in this online exchange was a golden opportunity to think about ways to teach future target students and to be exposed to different perspectives in ways to teach, as well as to interact with those students through a collaborative dialogue with other preservice teachers. He stated:

During email exchanges, I seriously thought about ways to teach elementary students and shared diverse opinions with my group members about how to teach them as if we were real elementary English teachers. I feel that I will be able to teach students better and in a more organized way through this experience (Youngjun, Translated from his final reflection paper)

Further, he shared several ideas in which he could implement email into his future classrooms that would complement the disadvantages of using email when teaching children as if he had already become an elementary English teacher.

I thought about ways to implement the online activity in my future classrooms. Since I will not be able to provide detailed feedback to every student's email message as I did in this online exchange, I can have my students read and discuss English books in groups and then, students in each group can representatively write his or her own group's opinions or reactions to the book they have read together using email. Or, I can have my students do their homework using email and I can provide my feedback through face-to-face discussion later in the classroom. (Youngjun, Translated from his final reflection paper)

So, in this way, he believed that he could overcome the problems that he might be facing when dealing with a large number of students at one time in the offline classroom when using email as an instructional tool. As shown in Youngjun's reflection, taking time to envision themselves as future teachers of English directly led them to come up with various ideas for using technology in their future classrooms.

Another preservice teacher, Taehyun, also reported at length about how he envisioned himself as a future teacher of English at the elementary school level.

After completing the email “lesson” with my child partner, I felt that I became a “teacher.” Imagining how I might feel if I really became a teacher in the future made me want to teach children in the field as soon as possible. While exchanging emails with the child, I felt very much rewarded...I also took this opportunity to imagine myself being a real teacher, such as making lesson plans in my head. (Taehyun, Translated from his final reflection paper)

Reflecting this envisioning of himself as a real elementary school teacher, he called his online child partner his “first student.” He further said, “It was a great feeling that a real elementary student kept calling us who are still so clumsy and not skillful ‘teacher.’ For me, she is my ‘first student’”[Translated].

The preservice teachers in Group D tried to make a connection between the current email experience and their future teaching practices. Thus, they accepted the challenges encountered during email exchanges with the child partner as a part of becoming a real teacher and appeared to appreciate this opportunity. The following is their 6th group reflection journal.

Time goes by, receiving our student’s email is a big pleasure. She reads, studies, and participates hard. When she ask something about the book, we know that she is interesting in studying the book. And also we realized that teaching someone is pretty hard. We want to teach more and help more, but It’s hard that express by E-mail. We want to be a helpful teacher to her, but I don’t know what she thinks about

me. Those matters make us have a little pressure. But we'll consider that those matters are just some part of being a real teacher and always do the best (Group D, 6th group reflection journal)

Interestingly, the data indicated that the CMC experience with the elementary school children also allowed the preservice teachers to experience various emotions that they might experience when they become real elementary school teachers of English. This also provided the opportunity for them to envision themselves as future elementary teachers of English. Most preservice teachers' emotions fluctuated according to how their child partners responded to their email messages. These emotions included feeling rewarded, frustrated, surprised, happy, and loved. The children showed more responsiveness toward the preservice teacher groups who responded to their emails with great enthusiasm. Likewise, when their children responded to their email with a lack of enthusiasm and interest, the preservice teachers became easily disappointed or frustrated. On the other hand, when their child partners sincerely responded to their messages, they became very happy and excited. Sometimes, the preservice teachers were surprised by the child partners' frankness, innocence, or high level of maturity, fluency, as well as confidence in their use of English. The various reactions that the preservice teachers showed, although exchanges happened online, resembled what real teachers in the field might experience. Many of them did say that, as they were teaching and interacting with their child partner, they had a glimpse of what they might feel as novice teachers, include satisfaction, frustration, love, and happiness. Their emotions fluctuated like any other teacher's just getting started would do. For instance, Haesook reflected,

I could experience teacher's work. Even though it was not direct teaching but it was enough to feel teacher's feeling. For example, I was very happy when I received the mail and Haemi wrote her story or the book's contents very well...I think it will be a great help when we are a teacher. (Haesook, a final reflection paper)

The following reflection journal entries from several preservice teachers groups demonstrated how these Korean preservice teachers' emotions fluctuated, depending upon the child partners' behaviors during the exchange.

This time we were very happy because Emily answered very well. She did her best to write a letter. Last time we little worried about her habit finding dictionary. (Group D, 5th group reflection journal)

This time, she said "Thank you for 전치사[preposition] explain. Your explain makes me perfect for 전치사." The moment we read it, we are so happy. And we thought we had not labored in vain. Maybe it's teacher's mind when they teaches student. When students say 'thank you I've got it.'Or 'I can do because of you', teachers will think this is why I teach them. Same mind. (Group D, Group reflection journal).

As the session went by, we felt that this online exchange was not only helpful in improving the child partner's English. What we had realized is that we started to feel excited and happy by getting to know more about our child partner session by session...The feelings we are having at this moment probably will be the very

feelings that we would have when we became real teachers in the future. (Group B, Translated from their group reflection journal)

When we noticed that Junghee appeared to be excited at reading English books and exchanging emails with us, we also were very excited...(Group J, Translated from their group reflection journal)

Notably, the online experience afforded some preservice teachers unexpected chances to think seriously about their career of becoming an elementary school teacher and to reconfirm the choice they had made. Several preservice teachers noted that the online experience gave them the opportunity to reconfirm the choice they had made and that they were able to make up their minds to strive forward to become a good teacher. In particular, Sumin who appeared to enjoy conversing with her child partner throughout the online exchange, confessed about the change in herself regarding becoming an elementary school teacher. She reflected:

Although I was studying to be an elementary school teacher, I often wondered whether teaching children matched my aptitudes. However, after this activity, I found myself enjoying communicating with elementary school children and gained confidence in teaching them. (Sumin, Translated from her final reflection paper)

Chapter 5

Discussion

Through the intensive analysis of data across multiple data sources, I was able to answer the two research questions that I set out to investigate at the beginning of the study. First, I was able to come to an understanding about the nature of the interactions that occurred between Korean EFL preservice teachers and children during online exchanges. Through this process, I was also able to identify more effective strategies employed by the preservice teachers during online exchanges with the elementary age child participants. The analysis of data also allowed me to understand the Korean preservice teacher participants' overall impressions and perceptions of teaching their target students English online. This final chapter presents a discussion of the findings, implications for EFL teachers, limitations of the study, and implications for future research.

Discussion of the findings

Factors contributing to successful CMC exchanges

Wertsch (1991) claimed that “Social mediation of learning by tutors or peers, when well conducted, can meet these conditions far more effectively than its solo learning alternative.” He continued to say that effective learning would not easily occur “without the facilitating social context: informative feedback, challenge, guidance and encouragement.” The present study confirmed what Wertsch claimed by showing how teachers' creation of learning environments for their students using a variety of strategies was influential in the students' effective learning. As presented in the Results section, the Korean EFL preservice

teachers in the study used a variety of strategies throughout the online exchanges, and some of these strategies made the online exchanges with their elementary school partners more effective than others. The more the preservice teachers used these strategies, the more successful they were in engaging their students in a meaningful conversation, thereby increasing opportunities for the children to practice their English. This finding also supports previous research on the participants' strategy use in the teaching and learning relationships, either online or offline (Juel, 1996; Wilson, 2010). Both Juel (1996) and Wilson (2010) showed that what teachers or tutors did during their interactions with students made a difference in their students' learning.

An additional finding of the study, and a factor that also affected the success of CMC exchanges, was the fact that most of the preservice teachers and elementary students felt an emotional connection and were able to build personal and social relationships by interacting in CMC mostly using English. In Kamhi-Stein's (2000) study, non-native speaking students in a TESOL preparation program reported that the CMC tool reduced the cultural and linguistic barriers, thereby allowing the students to "hear multiple voices and perspectives." Similarly, CMC seemed to encourage the participants of the current study to build relationships more quickly than if they were in a conventional classroom setting where there often are too many constraints on the relationships between teacher and students. Based in their cultural experiences, Korean students perceive their school teachers as an authoritative figure, so it is quite difficult for the students to approach their teachers to talk about their personal stories or to build a personal relationship with them in person. Some of the preservice teachers, such as Eunji and Jongsuk, seemed to recognize the benefits of

CMC in this matter. They attributed the use of CMC as one of the crucial factors for being able to build a closer relationship with their child partner. They stated that their child partners also seemed to be free of the constraints, including differences in age and status, and that the children seemed free to express their thoughts during their interactions. Thus, the fact that the participants interacted online without seeing each other in person actually seemed to facilitate closer personal and social relationships.

This finding confirmed what Barson, Frommer, and Schwartz (1993) stated, “The electronic mail system also permits a new type of relationship between students and teachers.” Just as Barson et al. (1993) had stressed, most of the preservice teachers thought that during CMC, they had more opportunities to establish personal and social relationships with each other by being more open and frank, and that they were not confined by their traditional roles. This finding was also consistent with what Wilson (2010) found in her online book club that when the book clubs were working smoothly, the preservice teachers and children were able to develop a personal relationship. Other studies on the use of CMC also supported this finding that CMC has the potential for developing relationships (Doering & Beach, 2002; Doherty & Mayer, 2003; Kim & Schallert, 2011).

However, it should be pointed out that not all of the groups in the current study were able to develop close personal and social relationships. Some groups established very close relationships with their child partners (Groups A, B, C, D) and some groups did not (Groups E, F, and H). In the partnerships that had established close personal and social relationships, such as Groups A and B, the child participants seemed to enjoy conversing

with their preservice teacher partners using English, thereby eliciting more responses from the children.

As shown in the second part of the Results section, the child partners' English seemed to play an important role in the success of online exchanges. The four groups that were classified as more successful had child partners whose English was more advanced than some of the other child partners. The elementary school child partners' advanced English proficiency seemed to allow them to have effective communication with their preservice teacher partners and to establish close relationships with them. Yet, although the elementary students' English ability contributed to the success of the online experience, it was neither an essential factor, nor the only one that contributed to the success of the online experience. For example, Group E was classified in the category of less successful groups. This was the group in which the preservice teachers had online exchanges with the child partner, Haejung, whose English proficiency was one of the best among all of the children. Data analysis revealed that the preservice teachers in Group E did not employ most of the strategies that were identified as more effective in generating the elementary students' longer responses. As consistently shown in the Results section, a successful email exchange in English with children required a consistent effort on the part of both the preservice teachers and students. However, because communication was taking place between adults and a child, what the teachers initially did appeared to be more important in this process. Thus, it can be concluded that although the elementary students' English can be helpful in having successful CMC exchanges, it was not a sufficient condition for the participants to have a better CMC experience.

An additional point is the contribution of the relationship between the child participants' ages to the success of CMC exchanges. Although I did not limit the ages of the elementary school participants when recruiting them, because of his young age, I was somewhat hesitant and concerned about including a first grader, Jaehoon, into the project despite his relatively advanced English proficiency and computer skills. However, contrary to my initial concerns, Jaehoon engaged in CMC exchanges quite successfully without much difficulty. Therefore, it can be said that CMC exchanges with younger age children is also possible as long as the child has a certain level of English proficiency and he or she is willing to participate in the activity with someone's help or encouragement, such as a teacher, parents, or siblings. Interestingly, younger children's email messages were a little different from those of older children. These differences were particularly noticed in terms of their participation patterns. Whereas older children seemed to make their efforts to become close to their partners, such as expressing their emotions (i.e., I like you. I would like to do...), Jaehoon was only focused on or seemed to be interested in answering the preservice teachers' questions and asked questions only when he was really curious about something, such as "do you believe in Santa clause?" Thus, differences in dealing with younger children and older children during online exchanges should be addressed to the participating teachers or preservice teachers.

Effects of Group Collaboration, Asynchronous CMC, and the Preservice Teachers' Beliefs

I categorized the groups as those that were more successful and those that were less successful. However, regardless of their classification, all the preservice teacher groups in the study were successful in exchanging a minimum of seven to a maximum of ten emails with their child partners over the semester. First, the fact that groups of preservice teachers collaborated to create the messages for their students may have had something to do with the number of email interactions that the groups exchanged. Because the preservice teachers collaborated with their fellow future teachers, online or through face-to face discussions, they may have overcome numerous challenges they encountered along the way by reducing their feelings of isolation (Kehmi-stein, 2000). Also, through collaborating to compose the messages for their child partners, the preservice teachers were able to provide quality language instruction, thereby increasing the sustainability of the online exchanges. Second, the unique nature of asynchronous CMC may have contributed to the sustainability of the participants' online interactions. Many researchers noted that asynchronous CMC allows participants time to reflect on the language and content of the message both during and after production (Warschauer, 1997; Kern & Warschauer, 2000; Smith, 2003; Chapelle, 2003). Every time they sent out their email messages to the child partners, the preservice teachers took their time to read and analyze their child partners' messages. They also took time to think and discuss what to put in their messages in order to have sustained interaction with their child partners. By doing so, they were able to provide the children a greater opportunity to use English. Finally, the fact that the majority of preservice teachers in the study were active users of computer technology and had positive attitudes toward the

use of technology in EFL classrooms may have impacted the general success of the CMC exchanges.

Potential Value of Online Exchanges between Non-Native Preservice Teachers and Elementary School Students in EFL Settings: What Did the Online Exchanges Provide for the Preservice Teachers in Terms of Their Teacher Preparation in this EFL Setting?

Little research has been conducted to investigate interaction between EFL preservice teachers and elementary age students online. Hence, it will be important to discuss what impact the online exchanges had on the Korean preservice teachers in terms of their teacher preparation for an EFL setting. Although her study was conducted in an L1 setting, Wilson (2010) argued for the potential value of technology in a teacher education program by stating that her online book club could “provide a model to instructors about one way to incorporate technology into their classes in a meaningful, transformative, and authentic way” (p. 688). In addition, the major findings of the current study were consistent with those of Kehmi-stein’s (2000) in that the integration of CMC into a TESOL teacher education program allowed the future teachers to develop their professional knowledge “through collaboration while giving them experience in learning through technology” (p.449). In order to better understand what kinds of professional knowledge the preservice teachers acquired during CMC exchanges, I will draw upon Shulman’s (1986, 1987) framework of teacher knowledge.

Lee Shulman (1987), whose work received much attention in the field of teacher education, addressed the importance of teachers' knowledge by suggesting seven categories important to ensure learning for students: Subject matter content knowledge, general pedagogical knowledge, curriculum knowledge, pedagogical content knowledge, knowledge of learners and their characteristics, knowledge of educational contexts, and knowledge of educational ends, purposes, and values. Among Shulman's seven categories of teacher knowledge, the participation of the online exchanges with elementary students seemed to provide the Korean EFL preservice teachers with the opportunity to achieve four types of teacher knowledge.

First, Shulman (1987) insisted that teachers need to be knowledgeable in their subject matter content. For the participants of the current study, their area of content knowledge is English as a foreign language. In order to meet the teacher knowledge categories of Shulman, as elementary EFL school teachers, the preservice teachers would need to be knowledgeable of not only English in general, but also of "teacher English" terms and expressions they need to use with elementary students. In the current study, the online exchanges with elementary students provided an authentic and low-anxiety environment in which the preservice teachers could put their English knowledge into practice through meaningful communication. Linguistic deficits have been regarded as one of the weakest points of non-native English speaking teachers (Medgyes, 1994; Reves & Medgyes, 1994; Tarnopolsky, 2000). In addition, Reves and Medgyes (1994) found that non-native English speaking teachers' awareness of their own divergent levels of English proficiency affected their self-image and attitude toward teaching. Hence, as non-native English speaking

teachers, it would be important for them to improve their language competence (Chun, 2008; Horwitz, 2008; Medgyes, 1992). Horwitz (2008) stressed the importance of improving the language one teaches as a language and strongly recommended that foreign language teachers find ways to maintain and improve the language that they teach. The preservice teachers in the study reported that both their English skills and confidence in using English with elementary school children had increased after participating in the online exchanges. In particular, the preservice teachers reported that their English in general improved, as well as their knowledge of the particular English that they would need to use in their future practices with elementary age children. For these individuals who usually did not have authentic opportunities to use their English, the online exchange was a perfect opportunity for them to use their English in a creative and communicative way with elementary students like those they would ultimately teach. The preservice teachers' perceived improvement in their English was supported by a number of previous CMC studies (Beauvois, 1998; Chun, 1994; Gonzalez-Bueno&Perez, 2000; Kelm, 1992; Kern, 1995; Sullivan and Pratt, 1996; Stockwell and Harrington, 2003; Wang, 1998; Warschauer, 1996). These studies reported positive effects of CMC on the development of the participants' foreign language. Among them, Stockwell and Harrington (2003) reported improvement in Japanese foreign language learners' syntactic usage of Japanese and vocabulary both quantitatively and qualitatively as a result of participating in online exchanges. An additional finding was that all the preservice teachers reported realizing their own need to study English harder in order to provide quality instruction to their future students. By communicating with young students like the ones they would have in the

future, they were able to acquire ways to study English more effectively for the sake of their future English teaching.

Another finding that seemed noteworthy was that the preservice teachers changed their attitudes toward learning and using English as foreign language teachers. The Korean preservice teachers appeared to have been under much pressure to speak “perfect” English to students in their classrooms. However, after the project, the preservice teachers came to the realization that when teaching and interacting with elementary students, finding and using English expressions at the students’ English and cognitive levels was much more important than possessing a near native-like English proficiency. Thus, the preservice teachers appeared to have finally felt partially free of the pressure or perfection that had caused them to believe that they should produce only error-free sentences. Hence, they established more realistic goals in learning and using English, and this change in their attitude probably affected their feelings of confidence in using English with elementary students.

Second, Shulman (1987) addressed knowledge of learners and their characteristics as an important type of teacher knowledge. The preservice teachers in the study had an ample opportunity to see and reflect on elementary students’ English use and what it is like teaching and interacting with them. Although the preservice teachers’ perceptions about elementary students’ English ability differed according to their respective child partners’ English abilities, the majority of the preservice teachers generally seemed to agree that their child participants’ English ability was better than they had imagined, due to the children’s early exposure to English education. Yet, what the preservice teachers were most surprised

by was not the children's English ability itself, but rather, the fluency in their English, as well as their confidence in using English. The preservice teachers felt that although the elementary students made frequent grammatical errors and did not use advanced English vocabulary in their English composition, they appeared to use English with ease and fluency and seemed not to be very afraid of making mistakes when expressing their thoughts in English. Besides having opportunities to see the students' English ability, while teaching and interacting with the elementary school students, the preservice teachers had a glimpse of what today's elementary students are thinking and worrying about and what their school lives are like. Having had the chance to understand and get to know students who were similar to those they would be teaching in the future, the preservice teachers developed their knowledge of students and would be in a better position to provide better instruction for their students.

Third, pedagogical content knowledge and general pedagogical knowledge were also essential elements of Shulman's (1987) teacher knowledge. According to Shulman (1987), pedagogical content knowledge is the knowledge of how to teach specific subject matter content. Shulman regarded general pedagogical knowledge as strategies or techniques of classroom management that all teachers use, such as group work. According to Shulman, this general pedagogical knowledge is unrelated to a specific subject matter. The online exchanges with the elementary students provided an opportunity for the preservice teachers to practice how to interact with students and how to teach them mostly using English. On a micro scale, the preservice teachers were able to actualize a student-centered and communicative approach throughout the entire online exchanges. Both approaches have

been recognized as effective ways of teaching second or foreign languages to learners, and, in particular, the student-centered approach has been recommended as a more effective way of teaching a foreign language to young learners (Cameron, 2003).

The preservice teachers employed various strategies to encourage the elementary students to use English as much as possible, and those strategies represented either pedagogical content knowledge or general pedagogical knowledge, thereby demonstrating that these preservice teachers were able to acquire important teacher knowledge or teaching skills that they would need in the future. For example, Strategy 1 (Asking specific questions using simple English sentences), Strategy 4 (Encouraging the children's use of English by relating the content of the book and the children's personal experience), Strategy 10 (Approaching the child partners' English errors strategically), and Strategy 11 (Utilizing the children's first language strategically) seemed to belong to categories of pedagogical content knowledge, and Strategy 2 (Showing interest in the child partners' personal lives), Strategy 3 (Keeping a balance between book talk and social talk), Strategy 5 (Being closely attentive to every aspect of the child partners' messages), Strategy 6 (providing much encouragement and many compliments to the students), Strategy 7 (Opening themselves up to their child partner), Strategy 8 (Frequently utilizing a variety of non-verbal cues or symbols), and Strategy 9 (Making their own email messages visually appealing to the students) represented the category of general pedagogical knowledge. The preservice teachers increased pedagogical growth by reading the elementary students' messages and by responding to the messages of the students. During online exchanges with their elementary school partners, the preservice teachers were practicing not only to adjust

English instruction to their partners' English abilities and cognitive abilities, but also recognized how important it was to respond to their child partners' social and emotional needs. More importantly, engaging in a continuous process of self-reflection as future elementary English teachers seemed to have been helpful for the preservice teachers to acquire effective pedagogical content knowledge as well as general pedagogical knowledge, as shown in the case of Ju-hyun and Hyun-jin in Group E.

Overall, the findings of the study showed the potential value of using CMC as a valuable instructional tool in the preservice teachers' future teaching practices. Also, the online exchanges with elementary school children was effective in enabling the Korean EFL preservice teachers to be better equipped for teaching and interacting with students through the use of CMC technology.

The Preservice Teachers' Attitude toward the Use of Computer Technology in Future Practices

Participation in the CMC exchange with elementary students enabled the Korean EFL preservice teachers to recognize the benefits of using CMC as a valuable instructional tool in their future teaching practices. Although most of the preservice teachers had positive attitudes toward the use of technology and had been active users of computers, most of them expressed surprise regarding the possibility of using email in teaching children English. One of the preservice teachers group's reflections accurately represents the preservice teachers' newly-gained insights into the benefits of using technology as an instructional tool.

Contrary to our expectation that email exchanges with children would not work well due to the absence of physicality, the conversations between our child partner and us actually worked quite well. We realized that if teachers prepare themselves well for an online project, both the teachers and students will greatly benefit from the opportunity. (Group B, Translated from their group reflection journal)

When it comes to the benefits gained from participating in CMC exchanges with the elementary students, the two benefits mentioned most often were: a) students becoming more active agents of their own learning; and b) teacher and students can converse in a more democratic relationship, thereby allowing the students to feel free to express their thoughts in English. This finding was consistent with several previous studies that have investigated CMC interaction in different contexts with different population (Beauvois, 1992; Kehmi-stein, 2000; Kelm, 1992; Kern, 1995; Nunan, 1999; Sullivan & Pratt, 1996; Warschauer, 1996). All of these studies reported different types of participation patterns of the participants when comparing face-to-face and CMC interactions. During CMC interactions, these studies showed evidence of the participants becoming active agents in their own learning by increasing their participation or initiating their interactions. This change was attributed to the seemingly more democratic learning environment that CMC provided when compared to face-to-face interactions. Finally, the Korean EFL preservice teachers who were initially skeptical of the idea of using email as an instructional tool gradually came to realize that simple technology tools, such as email, could turn into an effective instructional tool when teaching students English.

Implications for EFL Teacher Educators and Preservice Teachers

The results of the current study may provide valuable implications for teacher educators who are interested in situating their student teachers in a CMC environment, as well as for teachers who are interested in implementing online exchanges with their students. They may benefit by following the 11 strategies that were identified as more effective in generating the elementary students' responses and in allowing them to use English in communicative and creative ways. In addition, the detailed descriptions of the more successful groups and the less successful groups may inform them what to follow and what not to follow during CMC exchanges.

Use of textual features. The results of the study showed the importance of incorporating a variety of emoticons or non-verbal cues into messages when interacting online with young language learners. The preservice teacher groups who used a variety of non-verbal cues and attempted to make their email messages visually appealing experienced more successful interactions with their child partners. For younger learners who may need more attention than older learners, it is even more crucial for the teachers to make their teaching material more visually appealing when they interact with their students online. Thus, when teachers use email or instant messenger communication as an instructional tool in their classroom, they should be conscious of using a variety of non-verbal cues available online to compensate for the disadvantages of online teaching. Because children today use newer forms of textual features, it would be wise for teachers to keep up with some of the most recent features that young students are using for effective communication.

Error correction. Because Group F spent most of their time, effort, and online space to fix their student's English errors and expressions, they were not able to find any room to build a relationship over time, thereby failing to create the reciprocal and supportive environment that their student needed to express her thoughts in English freely. If teachers choose to correct the students' English errors during their online exchanges, as some groups did, such as Group A and Group D, they can separate the error correction from the email message by attaching the correction as a separate file; thus the error correction would not hinder the flow of the conversation they are having. Or, teachers who use this project in their own classrooms can set aside a regular time to talk about the common errors in English that student had made in their classroom.

Checking spelling and grammar before pressing the "send" button. In recent years, the communicative language approach has received much attention in the field of second/foreign language, with its emphasis on fluency over accuracy and on meaningful communication between interlocutors. Although I agree that conveying meaning should take precedence over correct form when interacting with students, I do believe that teachers should be careful in their use of English. Particularly, teachers can take advantage of the unique nature of CMC. In asynchronous discussions, English spellings or simple grammatical errors can be checked by the participants before sending their messages to their students.

CMC generated teachable moments for language learning. The email exchanges with the elementary children provided the preservice teachers with information about each child's problems in English writing. Thus, the preservice teachers had frequent opportunities to

help their students improve their writing. By the time the preservice teachers had exchanged four or five emails, what each child was capable of doing in their English writing and what was lacking from each child's English was observable. For example, the child partner in Group F seemed to understand the English books that she was reading, as well as the messages that the preservice teachers sent her. She also seemed to possess a high level of English vocabulary knowledge for her age. However, she had problems in composing correct English sentences except for simple subject and verb sentences. This might represent many typical Korean English language learners' English ability—they tend to be good at reading and grammar but poor at expressing themselves in English. Because CMC can be easily “transmitted, stored, archived, reevaluated, edited, and rewritten” (Warschauer, 1997), a teacher can print out a student's messages and see in which area the student needs remediation. By doing so, the teachers will be able to provide individualized instruction that would meet each student's English level.

Group collaboration. The present study showed possible advantages of preservice teachers working together to create the messages for their students as I discussed earlier. Therefore, I suggest teacher educators that whenever they introduce innovative group projects, such as the one in the study, they should have their preservice teachers collaborate together rather than working alone to create better experience.

Words of wisdom for EFL at the elementary level. Finally, the Korean EFL preservice teachers provided advice for EFL elementary teachers who might use a similar activity in the future.

- Be friendly and kind.

- Compliment your students.
- Show your students that you care about them and are interested in them.
- Ask questions about the child's personal interests and life.
- It is very important that you establish a close rapport with your student.
- Position yourself at the child's level.
- Be frank with your students.
- Encourage students to continue to participate in the activity with confidence.
- Try to use a more conversational tone in your messages so that your student will not feel like he/she is sitting in a classroom.
- Reply to the student as soon as possible.
- Use easy and simple sentences. Try to talk to students easily and at their level.
- Find ways to maintain students' motivation to continue to read books and be engaged in the project by constantly stimulating their interest.
- Do not only talk about the content of books. If you do so, the students may lose their interest soon. Try to talk about a variety of topics with your students.
- Use a decorated message board when you write email messages or attach pretty pictures when sending email in order to overcome the dryness of your computer technology.
- Limit the length of the email messages—it's better to send short messages.

Limitations of the Study

The first limitation of the study has to do with the sample of participants in the study. The study was based on a fairly small sample of preservice teachers and elementary students. In addition, in order to select the most promising participants and in order to answer fully the research questions, the child participants were chosen using purposeful sampling (Merriam, 1998). Because the study needed the child participants who had a certain level of English proficiency, it can be said that most elementary students in the study had experienced early exposure to English education. This characteristic of the elementary student participants may not be representative of the population of Korean EFL elementary students. Hence, a larger number of participants and sample of participants with different characteristics may yield different results from this study. Second, the online exchanges lasted about three to four months. This may not have been enough time for some of the participants to have effective interaction. Therefore, giving more time for the participants to be engaged in online exchanges might yield different findings of the study in terms of the nature of interaction between participants.

Next, I was both an instructor of the preservice teachers and a facilitator of the online exchanges. Thus, I, as their instructor, may have influenced how the preservice teachers wrote their reflection papers or responded to the questions in the questionnaires. However, in order to mitigate these limitations of the study, I tried to create a warm and friendly atmosphere in which the preservice teachers could approach me without hesitation and could express their feelings or opinions openly, even negative ones. Thus, I believe most of the participants wrote their honest feelings. However, there still might be some participants

who did not feel comfortable in communicating their true feelings about their participation in the online exchange.

Implications for Future Research

As mentioned previously, most of the child participants in my study were upper-grade elementary students with a small number of lower-grade students. There were many more female child participants than male child participants. In addition, I tried to find elementary students who possessed a certain level of English proficiency for the project. Thus, conducting the project with a sample of participants with different characteristics, such as students with lower or higher English proficiency, younger students, more male students may yield different findings from this study. However, it should be noted that researchers may need to assist sending emails for students of younger ages and lower English proficiency as I did with the youngest participant, Jaehoon. Next, my study was unique in terms of its design. Groups that consisted of about three preservice teachers exchanged emails with one child partner. Because male and female preservice teachers collaborated to compose messages, I was not able to investigate possible effects of gender differences. Interestingly, the study of Doering and Beach (2002) reported notable gender differences in web-based communication between preservice English teachers and middle school students, reporting that female teachers were eliciting more participation from middle school students than were male teachers. Thus, conducting a case study that compared how male and female non-native English preservice teachers approach their students differently would also make an interesting research topic. In addition, because of

the unique design of my study, I was able to obtain the preservice teacher groups' actual conversations during their collaborative dialogue by asking them to submit either printed-out chat transcripts or the recordings of their conversations, which served to help me understand the email messages they had composed. However, as I read them, I found that these collaborative dialogues provided some interesting topics that would be interesting to study in future research. One topic in particular intrigues me: how their collaboration contributed specifically to either the success or failure of the CMC exchanges. Therefore, in the future, I plan to analyze different aspects of the preservice teachers' collaborative dialogue, by making their actual conversations the focal point of the research. Finally, when I analyzed the data, I focused on the nature of interaction between the preservice teachers and elementary students. It will also be interesting for future researchers who conduct a similar study to look at the data from a different angle and analyze email exchanges between participants linguistically, for example, looking at patterns of English use or code-switching among the EFL teachers and students.

Appendix A. Pre-Questionnaire for the Preservice Teacher Participants

(English version)

Name: () Age: ()

Please tell me little about yourself.

1. When did you start to learn English?

2. Do you like studying English?

3. Please rate your English ability. Try to be accurate.

Listening:	Very Poor	Poor	So-So	Good	Very Good	Excellent
Reading:	Very Poor	Poor	So-So	Good	Very Good	Excellent
Writing:	Very Poor	Poor	So-So	Good	Very Good	Excellent
Speaking:	Very Poor	Poor	So-So	Good	Very Good	Excellent
Overall, my English is	Very Poor	Poor	So-So	Good	Very Good	Excellent

4. Please tell me about your computer use.

-How often do you use it?

-On average, for how long do you use it everyday?

-What do you usually do with computers?

5. Do you have any prior experience of teaching/tutoring students using technology, such as computers?

6. What do you think about using technology, such as computers in the EFL classroom?

A. I strongly support the use of technology in the EFL classroom.

B. I somewhat support the use of technology in the EFL classroom.

C. I do not support the use of technology in the EFL classroom.

D. Other opinions:

7. The the Ministry of Education, Science, and Technology in Korea is encouraging elementary school teachers to teach English through English as much as possible. What is your opinion about teaching English through the medium of English?

8. What is your opinion about using students' first language when teaching English in class? Should students' first language be used when teaching English?

-If so, how much should it be used?

9. How confident are you in using English as the language of instruction in your English class? On a scale of one to five, please rate your confidence level in using English as the language of instruction in EFL class, should you be asked to teach a lesson today.

* 5: I feel confident and comfortable using classroom English

* 1: I do not feel confident using English as the language of instruction in English class.

10. What do you think is going to happen when you start to converse with the child partner online? Please describe what you think might happen.

11. How do you think your child partner will express himself or herself in English during the interaction?

a. My child partner will be able to express himself or herself very well in English.

b. My child partner will have to use both English and Korean to express what they want to say.

c. My child partner will have to rely mostly on his or her native language, Korean due to his or her lack of English ability to express his or her opinion.

d. My child partner will use only Korean during the interaction.

12. What do you think are the most important things to consider when you interact with your partner online? List as much as you can.

13. What do you think you will gain from this experience? How do you think preservice teachers will benefit from being involved in this kind of tutoring project?

14. How do you feel about participating this activity? Also, what are your concerns about this project?

(Korean version)

1. 언제부터 영어를 배우기 시작했나요?

2. 영어공부 하는 것을 좋아하나요?

3. 자신이 생각하는 자신의 영어실력은? 솔직한 자기 생각을 적어 주세요.

Listening: Very Poor Poor So-So Good Very Good Excellent

Reading: Very Poor Poor So-So Good Very Good Excellent

Writing: Very Poor Poor So-So Good Very Good Excellent

Speaking: Very Poor Poor So-So Good Very Good Excellent

Overall, my English is Very Poor Poor So-So Good Very Good Excellent

4. 컴퓨터 사용에 관련한 질문입니다.

-평소에 얼마나 자주 컴퓨터를 이용합니까?

-보통 얼마나 오랫동안 컴퓨터를 사용하나요?

-컴퓨터로 주로 무엇을 하나요?

5. 컴퓨터를 이용하거나 온라인상에서 학생을 가르쳐 본적이 있나요?

6. 컴퓨터 멀티미디어를 영어교육에 활용하여 학생들에게 영어를 가르치는 것에 대해 어떻게 생각하나요?

a. 적극적으로 찬성하는 편이다

b. 어느정도 활용할 필요하다고 있다고 생각한다.

c. 전혀 활용할 필요가 없다고 생각한다.

d. 이 외, 다른 의견이 있으면, 적어주세요:

7. 지금 교육과학기술부에서는 초등학교 선생님들이 영어를 가르칠 때 영어를 최대한 많이 사용하도록 장려하고 있는데요. 이에 대한 여러분의 생각은 어떠한지, 자신의 의견을 써주세요.

8. 초등학생들을 위한 영어 수업 중, 한국어를 사용하는 것에 대해 어떻게 생각하나요? 만약, 이 의견에 동의한다면, 어떤 상황에서 어느 정도의 한국어를 쓰는 것이 적당하다고 생각하나요?

9. 여러분들이 영어를 주로 사용하여 영어 수업을 한다고 가정했을 때, 현재 여러분들이 느끼는 자신감의 정도는?

1 (매우 자신없다) 2 3 4 5(매우 자신있다)

10. 이제 곧 여러분이 초등학생들과 영어를 사용하여 이메일을 주고 받게 될겁니다. 어떤 상황이 벌어질거라고 예상하는지 적어주세요.

11. 여러분의 대화 상대인 초등학생들이 자신의 생각이나 의견을 영어로 어느 정도 표현할수 있을것이라고 예상하나요?

a. 영어로 자신의 생각을 아주 잘 표현할 것 같다.

b. 영어와 한국어 모두 동시에 사용해 자신의 생각을 표현할 수 있을 것 같다.

c. 아직까지 영어 실력이 많이 미치지 못해, 자신의 생각을 표현할 때 대부분 한국어를 사용할 것 같다.

d. 자신의 생각을 표현할 때 완전히 한국어만 사용해서 표현할 것 같다.

12. 여러분이 학생과 이메일을 이용해 대화할 때 여러분이 가장 중요하게 생각하는 것은 무엇인가요? 정답은 없으며, 자신의 생각을 모두 적어 주세요.

13. 여러분과 같은 초등학교 예비 교사들이 이 경험을 통해 얻을 수 있는 것을 무엇이라고 생각하나요?

14. 현재 이 프로젝트에 참여하는 느낌이나 소감, 혹은 걱정이나 염려되는 것이 있다면 적어주세요.

Appendix B. Post-Questionnaire for the Preservice Teacher Participants

(English version)

This questionnaire is to find out what you experienced or learned during your online communications with your child partner. So, please be frank when you answer the following questions.

1. Please describe how you felt at the beginning of this project about using email for teaching and interacting with students similar to your future target learners. How are things different now? If you feel differently now, what has changed?
2. What did you think of your students' English abilities? Have your perceptions about elementary school students changed during this project?
3. What surprised you the most while you were interacting with your child partner?
4. What difficulties did you encounter when interacting with the child partner?
5. Which message do you remember the most? What was it about? What was the most impressive thing to you about that message?
6. You participated in this project using mostly English, how was it? Please describe your experience. How did you feel at the end of the project?
7. Do you think this experience has helped you improve your English? If so, in what ways?
8. What do you think are the advantages and disadvantages of using email when you mentor students partly in English?
9. Now after participating this project, do you believe that Korean, students' native language should be used when needed?
Yes No
If you marked yes, explain why:

If you marked no, explain why not:

10. Did you feel any personal connection with your child partner in the middle of this project or do you think you (the teacher your team has created) got closer to the child as the project moved toward the end?

11. What things did you most focus on when composing emails to respond your child partner's email messages?

12. During email exchange, did you correct your student's grammatical errors or spelling errors?

If so, why?

If not, why not?

13. What do you think you have gained from this experience as future teachers of elementary school students when teaching English?

14. Do you think your child partner benefited from interacting with you online and talking about English books?

Yes

No

If you marked Yes, in what ways do you believe your students benefited from this experience?

15. English teachers and/or preservice teachers may be interested in having online exchanges with elementary school students. Do you have any suggestions for these teachers to have more effective learning and teaching experience for themselves as well as the students?

(16~21) Please indicate the extent to which you agree with the following statements.

16. I enjoyed exchanging emails with my child partner.

Strongly agree

Agree

Neutral

Disagree

Strongly disagree

17. My confidence in teaching and interacting mostly using English to elementary student has gone up.

Strongly agree Agree Neutral Disagree Strongly disagree

18. I think this learning and teaching experience with my own future students will possibly transfer to my teaching later in the classroom.

Strongly agree Agree Neutral Disagree Strongly disagree

19. This project helped raise my awareness of the use of technology in the EFL classroom.

Strongly agree Agree Neutral Disagree Strongly disagree

20. I would like to continue to exchange with my child partner if my child partner wants to.

Strongly agree Agree Neutral Disagree Strongly disagree

21. I think my motivation to improve my English including classroom English has increased by participating in this project.

Strongly agree Agree neutral Disagree Strongly disagree

22. What was it like working with your teammates in creating the messages for your students? Did you find it useful to have discussions with your teammates before composing email messages?

23. What process did you go through while composing email messages for your student with your teammates?

24. Is there anything else you would like to share with me about your email experience?

(Korean version)

여러분들이 미래에 가르치게 될 초등학생들과 영어책을 읽으며 이메일을 이용한 프로젝트에 참여하여 느끼고 경험한 것에 대해 알고자 만들어진 설문지입니다. 자신의 경험을 솔직히 적어주세요.

1. 여러분이 처음 이 프로젝트에 참여하게 되었을때의 느낌과 이 프로젝트를 경험한 현재의 느낌은 어떻게 다른지 적어 주세요.
2. 초등학생의 영어 실력이 어땠나요? 이 프로젝트에 참여하기 전 여러분들이 생각했던 어린이의 영어 실력과는 차이가 있었나요?
3. 이 프로젝트에 참여하여 어린이와 영어로 대화하고 가르치면서 가장 놀랐던 점이 있다면 어떤 것들이 있었나요?
4. 이메일을 이용하여 어린이와 영어로 대화하고 가르치면서 어려웠던 점은 어떤 것들이 있었나요?
5. 이메일을 주고 받으면서 가장 기억에 남는 메시지는 무엇이며, 왜 그런가요?
6. 여러분들은 이번 프로젝트에 참여하면서 영어를 대부분 사용하여 아이와 의사소통을 했었는데요. 어땠나요? 지금은 변화가 있나요?
7. 이 경험이 여러분의 영어 실력 향상에 도움이 되었다고 생각하나요? 그렇다면 어떤점에서 영어가 향상되었다고 느끼는지 적어주세요.
8. 이메일을 사용하여 학생들과 영어로 대화하고 또 가르치기도 하면 어떤 이점들과 단점들이 있다고 생각하나요?
9. 실제로 어린이와 영어를 사용하면서 대화하고 가르쳐 보니, 모국어인 한국어 사용에 대한 생각은 어떤지 궁금합니다. 어린이를 가르칠때 필요할때의 한국어 사용에 찬성하나요?
네 아니오
네라고 선택했다면, 그 이유는 무엇인지 적어 주세요:
아니오라고 선택했다면, 그 이유는 무엇인지 적어 주세요:

10. 프로젝트 참여중 여러분을 대표하는 선생님이 어린이 파트너와 감정적으로 가까워짐을 느꼈나요? 혹은 프로젝트가 다 끝나갈 즈음 어린이 파트너와 여러분들이 가까워졌다고 생각하나요?

11. 아이에게 답장을 받으면 무엇에 가장 중점을 두고 답장을 작성했나요?

12. 학생들과 이메일을 주고받는 중 학생의 문법이나 스펠링 오류를 고쳐주었나요?

만약 오류를 고쳐주었다면, 그 이유는 무엇이었나요?

만약 오류를 고쳐주지 않았다면, 그 이유는 무엇이었나요?

13. 여러분들은 가까운 미래에 초등학생에게 영어를 가르치게 될 것입니다. 예비 교사로서 이번 경험을 통해서 얻은 것들은 어떤 것들이 있다고 생각하나요?

14. 초등학생은 이 프로젝트에 참여하는 것이 도움이 되었다고 생각하나요?

예 아니오

예 라고 표시했다면 이번 경험이 초등학생들에게 어떤 면들에서 도움이 되었다고 생각하나요?

15. 만약에 다른 예비교사들이나 초등학교 교사들이 초등학생들과 이메일을 이용해 비슷한 프로젝트에 참여한다면, 좀더 효과적인 경험을 이끌어내기 위해 어떤 충고를 해주고 싶은가요?

(16~21) 다음 질문을 읽고 해당하는 곳에 0 표 하세요.

16. 나는 초등학생과 이메일을 주고 받으며 즐거워했다./주고 받는 것이 즐거운 경험이었다.

전혀 그렇지 않다. 그렇지 않다 보통 그렇다 매우 그렇다

17. 이 프로젝트를 통해서 아이들과 영어로 의사소통하고 가르치는데 자신감이 올라간 것 같다.

전혀 그렇지 않다. 그렇지 않다 보통 그렇다 매우 그렇다

18. 초등학생과의 이메일 tutoring/mentoring 경험이 미래에 아이들을 현장에서 가르칠 때 도움이 될 것 같다.

전혀 그렇지 않다. 그렇지 않다 보통 그렇다 매우 그렇다

19. 이 프로그램을 하고 난 후 미래의 나의 영어 수업 시간에 이메일이나 채팅 혹은 재미있는 웹 프로그램등 멀티미디어 기술을 사용할 생각이 좀 더 든 것 같다.

전혀 그렇지 않다. 그렇지 않다 보통 그렇다 매우 그렇다

20. 만약 나의 학생이 계속 원하면 나도 계속 이메일을 주고 받고 싶다

전혀 그렇지 않다. 그렇지 않다 보통 그렇다 매우 그렇다

21. 나는 이 프로젝트에 참여하면서 영어를 좀 더 열심히 공부해야 되겠다는 생각이 들었다.

전혀 그렇지 않다. 그렇지 않다 보통 그렇다 매우 그렇다

22. 그룹의 구성원들과 초등학생에게 보낼 메시지를 작성하면서 느낀점은 어떤것들이 있을까요?
학생에게 이메일을 보내기전에 그룹원들과 토의하는 것이 도움이 되었다고 생각하나요?

23. 그룹의 구성원들과 어떤 과정을 거쳐 초등학생에게 보낼 메시지를 작성하였는지 간단하게
쓰세요.

24. 이 프로젝트에 참여하면서 느꼈던 점들 중 제가 질문한 것 이외에 첨가하고 싶은 것이
있으면 써 주세요.

Appendix C. Background Surveys for the Child Participants

(English version)

1. How old are you? What grade are you in?
2. At what age and where did you first learn English?
3. Have you been abroad? If so, for how long and in which country did you stay?
4. Are you currently studying English at school?
5. Are you currently studying English after school, such as in a private institute or at home with a tutor?
 - 1) Yes. I go to a private English institute and take (e.g., speaking/writing/reading, etc.) _____ classes.
 - 2) Yes. I _____ at home.
 - 3) No.
6. Can you rate your general English ability?
 - a. I think I am very good at English.
 - b. I think I am quite good at English.
 - c. I think my English skill is so-so.
 - d. I think I am not so good at English.
 - e. I think I am very poor at English.
7. (Optional) Please rate your English ability.

Listening	Very Poor	Poor	So-So	Good	Very Good	Excellent
Reading	Very Poor	Poor	So-So	Good	Very Good	Excellent
Writing	Very Poor	Poor	So-So	Good	Very Good	Excellent
Speaking	Very Poor	Poor	So-So	Good	Very Good	Excellent
Overall, my English is	Very Poor	Poor	So-So	Good	Very Good	Excellent
8. Do you like studying English?
 - 1) Yes, because _____
 - 2) No, because _____

9. How about reading English story books? Do you like reading them?

*Please tell me about your use of computers.

10. How long have you used computers? (At what age did you start using computers?)

11. Are you currently taking a computer class at school? If so, how many hours of computer classes per week were offered at your school?

12. On an average, how often and how much do you use computers?

13. How comfortable are you at typing in English as well as Korean? Please compare your computer typing skills when typing in both languages.

14. What do you usually do with computers?

15. Do you have your own email address? If so, how often and with whom do you usually exchange emails?

16. Have you ever studied English using computers?

(Korean version)

1. 나는 ()살 입니다. 나는 ()학년입니다.

2. 몇 살 때 영어를 처음 배우기 시작했나요? 누구로부터 어디서 영어를 배웠나요?

3. 다른나라에 영어를 배우러 가본 적 있나요? 있다면, 얼마나 오랫동안 그 곳에서 공부했나요?
1 번과 2 번 중 골라서 빈 칸을 채우세요.

1)예, 나는 _____

2)아니오. 외국에 한번도 가서 공부해 본 적 없습니다.

4. 현재 학교에서 영어를 배우고 있나요? 1 번과 2 번 중 고르고 빈칸을 채우세요.

1)예, 나는 학교에서 일주일에 ()시간씩 영어를 배우고 있습니다.

2)아니오. 학교에서 현재 영어를 배우고 있지 않습니다.

5. 학교 마치고 따로 영어를 배우나요? 1,2,3 번 중에서 답을 고르고 빈칸을 채우세요.

1)예, 나는 학원에서 (매일 시간씩/일주일에 시간씩)_____

2)예, 나는 집에서 (매일 시간씩/일주일에 시간씩)_____

3)아니오.

6. 자신이 영어를 얼마나 잘한다고 생각하나요? 자신에게 맞는 번호를 골라 표시하세요.

- 1)나는 내가 영어를 매우 잘한다고 생각한다.
- 2)나는 내가 영어를 꽤 잘한다고 생각한다.
- 3)나는 내가 영어를 보통으로 한다고 생각한다.
- 4)나는 내가 영어를 못한다고 생각한다.
- 5)나는 내가 영어를 아주 못한다고 생각한다.

7. 분야별 자신의 영어 실력에 대해서 해당되는 항목에 표시 하세요. (생각해본적이 없거나 잘 모르겠다면, 아는곳에만 표시하세요.)

	아주 못함	못함	보통	꽤 잘함	매우 잘함
영어듣기(listening)					
영어읽기(reading)					
영어쓰기(writing)					
영어말하기(speaking)					

8. 영어 공부하기를 좋아하나요?

- 1) 예 , 왜냐하면 _____
- 2) 아니오, 왜냐하면 _____

9. 영어 동화나 영어 소설처럼 영어로 된 책 읽는 것을 좋아하나요?

*컴퓨터 사용에 대한 질문들입니다.

10. 몇 살 때부터 컴퓨터를 사용하기 시작했나요? 컴퓨터를 몇 살때 누구에게서 처음 배웠나요?

11. 현재 학교에서 컴퓨터를 배우나요? 일주일에 몇 시간 배우나요?

12. 컴퓨터를 평균적으로 얼마나 자주 사용하나요?

13. 컴퓨터로 한국어와 영어로 타이핑 칠때, 얼마나 편한가요? 영어와 한국어 중 타이핑치기 조금 더 편한 쪽은 뭔가요?

14. 컴퓨터로 주로 많이 하는 것은 무엇인가요?

15. 자신의 이메일 주소가 있나요? 이메일 주소가 있다면, 얼마나 자주 누구와 이메일을 주고 받나요?

16. 컴퓨터를 이용해 영어를 공부해 본적 있나요?

1)예, 나는 _____

2)아니오.

Appendix D. Description of the Reading Materials Used in the Study

Book Title (Author, Year published)	Age Level	Grade Level
<i>Chrysanthemum</i> (Henkes, 1991)	4 and up	P and up
<i>How to lose all your friends</i> (Carlson, 1997)	3 and up	P and up
<i>The boy who cried wolf</i> (Ross, 1992)	5 and up	K and up
<i>The Junie B. Jones and the stupid smelly bus</i> (Park, 2007)	5 and up	K and up
<i>Bear Hunt</i> (Browne, 1994)	3 and up	
<i>The story of Toilets, Telephones, and other useful inventions</i> (Daynes, 2005)	7 and up	

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Vita

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