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New Literacies for ESL Children:
Communicating with Peers in an Online Chat

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New Literacies for ESL Children:

Communicating with Peers in an Online Chat

by

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With love,

to my parents

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New Literacies for ESL Children:

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The purpose of the study was to explore young L2 learners' experiences and impressions when engaged in synchronous CMC activities. Nine elementary ESL students living in the United States participated in two groups in a total of ten chat sessions during which they contributed postings to three types of tasks. Data sources included the written chat transcripts, questionnaires, interviews, essays, field notes, and pictures. Data were presented as two case studies of each group's experiences.

Results were presented in the following five categories: (a) the children's participation patterns based on their quantitative output; (b) their language use within messages (recognition of an error, language play, and non verbal cues); (c) their interactive patterns (playful resistance, tension in the groups, and group dynamics); (d) the influence of task type on their CMC participation; and (e) the children's various impressions of the online chat.

The children seemed fond of the CMC experiences due to its hybrid combination of oral and written language use features, writing that resembles the immediate flow of a conversation. The hybrid nature of CMC encouraged the children to enjoy conversational elements by freely suggesting ideas on various subjects and sharing opinions with their peers. Moreover, the children had opportunities to make self-corrections and to provide

corrective feedback to other children in the group. Additionally, results indicated that in terms of new literacies for the new age of the Internet, the children were already proficient in managing the CMC medium and were able to develop new skills during a short span of time. They were sophisticated enough to allow themselves to engage in various types of language play in this carnivalesque environment (Bakhtin, 1984). Also, the children employed numerous strategies to compensate for the lack of non verbal cues in the chat room: emoticons, other symbol systems, capital letters, and repetition. However, an unpleasant and aggressive atmosphere often emerged due to the children's adept abilities at playing around, teasing, and resisting the task online. Nevertheless, children claimed in interviews that the CMC chat was "fun" and that they generally believed that such an activity could help them learn English.

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CHAPTER 1

INTRODUCTION

How do children use their second language (L2) when they are chatting online with their peers? How can we characterize their experience in such an environment? This study began from a curiosity about young L2 learners and the potential of technology for language learning. Among various technologies, computer-mediated communication (CMC) has drawn much attention over the last decade, which encouraged me to raise questions about its application for young learners. By way of describing the nature of the study, this opening chapter introduces the study, followed by the purpose of the study and the research questions posed for the study. The chapter concludes by outlining the next chapters of the dissertation.

I began by addressing three issues: (a) technology and language learning, (b) the integration of technology in elementary classrooms, and (c) redefining literacy pedagogy. In the first section, I focus on a definition of CMC and a brief description of the use of CMC in L2 learning. Then, I describe how technology in general has been integrated into elementary classrooms, focusing in particular on Korea as an example. I also point to various claims made by researchers about children's use of technology. Finally, I emphasize the need to redefine literacy pedagogy, introducing Leu and Kinzer's (2003) perspective, New Literacies on the Internet, as the grounding framework of my study.

Technology and Language Learning

In recent years, language classroom environments have rapidly integrated various information and communication technology (ICT). Accordingly, there has been much effort in exploring and expanding the theoretical and pedagogical benefits of using computers in language teaching and learning. During the late 1990s, questions on technology use gradually changed from "Should the computer be used in language

teaching?" to "How can the computer be best used in language teaching?" (Chapelle, 2001, p. 1). Educators and researchers have acknowledged that the use of computers in the language classroom is no longer a special case but an integral and "normal" aspect of language learning and teaching (Bax, 2003; Kern, 2006; Warschauer, 1999).

Computer-Mediated Communication

The use of computers in second language (L2) classrooms has increased since the early 1990's, due especially to the potential of the Internet and the fact that it allows for far richer interaction and communication. Among many computer technologies used in L2 contexts, computer-mediated communication (CMC) has begun to receive much attention from many language teachers, and its pedagogical benefits have become one of the most commonly discussed topics in the L2 literature (Salaberry, 1996). CMC has been used to create authentic communication opportunities for language learners since the 1980s (Beauvois, 1997), and numerous benefits of CMC for language learners have been reported.

In early Computer-Assisted Language Learning (CALL) programs, the computer had the role of tutor in human-computer interaction. However, CMC is an umbrella term that refers to human communication *via* computers. Generally, with CMC, there is a distinction made between synchronous and asynchronous communication. Synchronous communication is a real-time interaction, and allows spontaneity and immediacy for interchange of ideas and questions (i.e., chatting). In contrast, asynchronous communication does not occur in real time, with participants not necessarily online simultaneously, and is thus not constrained by time. Examples of asynchronous CMC include e-mails, listservs, and bulletin board systems. In this study, I will be studying only synchronous CMC.

Use of CMC in L2 Learning

The literature on CMC in educational contexts has highlighted several important potential benefits compared with face-to-face language teaching settings. Studies thus far have suggested that learners participating in CMC feel more involved in the development of ideas and in determining the selection of discussion topics (Kelm, 1992; Kern, 1995;

Ortega, 1997). Learners' attitudes and motivation also appeared to be more positive under CMC environments than in face-to-face discussions (Beauvois, 1997, 1998). In addition, learner-to-learner exchanges in CMC seemed to be more interactive and collaborative (Blake, 2000). Also, discourse patterns in CMC reflected the use of a wider range of social and language functions (Abrams, 2001; Chun, 1994) than were true in face-to-face communication. With regard to language output, studies found that students had produced not only syntactically complex and lexically sophisticated language features, but also increased amounts of speech compared to conventional oral discussions (Beauvois, 1997; Chun, 1994; Sullivan & Pratt, 1996; Warschauer, 1996).

Most of all, it was argued that CMC fostered a learner-centered environment in which learners could initiate conversation on their own initiative at their own pace. Researchers also claimed that the IRE (teacher initiate, students respond, and teachers evaluate) instructional sequence that was typical in traditional language classrooms disappeared and student-to-teacher and especially student-to-student interaction had increased in CMC environments. As a consequence, CMC discussions increased collaborative learner-to-learner and learner-to-teacher exchanges and facilitated the negotiation of meaning process (Kern, 1995; Sullivan & Pratt, 1996; Warchauer, 1996).

Despite these advantages ascribed to CMC, it was also found that CMC often includes frequent off-topic and even some abusive messages in the form of insulting and teasing comments (Abrams, 2003; Lee, 2003). In addition, the discrimination and inequality that exists in offline discourse might be replicated in online discourse, in turn impeding the participation of marginalized students (Warschauer, 1996). Some students might feel stressed and overwhelmed with the large amount of information (information overload) in an online discussion (Lee, 2003).

The Integration of Technology in Elementary Schools

All studies mentioned in the previous section involved adults learning a second/foreign language (L2), not young learner of L2. To date, not much is known regarding children's use of technology for L2 learning purposes. In the following few

paragraphs, I first present a case for incorporating technology into elementary classrooms in Korea. Considering the fact that all of my participants (or their parents) were planning on returning back to the Korean educational system even though they were living in the United States at the time of study, I believe it is worthwhile to discuss what these students will face when they return. I also attempt to explain Korean English classrooms in schools that more and more are urged to incorporate technology by the government. Then, I describe the general benefits and drawbacks claimed by several researchers when young learners cope with various technological resources.

The Case of Korea

Perhaps the most important innovation in the history of English teaching in Korea has been the introduction of the teaching of English as a regular subject into elementary schools in 1997. The most recent 7th National Curriculum by the Ministry of Education and Human Resources Development (MoE) required English to be taught as a regular subject starting in the 3rd grade, for at least two hours per week. All government-authorized textbooks consist of 16 lesson units, designed to be completed during a one-year period. The activities included in each unit of the textbook are geared to enhancement in speaking, listening, reading, and writing in English. According to the latest government-published curriculum guidelines, all textbooks are accompanied by a videotape and an audiotape. In particular, for the 5th and 6th grades, the Ministry of Education has encouraged publishers to provide CD-ROMs instead of videotapes.

In Korea, in accordance with the advent and increase in the use of computers in L2 classrooms, the Korean government has been making a consistent effort to adapt education to the new information age. The Ministry of Education completed a network (i.e., Internet connection) for elementary and secondary schools across the country in 2001 (Ministry of Education & KERIS, 2003). As a result, 13,000 computer labs have been installed, allowing one PC for every five students in all schools. Today, all elementary school students have Information and Communication Technology (ICT) classes where they not only learn how to type, but they learn to search the Internet, use various computer functions (i.e., hot keys), write with a word processing program, and

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create PowerPoint presentations. Moreover, many elementary schools in Korea have typing contests in both Korean and English for 1st to 6th graders.

Use of computers in English classrooms. The government has also provided one PC to every school teacher and urges teachers to make use of the already available technologies in their teaching. Pertaining to the actual use of those technologies in class, Hwang and Kim (2003)'s survey found that Korean elementary school English teachers had very positive attitudes towards the use of the Internet for teaching English. The study also revealed that most of the teachers used the Internet in the classroom on a regular basis, mostly once a week for approximately 10 to 20 minutes per class. Based on the survey results, Hwang and Kim concluded that many elementary school English teachers in Korea were making proper use of technology as a lesson supplement. However, they also pointed out that most of the supplementary activities were limited to the CD-ROMs that came along with the textbook, and only a few teachers used other technological materials such as educational web sites, bulletin boards, e-mails, or chat programs.

Children and Technology

Korea is not the only country that is attempting to incorporate computers into the classroom with young learners in this fast-changing and technology-driven world. The electronic medium is regarded as a comfortable and energizing environment for young people (Doherty, 2003). Today, young learners are increasingly competent users of electronic technologies, including computers, digital cameras, and appropriate software. However, some researchers are cautious in implementing computers in young children's classrooms. Haugland and Wright (1997) expressed their concerns by posing several negative possibilities that computers might bring in, such as replacing other activities, robbing children of their childhoods, being too abstract, providing children an unrealistic image of the world, leading them to social isolation, and reducing creativity. At the same time, Haugland and Wright argued that children could benefit hugely when they are provided with developmentally appropriate experiences. They claimed that the computer fits children's learning style, offers holistic learning environment, provides opportunities for scaffolding as well as universal access to information, and promotes young learners'

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motivation. In addition, they found that children can be involved in participatory learning via the computer and be connected to the world.

The importance of providing children with proper technological knowledge and experience has received greater recognition (Gimbert & Cristol, 2004; Siu & Lam, 2005). Researchers have argued that computers offer rich learning experiences that facilitate children's development of their cognitive, social, linguistic, and emotional aspects (Bose, 2005; Clements, 1994). Yet, as has been noted by Bose (2005), the majority of studies so far published have been limited to the use of computers only for computer literacy, not encompassing the computer skills needed to communicate, solve real problems, or use the Internet.

Redefining Literacy Pedagogy

Although a traditional view of literacy has involved a language-based focus on reading and writing, the definition of literacy today is more complex. As new technologies emerge and become more prevalent in our lives, the nature and scope of literacy is also rapidly changing and expanding to cope with the current trend. Many scholars, calling for a significant rethinking of literacy pedagogy, recognize that a singular label, *literacy*, fails to capture the complexity of the changes, especially in an age of information and technology (Coiro, 2003; Lankshear & Knobel, 2003; Lankshear, Snyder & Green, 2000; Leu & Kinzer, 2003; Luke, 2000; New London Group, 1996).

Since the 1990s, much has been written about a broader view of literacy. Frameworks such as new literacies, multiliteracies, electronic literacies, critical literacy, digital literacy, and silicon literacies have emerged and emphasized literacy as socioculturally mediated practices. "[L]iteracy is becoming technological" (Gee, 1996; Lankshear, Snyder, & Green, 2000, p. 24), and learning how to use language effectively alone, although it is necessary and valuable, is not sufficient to make a literate person (Kasper, 2000). Researchers agree that succeeding in a digital, information-oriented society demands new literacies, multiliteracies, electronic literacies, and other useful perspectives.

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New Literacies on the Internet

        Among various perspectives that encompass broadened definitions of literacy, I chose Leu and Kinzer's (2003) New Literacies on the Internet as the grounding framework for my study. The theoretical framework consists of ten explicit principles followed by an explanation on the importance of each issue. Acknowledging a variety of perspectives in new literacies, multiliteracies, media literacies, and other frameworks, Leu and Kinzer argued that those perspectives are valuable but are not specifically oriented to the Internet, which is the central information and communication technology of our age. The ten principles are presented in Table 1.1. Although most of the statements are self-explanatory, I have added some gloss in square brackets where I felt it necessary to clarify their intentions.

Table 1.1 Summary of Central Principles that Help Define the New Literacies on the Internet

Principle 1	The new literacies of the Internet have initially emerged as a powerful force because of globalization, restructuring, and the changing nature of the workplace.
Principle 2	Our limited focus on traditional literacies in the classroom must change to include the new literacies of the Internet technologies.
Principle 3	The new literacies build upon, they do not typically replace previous literacies.
Principle 4	The teacher's role becomes more important within the new literacies of the Internet, not less important.
Principle 5	Literacy becomes deictic [by which they mean rapid and regular changes in forms and functions of words] in the new literacies on the Internet technologies.
Principle 6	Social learners, not monastic [by which they mean students who rely solely on independent learning strategies] learners, become privileged in a world of rapidly changing new literacies.
Principle 7	The new literacies on the Internet are increasingly dependent on the ability to critically evaluate information.
Principle 8	The new literacies on the Internet provide special opportunities to help us better understand the unique qualities in each of our cultural and linguistic traditions.
Principle 9	With the new literacies on the Internet, speed counts a lot.
Principle 10	New forms of strategic knowledge are central to the new literacies on the Internet.

(Leu & Kinzer, 2003, pp. 36-37)

Recently, many scholars have emphasized the need to redefine the concept of literacy, and they have proposed various theoretical frameworks that, with different labels, appear to be essentially similar: The concept of literacy needs to be expanded in order to cope with the express changes, in particular, brought on by emerging new technologies. I specifically selected Leu and Kinzer's (2003) New Literacies on the Internet because their concepts are comprehensive enough to include the key arguments in this new field of study. In addition, their ten principles are specifically geared to the Internet technology, in which the online chatting I employed was grounded.

Being Literate in a Second Language

In order to be considered literate, students in the new millennium must acquire new skills. Those skills will enable students to use various communication modes made possible by new technologies and to participate in global learning communities. Becoming a literate person is never a simple task for any student, yet it seems especially challenging for students who are operating in a second language.

Today, literate L2 students need to be equipped not only with proper linguistic competence in a new language, but they must also develop the cognitive and sociocultural skills necessary to gain access into the social, academic, and workforce environments of the 21st century (Kasper, 2000). Kasper (2000) further argued that L2 speakers must be functionally and academically literate, that is, being able to speak, understand, read, and write in L2 to articulate and expand their knowledge through various modes of written and oral discourse. Moreover, they should become critically literate so that they can evaluate the validity and reliability of numerous informational sources in their second language. In addition, in this digital era, students must be technologically literate in order to select and use electronic tools for communication, construction, research, and autonomous learning in their second language.

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Purpose of the Study

To date, although CMC is recognized as a beneficial medium for language learning and teaching, the numerous studies reported so far have primarily focused on college-level language learners. While findings of these previous studies are interesting, it is possible that they may selectively apply to adult learners. Zhao (2003) pointed out that few studies have looked at the use of synchronous type of communication under the L2 situations, especially in K-12 settings. Considering the fact that young people today are both the driving force behind and at the same time the "slaves" of the rapidly growing use of synchronous technologies, encompassing chatting and mobile text messaging, research on children's use of synchronous CMC is very much needed (Thurlow, 2003). Only a handful of studies have looked at children's use of computers in the L2 learning context (e.g., Morris, 2005).

The present study was intended to examine young L2 learners' experiences and impressions when they were introduced to the use of a synchronous CMC tool. The study focused on exploring elementary ESL students living in the United States at the time of the study. These children were especially interesting because, even though in the United States at the time of the study, they came from the Korean educational system I have described earlier. They had been learning English in Korean elementary schools where the government has put much emphasis on the use of various technologies as part of the curriculum. Also, all of them would eventually return to Korea after a limited time period of stay in the United States.

In addition, it has been argued that even though the emerging technologies offer new ways of doing literacy, literacy education still remains rather traditional. According to Lankshear, Snyder, and Green (2000), "Literacy education continues to involve students learning and using 'old skills,' but applying them in new ways via new technologies…" (p. 25). The goals of literacy education need to change to accommodate new information and communication technologies. The present study was an attempt to fill the gap in knowledge about children's use of technology in learning English as an L2

as well as to provide valuable information for pre- and in-service teachers who would want to implement a new type of communication tool into their classrooms.

Research Questions

The following research questions guided my exploration of the children's experiences and impressions:

1. What are young ESL learners' experiences when they engage in synchronous CMC?
   (a) What are their patterns of language use in the online chat?
   (b) How do they interact with other children in the chat room?
   (c) How do they respond to different types of tasks?
2. What are the children's impressions of the synchronous CMC experiences?

Overview of the Next Chapters

Chapter 2 provides a review of literature pertinent to my study. In Chapter 3, I describe the methods of data collection, including the description of the participants, setting, tasks, and detailed study procedures as well as various data sources and analytic strategies employed. Chapter 4 presents the findings of the two case studies, beginning with a general overview of each group and a brief description of each child, and focusing largely on the following five categories: (a) the children's participation patterns; (b) their language use within messages; (c) the group's interactive pattern; (d) the influence of task type on their CMC participation; and (e) the children's impressions of the online chat. Finally, in Chapter 5, I discuss the major findings of my study in relation to the use of CMC for L2 learning and children's new literacies. I conclude the chapter by stating the limitations of the study and provide a variety of implications for those in teaching as well as those who intend to pursue further research in this promising area.

CHAPTER 2

LITERATURE REVIEW

This chapter presents a review of theoretical and empirical work in areas that are relevant to my study. I begin the review with the literature on the use of CMC for L2 learning. Because the study involves online chatting, I primarily concentrate on summarizing the distinctive features of CMC and the research that has been conducted on the use of synchronous conferencing. I then review literature in new literacies, explaining various labels used and presenting examples of "new literacies in action" (Kist, 2005). In the next section, I briefly describe how children are different from adult learners in learning a second language, focusing on differences in language learning settings, strategies, aspects of language play, and conversational patterns. Finally, I conclude the chapter by introducing children's use of technologies in general and in the L2 learning and teaching context.

Integration of CMC for L2 Learning

CMC is known to have existed since the 1960s; however, it did not gain popularity until the late 1980s (Kern & Warschauer, 2000). The use of CMC in language classes started in the early 1980s in the English department at Gallaudet University in Washington D.C. It was used there in order to aid deaf individuals learn to communicate in English, their second language after American Sign Language (Beauvois, 1997). In the mid 1980s, at the University of Texas at Austin, a synchronous networking program called Daedalus Interchange, was designed and successfully used for L1 writing classes in the English department (Beauvois, 1992; Kelm, 1992). Since then, foreign language students and teachers have made use of several types of chat room environments, including MOOs (Multiple user domains Object Oriented) and web-based course programs such as Daedalus InterChange, WebCT, or Blackboard.

Unique Features of CMC

The advent of new technologies has blurred the distinction between speaking and informal writing (Omaggio Hadley, 2001). Among various technologies, synchronous electronic communication has unique qualities in that it possesses hybrid elements of both spoken and written language. According to Warschauer (1999), "The historical divide between speech and writing has been overcome with the interactional and reflective aspects of language merged into a single medium" (p. 6). Synchronous CMC occurs by typing messages with a computer keyboard, which of course is a form of writing. However, at the same time, the writing is interactional, taking place in real-time, like oral communication. Thus, when individuals participate in synchronous CMC, they communicate by reading and writing the messages, instead of speaking and listening.

According to Kern (1998), synchronous conferencing is different from pen and paper writing in multiple ways: (a) as opposed to formal accuracy, CMC promotes fluency of self-expression; (b) instead of global coherence, CMC puts emphasis on interactive responsiveness; (c) formal writing is based on reinforcement of written practices; however, writing in CMC is a blend of "orate" and "literate" forms of communication; and (d) whereas the author is rarely interrupted with exploration of one's own personal voice in the process of the conventional writing, CMC includes multiple voices as well as perspectives. In addition, Beauvois (1997) differentiated synchronous CMC from traditional classroom interaction by explaining that in synchronous CMC: (a) there is no designated turn taking; (b) students, not the teacher, have more control over the flow of the conversation; and (c) all students, including the shy and inhibited, participate at will.

Research Findings in CMC

Kelm (1992) was one of the first to implement a program that used synchronous CMC for L2 classes. He used InterChange with 15 intermediate L2 learners of Portuguese over a 13-week period, and found several positive aspects of using synchronous CMC. The reported benefits included increased participation from all members of a group as compared to face-to-face interaction, students' open-ended

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discussions, less anxiety than often exists in traditional oral discussion, and participants' candid expression of emotion. On the other hand, Kelm noticed that some students made offensive or crude comments, referred to as flaming.

Similarly, Chun (1994)'s longitudinal study reported that the interactive competence of her first-year learners of German was increased in a synchronous CMC environment using InterChange: Students asked more questions of other students as well as of the teacher, they gave feedback to others and requested clarification when they did not understand someone else, and they ended conversations with appropriate leave-taking utterances. In other words, the electronic synchronous discussion produced more sophisticated and a wider range of communicative functions. It also generated more language output compared to oral discussions.

Following Kelm (1992) and Chun's (1994) pioneering studies, the potential of CMC for L2 learning was extensively researched by many researchers in the field. Next, I review various benefits and drawbacks of CMC reported to date.

Increased student participation. Many of the early studies conducted in the 1990s focused on comparing the face-to-face and CMC modes and found that students tended to participate more in the CMC condition when compared to traditional classroom setting. Learners in Kern's (1995) study took two to three and half times more turns in the CMC sessions than in the follow-up face-to-face discussions. Sullivan and Pratt (1996) reported that 100% of the ESL students participated in the CMC discussions while only 50% participated in face-to-face discussions.

Also, CMC was shown to contribute to the equalizing effect among students. It was shown that the CMC environment could empower students who were traditionally silent, marginalized, or discriminated against in classroom discourse because of their gender, race, or cultural background. Warschauer (1996) reported online group participation was twice as balanced because unequal participation due to nationality in the face-to-face discussions did not occur in the CMC condition allowing the silent students to participate more online. Warschauer also added that neither did CMC inhibit more verbal learners. In addition, Kim (1998) confirmed the greater equality in participation in online discussions among ESL students studying in the United States.

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The low stress, low anxiety environment created by CMC also contributed to more equal participation by participants. According to Kern (1995), 80% of the participants reported that they were feeling more confident about participating in CMC discussions. Warschauer (1996) found lower stress levels among learners in the CMC discussions as well. Kim (1998) also reported that high anxiety learners participated more in CMC than in face-to-face discussions. Moreover, Beauvois (1998) corroborated these findings and explained that 92% of her learners favored CMC sessions over oral discussions due to lower anxiety. Additionally, this lowered anxiety in chat sessions was shown to lead to an increase in motivation. Generally, as Warschauer noted, the use of CMC tended to enhance the learners' motivation, especially when computer-based tasks were integrated into the overall goals and structure of the course.

Learner-centeredness. Another beneficial impact of CMC was that it created a learner-centered environment as well as fostered more learner-controlled, cohesive, and collaborative learning among students. As more participants had equal opportunities to contribute their comments into the discussion threads, the role of the teacher in CMC became decentralized. Thus, researchers indicated that CMC could reduce the number of discussions that were heavily dominated by the instructor and that online discussions provided greater opportunities for students. Chun (1994) argued that, in synchronous discussions, "learners take the initiative, constructing and expanding on topics, and take a more active role in the discourse management than is typically found in normal classroom discussion" (p. 28), whereas in face-to-face settings, students usually talk only when they were asked or called upon by the teacher. Kern (1995) reported that his second-semester French students had 91% and 89% of the conversation turns in the CMC condition, whereas they only had 55% of the turns in face-to-face discussions. Similarly, Sullivan and Pratt (1996) reported that intermediate ESL students in composition classes took 85% and the teacher had only 15% of the conversational turns in a synchronous online discussion, while students had only 35% and the teacher 65% of the conversational turns in traditional oral discussions.

Increased language output. In the learning of a second language, output is the most obvious production of the learner. There also is a high possibility that learners

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themselves notice problems in their own outcomes and make positive changes. According to Swain's (1985) Comprehensible Output Hypothesis, comprehensible input is necessary but not sufficient for language acquisition to happen. Swain further proposed that the role of output is essential in second language acquisition because it promotes fluency, pushes students to engage in syntactic processing of language, and gives students opportunities to test their hypotheses about what works and is acceptable. Additionally, in order for learners to increase their language proficiency, they need to generate language via speech or writing and receive feedback on their output. Previous research has suggested that producing language and reflecting on one's own output to create meaning offers an opportunity for the learners to pay attention to their erroneous features (Iwashita, 1999; Izumi, Bigelow, Fujiwara, & Fearnow, 1999; Swain & Lapkin, 1995).

In CMC discussions, because learners can return to previous texts of the conversation as they write their messages, learners have more opportunity to produce output than they do in oral discussion. Much of the CMC literature showed that synchronous CMC is especially helpful in promoting language learning in terms of increased language production and improved linguistic competence. In a study of fourth-semester German foreign language learners, Chun (1994) found that the learners demonstrated increased morphological complexity in their written work over the course of the semester. Kern (1995) confirmed Chun's (1994) findings of increased language production among two groups of learners of French in his analysis of the quality of the output in CMC sessions. Kern also noted that the learners produced a greater level of morphosyntactic sophistication and a wider variety of discourse functions as compared to face-to-face discussions of the same topics. In addition, Warschauer (1996) and Kim (1998) confirmed this claim by finding significantly more lexical and syntactic complexity and sophistication in ESL CMC interactions than in oral face-to-face class discussions.

Increased opportunities for negotiation of meaning. Since the late 1990s, research in CMC began to put more emphasis on the interactional features of CMC than on simply gauging the students' participation rates and the amount of output by

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comparing the traditional oral and CMC venues. According to Long (1996), interaction is facilitative because it 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. Hatch (1978) was the first person to recognize the importance of interaction in language learning. Then, Long (1981, 1996) in his Interaction Hypothesis argued that interaction, especially negotiation of meaning, facilitated L2 learning because it influenced input and output as well as learners' internal capacities and attention in productive ways. Empirical research also showed that communicative interaction through negotiation among nonnative speakers promoted second language acquisition not only in a face-to-face learner interaction (Gass & Varonis, 1985; Mackey, 1999) but also in computer-mediated environments (Blake, 2000; Smith, 2003; Pelletieri, 1999). Blake, Smith, and Pelletieri all claimed that CMC provided more opportunities for the negotiation of meaning.

Although very few studies have examined child-to-child interactions within the second language acquisition context, Oliver's (2000) study on the negotiation of meaning between age-matched children found that children could and did negotiate meaning and used a variety of negotiation strategies as well. Oliver claimed that although children are less developed in terms of cognitive, social, and linguistic skills, they are still "aware of their conversational responsibility and attempt to work towards mutual understanding" (p. 379). In the CMC environment, Morris (2005) found that children were actively involved in providing negative feedback to other peers, which promoted negotiation and encouraged half of the errors to be repaired immediately.

Certain types of tasks, such as information gap and jigsaw tasks, were found to be helpful in learning a second language (Doughty & Pica, 1986; Gass & Varonis, 1985). Additionally, small-group work was better than full-class discussion for promoting target language practice and interaction (Gass & Varonis, 1994; Pica, 1994; Pica & Doughty, 1985). Jigsaw tasks are typically two-way required information exchange tasks, requiring the entire participants to contribute information to resolve the task, whereas in one-way optional information exchange, one or a few participants possess all the information (Doughty & Pica, 1986). For a decision-making task type, participants share thoughts and

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opinions to reach a consensus (Pica, 1987). Moreover, Brown (1991) separated types of a decision-making task into *tight* and *loose*, having *closed questions* and *open questions*, and involving *procedural* or *interpretive* processes. According to Brown, having a precise set of questions requiring participants to make a decision is a tight task, whereas the opposite case is referred to as loose. Closed questions are defined as having definite answers whereas there are various possible answers to discuss for open questions. Brown further differentiated the decision-making task based on the procedural aspect of arriving at a decision and each participant's interpretations of the assigned data.

In the CMC situation, task types and group sizes have also been shown to yield different outcomes pertaining to the quantity and the complexity of language produced. Blake (2000) and Palletieri (1999) reported that the type of task had a remarkable effect on the quantity and quality of negotiation promoted through CMC. Blake set up a variety of communicative tasks for his Spanish learners in a chat session: two one-way information-gap activities, one two-way information-gap activity, a decision-making activity, and two jigsaw activities. He reported that the jigsaw tasks accounted for 93% and 78% respectively of the total negotiations, that negotiation triggers within those tasks were mostly lexical (75% and 95%), and that most negotiation events followed Varonis and Gass' (1985) negotiation schema of trigger, indicator, response, and reaction. Blake also argued that task types in chat rooms, just as in face-to-face classroom communication, had a crucial effect on the type of communication produced by learners. Pelletieri took the research one step further, reporting that post-task composition activities that forced the learners to reflect on the language produced promoted morphosyntactic negotiations.

Controversial findings. However, not all findings with respect to CMC have been positive. With regard to task types, Bearden (2003) investigated CMC discussions in three task formats: two-way information gap, information-exchange, and face-to-face discussion. Little difference was found between the three task types with respect to the frequency of negotiation. In relation to learners' empowerment in CMC, Lee (2003) found that computer networking might not always lead to an ideal environment for learning in which traditionally marginalized learners were empowered because it was

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possible that the discrimination and inequality that existed in offline discourse might be replicated in online discourse. He also reported that learners with more computer knowledge and typing skills took advantage of the power provided by computer networking, whereas other students felt stressed about the overwhelming amount of information (information overload) in an online discussion, leading some of them to give up the opportunity to interact in their second language. In addition, Kelm (1992), Abrams (2003), and Lee (2003) all found that some students produced a number of vicious and insulting comments, flaming, that impeded the building of a friendly atmosphere in the chat room.

New Literacies

Emergence of New Literacies

It is no longer possible to think about literacy as isolated from a vast array of social, cultural, historical, technological, and economic factors (Cope & Kalantzis, 2000; Gee, 1996; Kist, 2005; Kress, 2003; Lankshear & Knobel 2003; Larson & Marsh, 2005; Leu & Kinzer, 2003; New London Group, 1996; Warschauer, 1999). Traditionally, the term *literacy* has referred to the ability to read and write. However, the notions of literacy are not "context-free, value-neutral sets of skills," (Warschauer, 1999, p. 4), and have continued to evoke during the last century. Warschauer explained that whereas literacy represented knowledge of literature and put an emphasis on correct speech and writing in the classical 19th century, the mass industrialization of the early 20th century and the Deweyan perspective on education altered the concept of literacy to a form of self-expression that involved teacher-pupil interaction and skills, knowledge and attitudes required for a commercial society. In the 21st century, new information communication technologies in particular can and have profoundly changed the nature and use of literacy.

The field of *new literacies* is a large umbrella that encompasses many perspectives. The more I read, the more I saw that many different labels were used to talk about the issues surrounding new literacies. However, while looking into the term *new*

literacies, I noticed that the word *literacy* was no longer a singular noun but was pluralized. What did this imply? According to Larson and Marsh (2005), pluralizing the term *literacy* was a way for some researchers to respond to rapid changes in technologies and explain multiple ways of making meaning; *multiliteracies* is a commonly used term. In addition, the term *literacy* has been attached to other nouns and adjectives in order to represent competence in various modes and resources creating phrases such as *electronic literacies*, *digital literacy*, *media literacy*, and *silicon literacies*. However widespread each term is:

> [A]ll appear to address similar issues, namely, the ability to decode, encode and make meaning using a range of modes of communication including print, still and moving image, sound and gesture, all mediated by new technologies (Larson & Marsh, p. 69).

I also believe that those phrases make better sense when the term *literacy* is pluralized because being literate in this context involves having multiple skills. For example, in order to read online news, people should be able to use the Internet properly, to browse the web in search of a specific piece of information, to sort out critically and choose the information among many other sources, and to read the hypertexts.

Terminologies

As has been mentioned, many phrases are widely used in this new field of study. In this section, I chose a few distinct perspectives that seemed to draw much attention along with new literacies but claimed to have different elements in their frameworks. I mainly focus on describing the key researchers and concepts.

Multiliteracies. Over the last 10 to 15 years, several models of new literacies pedagogy have been developed. Probably the most famous of these is the pedagogy of multiliteracies, which breaks the meaning-making process into six design elements and four components of pedagogy (Cope & Kalantzis, 2000; New London Group, 1996). The New London Group, a group of ten new media scholars who met for a week in New London, discussed the future of literacy teaching. The entire group agreed that what students needed to learn was changing what was advanced by cultural differences and

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rapidly shifting communications media. The New London Group summarized the essences of their discussions into one word, multiliteracies, and it encompasses two important arguments, which were "the multiplicity of communications channels and media… [and] the increasing salience of cultural and linguistic diversity" (Cope & Kalantzis, p. 5). The New London Group also proposed teaching children to be able to use what they called the "Available Designs" in a meaningful and critical manner (New London Group, p. 74). In other words, students should be able both to read critically and to write functionally, no matter what the medium.

Within the multiliteracies framework, Luke (2000) discussed issues raised about new information technologies and CMC. In an electronically mediated world, language and conventional concepts of text, reading, and writing are changing, and thus CMC has emerged as a hybrid form of text, sound, and graphic imagery. Luke argued that even though writings in CMC environments often generate short messages, abbreviated writing, acronyms and emoticons, people are provided with ample opportunities to write and to develop new writing and communication strategies with culturally and linguistically diverse writers. According to Luke, "the 'new' electronic writing is a different form of literacy—not an inferior or lesser form of some 'golden age' vision of literacy" (p. 85). Luke emphasized that the multimodal and iconographic nature of the emerging technologies will appeal to learners of all ages as well as second language learners due to its interactive and collaborative elements.

Electronic literacies. The term *electronic literacies* first appeared as the title of Mark Warschauer's book that came out in 1999. By reviewing the historical perspectives on the changes of the concepts of literacy, Warschauer (1999) contended that the paradigm shift in notions of literacy was mainly brought about by two developments in the online era, CMC and hypermedia and the World Wide Web. According to Warschauer, new electronic literacies include computer literacy (comfort and fluency in keyboarding and computer use), information literacy (the ability to find and critically evaluate online information), multimedia literacy (the ability to produce and interpret complex documents comprising texts, images, and sounds), and CMC literacy

(knowledge of the pragmatics of individual and group online interaction) (Warschauer, 1999, 2002).

In order to describe the nature of electronic literacies, Warschauer briefly discussed several controversies. Some scholars favored new electronic literacies because they presented much fuller and richer ways to present and access information that were more democratic, learner-centered, holistic, and natural. However, others worried that readers' and writers' critical and analytical skills might be reduced. They also criticized that such media would destroy young people's ability for serious, reflective reading. According to Warschauer, "reorganization of power relationships" (p. 10) was the most important issue with regard to the impact of the informational revolution on the development of new literacies. Warschauer provided rich ethnographic data in the book based on his study of the use of the Internet by culturally and linguistically diverse students in Hawaii.

Media literacy. Unlike other terminologies, *media literacy* has a relatively long history. According to the Adult Learning Service Associates, American students are engaged with various mass media outside of the classroom on average of five and a half hours per day (cited in Pailliotet, 2003). In addition, teaching media literacy and how to use popular culture has proven successful in enhancing students' language and literacy skills in some classrooms (Pailliotet, 2003). From these viewpoints, mass media and popular culture appear to be a powerful resource for people.

Traditionally, media literacy studies focused on critiquing media texts such as print and imagery in popular magazines, TV programs and advertising, movies, billboards, and other related forms of media representations. However, Luke (2002) argued that in light of current technological changes, media literacy could no longer be limited to the study of traditional mass media. "The new ICTs *are* media" (Luke, 2002, p. 136, emphasis in original) and teachers and students, to date, are exposed to "new media," new ways of accessing and exchanging information, new pedagogies, and new problems in this new time.

Silicon literacies. The phrase *silicon literacies* was coined by Ilana Snyder and used as the title of her book in 2002. Following Street (1998), Snyder (2002) tried to

understand and capture the complexity of current literacy practices within a new communication order. The result highlighted that literacy practices in new communication systems are not limited to conventional print-based materials any more. Rather, the oral, written, and audiovisual modalities of communication are integrated into multimodal texts that are accessible via the Internet. Snyder argued that in order to become literate in this new time, people need to be able to make sense of "iconic systems" (p. 3) with all possible combinations of signs, symbols, pictures, words, and sounds. She further contended that understanding multimodal texts requires social, cultural, linguistic, historical, and critical analysis skills. In her book, Snyder made an attempt to suggest interdisciplinary approaches, not necessarily focused on academics, to analyze, understand, and critically evaluate new forms, experiences, and various resources.

Examples and Cases of New Literacies

Warschauer's (1999) book, *Electronic Literacies*, described one of the early research studies to examine the role of the Internet and other new digital technologies (i.e., CMC, hypermedia, and the World Wide Web) in the development of language and literacy. The two-year long ethnographic study was conducted in four different college language and writing classes with culturally and linguistically diverse students in Hawaii: a Hawaiian language class of Native Hawaiian students seeking to revitalize their language and culture; an ESL class of students from Pacific Island and Latin American countries; an ESL class of students from Asian countries; and an English composition class of working-class students from diverse ethnic backgrounds. Warschauer especially put emphasis on the relationship between electronic literacies and (in)equality. He maintained that this group of students often experienced inequalities in terms of technological access, language and discourse access, and cultural appropriation that prevented the students from becoming active members of the current network society. Warschauer reported positive findings in using the new technologies in the four classrooms and drew very optimistic conclusions about electronic literacies. According to him, electronic learning activities could be most useful and effective if they were learner-

centered, based on authentic communication, tied to making a difference in the world or in the students' place in it, and if they provided students an opportunity to explore and express their identity.

In his book, *New Literacies in Action*, Kist (2005) shared his perspectives and experiences from exploring various new literacies classrooms for seven years. The purpose of the book was to portray teachers who were struggling to implement new literacies into the traditional K-12 education system. In search of new literacies classroom, Kist looked for teachers who implemented new literacies assignments on a daily basis as part of the curriculum. He was eager to learn how the teachers were doing it, what assignments were being done, and how the students were assessed. The focus of the studies was grades six and higher, and the book presented interesting findings from six classrooms. Kist described an 11th to 12th grade interdisciplinary urban high school classroom that used non-print media, an 8th grade classroom in a rural area that created a multimedia advertising campaign, a high school classroom that had used digital media, the library of an affluent middle school that helped the students create video productions, an alternative high school that used new literacies to reach out to at-risk 9th and 10th graders, and a high school that encouraged students to read various texts in a great variety of media. Observing the new literacies classrooms and interviewing the teacher and the students, Kist acknowledged that these pioneering teachers put a great deal of emphasis on teaching the process of working, which inevitably included huge amounts of collaboration, over and above the outcomes.

As compared to studies conducted by Warschauer (1999) who had investigated college students and Kist (2005) who had observed middle and high school students, Richards and McKenna's (2003) book targeted younger learners in K-8 classrooms. Whereas Warschauer and Kist collected their own data as an action researcher and participant observer, Richard and McKenna presented various experiences of applying new literacies in the classrooms and the challenges the teachers confronted, and then offered advice and feedback to the teachers. The book also illustrated how young children used a wide range of resources to become engaged in out-of-school social interaction with other peers as well as in-school writing practices. Throughout the book,

new literacies classrooms were shown to provide ample opportunities for younger learners to use music (i.e., hip hop songs), dance, various media (i.e., television and sports announcers), and popular culture as part of literacy education, and the authors argued that the new literacies activities could play important roles in children's school learning.

Even though the majority of works have been published as books or parts of books section, there are only a few published articles written within the framework of new literacies. This may be because the field of new literacies is a new and emerging area. Chandler-Olcott and Mahar (2003a, 2003b) explored two adolescent girls' use of technology outside of formal academic settings. The authors viewed the girls' interesting in anime (Japanese animation) as a valid literacy practice. Chandler-Olcott and Mahar reported that both girls were techsavvy and knew more about computers than their parents did. They also found that the online communities helped the two girls create richer and more satisfying social lives than they had in real life.

In the case of Anstey (2002), she described her experiences of using a postmodern picture book with young adults. She argued that the postmodern picture book is a product of new times because it looks different and thus meant to be read differently. Although her students found reading the postmodern book challenging initially, Anstey expressed that students later had come to enjoy the postmodern book that had helped them develop new literacies by actively processing various representational forms, text structures, understanding multiple meanings, and intents.

Young L2 Learners vs. Adults L2 Learners

During the last few decades, there have been intense debates on whether young children are superior to older children and adults in L2 learning. Researchers who believed in the "younger-the-better" notion argued that the brain had plasticity in childhood that after the critical period became rigid and set (Lenneberg, 1967; Penfield & Roberts, 1959; Scovel, 1988; Seliger, 1978). However, the biological viewpoint that the young child acquires L2 easily and quickly was not always supported by sufficient

evidence. McLaughlin (1985) argued that most literature that advocated children to be talented language learners was based on anecdotes and impressions. He further claimed that when children and adults were compared under controlled conditions, children performed more poorly than adults in most L2 learning tasks except for pronunciation. It is a controversial debate that is still ongoing; however, it is not the intent of this section to focus on the issue of whether the child or the adult is a better L2 learner. The goal is to examine what evidence there is that adults and children learn a second language differently pertaining to their language learning settings, strategies, and conversation patterns.

Language Learning Settings

Natural situations. Children can take advantage of play situations as a place for successive second language acquisition to occur. They may be more motivated than adults especially on the playground not to be kept out of interactions with other children. Also, the input with other children is routine and repetitive enough for the child to get used to. A preschool child, for example, might be more exposed to L2 in play situations than an older child learning L2 as one subject among many in the school curriculum. Moreover, it is assumed that the younger child may be less inhibited, less afraid of making mistakes, and more willing to learn and use the language than an older child or adults in L2 situations (Schumann, 1975).

More formal situations. Wong Fillmore (1982) found that older children learned L2 better than younger ones in school settings. The level of proficiency expected for school tasks is much more complex than L2 for day-to-day survival. The L2 tasks in the school context put more emphasis on generalized competencies in abstraction, verbal reasoning, and metalinguistic abilities. Language in school becomes increasingly abstract as students move from one grade level to the next. In order to function successfully in the classroom, learners need to be equipped with proper cognitive and academic skills. Because older learners have better-developed cognitive strategies than the younger ones, they can deal with the task of learning the second language in a school setting more successfully.

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Cummins, Swain, Nakajima, Hanscombe, Green, and Fran (1984) studied Japanese and Vietnamese L2 learners and found that older students were significantly better at L2 school skills whereas younger students were better at basic skills. Heilenman (1981) investigated college students and children learning French as an L2 and reported that differences in performance were due to the cognitive ability. It was found that there were differences in items involving semantic-syntactic relationships. College students outperformed children on tasks that involved complex relationships within and across sentences, which might be due to the college students' level of cognitive maturation that young children had not yet established.

However, these arguments and findings do not mean that all children perform poorly in a school setting. Wong Fillmore (1982) noted that individual differences among children in L2 learning have a huge influence on how learners respond to the type of instruction. She found that in a teacher-oriented and structured classroom, shy and inhibited children could learn a great deal of language by attending to what was happening around them. On the other hand, if the class was more group oriented, and if there was a sufficient number of native-speaking peers, outgoing and sociable children tended to learn the language well. Acknowledging learner variables, Wong Fillmore emphasized that no one method of instruction would be ideal for the entire group of L2 children learners.

Language Learning Strategies

Many studies that looked carefully at the child L2 learner's use of formulaic or prefabricated speech suggested that the use of such expressions was a spontaneous strategy that children often employed for communicative purposes. Huang and Hatch (1978) observed a five-year-old Chinese boy, Paul, who had had no exposure to English before coming to the States. According to their research, the child initially learned English words, phrases, and greetings by imitating the teacher and peers without fully understanding what they meant. It seemed that Paul "memorized" various utterances and used them either in identical or similar situations. Huang and Hatch concluded that Paul's two main strategies in learning English was imitation and rule formation. Hakuta (1976)

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also showed, in his study of a five-year-old Japanese girl learning English that the child mostly relied on prefabricated patterns until she was able to express functions from an internalized system. In addition, Cekaite and Aronsson (2004) reexamined the method of repetition not as the traditional language learning drills used during the audiolingual period but within the paradigm of language socialization, following Ochs (1988). Cekaite and Aronsson argued that joking events that involved the basic level L2 children's "format tyings and other [playful] recyclings of prior talk or classroom texts… managed to entertain their peers in such a way that they secured their attention and created numerous occasions for informal conversations" (p. 388).

The child's preference for the use of prefabricated or formulaic expressions was shown in a bilingual school setting as well. Wong Fillmore (1976)'s study was based on five Spanish-speaking children, ages five to seven, learning English in a school context where instruction was provided both in English and in Spanish. The early speech of Wong Fillmore's subjects was primarily formulaic in nature whereas the rate reduced at the end of the year. However, two children were almost completely dependent on formulas even at the end of the year. Wong Fillmore argued that this type of speech played a critical role in the language learning process.

A six-year-old Persian child, Homer, not only imitated the speech but also the behavior of other children (Wagner-Gough, 1975) when learning English. Thus, it was apparent that imitation was one strategy Homer used to adapt to his new environment. Wagner-Gough argued that imitation might give the learner a sense of participation in the conversation. However, Wagner-Gough mentioned that imitation could be sheer fun, a successful teasing strategy, as Homer discovered.

The above mentioned strategies could be explained by children's more limited processing capacities as well. Cochran, McDonald, and Parault (1999) found that the smaller processing capacities and reduced attention spans of children ultimately work to their benefit. Cochran et al. (1999) explained that those factors can help children focus on the components of language rather than holistic patterns and avoid complex form-to-function mapping problems.

Language Play

　　Researchers have admitted that the term *play* was difficult to define because it could embrace diverse activities and be interpreted in various ways (Broner & Tarone, 2001; Cook, 1997). Nevertheless, the contrast of play has served a prominent role in describing young children's development. Although numerous studies have emphasized the roles of language play in acquiring the first language (Cazden, 1974; Ely & McCabe, 1994; Esposito, 1980), language play has received relatively little attention in L2 learning contexts. Language play in the field of L2 acquisition is generally described for its enjoyment purpose (Cook, 1997, 2000) or its rehearsal function (Lantolf, 1997, 2000). Both concepts are explained in the following paragraph.

　　Cook (1997, 2000) pointed out the ludic functions of language play, maintaining that the main purpose of language play was to have fun. In Cook's version, language play is categorized into two types: (a) utilizing the forms and sounds of language, and (b) creating a new meaning for old forms. Cook argued that language play was usually employed to amuse and entertain oneself. By contrast, according to Lantolf (1997, 2000), language play serves to rehearse the target language in the form of private speech, reflecting on Vygotskyian (1978) developmental approach. By investigating adult L2 Spanish learners, Lantolf concluded that this type of rehearsal facilitated the learners' mastering of correct L2 forms. Broner and Taone (2001) noticed that whereas Cook's notion of language play was for amusement and fun, that of Lantolf was for serious exercise and performance for the self. Previous studies found that Cook's concept of language play was reported among L2 kindergarten children, Lantolf's language play as a private speech with L2 adult learners (Belz, 2002), and both functions of language play were found in a fifth-grade Spanish immersion classroom (Broner & Tarone, 2001). Yet, there is relatively little research on whether language play would lead to the development of the second language.

Conversation Patterns

　　Various features have been observed in conversations involving L2 learners and an interlocutor. Hatch (1983) contrasted discussions between children and adults as well

as native speakers and adult L2 learners. She pointed out that the child learner often nominated a conversation topic that was then expanded on by an adult interlocutor. Cathcart-Strong (1986) also found that when conversations were initiated by the child, the child L2 learner tended to produce more complex and grammatical utterances. In particular, Cathcart-Strong's data indicated that in order for a successful conversation to happen, the child needed to initiate an interesting and motivating play scenario to the native speaking peer. With regard to utterances between native speaker and adult learner, Hatch showed examples of breakdowns when the native speaker nominated the conversation topic and the L2 adult learner joined in. Based on findings from Hatch, it seemed that having a chance to nominate the conversation topic helped the learners receive better input from the interlocutor.

However, Scarcella and Higa (1982) recognized that different types of native-speaker input were provided to younger and older L2 learners. Scarcella and Higa compared the negotiation work and strategies of children and adolescent L2 learners. They noted that the child learners were given more simplified input because adults simplified more for younger learners. Older learners, on the other hand, received more actively negotiated input that was more likely to be used in an authentic situation.

In sum, making direct comparisons between young children and adolescents or adults acquiring L2 is challenging. How do we compare the language proficiency of the child and the adult? Do we apply the same criteria of success? In general, the child's constructions are shorter and simpler and the range of vocabulary is relatively small when compared with those of the adult's. However, the child is considered fluent if she or he can communicate at a level that is age appropriate. On the other hand, the adult tends to be engaged in more complicated topics where she or he may need more complex syntax or vocabulary. As has been seen from Wong Fillmore (1982), it is also difficult to hold such factors as individual differences or motivation to learn constant.

Based on the above research findings, children appear to need opportunities to initiate interactions with adult interlocutors or their peers. In other words, incorporating activities that encourage child-initiated interaction that allow the child L2 learners to practice various strategies to generate input from the adults would be effective. Also,

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young language learners seem to enjoy interacting with other children in the target language. In addition, children like to be in play settings when they are learning.

Children's Use of Technology

Children and Technology in General

In recent years, more educators have come to recognize the importance of providing opportunities to young children to obtain knowledge and experience of technology (Haugland & Wright, 1997; Siu & Lam, 2005; Wright & Shade, 1994). Studies have shown that the computer can be a developmentally appropriate tool for children that can offer a number of positive aspects. First, the use of computers can enhance children's social abilities. According to Haugland and Ruíz (2002), children learn best and prefer to work with peers when working with computers and given the opportunity to share what they are doing at the computer. Haugland and Ruíz further argued, "The rich social interaction that occurs as children enthusiastically discuss with others their experiences, successes, and challenges increases children's critical thinking skills as well as their problem-solving abilities" (p. 125).

Second, computers seem to be motivating for younger learners and help in their cognitive development (Bose, 2005). Research has indicated that computers have positive effects not only for children's learning but also for their cognitive development (Clements, 1994; Haugland & Shade, 1994). Also, technological tools promote the development of attention span in young children. Guthrie and Richardson (1995) concluded that children were intrinsically motivated to use computers. They supported their claim by showing that children spent longer and more focused sessions at the computer than they did in other non-computer-related activities.

Third, computers provide interactive, flexible, diverse, and learner-centered learning environments. When using the computer, users can intervene, change directions, move at their own pace, and repeat a particular task multiple times (Bose, 2005). Computers are also compelling for children as they can provide video-audio clips,

animation, simulation, sound, and graphics that evoke a child's sensory perception and make a child's learning more effective at early years.

Children and CMC in L2 Learning Contexts

According to Harper and de Jon (2004), students who spoke a language other than English at home and whose English proficiency was limited were the fastest growing group of K-12 students in the United States. Considering the rapid increase in young English L2 learners, educators and researchers have developed more interest in helping those young children learn the second language better. Yet, Liu, Moore, Graham, and Lee (2003) reviewed research studies on the use of computer-based technology for L2 learning from 1990 to 2000, and reported that most of the studies involved college students, not K-12 students. As pointed out by several researchers, the majority of studies have been done with adults, especially college students, with a few involving enlisted military personnel, signifying a large gap in the area of research (Liu et al., 2003; Zhao, 2003). To the best of my knowledge, Morris (2005) was the only study found under the category of children's learning of L2 in a CMC situation, in terms of CMC and children. In the study, Morris focused on child-to-child conversations in order to investigate corrective feedback and learner repair in the interactional context.

Also, a few studies with children using computers have emphasized computer literacy and the drill and practice aspects of computer, rather than the use of computers for enhancing problem solving skills, peer tutoring and development of self-efficacy, spoken communication and cooperation, and for sharing leadership roles (Clements, 1994; Haugland & Wright, 1997).

CHAPTER 3

METHOD

General Overview

The purpose of the study was to explore young language learners' experiences and impressions when they were introduced to synchronous CMC. This study was an open and descriptive attempt to see how children responded in this language environment. I used a case study method to describe the children's use of online chat and I took an analytic approach to produce sufficient information to the research questions.

The study consisted of two individual case studies, each consisting of a group of children who took part in the same number of chat sessions in the same setting and who were given the same types of tasks for each session. For both groups, I also took part in all chat sessions. The grouping of the children arose naturally because of the children's time schedules. Different characteristics among participants in terms of their age, length of stay in the United States, English proficiency, prior computer skills and related knowledge, and personality contributed to shaping the unique atmosphere and dynamics of each group case.

Research Questions

The current study was guided by the following research questions:

1. What are young ESL learners' experiences when they engage in synchronous CMC?
   (a) What are their patterns of language use in the online chat?
   (b) How do they interact with other children in the chat room?
   (c) How do they respond to different types of tasks?
2. What are the children's impressions of the synchronous CMC experiences?

Participants

The present study included nine elementary ESL students (Case Study 1: n=4, and Case Study 2: n=5) who were learning English as their second language in the United States. The participants were selected either purposefully by personal contact or through snowball sampling by way of my initial contacts.

I wanted participants who had learned English at school and who were between the 4th and 6th grade[1]. Since the latest curriculum reform, elementary children in Korea have officially started learning English as a regular subject beginning in their 3rd grade. English used to be taught as a regular subject only from middle school on in Korea. After the 7th National Curriculum was enacted in 1997, English became mandatory when the student entered the 3rd grade in an elementary school. I wanted to include children who had been exposed to English learning prior to the study so that they could understand the tasks given and participate in the written discussions to some degree.

I began by recruiting the children of my colleagues and friends from the Korean church that I attend and identified Euntae, Heesu, Jinho, Kyangshik, and Minsuk. The four remaining participants, Hyunah, Jungah, Kunwoo, and Sooki were selected through snowball sampling by way of Jinho and Kyangshik. Sooki joined the study through Jinho, who was then visiting her cousin, Jinho. Kyangshik led me to his classmates Kunwoo and twin sisters Hyunah and Jungah.

The participants' demographic characteristics, English learning history, and prior computer skills and experiences all varied, as shown in the following tables according to each case study.

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[1] The school system in Korea follows a 6-3-3-4 ladder pattern that consists of elementary school (1st to 6th grades), middle school (7th to 9th grades), high school (10th to 12th grades) and junior college, college, and university. Elementary school provides six years of compulsory elementary education to children between the ages of seven and twelve. Unlike American school system, 6th graders in Korea are considered elementary students.

Table 3.1 Demographics of the Children: Case Study 1

	Gender	Age	Grade	Length of Stay in the United States
*Heesu	Female	12	**5th	23 months
Kyangshik	Male	11	5th	11 months
*Minsuk	Male	10	**4th	23 months
Euntae	Male	12	6th	11 months
Mean		11.3		17 months

* These two participants were siblings.
** During the interview with Minsuk, he told me, "Well, actually when I came here, I had a chance to go to 4th grade or 3rd grade. My mom said 4th grade is too hard for me and 5th grade is too hard for her [Minsuk's sister, Heesu]. So she just put me in the 3rd grade and her [Heesu] in the 4th grade."

Table 3.2 Demographics of the Children: Case Study 2

	Gender	Age	Grade	Length of Stay in the United States
*Hyunah	Female	11	5th	6 months
**Jinho	Male	12	6th	7 months
*Jungah	Female	11	5th	6 months
Kunwoo	Male	11	5th	13 months
**Sooki	Female	12	6th	2 months
Mean		11.4		6.8 months

* These two participants were fraternal twin sisters.
** These two participants were relatives.

Both cases had children of similar ages, mean ages of 11.3 and 11.4 respectively. However, with regard to each group's gender balance, there was a remarkable difference. Among the nine children, there were four girls and five boys. In Case Study 1, Heesu was the only girl in the group whereas the other group consisted of three girls among five participants.

Another noteworthy element was the children's length of stay in this country. For children of Case Study 1, the length of stay ranged from 11 months to 23 months, with a mean length of stay of 17 months. By contrast, the mean length of stay for Case Study 2 dropped sharply as compared to Case Study 1. In Case Study 2, Kunwoo had been living

in the United States for the longest (13 months) whereas Sooki had arrived in the United States just two months before.

Table 3.3 English Learning Background of the Children: Case Study 1

	Age of First Learning English	Most Confident Area(s) in English	Least Confident Area(s) in English
Euntae	4	All	None
Heesu	6	All	None
Kyangshik	6	Speaking, Reading	Writing
Minsuk	6	Speaking	Writing (Spelling)

Table 3.4 English Learning Background of the Children: Case Study 2

	Age of First Learning English	Most Confident Area(s) in English	Least Confident Area(s) in English
Hyunah	6	Reading	Writing
Jinho	6	None	Speaking
Jungah	6	Speaking	Reading, Writing
Kunwoo	7	Listening	Writing (Grammar)
Sooki	7	None	Writing (Grammar)

All nine participants indicated that they had started learning English by the age of seven, which was the mean age for children entering elementary school in Korea. Some children indicated that they had learned English by attending "Cram" schools. It is common for Korean schoolchildren to attend one or more academic programs after their school day is finished. There are various types of institutes (i.e., math, science, art, and English) and English language institutes, referred to as English *hagwons*, are particularly popular. Other children had had private tutoring or received home schooling. In other words, every participant had acquired some English skills before they had officially begun their English education when they entered the 3rd grade at elementary school.

It is also interesting to note that writing in English, not surprisingly, was the most challenging task for many participants across the two groups. During the interview sessions, Heesu and Minsuk chose to speak in English rather than in Korean. After 23

months of stay in the United States, they were more comfortable expressing their thoughts in English. However, even Minsuk, who preferred to speak in English during the interview, considered writing in English as very complicated.

Table 3.5 General Computer Usage of the Children: Case Study 1

	Age of First Use	Mean Time of Use	Major Activities	Typing Skills		Chatting in Korean	Chatting in English
				Kor	Eng		
Euntae	8	1hr/week	Games Writing	OK	Good	Yes	None
Heesu	6	1½hrs/day	Email	Poor	OK	None	None
Kyangshik	7	1hr/day	Games News	Poor	OK	Yes	None
Minsuk	5	20mins/day	Games	OK	Good	None	Yes/No

Note. Kor: Korean; Eng: English.

Table 3.6 General Computer Usage of the Children: Case Study 2

	Age of First Use	Mean Time of Use	Major Activities	Typing Skills		Chatting in Korean	Chatting in English
				Kor	Eng		
Hyunah	6	30mins/day	Email Games	Good	OK	Yes	None
Jinho	6	4hrs/week	Games News	OK	OK	Yes	None
Jungah	10	1hr/day	Surfing Cafés	Good	OK	Yes	None
Kunwoo	6	30mins/day	Chatting Writing	Good	Good	Yes	None
Sooki	8	20mins/day	Games Newspaper	Good	Good	Yes	None

Note. Kor: Korean; Eng: English.

Answers about "Typing Skills" were based on the children's responses obtained by having individual interviews at the end of the ten chat sessions. Most of Euntae's writings were essays that he had to submit as part of school assignments. Euntae mentioned that he had started learning English typing since coming to the United States, and he found typing in English easier than typing Korean letters. Euntae also noted that he frequently chatted online with friends in Korea using Buddy Buddy Messenger

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program. Buddy Buddy is one of the most popular sites among Korean teenagers and provides various entertaining functions such as messenger (chat), mobile services, cyber clubs, and games (http://www.buddybuddy.co.kr). Although Heesu had previously engaged in chatting in Korean, she said, "I like talking to people in person... If she is really or he is really far away then I will call them." Kyangshik indicated that his typing skill in Korean was poor. He explained that typing in Korean was difficult here because the Korean letters were not printed down on the keyboards that he used here. Even though Kyangshik had not chatted since he had arrived in the United States, he said he used to chat online with his friends when he was in Korea. Pertaining to the question about previous exposure to "Chatting in English," Minsuk said that the online game that he often played (i.e., RuneScape) was basically chatting. He explained that people engaged in the RuneScape talked to each other online in order to discuss their fight strategies.

Although Hyunah indicated that her typing skill in English was not as good as that of her Korean, she could become familiar with as well as improve her English typing by using an electronic English dictionary because the keyboards were the same. When in Korean, Hyunah often chatted with her classmates at school by logging on to "My Class" at Yahoo! Kids (http://kr.kids.yahoo.com/). Whereas other children used the computer on a daily basis, Jinho complained that he could only use the computer during the weekend because the two computers at home were always being used by his family. Jinho reflected that he often chatted online with his friends using Buddy Buddy messenger as mentioned by Euntae. As a major activity while logged on to the Internet, Jungah said she enjoyed visiting the cyber fan cafés of her favorite singers. Jungah also mentioned that she chatted with her classmates as well as with Hyunah, her twin sister, at Yahoo! Kids.

In the case of Kunwoo, story writing was his most favorite activity with the computer. Kunwoo mentioned he had started writing a long fiction story in English, not long before ago, to show the story to his father. Kunwoo said he was not good at typing in English and first learned how to type in English when he arrived in the United States. Like the other children in the group, Kunwoo had never chatted in English prior to the study, but sometimes chatted with his father in this time who was still in Korea, using

MSN messenger. Sooki mentioned that she sometimes used the computer for a longer period of time during the weekends and enjoyed watching television dramas through the Internet. Sooki said that she often did "not so educational chatting" by logging on to SayClub (http://www.sayclub.com). Unlike Buddy Buddy, which provides chat software for friends who are registered on each other's list, SayClub is a large online chat room that allows many people to chat with anonymous people, especially of the opposite sex.

Setting

During the summer and early fall of 2006, the children participating in each case study completed 10 synchronous CMC sessions, for a total of 20 chat sessions for the study. Each group met at least two to three times per week to chat among themselves in an online environment. All chat sessions were conducted in an empty classroom in a building at the local university. In order to allow the children to take part in the chatting, I set up the room with laptops that were connected via the wireless internet service available in the building.

The software we used was Blackboard that allowed for real-time, synchronous online discussions. Blackboard, which was founded in 1997, is educational software that allows for efficient course management. In order to run the Blackboard chat tool, Java plug-in was required. I downloaded and installed Java plug-in to each laptop prior to the study so that the participants could log in and start chatting immediately.

Two digital voice recorders were placed on the table in an attempt to capture oral chatting with other children in the group while involved in online chatting. At one corner of the room, a digital camcorder was positioned to record the entire chatting sessions. The videotapes not only helped me write up observation notes right after every chat session but they also captured participants' reactions while they were engaged in online discussion as well as their interaction patterns with the computers, other peers, and me. The children in each case study and I gathered our tables around and engaged in online chat sessions as shown in Figures 3.1 and 3.2.

Figure 3.1 Picture of Case Study 1

Figure 3.2 Picture of Case Study 2

Tasks

At every chat session, the children held an online chat revolving around three types of tasks: (a) a general topic discussion, (b) a story completion, and (c) a scenario discussion task. In Pica and Doughty's (1985) terms, the topic discussion and scenario discussion tasks are decision-making tasks; however, there are differences between the two tasks according to Brown's (1991) definition. The topic discussion task is characterized as being loose, open, and interpretive because the discussion could stretch into many possible directions and allow the participants to yield numerous potential answers as well as make interpretations of the task. On the other hand, although the scenario discussion task is categorized as being loose and open, it can be described as being procedural due to its purpose of reaching decisions among participants. However, the story completion task could fall into an information gap task except for the fact that there was no designated answer to the task.

For the general topic discussion, I asked the children to chat about a topic, which I presented to them as open-ended questions. I prepared various questions that I hoped would intrigue the children. This task can be characterized as being "loose" and "open," and as being "procedural" in terms of clarifying the type of a decision-making task. The purpose of the general topic discussion was to provide opportunities for students to "talk" about and exchange their thoughts on diverse themes.

The story completion, except for one question about a Peter Pan story, required the children to open another Internet browser and visit one or two English learning web sites. Among many ESL web sites, I selected two sites for the study for the following two reasons: (a) both sites were developed particularly with young ESL learners in mind, and (b) they had many interesting web-based stories of which the learner could take control. The two sites were Kizclub (www.kizclub.com) and LearnEnglish Kids (www.britishcouncil.org/kids.htm). The participants initially read the assigned story from the beginning to a certain point where I asked them to stop reading. For example, the "Stories" segment of Kizclub offers two ways of reading a story. By clicking the book-shape, the children could listen to the story that a narrator reads through. By contrast, the

"Printable" option did not provide any audio functions. In the study, I guided the participants to choose the "Printable" version because I wanted the children to read the stories at their own pace, and this version had a slide number indicated on the upper right corner of the screen. They then closed the story reading site, returned to the original chat window, and began to write the rest of the story using their imagination. If the children had already read the story before and knew how it ended, I asked them to try to come up with a different ending from the original story. Figures 3.3 and 3.4 present brief snapshots of a story reading page from Kizclub and LearnEnglish Kids, respectively.

Figure 3.3 Snapshot of *The Enormous Carrot* from Kizclub

Figure 3.4 Snapshot of *The Magic Spell* from LearnEnglish Kids

For the scenario discussion task, the children were required to take part in discussion based on a scenario that had been presented to them. These scenarios were designed to stimulate discussion and debate. While engaging in this activity, the students could cooperate to solve problems, have plentiful opportunities to think in a creative manner, have fun, share thoughts and opinions, and then draw conclusions. Mostly, they were given issues that covered diverse interest areas. For the scenario discussion activity, I created the scenarios myself or adopted and modified questions from Meador (1997), "Thinking skills" (1998), and Wallace, Maker, Cave, & Chandler (2004). I prepared short slips of paper that contained one scenario and distributed these to each participant (see Appendices A and B for a complete list of all tasks for Case Study 1 and Case Study 2).

Role of the Researcher

As a participant observer and the "authority" figure in the chat room, I guided the children through the chatting activities and observed the children at the same time. I fulfilled my role as a participant by posting initial questions as the prompt of each task, taking part in the discussions by giving and receiving feedback on the topic given, and wrapping up the conversation so that the group could move on to the next task. As for feedback, I primarily sent a few messages about my thoughts and opinions, and many times, I asked follow-up questions to messages of specific individuals. In addition, I monitored the children's conversation dynamics in the real-time online environment, observed their behaviors, and recorded the chat sessions.

At the first day of meeting, I introduced myself to participants as a doctoral student at a local university. Although I was officially not their teacher, I could expect that the children would view me as a teacher-like person because I was the person who led the whole chat procedure and the only adult among the group. I, hence, tried not to be an avid participant in the chat room because I did not want them to talk just to me instead of chatting with other children in the group. However, I was often forced to join the discussion when someone distracted the flow of talk (i.e., sending multiple messages unrelated to the task or insulting other participants in an inappropriate manner). Also,

whenever awkward "silence" arose in the chat room, I encouraged the children to participate as a means of facilitating their conversations. Sometimes, when the silence had lasted more than a few seconds, some children sent "silent" messages (i.e., multiple full stops), hoping that someone would break the silence. Whenever I was involved in chatting with the children, I endeavored to adopt an equal participant role, not a dominating or an authoritative role, and also attempted to put slightly more emphasis on the role of an observer rather than that of a participant.

Procedures

For each chat session, I contacted the children's parents by phone to arrange the date and time of meeting in advance. Although Case Study 1 was conducted during the summer break, some sessions of Case Study 2 were carried out after the school semester had begun. Because every participant was involved in different extra curricular activities during the summer break and after school (i.e., summer camps, church summer schools, and private tutorials), finding a time that could accommodate everyone's schedule was challenging. However, both the children and their parents were extremely cooperative and helpful. Once the date and time of each study was decided upon, I drove to each participant's home and brought the children to the university. I sometimes had the chance to talk briefly with their parents. I would drive to the university with my participants, park the car, and walk to the designated classroom together. After each session was finished, I always drove them back to their homes.

Case Study 1 and Case Study 2 were not conducted at the same time; however, the data collection procedures were identical for both groups. At the initial meeting with the participants, I explained briefly what I wanted to do with them and described the general procedures of the study. Before we actually began with the first chat session, I asked all of them to fill out the "I am…" questionnaire to collect background information about their ages, length of stay in the United States, prior English learning experiences, computer usage, and their most/least favorite things in Korean (refer to Appendix C for the original Korean version of the "I am…" form and for an English translation).

Questions about participants' most and least favorite things were posed to let me know these children's interests. Information obtained from their responses helped me select some of the topics for the tasks. After collecting these answer sheets, all children had a brief chance to introduce themselves verbally by looking at each other in the group.

Then, I distributed an index card to each of them. The index card contained each participant's unique IDs and passwords that I had created in advance. Proper IDs and passwords were required to log onto the Blackboard system. I had contacted one of the Blackboard coordinator at our university and asked the person in charge to help me set up a temporary course for the study. Following his direction, I created IDs for each child and randomly assigned passwords for all IDs. I then sent every participant's IDs to the Blackboard coordinator so that he could add their IDs to my course.

Once the children entered the chat room, they encountered a window divided into two columns. The window on the left displayed participants' names who had logged on. The Blackboard program did not allow them to change their names to what they wanted to use during the session. In the other window, children could compose their own comments in a bottom segment and read their own messages that had been posted chronologically in the upper segment, once they pressed the "Enter" key. Every comment had the name of the participant who had typed it and the date and the time of the post.

When all participants had logged on and were present in the chat room, I started recording the session. By pressing the "Record" button positioned at the upper right corner, Blackboard saved the entire chat transcripts so that I could read the transcripts later. Then, I gave the children the tasks one by one as prompts in each session. For each chat session, they were assigned to three tasks: a topic discussion, a story completion, and a scenario discussion task as presented in Table 3.7. For the topic discussion activity, I typed and sent questions in the chat window. For the story completion activity, I copied each story's individual URL and pasted the address in the chat window. I then guided them to click the address posted and read the stories up to a certain point. For the scenario discussion task, I prepared small slips of paper that had the scenarios and related questions and distributed these to each child after they had finished the story completion task (see Appendices A and B for complete lists of tasks).

Table 3.7 Session Order and Procedures

	Order	Task Type	How Questions were Given
	1st	Topic Discussion	• Posted the questions on the chat window.
Individual Session	2nd	Story Completion	• Posted the URL of the story and indicated the stopping point on the chat window.
	3rd	Scenario Discussion	• Distributed the scenarios and questions on small slips of paper to each participant.

After the children had completed all three tasks, I asked them to log off from Blackboard and turn off the computers. Another five to ten minutes were allocated for the children to share their experiences about and reactions to the chat session they had just engaged in for selective sessions. I asked them to fill out the post questionnaire by answering questions about their feelings about the online chatting experiences, the funniest thing, and the most annoying thing that had occurred while chatting, their rating of the helpfulness of the chatting for learning English, and their intention to try this activity again (see Appendix D). All questions on the post questionnaire were written in English and I encouraged them to write their responses in English. The children also needed to elaborate on their answers in English.

In general, the children's entire discussion time ranged from 25 to 50 minutes. Although the time spent on each task was different depending on the task types and the children's interest in the topics, each task lasted approximately ten minutes. However, children of Case Study 2 tended to talk for a longer period of time in the chat room than those of Case Study 1.

On the last day of the study, after we had finished a total of ten sessions of synchronous CMC for each group, I asked the children to compose a short essay in Korean about the chatting experiences (refer to Appendix E for the original Korean version of the essay form and for an English translation). As mentioned earlier in the Participants section, writing in English was obviously a challenging task. Therefore, I allowed them to write the essay in Korean so that they could express their feelings and

thoughts easily. The participants also filled out the exit questionnaire in English about their overall experiences with the online chat (see Appendix F).

Additionally, I sat down with every student individually for a one time interview. The interviews took place in an empty classroom in the same building at the local university where we had had chat sessions. I began the interview by asking questions about their English learning history and computer usage in more detail. The interview mainly focused on obtaining their overall perspectives about the conversations they had been involved in during the online sessions. Before we wrapped up the study, I took pictures with them and gave each participant a small present as an appreciation token.

Data Sources and Data Preparation

I collected various forms of data in order to describe the children's experiences and impressions of the online chat. Details of each data source are described in the following.

Written Chat Transcripts

At the end of each session, I pressed the "Stop" button of the Blackboard chat and the entire transcripts were then saved in the "Session Recordings" section. I then copied the transcripts and pasted them into a word file where I could change the children's names into pseudonyms. Also, I numbered each participant's message in order to indicate the chronological order of their postings. In the print-outs of the written discussions, I highlighted each participant's name with different colors to make them distinctive. Additionally, I marked each session transcript in terms of task types for the analysis.

Questionnaires

I created three types of questionnaires for the study: (a) a background questionnaire, "I am…," (b) a post session questionnaire, and (c) an overall exit questionnaire.

Background questionnaire, "I am…". On the first day of study, the children filled out the background questionnaire so that I could gather information on their ages, length

of stay in the United States, grade level at school, previous English learning experiences in Korea, and the usage of computers. The questionnaire was written in Korean.

Post session questionnaires, "What do you think?". These were distributed at the end of several of the sessions. Post questionnaires usually requested the children to reflect on their experiences for a specific chat session, asking questions such as "What do you think of today's chatting?" and "What was the funniest/most annoying thing?" and I asked them briefly to elaborate a reason for their responses. In order for the children to rate their experiences of the day's chatting, I asked them to circle one of three smileys, 😬, 😳, or 😤. The questionnaire also included questions regarding the usefulness of online chatting to their English learning as well as their intention for future participation in online chats.

Overall questionnaire, "OVERALL what do you think?". The overall questionnaire was distributed on the last day of study. As in the post questionnaire, I asked the children to rate the entire chatting experiences using the three smiley icons and to explain their reasons for their choice. The questionnaire also asked for three advantages and disadvantages of online chatting in their opinions. At the end of the questionnaire, they evaluated whether these experiences had helped them learn English and answered whether they would like to participate in CMC if given another opportunity.

Interviews

At the end of the study, I conducted a one time in-depth interview with each participant individually. Each semi-structured interview lasted from 25 to 45 minutes. I took each child to a nearby empty classroom in the building while the other group members were filling out the overall questionnaire and writing the essay. The main purpose of the interview was two-fold: (a) to enable the children to reflect on their experiences in the CMC, and (b) to help me to gain explanations from the children on their choices and behaviors as well as to confirm the data.

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Table 3.8 Protocol for Semi-Structured Interview

Background Questions

1. When did you start learning English? Where did you learn English?
2. How was your English before you came to the United States?
3. How about now? Which do you feel more comfortable, English or Korean?
4. Are you participating in an ESL program at school?
5. At what age did you start using a computer? Who taught you how to use it?
6. What do you like the most/least when using a computer?
7. How comfortable are you in typing in English and Korean?
8. Did you learn how to type at school? If not, who taught you how to type on keyboards?
9. Have you ever engaged in an online chatting before? With whom? Which program?
10. How would you define an online chatting?

General Questions about the Study

11. What did you expect the online chatting was going to be?
12. How do you feel about it after doing it ten times with other children?
13. How was it like to chat in English in an online environment with other peers?
14. What did you like most about the online chatting?
15. How do you feel about other peers' typos or grammatical errors in the chat room?
16. What irritated you most when participating in the online chatting? How do you think those issues can be solved?
17. Who did you want to respond to the most? Why?
18. Who was the last person you would want to respond to? Why?
19. Who was the most helpful person to talk to? Why?
20. Did you respond by looking at the name of the writer or the comment posted?
21. Did you arrange your thoughts before staring typing or did you write as you think?
22. Was it doable to have three tasks for every chat session?
23. Which type of task was most interesting/boring to you?
24. What was the easiest/most difficult type of task for you?
25. Which type of task was most helpful to you in learning English?
26. What other kinds of tasks/questions would be funnier and more helpful to add?
27. What do you think are the advantages of the online chatting?
28. What do you think are the disadvantages of the online chatting?
29. What do you think about my role in the chat room? Do you think I was helpful in the chat room? What would you suggest I should do to be more helpful?
30. Would you like to participate in online chatting again if given another chance?

Specific Questions

31. How did you learn about the Private Message function?
32. Why do you frequently engage in the copying and pasting in the chat room?
33. What makes you compose split messages?
34. How do you cope with new words or difficult questions while chatting online?

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My interview questions were divided into three categories (see Table 3.8), which were meant to elicit responses related to my research foci on experiences and impressions of synchronous CMC: (a) background information on their English learning, computer skills, and previous exposure to online chatting, (b) general questions about the children's thoughts on various features of online chatting, and (c) specific questions for each participant, focusing on their own distinctive participation pattern in the chat room. I used the same interview protocol across participants, except for the custom-designed questions in the final category, so that I could easily look for similarities and variations in their responses. The interviews were audiotaped and fully transcribed for analysis.

Essay, "Wrapping up the Chatting"

Also on the last day of study, the children were given an opportunity to elaborate on their thoughts, generally reflecting on their experiences in the 10 chat sessions. I let the children compose the essay in Korean, assuming most children would express their opinions more clearly and easily in Korean. In particular, the essay was intended to elicit the children's feelings about their recent electronic experiences of chatting with other children on diverse topics.

Field Notes

I usually took field notes after each session. Because I also took part in the online discussion, I could not read the children's messages, type my comments, and write field notes at the same time. Therefore, I composed field notes for each session as soon as I returned home while my memory was still fresh, augmented by watching the videotaped session of that day. In the field notes, I described what had happened in the chat room such as how the children had behaved while involved in the online chatting or incidences of their oral chatting from my observations. Additionally, the field notes included information gained from conversations with the children on the way to the university or back home, brief talks with their parents, and small incidents that had happened before or after a session.

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Pictures

Taking pictures of the children engaged in the CMC sessions was another source for documentation of my data. The pictures of us gathered around the table allowed me to explain, particularly, the unusual setting of the study. Some children also brought their own digital cameras and took a picture of our gathering. On the last day of our meeting, we all took a picture together and a few children enjoyed taking pictures on the campus so as to preserve some memory of the experience.

Data Analysis

In order to capture the children's general participation patterns in the CMC sessions, I first focused on counting the number of messages and words produced by each child from the print-outs of the online discussions. While counting the number of words, I realized that the children were often engaged in repeating the same word, phrase, or sentence numerous times. Therefore, I recalculated their number of words by counting the repeated part only once, which I later referred to as *refined* data. I computed the mean number of words as well as the mean words per message (i.e., length of message) in two manners: the original raw data and the refined data.

Data analysis involved using qualitative coding procedures informed by Strauss and Corbin (1998). I began to analyze and interpret the data as an ongoing part of my data gathering practices. I expanded my field notes by rereading them and adding analytic memos during which I found tentative categories, including children's recurrent comments that contained impish ideas, random messages, and repeated comments using the "Copy" and "Paste" functions. I also became aware of various instances of tension among the children in the group. After I had collected all of the data and prepared them for further analysis, I carefully read the print-outs of the electronic texts, interview transcripts, questionnaires, and the children's essays to refine the tentative categories and develop other categories by coding various features from the data. While examining the chat print-outs, I found categories such as error corrections, their engagement in a variety of language play, and use of non verbal cues. I also noted similar categories that emerged

from other data sources after a close reading of the interview transcripts, questionnaires, final essays, and field notes. These procedures, which involved triangulating across various sources of data, led me to develop the themes and categories presented in the next section.

As a means of exploring the influence of the tasks for the study, I further divided the electronic texts of each session into five categories: (a) an opening, (b) a topic discussion task, (c) a story completion task, (d) a scenario discussion task, and (e) a closing section. Greetings and comments posted prior to my posting of the first task were sorted as the opening, whereas messages composed after the last task had ended were categorized into the closing to display the children's participation according to the three tasks. The children's participation pattern was described by counting the number of messages, words, and length of messages, in the same ways I had used to describe the children's general participation patterns. Additionally, in order to describe the children's interactive patterns in different tasks, the chat transcripts were analyzed by creating coherence graphs following Schallert et al. (1996).

Credibility of the Study

It is important that the findings and interpretations constructed by the researcher, a human instrument, in a naturalistic inquiry adequately represent the "reality" of the studied phenomenon (Lincoln & Guba, 1985, p. 295). In order to deal with issues related to the credibility of the study, I adopted techniques suggested by Lincoln and Guba (1985). First, Lincoln and Guba maintain that prolonged engagement, devoting sufficient time so as to accomplish specific goals, is beneficial in becoming familiar with the context, recognizing misinformation generated by distortions of the researcher, and establishing trust with the participants. I was fully engaged in the study not only taking part in every single chat session with the children but also spending maximum time with them while driving them to the study venue and back home during the entire period of the study. Second, Lincoln and Guba emphasize the technique of persistent observation that allows the researcher to explore the salient features of the situation in a detailed manner.

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By observing the children's behaviors online and offline as well as continuously writing extensive field notes, I was able to obtain in-depth perspectives of the phenomenon I was interested in. Third, according to Lincoln and Guba, triangulation increases the credibility of the researcher's findings and interpretations. For the study, I collected and made use of various data sources, including the electronic chat texts, interview transcripts, multiple questionnaires, essays, and field notes, and triangulated them during the data analysis procedure. Finally, member checking is considered the most crucial technique to assure the credibility of the study by Lincoln and Guba, ensuring the adequate delivery of the realities of the respondents. In the study, I allocated a certain amount of time during the individual interview session for informal member checking. For example, I once asked for confirmation regarding an inconsistent response to one of the post questionnaires, which the participant reported had been mistakenly checked.

CHAPTER 4

FINDINGS

This chapter presents findings of the two groups of children, describing them as case studies, primarily because of the unique characteristics of the two groups. Each section begins with a broad overview of the group followed by a short description of the participants in the group. Background information about the participants highlights their personality and behaviors as well as other revealing details I found helpful for the study. A general outline of the children's participation and involvement patterns as well as their language use, interactive patterns, task influence on CMC participation, children's impressions of the online chat, and the researcher's role reflected in the eyes of the children are described.

Case Study 1

General Overview

The group was made of children who had been living in the United States for on average of 17 months. Two out of the four children (Heesu and Minsuk) indicated that they were more comfortable in English, and they spoke in English most often whether others were speaking to them in English or Korean. The children spoke to each other in English when Heesu and Minsuk were involved in the conversation. In the cases of Euntae and Kyangshik, they preferred to speak in Korean mostly. However, Euntae mentioned that he occasionally chose to speak in English in certain situations:

> [When speaking] some words are more comfortable in English, but mostly I feel more comfortable in Korean… Occasionally, a few words, they just don't pop up in Korean because I use English so much, [for example, words] such as "nervous" and "frustrated" [Translated into English].

The children in this group were very lively in interacting with each other when face-to-face. While driving to the university and returning home, my car was always loud

with children's talking, singing, and laughing. They usually played computer games as a team before or after the study. When engaged in the synchronous CMC, unlike Case Study 2, there was a larger amount of oral chatting. Also worthy of note was the fact that this group consisted of three boys and one girl. Even though they did not know other children until they started participating in the study, except for Heesu and Minsuk who were siblings, the boys became friends quickly.

Background Information about the Children

Euntae

According to Euntae's mother, Euntae had read a large number of books when young. He was obviously very knowledgeable and liked talking about what he knew to other children both online and offline. Even though he was sometimes engaged in a topic he was not very familiar with, he tended to say "Who doesn't know it? I know that too!" He seemed a very competitive child who did not allow himself to be a loser. Although Euntae had a stubborn streak, he was a pleasant talker who tried to enjoy the electronic conversations in a playful way.

Heesu

I had met Heesu, who was the daughter of my colleague, several times at informal gatherings. During her two-year-stay in the United States, I could see how much her English had improved to a point that she seemed to me to speak like a native speaker. She seemed to be a shy girl; however, once I came to know her better, she would talk to me about herself more freely. Heesu loved talking to people and her email address, which included "mstalkalot," showed how much she enjoyed conversing with other people.

As a girl at the onset of adolescence, Heesu was constantly trying to distinguish herself from the boys in many ways. She rarely talked or responded to boys in the group offline, except for her brother Minsuk. When the boys were playing computer games during break time, she would check her e-mail and search for information about movie stars in the Internet. When she was interested in something, Heesu became very active but she felt boredom easily, repeatedly typing "Hi"s in her messages.

Kyangshik

Although Kyangshik seemed to be a reticent child, he constantly talked about his school life, friends, and life in Korea when I was driving him. He sometimes would keep talking and talking like a cassette player without making any eye contact with me. When the others were present, Kyangshik mostly stayed quiet in the group though. In addition, he would not participate actively in the online discussions, by generating the least amount of messages and words in the chat room. Kyangshik was also a very relaxed and laid-back person who appeared sometimes indifferent to the tasks I was asking him to do.

Minsuk

From what I saw in my drives and while he was interacting with friends, Minsuk seemed to be to love to make people laugh. With Heesu, I had seen and talked to him a number of times before the study. Minsuk seemed to mingle with other people easily. When he talked, his voice was loud and clear. He also was a fast learner, who found on his own and utilized a few functions from the new tool Blackboard system. For example, Minsuk was the first to discover the existence of the Private Message function. He then sent numerous private messages to other children in the group. However, from my field notes, I often wrote after some sessions that Minsuk did not concentrate on a task for a long time and appeared to lose interest in the subject faster than other group members.

Children's Participation Patterns in the Synchronous CMC Venue

In order to give a general picture of the children's participation in the synchronous CMC environment, I present first the results from quantitative analysis of the chat texts in several ways, the number of messages they produced during each session, the number of words they wrote per session, and the length of messages. As shown in Tables 4.1, 4.3, Figures 4.1, and 4.3, I first computed the number of messages and words for each session from the raw data. Based on these numbers, I then obtained the mean, percentage, and rank order as displayed in Tables 4.2, 4.4, Figures 4.2, and 4.4. One issue that I needed to resolve was what to do with messages that contained multiple

repeated words, phrases, or sentences in a single message as illustrated in the excerpts below where I made a few re-tallies.

Excerpt 1. Example from Session 3
Minsuk: GOOD-GOOD-GOOD-GOOD-GOOD-GOOD-GOOD-GOOD-GOOD-
GOOD-GOOD-GOOD-GOOD-GOOD-GOOD-GOOD-GOOD-GOOD-
GOOD-GOOD-GOOD-GOOD-GOOD-GOOD-GOOD-GOOD-GOOD-
GOOD- GOOD-GOOD-

Excerpt 2. Examples from Session 7
Heesu: Hihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihi

For this reason, the categories for the number of words per session and the number of words per message were examined in two ways in order to demonstrate the differences between raw data and that of, what I refer to as, *refined* data. For the refined version, I added up the number of words again by counting only once the repeated words, phrases, or sentences that occurred in a single message (see Table 4.5 and Figure 4.5). Information about the mean, percentage, and rank of refined data is displayed in Table 4.6 and Figure 4.6. Figures 4.7 and 4.8 summarize the above results by comparing the raw and refined data. The length of message measured in terms of the mean number of words per message produced by the children is also described in two manners (see Tables 4.7, 4.8, Figures 4.9, and 4.10). Figure 4.11 shows the comparison of the mean number of words per message between raw data and refined data.

Table 4.1 Numbers of Messages Produced during 10 Chat Sessions: Case Study 1

Session Name	1	2	3	4	5	6	7	8	9	10	Total
Euntae	38	55	84	72	64	44	51	33	79	77	597
Heesu	50	39	143	102	30	28	60	62	26	83	623
Kyangshik	16	42	56	39	27	30	46	39	77	41	413
Minsuk	53	77	166	173	66	35	41	23	94	95	823
Researcher	45	35	33	43	53	42	39	43	45	47	425
Total	202	248	491	429	240	179	237	200	320	343	2881
Total w/o Researcher	157	213	458	386	187	137	198	157	275	296	2456

Figure 4.1 Numbers of messages produced during 10 chat sessions: Case Study 1.

According to Table 4.1 and Figure 4.1, participants in this group produced the greatest number of messages in Sessions 3 and 4. The number of messages appeared to climb during the first three sessions, after which the children produced fewer and fewer messages by the end of Session 6, which hit the lowest point in the entire 10 chat sessions. From Sessions 6 to Session 10, the children's participation gauged in terms of the number of messages they generated seemed to increase in general. However, the number of messages produced in the very last session did not outrun the peak session.

Table 4.2 Mean Number of Messages Produced by the Children: Case Study 1

	# of Messages/Session	Percentage (%)		Rank
			w/o Researcher	
Euntae	59.7	20.72	24.31	3
Heesu	62.3	21.62	25.37	2
Kyangshik	41.3	14.34	16.81	4
Minsuk	82.3	28.57	33.51	1
Researcher	42.5	14.75		
Mean	57.6			
Mean w/o Researcher	61.4			
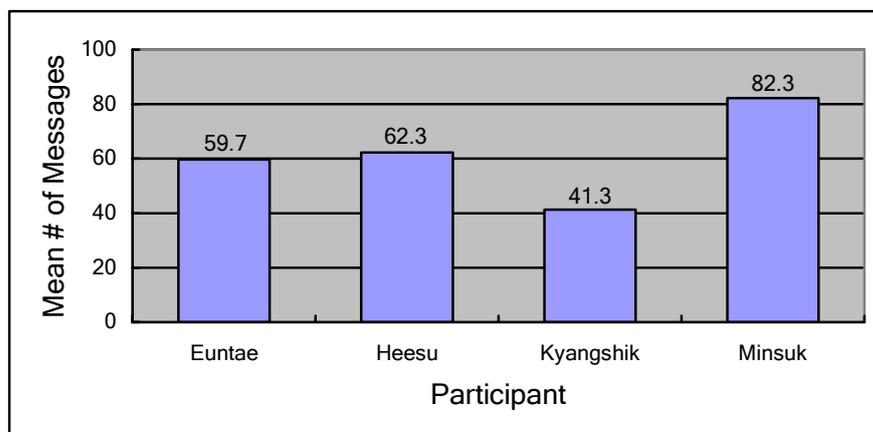
Figure 4.2 Mean number of messages produced by the children: Case Study 1.

Table 4.2 and Figure 4.2 describe individual children's contribution to the online discussions by showing the mean number of messages they have posted. Minsuk was the one who generated the greatest number of comments, producing a mean of 82.3 messages for each session and was ranked first among the group. Heesu and Euntae were also active participants in the chat room with the mean number of messages above the mean of the group (57.6). On the other hand, Kyangshik wrote the fewest messages. The mean number of messages produced by Kyangshik was 41.3, which was not only below the mean of the whole group but also reached only about half of the most active contributor, Minsuk (82.3).

According to Table 4.2 and Figure 4.2, participants in the group can clearly be divided into three categories, very active, active, and less active participants. Minsuk was obviously the most active contributor in the group, producing 20 more messages than Heesu who was ranked second in the group. Heesu and Euntae could be sorted as active participants. The difference in the number of mean messages between Heesu and Euntae, however, was less than three messages. The less active group included Kyangshik. However, the mean number of messages alone can not provide the exact picture of this group. Hence, information about the number of words and the length of messages are presented next.

Table 4.3 Numbers of Words Produced during 10 Chat Sessions: Case Study 1

Session Name	1	2	3	4	5	6	7	8	9	10	Total
Euntae	153	171	408	235	263	136	266	158	203	307	2300
Heesu	299	228	490	251	120	114	246	157	105	341	2351
Kyangshik	57	84	485	91	81	70	127	173	220	180	1568
Minsuk	298	195	2086	239	168	98	173	475	168	402	4302
Researcher	246	208	174	255	279	208	209	236	204	213	2232
Total	1053	886	3643	1071	911	626	1021	1199	900	1443	12753
Total w/o Researcher	807	678	3469	816	632	418	812	963	696	1230	10521
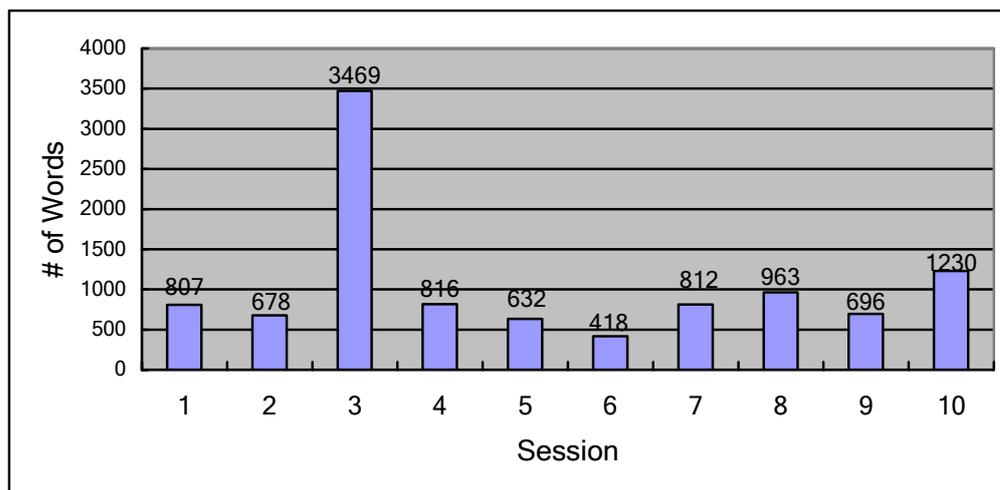
Figure 4.3 Numbers of words produced during 10 chat sessions: Case Study 1.

Table 4.3 and Figure 4.3 illustrate the number of words generated during 10 chat sessions. The number of words peaked in Session 3, showing a huge difference as compared to the other sessions. From Session 3, the number returned to levels similar to earlier sessions, hitting the lowest level in Session 6. Then, the number of words began to climb again until the final session. This trend in the number of words was similar to that of the number of messages observed in Table 4.1 and Figure 4.1. Based on information

gathered from Tables 4.1, 4.3, Figures 4.1, and 4.3, it generally appeared that the more the participants posted messages the more words they wrote.

Table 4.4 Mean Number of Words Produced by the Children: Case Study 1

	# of Words/Session	Percentage (%)		Rank
			w/o Researcher	
Euntae	230.0	18.03	21.86	3
Heesu	235.1	18.43	22.34	2
Kyangshik	156.8	12.30	14.90	4
Minsuk	430.2	33.73	40.90	1
Researcher	223.2	17.50		
Mean	255.1			
Mean w/o Researcher	263.0			
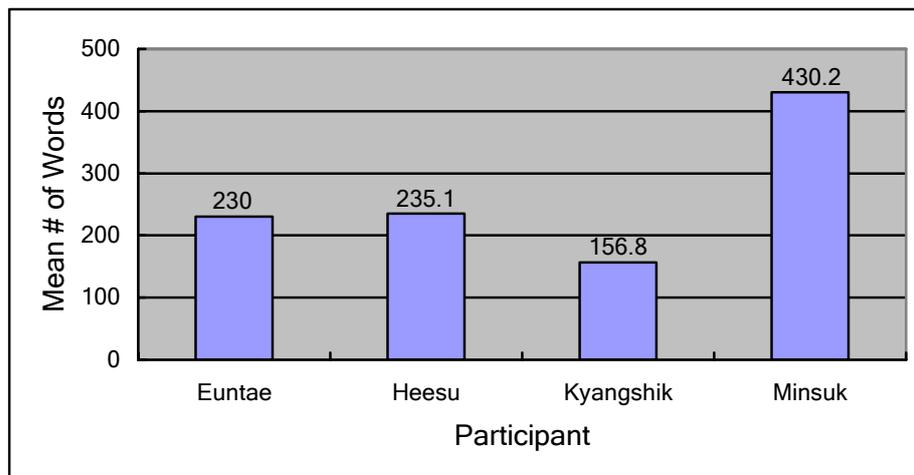
Figure 4.4 Mean number of words produced by the children: Case Study 1.

Table 4.4 and Figure 4.4 suggested that Minsuk was the most active participant who produced the most number of words with a mean of 430.2 words, followed by Heesu who wrote on average of 235.1 words. Although Heesu was ranked second out of the four children, there was a noticeable gap in the mean number of words for Minsuk and Heesu. Kyangshik was ranked last by producing the least number of words. Also worthy of note

was the fact that Minsuk was the only participant whose mean of words exceeded the group's mean. Heesu and Euntae were more active contributors than Kyangshik; however, none of them wrote more than the grand mean of the group. According to the ranks displayed in Tables 4.2 and 4.4, Minsuk who produced the greatest number of messages also wrote the most words. On the other hand, Kyangshik posted the fewest number of messages and generated the least number of words in the synchronous CMC sessions. Additionally, children who were ranked second and third regarding the number of messages performed very similarly when comparing the mean number of words.

As mentioned earlier, throughout the whole chat sessions there were numerous instances when participants repeated a word, a phrase, and a sentence in a single message. For example, as presented in Table 4.3, the number of words produced in Session 3 was far above other sessions. In particular, the number of words generated by Minsuk in Session 3 was surprisingly high as compared to other participants in the same session. However, by reading the actual chat transcript of Session 3, I learned that a significant portion of Minsuk's words resulted from meaningless duplication of a same word. Therefore, in order to better examine the nature of their conversations, I present a *refined* version of the counts where repeated words were counted only once Figures 4.7 and 4.8 compared results from the two kinds of data, raw data and refined data.

Table 4.5 Numbers of Words Produced during 10 Chat Sessions (Refined): Case Study 1

Session Name	1	2	3	4	5	6	7	8	9	10	Total
Euntae	153	171	408	231	263	136	231	158	203	306	2260
Heesu	287	228	323	222	120	114	186	148	101	301	2030
Kyangshik	57	84	147	91	81	70	119	171	220	120	1160
Minsuk	298	195	313	226	168	87	173	460	168	386	2474
Researcher	246	208	174	255	279	208	209	236	204	213	2232
Total	1041	886	1365	1025	911	615	918	1173	896	1326	10156
Total w/o Researcher	795	678	1191	770	632	407	709	937	692	1113	7924

Note. Repeated words were counted only once.

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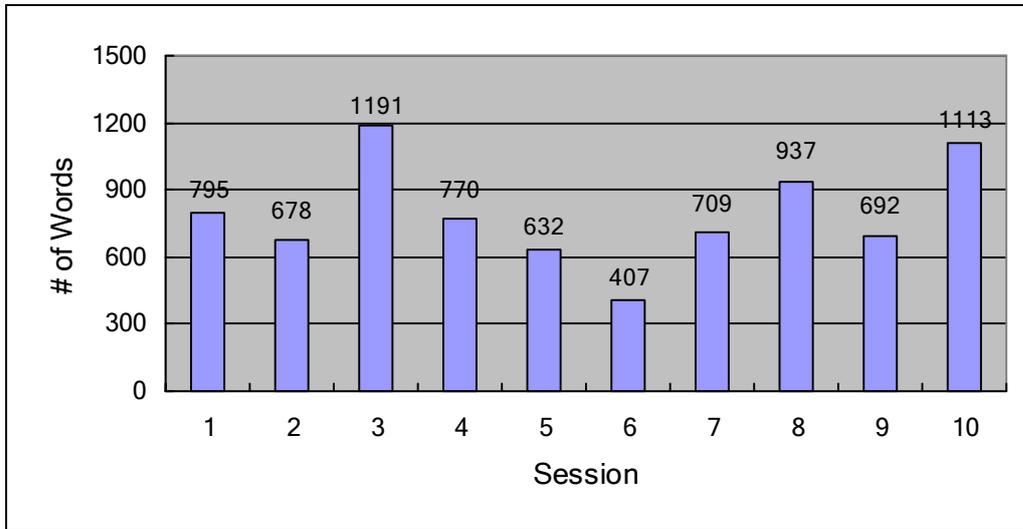
Figure 4.5 Numbers of words produced by the children during 10 chat sessions (refined): Case Study 1.

Table 4.6 Mean Number of Words Produced by the Children (Refined): Case Study 1

	# of Words/Session	Percentage (%)		Rank
			w/o Researcher	
Euntae	226.0	22.25	28.52	2
Heesu	203.0	19.99	25.62	3
Kyangshik	116.0	11.42	14.64	4
Minsuk	247.4	24.36	31.22	1
Researcher	223.2	21.98		
Mean	203.1			
Mean w/o Researcher	198.1			

Note. Repeated words were counted only once.
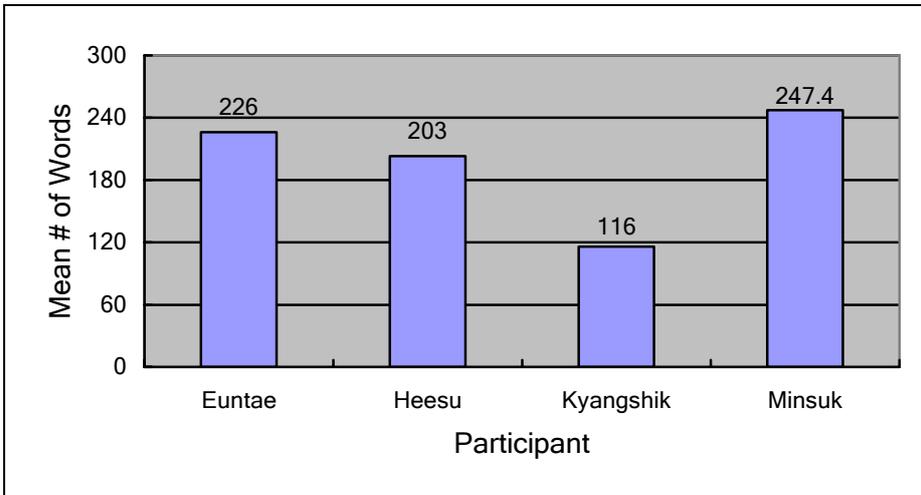
Figure 4.6 Mean number of words produced by the children (refined): Case Study 1.
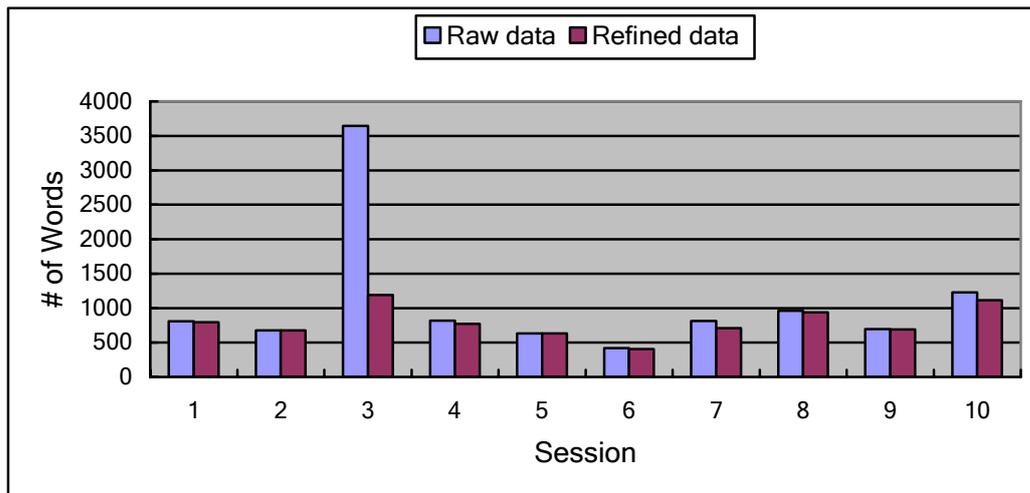
Figure 4.7 Comparison of the number of words produced by the children during 10 chat sessions between raw data and refined data: Case Study 1.
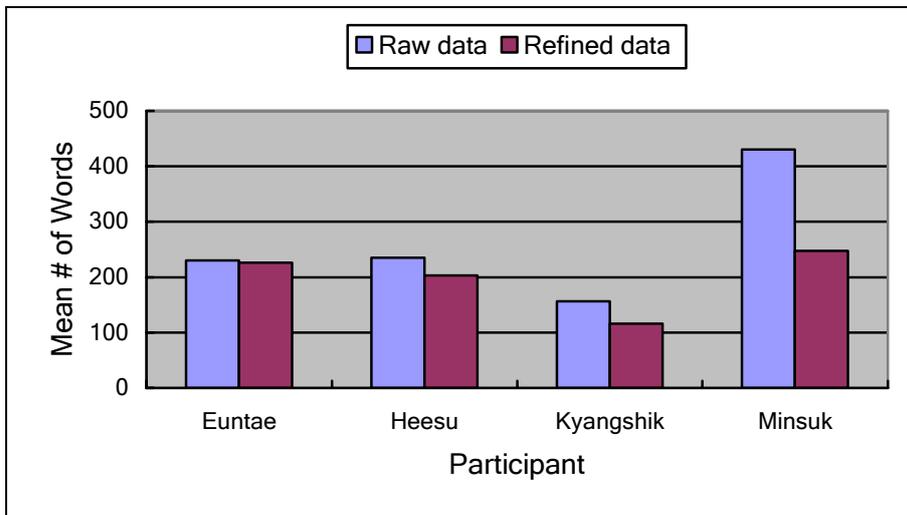
Figure 4.8 Comparison of the mean number of words produced by the children during 10 chat sessions between raw data and refined data: Case Study 1.

As summarized in Figure 4.7, the total number of words that excluded repeated tokens in Session 3 led to a sharp drop, by more than half, in the number of words. For the other sessions, there was either a small drop or no change in the number of words generated in the CMC venue. Regarding the mean number of words written by the children, Figure 4.8 demonstrated that there was a considerable reduction in the number of words for Minsuk. There also was a slight drop for Heesu and Kyangshik. According to the data, Minsuk, Heesu, and Kyangshik appeared to have repeated a single word multiple times.

Table 4.7 Mean Number of Words per Message Produced by the Children: Case Study 1

	# of Words/Message	Rank
Euntae	3.85	2
Heesu	3.77	4
Kyangshik	3.80	3
Minsuk	5.23	1
Researcher	5.25	
Mean	4.38	
Mean w/o Researcher	4.16	
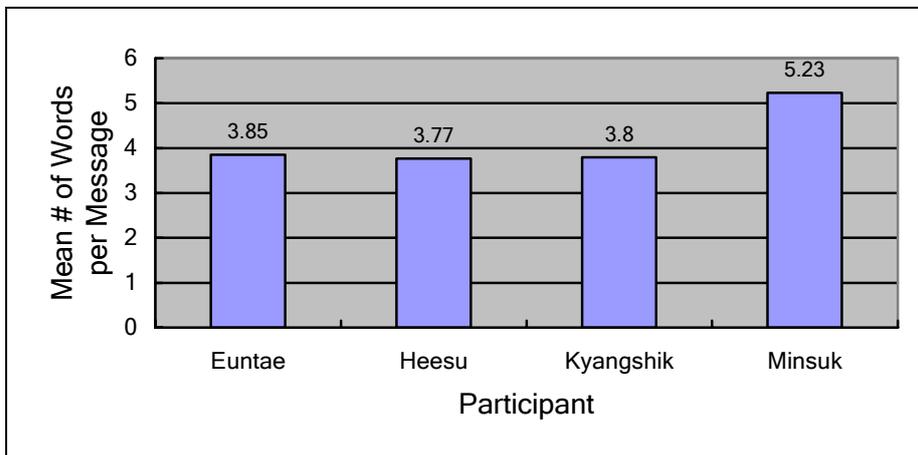
Figure 4.9 Mean number of words per message produced by the children: Case Study 1.

Table 4.8 Mean Number of Words per Message Produced by the Children (Refined):
Case Study 1

	# of Words/Message	Rank
Euntae	3.79	1
Heesu	3.26	2
Kyangshik	2.81	4
Minsuk	3.01	3
Researcher	5.25	
Mean	3.62	
Mean w/o Researcher	3.21	

Note. Repeated words were counted only once.
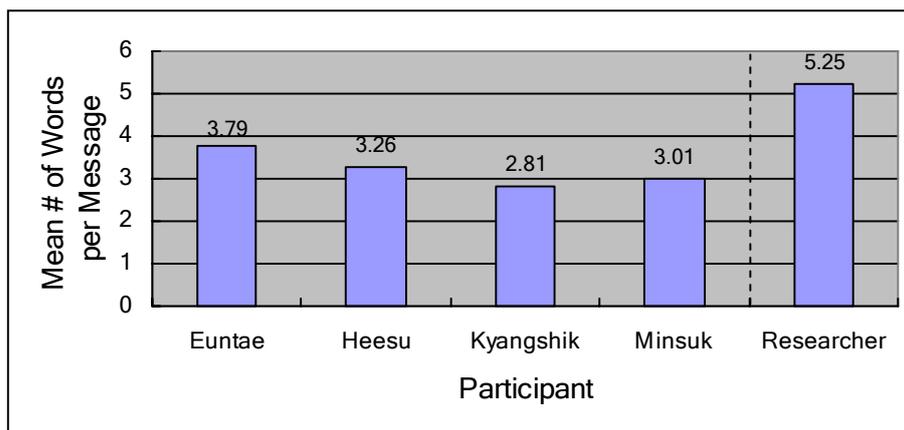
Figure 4.10 Mean number of words per message produced by the children (refined):
Case Study 1.
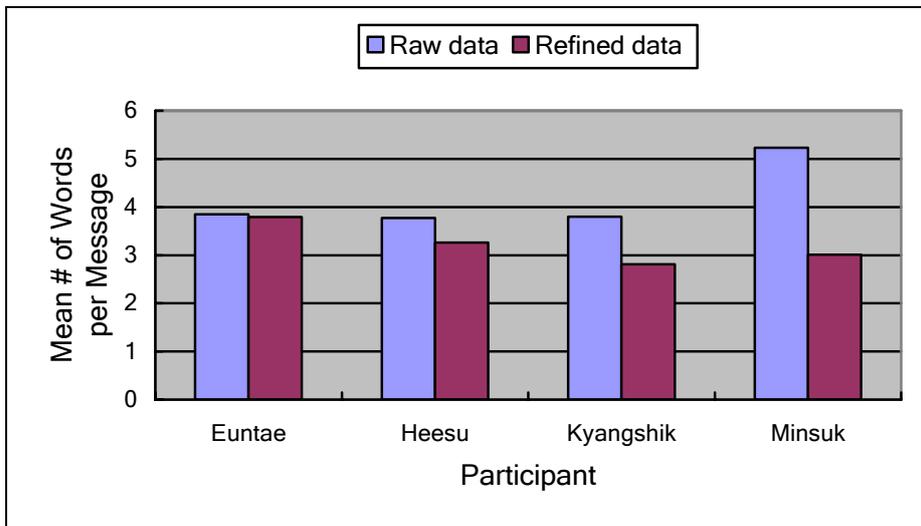
Figure 4.11 Comparison of the mean number of words per message produced by the children between raw data and refined data: Case Study 1.

As seen in Figure 4.11, the length of messages for Heesu, Kyangshik, and Minsuk was shortened when the data was recalculated to exclude repeated words. In the case of Euntae, there was hardly any evidence of decrease in the mean number of words per message. The refined data presented in Table 4.8 and Figure 4.10 suggests that Euntae has written the longest messages, on average of 3.79 words for each message. Heesu and Minsuk were ranked second and third and shown to generate on average of about 3 words per message. Kyangshik was again ranked last in terms of the length of his messages. Also an interesting point to note was that an adult wrote much longer messages than children as shown in Figure 4.10.

In other data presented previously, Minsuk was the most active contributor to the synchronous conferencing. He produced the largest number of messages and words. However, according to Table 4.8 and Figure 4.10, Minsuk was ranked third in the group regarding the length of message. Therefore, Minsuk could be described as an avid participant in CMC who tended to write relatively short messages. He also often repeated the same words in a message multiple times. As for Heesu, she was the second most active participant. However, her messages were moderate length that contained many repeated words in them. Unlike Minsuk and Heesu, Euntae did not duplicate the same

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words in the messages he composed. He was an active participant (ranked second regarding the number of messages as well as the number of words) who wrote relatively long messages. Kyangshik was the least active participant who generated the least amount of messages and words. Moreover, his messages were on average the shortest among the participants in the group.

Language Use within Messages

This section reports findings related to the group's language use in the CMC context. Patterns of language use were primarily shaped by recognition of an error, language play and humor, and non verbal cues, which were categories emerged from the data sources.

Recognition of an Error

Because I tried not to position myself as an authoritative teacher, I did not correct the children's errors in the chat room. I preferred to allow the conversation to flow. Yet, the children in this group appeared to be especially conscious of misspellings, typos, and grammatical errors in their own or other people's messages in the group. When an error occurred, it sometimes was overlooked. However, errors were most likely identified either by the writer or by other member(s) of the group.

Excerpt 3. Example from Session 8
42[2]   **Minsuk:** ONE NAMED EINTAE
43   **Minsuk:** EUNTAE

Excerpt 4. Example from Session 9
139   **Heesu:** OK. WHAT EVER YOU NSAY.
143   **Heesu:** SAY.
146   **Heesu:** I MEANT TO SAY WHAT EVER YOU SAY.

Error recognized by the writer. Excerpts 3 and 4 present examples of misspellings identified and corrected by the writer. In Excerpt 3, after he posted his message, Minsuk

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[2] The number in front of each message indicates the chronological order of the message posted.

realized that he misspelled Euntae's name in his previous message (line 42). He therefore wrote Euntae's name again in the following message with the correct spelling. In the case of Heesu, she recognized that there was a typo in her message. Heesu then wrote what she had intended to say in her next message. However, it appeared that she was not confident about whether other people would understand her intention or not. So, in line 146, Heesu composed a follow-up message which explained what she had wanted to express in a full sentence.

Excerpt 5. Example from Session 7
120   **Kyangshik:** THAT WAS JUST FAULSE ALARM
121   **Kyangshik:** I MEAN FAULSE LETTER

In Excerpt 5, Kyangshik made a mistake by spelling the word "false" as "faulse." Yet, as seen in message 121, Kyangshik did not make changes to the word "faulse." Instead of fixing the misspelled word, Kyangshik only changed another element of his previous message that was related to the content of his message. In this case, it seemed as if the word "faulse" was not a misspelling to the best of Kyangshik's knowledge.

Excerpt 6. Example from Session 6
165   **Minsuk:** BADBOY!!!NOMONYFOR YOU!!!!!!!!!!!!!!!!!!
166   **Heesu:** MONY?
168   **Minsuk:** MONEY

Excerpt 7. Example from Session 4
381   **Minsuk:** GRIN
383   **Minsuk:** GRAIN
384   **Heesu:** GRIN?
388   **Kyangshik:** YOU CAN MAKE BREAD WITH A GRIN
391   **Heesu:** GRIN?
400   **Kyangshik:** GRAIN

Error recognized by another member of the group. Unlike the above examples, misspellings in Excerpts 6 and 7 were recognized by other members of the group. Children in the group used different types of corrective feedback to indicate other children's error. In Excerpt 6, by repeating the incorrect word "mony," Heesu drew

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Minsuk's attention to the misspelling in his message. In the next message, Minsuk used the correct spelling and wrote "money."

At the beginning of Excerpt 7, Minsuk made a mistake in spelling "grain" but he quickly corrected his misspelling in the following message. Heesu posted a comment that repeated Minsuk's misspelling possibly at the same moment Minsuk wrote his message with corrected spelling. In the same excerpt, Kyangshik made the same mistake as Minsuk by misspelling the word "grain" as "grin." Heesu repeated the incorrect word "grin" for Kyangshik and Kyangshik corrected the spelling. Heesu expressed during the interview why she often repeated other children's mistake. "If I'm gonna understand that, it's ok. But if I can't understand that I'd be like, 'What does this mean?' and then they'll be like, 'Oh, I mean I misspelled it' or 'It means blah blah blah.'"

By contrast, Euntae was not picky about misspellings, typos, and grammatical errors, made by other members of the group. According to Euntae, "Well, errors can happen. I do that many times too" [Translated into English]. According to these examples, misspellings were pointed out by repeating the misspelled words. However, the misspellings were always repaired by the original writer not by other participants.

Excerpt 8. Example from Session 5
48   **Heesu:** I WATCHED ALL THE MOVIES!!!
49   **Euntae:** ME EITHER
50   **Kyangshik:** METOO

Excerpt 9. Example from Session 7
175   **Heesu:** CHAO
178   **Kyangshik:** CIAO

Examples in Excerpts 8 and 9 presented instances of explicit feedback as error treatment. Euntae in Excerpt 8 made a grammatical error when he was trying to agree with Heesu. In Excerpt 9, Heesu did not write the correct spelling for "Ciao" ("Hello" or "Goodbye" in Italian). Without directly indicating that Euntae (Excerpt 8) and Heesu's (Excerpt 9) comments were incorrect, Kyangshik offered the correction by modifying the errors. Kyangshik reformulated Euntae's message by changing the "Me either" to "Me

too," which was the accurate expression to use. Kyangshik even provided the correct form of a foreign word for Heesu in Excerpt 9.

As seen in the above two excerpts, Kyangshik provided the correct spellings for both Euntae and Heesu who misspelled words in their messages. However, regarding other children's errors, Kyangshik told me during the interview, "I don't care. Well, they're writing poorly and why should I care about it" [Translated into English]. More likely, Kyangshik was echoing other authors' comments but with the correct spellings.

Excerpt 10. Example from Session 1
86   **Euntae:** On your face, Minsuk
91   **Minsuk:** I THINK HE WILL PLAY VIDEO GAMES-TO EUNTAE:IT'S IN
     YOUR FACE, NOT ON YOUR FACE

Excerpt 11. Example from Session 9
277   **Euntae:** ROGER: COOK LAURA: STOCKTHING BRENDA: SALESTHING
      MARK: SINGER
291   **Kyangshik:** ROGER: COOK LAURA: STOCKTHING BRENDA:
      SALESTHING MARK: SINGE
301   **Euntae:** LOOK AT THE MARK
302   **Euntae:** IT'S SINGER NOT A SINGE
303   **Kyangshik:** ROGER: COOK LAURA: STOCKTHING BRENDA:
      SALESTHING MARK: SINGEr

Minsuk, in Excerpt 10, clearly indicated that Euntae had not used the proper preposition in his comment by explicitly correcting the incorrect form. In Excerpt 11, children were engaged in matching jobs for people described in the slip given. While involved in the task, Kyangshik copied the answer Euntae had provided. However, Kyangshik made the mistake of dropping the letter "r" at the end of "singer" which was pointed out by Euntae in the following messages (lines 301 and 302). Euntae drew Kyangshik and other children's attention by highlighting what Kyangshik had missed. Euntae then clearly corrected Kyangshik's mistake by changing "singe" to "singer." After Euntae's comments, Kyangshik immediately added the missing letter "r" at the end of the comment to reflect Euntae's corrective feedback.

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Excerpt 12. Example from Session 4
378   **Euntae:** THAT'S MY IDEA MORRON
382   **Researcher:** What is Morron?
385   **Euntae:** IT'S KIND OF IDIOT
389   **Euntae:** MAROON

According to Excerpt 12, Euntae's uptake could be explained as hyper-correction. My intent for asking Euntae "What is Morron?" was to allow him to be aware of the typo he had committed in his previous message. However, Euntae tried to explain the meaning of the word. He then wrote "maroon" in the next message which he thought was the correct spelling. Instead of deleting the letter "r" in the middle, he came up with a completely different word "maroon."

Excerpt 13. Example from Session 2
51   **Heesu:** OKEY DOKEY THEN, I LIKE IT 'CAUSE IT'S FUN AND NO I DO NOT HAVE A FABORITE CHARACTOR.
53   **Minsuk:** WHAT'S FABORITE?
55   **Heesu:** MISSED SPELLED IT!!!!

Excerpt 14. Example from Session 9
242   **Euntae:** AND IT SAYS COOK DRIVES ALON
253   **Heesu:** YOU THINK YOU'RE SO MSMART WHEN YOU MISSSPELLED ALONE.

Misspellings presented in Excerpts 13 and 14 were sometimes pointed out by other participants as in Excerpts 6 through 12. However, the purpose of providing the corrective feedback for these two examples seemed to be slightly different. In Excerpt 13, it appeared that Minsuk almost intentionally drew attention to his sister Heesu's misspelled word "faborite" although it was obviously a typo. During the interview, Minsuk distinguished his reactions to error correction made between other people and when responding to me. He said, "If you got misspelled a word… '[It's] my mistake,' [but] if other persons misspelled the word… it's another chance to insult them!" As he expressed in his words, Minsuk wanted to tease his sister, and Heesu appeared to be well aware of her brother's intention. Heesu responded to Minsuk by justifying herself that it was a mistake. In that message, Heesu made another error. Instead of writing "Misspelled it," she wrote "Missed spelled it," which was not pointed out by any of the children.

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Euntae, in Excerpt 14, was in the middle of explaining his answer. At the end of his comment, Euntae mistyped the word "alone," omitting the last letter. After reading Euntae's messages for a while, Heesu teased Euntae for his misspelling. Consequently, in these two examples, misspellings and typos worked as a weakness that allowed other members of the group to make fun of the writer who had made the mistake.

Excerpt 15. Example from Session 1
100   **Kyangshik:** i think he will play hockey
105   **Heesu:** HOCKY!!
107   **Euntae:** What hocky?
112   **Minsuk:** WATCH MOVIE WHILE PLAYING HOCKY

According to Excerpt 15, although Kyangshik wrote "hockey" with the correct spelling, other children, Heesu, Euntae, and Minsuk, used incorrect spelling "hocky." It appeared that Heesu had corrected Kyangshik's misspelling by offering the correct spelling and Euntae and Minsuk assumed "hocky" was the correct form. It is interesting to note why Kyangshik did not point out that his spelling "hockey" was the correct spelling to the other children. Perhaps Kyangshik was not 100% certain he was right.

Language Play and Humor

Children in the group often "played around" in the chat room using various entertaining strategies. Use of language play was a recurrent feature of their electronic conversations. The language play elements involved the way they wrote and posted messages. Additionally, subtle methods children used to have fun or tease other children in the group are introduced.

Excerpt 16. Example from Session 1
149   **Heesu:** IHIH
182   **Heesu:** ENIF M'I
186   **Minsuk:** DEROB M'I
190   **Heesu:** ?TRATS EW NAC
193   **Minsuk:** ETALOCOHC EKIL I
194   **Kyangshik:** oot em
212   **Heesu:** READ THIS!!!! NUF EVAH T'NDID I OS ,YADOT
219   **Minsuk:** WONK EW
228   **Minsuk:** NUF S'TI

According to Excerpt 16, Heesu initiated a language play by writing the texts backward. The jokes were soon taken up by Minsuk and Kyangshik who thought of writing backward as an amusing way to compose a message. Although Kyangshik tried it only a single time as seen in line 194, Minsuk incorporated it into his subsequent turns and continued to be in a playful mode.

Excerpt 17. Example from Session 2
80   **Minsuk:** trees
81   **Minsuk:** are
82   **Minsuk:** plants
85   **Minsuk:** humans
86   **Minsuk:** are
88   **Minsuk:** animals
89   **Minsuk:** trees
90   **Minsuk:** have
91   **Minsuk:** no
92   **Minsuk:** legs
93   **Minsuk:** humans
94   **Minsuk:** have
95   **Minsuk:** legs

Excerpt 18. Example from Session 5
65   **Minsuk:** HARRY
66   **Minsuk:** WILL
67   **Minsuk:** DIE
68   **Minsuk:** HA
69   **Minsuk:** HA
72   **Minsuk:** HA

In Excerpts 17 and 18, Minsuk wrote his message one word at a time, pressing the "Enter" key after each word. As shown in Excerpt 17, this resulted in 4 sentences spread over 13 messages. I initially speculated that Minsuk might have posted messages in single word chunks either because his typing speed was not fast enough to keep up with the discussions or he was trying to hold the floor over other children. According to the information gathered from the Background Questionnaire and the interview, however, Minsuk had learned to use the computer from the time he was four and indicated that he was a good typist in English, thus rejecting the former hypothesis. It seemed more plausible to postulate that he wanted to occupy the floor. As can be seen from the line

numbers in front of Minsuk's name, his messages were rarely interrupted by other children's comments. Yet, various excerpts are introduced next, raising the issue that Minsuk was a fun-lover.

Excerpt 19. Example from Session 9
255   **Minsuk:** I
256   **Minsuk:** A
257   **Minsuk:** G
258   **Minsuk:** R
259   **Minsuk:** E
260   **Minsuk:** E
261   **Kyangshik:** m
262   **Kyangshik:** e
263   **Kyangshik:** t
264   **Kyangshik:** o
265   **Kyangshik:** o

Excerpt 20. Example from Session 9
30   **Minsuk:** STAYINSIDEANDNEVERCOMEOUTTOPLAYINTHESUN
33   **Minsuk:** TALKTOTHEM,ASIMPLEANSWER
38   **Minsuk:** ILIKECHOCOLATE
43   **Minsuk:** IKNOW

Excerpt 21. Example from Session 9
238   **Minsuk:** H E I S R I G H T
243   **Minsuk:** R I G H T

In these, Minsuk composed and posted his messages in different styles as presented in Excerpts 19, 20, and 21. In Excerpt 19, Minsuk started writing one letter in each message. Kyangshik then copied what Minsuk had done and wrote his message in the same way. Then, as presented in Excerpt 20, Minsuk generated a message that involved a full sentence with no space between words. Line 30 looked like an extremely long word at first glance. However, when reading the text, it obviously revealed that what Minsuk actually meant to write was "Stay inside and never come out to play in the sun." Minsuk made another variation on the way he organized comments. As pictured in Excerpt 21, he wrote whole sentences in every message but with spaces between every single letter. Interestingly, Minsuk tried these three different styles of messages in a

single session. It appeared that Minsuk was taking a playful stance in the chat room by providing varied styles to his messages.

Excerpt 22. Example from Session 4
12   **Minsuk:** NA NEN AH MU GOT DO AN AT A [*I didn't do anything.*]
30   **Minsuk:** MORE LA YO [*I don't know.*]
35   **Minsuk:** MIL HA MUN [*By talking*]
44   **Minsuk:** CHIN GO DEL LING NOL MUN [*By playing with friends.*]
45   **Minsuk:** MAZ AT A\ [*I got it correct.*]
47   **Minsuk:** ZA MI IT A [*This is fun.*]
51   **Heesu:** PICK A LANGUAGE, WILL YA, MINSUK?
55   **Euntae:** AN YOUNG [*Hi*]
58   **Euntae:** JAL JI NAT NI? [*How have you been?*]
420   **Minsuk:** NA NEN CHOCOLATE JO WHY HA [*I like chocolate.*]

Excerpt 23. Example from Session 5
32   **Minsuk:** on nyoung hi sa ye [*Hello.*]
36   **Euntae:** ANYOUNG HA SAE YO [*Hello.*]

In Excerpts 22 and 23, Minsuk initiated a different feature of language play—the use of L1. In Excerpt 22, he wrote Korean sentences but used English phonology to spell each syllable. In line 47, Minsuk said what he was doing, composing Korean into English, was amusing. While he enjoyed this playful mode, children in the group responded in different ways to Minsuk's comments. As can be seen in line 51, Heesu displayed her annoyance with Minsuk's mischievous behavior. Heesu asked Minsuk to choose one language, be it Korean or English. However, Minsuk's joking activity triggered Euntae to mimic writing Korean sentence in English (see lines 55 and 58). Moreover, Minsuk and Euntae provided different versions of codeswitching as presented in Excerpt 23. It seemed that Minsuk began the use of L1 as a playful activity. Euntae then wrote the same Korean word Minsuk had just written, modifying Minsuk's expression so that it would be closer to how the phrase sounded in Korean.

Excerpt 24. Example from Session 6
10   **Researcher:** Who is your favorite cartoon character?
11   **Kyangshik:** BART
13   **Minsuk:** BART
21   **Kyangshik:** I LIKE LUFFY BETTER
26   **Kyangshik:** I LIKE SANZI

27 **Minsuk:** I LIKE LUFFY BETTER
28 **Minsuk:** I LIKE SANZI
33 **Kyangshik:** SOUP
34 **Minsuk:** SOUP
37 **Kyangshik:** ICE AGE
40 **Minsuk:** ICE AGE
43 **Kyangshik:** AHHHH
44 **Minsuk:** AHHHH
……
56 **Kyangshik:** I ROCK!!
57 **Researcher:** Minsuk, can please stop COPYing?
58 **Minsuk:** I ROCK!!
60 **Minsuk:** OK

As shown in Excerpt 24, Minsuk was engaged in another type of play, which was to repeat Kyangshik's messages exactly. In this excerpt, as participants responded to my request about their favorite cartoon characters, Kyangshik was listing some characters he was fond of. However, Minsuk began to post what Kyangshik had said, copying, pasting, and posting exactly what Kyangshik had said in his comments. Minsuk's act of repetition may be in line with what Cekaite and Aronsson (2004) referred to as "playful recycling" (p. 377). Although Minsuk's "tone of voice" could not be heard in the chat room, he would probably have imitated how Kyangshik sounded and his mannerisms had we been in face-to-face conversation. If the repetition had occurred in a face-to-face situation, other children might have been invited to the laughter. However, because other children were busy typing their answers to keep up with the conversation, they rarely paid attention to Minsuk's joking and it did not seem to gain much interest. Minsuk finally stopped duplicating Kyangshik's message when I asked him to quit the copying.

Excerpt 25. Example from Session 1
1 **Minsuk:** Hi I, The Great One is here
3 **Minsuk:** nice name

Excerpt 26. Example from Session 2
222 **Minsuk:** hi
223 **Minsuk:** Minsuk
224 **Kyangshik:** bye
225 **Kyangshik:** Minsuk

Excerpt 27. Example from Session 9
54 **Minsuk:** HI MINSUK
55 **Kyangshik:** BYE MINSUK

According to Excerpts 25, 26, and 27, there were interesting features that contributed to the playful atmosphere in the conversations. Excerpt 25 illustrated two messages produced by Minsuk. Although both messages were generated by Minsuk, he seemed to be taking two roles in the text. First, Minsuk pretended to be someone else whom he called "The Great One." Then, Minsuk responded to himself as if he were a 3rd person as portrayed in line 3. Throughout the entire sessions, Minsuk frequently said "hi" to himself and was entertaining himself by taking different personas. When Minsuk said "hi" to himself, in Excerpts 26 and 27, Kyangshik repeated Minsuk's messages with a slight change to them. Instead of the greeting "hi," Kyangshik inserted its opposite and created an amusing and playful commentary on Minsuk's actions.

Excerpt 28. Example from Session 7
60 **Kyangshik Hong:** VVHAT

Excerpt 29. Example from Session 8
63 **Kyangshik:** I LIKE CHOCOLATE
65 **Minsuk:** I LIKER CHOCOLATE
68 **Minsuk:** NO, I LIKE ER-ER CHOCOLATE
73 **Kyangshik:** I LLLLLLLLLLIKE CCCCCCCCCHOCOLATEEEEEEEEEEE
75 **Minsuk:** I LIKE ER-ER-ER-ER ULTRAER LIKE CHOCOLATE

Excerpts 28 and 29 illustrated how creative the children could be in terms of playing with the language. In Excerpt 28, Kyangshik wrote the letter "W" as "VV," joining two letter "V"s. By adding a small change in the way the letter was typed, Kyangshik gave emphasis to his question and made the conversation more amusing. In the case of Minsuk in Excerpt 29, he overgeneralized the usage of comparatives. Using the rule of adding "-er" to adjectives and adverbs to form comparatives in English, Minsuk incorrectly attached the comparative participle "-er" to the verb "like" to indicate that he was more fond of chocolate than Kyangshik. Minsuk even doubled the comparative element "-er" to emphasize his fondness (line 68). Being one of the most proficient writers of English in the group, I doubted that Minsuk wrote "I liker chocolate"

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instead of the proper form "I like chocolate more" due to lack of grammatical knowledge. It appeared that Minsuk deliberately had chosen to exploit the inaccurate form of comparative as a means of amusement.

Excerpt 30. Example from Session 1
11   **Heesu:** IT IS VERY "SUNNY" OUTSIDE!!!!!
14   **Heesu:** HAHA
36   **Heesu:** SUNNY DAYS ARE VERY VERY GOOD.
56   **Minsuk:** One unfortunete thing, we met this wierd boy. I don't even remember his name. i do know that his cute little nickname is sunny

    The jokes described in Excerpt 30 seemed to be more sophisticated than others illustrated in previous messages. Excerpt 30 was taken from Session 1 which was the very first day of our meeting and discussion. During Session 1, Euntae was referred to as his English name "Sunny" in the chat room because Euntae's mother indicated to me that I could call him "Sunny" prior to the study. In lines 11 and 36, Heesu was sarcastically joking about Euntae's English name "Sunny," knowing that "Sunny" was usually considered a girl's name in English. Although sarcasm was vocally oriented, she emphasized the name "Sunny" with double quotation marks to highlight her humorous intention. In line 14, Heesu indicated she was laughing about her joke and came up with another laughable instance as seen in line 36. Heesu noted in the interview that she loved sarcasm and she actually used sarcasm in daily conversations:

> I like really really simple jokes like, sarcasm. It's not fun when people are being too serious. But it's also not fun when people are being too funny... If you didn't have sarcasm, it would be, like, you're talking as, like, solid. It's, like, talking in the same way, the same voice EVERY single time... It's gonna be like a robot.

Heesu's sarcastic joke was taken up by Minsuk (line 56) who teased Euntae about his name, making fun of Euntae's name by describing it as "cute little nickname."

    As described in this section of language play, children employed various strategies to add an amusing layer in their written conversations. They played around with the way they wrote and posted messages (see Excerpts 16 through 21, 28, and 29), composed Korean sentence in English phonologically (Excerpts 22 and 23), repeated other children's comments exactly (Excerpt 24), took on multiple personas by pretending

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to be a 3rd person and talking to themselves (Excerpts 25, 26, and 27), and utilized sarcastic jokes (Excerpt 30). These witty usage of language contributed to the creation of the chat room as a more entertaining place. The children's amusing messages allowed the monotonous written conversations to be more energetic and lively. Further information about other ways the written discussion varied are introduced in the following segment on non verbal cues.

Non Verbal Cues

Lack of non verbal cues such as facial expression, tone of voice, and body language was often reported as a main constraint of CMC. Although those communicative skills were not compatible with electronic texts, children in the group incorporated various alternative techniques, utilizing emoticons, capital letters, exclamation marks, repetition of letters, and parentheses in order to compensate for these face-to-face non verbal cues.

Excerpt 31. Example from Session 3
208   **Researcher:** Do you all like playing games?
210   **Kyangshik:** yup
211   **Minsuk:** (^_^)

Excerpt 32. Example from Session 7
37   **Minsuk:** I LIKE CHOCOLATE, HAMBURGERS, PIZZA AND SPAGATTI
39   **Minsuk:** (+_+)

Excerpt 33. Example from Session 7
91   **Kyangshik:** I LIKE CHOWDER
96   **Kyangshik:** IT'S KIND LIKE SOUP I THINK
99   **Kyangshik:** ^---^

Participants used small images to represent their current emotions and facial expressions in the chat room. In general, Western style emoticons are drawn from left to right, having the eyes, the nose, and the mouth accordingly such as :-) for *smiling*, ;-) for *winking*, and :-D for *wide grinning*. However, emoticons originated from Asia are positioned upright similar to a human's face. There are numerous variations in picturing Asian smileys, for example (^_^), (^-^), and (^.^) for *smiling*, (^_*) and (^.~) for

winking, and (^o^) for *laughing*. The parentheses in the images portray the shape of the face and can be replaced with braces as {^_^} or left out completely as in ^ ^.

Although emoticons were not used heavily throughout the online conversations, these symbols served to supplement language in ways that fulfilled the children's needs. When the children posted facial images in their comments, they always used the Asian emoticons as can be seen in Excerpts 31, 32, and 33. When participants were asked whether they liked playing games in Excerpt 31, Minsuk posted a smiley face instead of writing "yes" (line 211). It appeared that the emoticon best conveyed Minsuk's tone of voice and facial expression for *happiness* for playing games. During the interview, Minsuk mentioned that he became familiar with various emoticons while reading educational cartoon books for children.

Minsuk also used another facial icon to express his feeling as shown in Excerpt 32. The group was discussing their favorite food and Minsuk listed several that he liked followed by an emoticon in his subsequent message. Unlike the smiley face in Excerpt 31, the eyes in Excerpt 32 were replaced by "plus (+)" symbols which usually represented *dead*, *exhausted*, or *confused*. Thus, Minsuk's comment could be interpreted in two ways: First, by the time Minsuk had entered all of his favorite foods, he had become *exhausted* by the typing required to list the foods. The visual cue could also mean that he felt very hungry imagining the foods he had listed. Minsuk could have wanted to tell other members of the group something like, "I'm *dead* hungry!"

Excerpt 33 was also selected from a thread on "favorite food." Kyangshik responded that he liked "chowder." According to his comment shown in line 96, it was assumed that Kyangshik was describing what "chowder" was because other children were wondering what kind of food that was. After explaining his favorite food, Kyangshik made a *big smile* by extending the size of the "mouth" as presented in line 99. Kyangshik's smiley indicated that he was *extremely happy and satisfied*.

Excerpt 34. Example from Session 1
51   **Minsuk:** I like it because we don't have to go to school in saturdays. I also like it
      because we have recess and we do more fun things. I ROCK!!!!!!!!!!!!!!!!!!!!!!

Excerpt 35. Example from Session 3
323   **Researcher:** Why do you all use capital letters? just curious..
325   **Minsuk:** IT'S BIGGER
327   **Heesu:** 'CAUSE I DO!!! I'M TO LAZY TO USE IT WHEN I NEED TO
328   **Minsuk:** YOU WON'T DARE
329   **Heesu:** SO I USE IT ALL THE TIME!!!

As can be seen in Excerpt 34, capital letters was used to emphasize the statement. By capitalizing "I ROCK!!!!!!!!!!!!!!!!!!!!!!" in line 51, it sounded as though Minsuk was shouting to other participants in the group. However, in the case of this group, capitalization turned out to be less effective in expressing the children's tone of voice. Heesu's entire comments were typed in capital letters throughout the whole chat sessions and Minsuk also started writing in capital letters beginning in the middle of Session 1 and continued until almost the final session (refer to Excerpt 35 as an example).

In the middle of our conversations, I asked Heesu and Minsuk why they maintained writing in capital letters (see Excerpt 35). It appeared that Heesu was using capital letters from a practical point of view as written in line 327. Furthermore, regarding capitalization, Heesu mentioned in the interview:

> See, I like being special. I write my emails all capitalized. Well, ok, there are three things. First of all, I like to be special. Second of all, I like to be noticed. Third of all, I don't like capitalizing when I need to.

By composing her messages in all capital letters, Heesu intended her messages to be more noticeable than those of other children's. Minsuk's rationale for employing capital letters was similar to Heesu. He wanted to make his comments look "bigger" so that what he wrote could gain more attention from other children. Additionally, Minsuk indicated in the interview, "… I don't like using the "Shift" [key]." Writing messages completely in capital letters allowed the children to avoid pressing the "Shift" key when they needed to use capital letters at the beginning of sentences or for proper nouns. Minsuk also admitted that he started writing in capital letters by following Heesu's example because "I thought it was gonna be easier."

Euntae also almost exclusively wrote his messages in capital letters. He started doing capitalization halfway through Session 2, and the capitalization lasted until the end

of the last session. He said he began writing all his messages in capital letters, "Just because capital letters are bigger and I just wanted other people to read my comments" [Translated into English]. In the case of Kyangshik, however, he either typed his messages in all small letters or all capital letters. Because the majority of participants were using capital letters in their messages most of the time, our conversations "sounded" as if everyone was "shouting" to each other.

Interestingly, although Heesu, Minsuk, and Euntae tried to make their comments be more prominent by writing them in all capital letters, their messages did not seem to meet their expectations. When all four participants were typing in capital letters, my messages were most obvious in the chat room. During the interview, Heesu addressed this issue and shared a solution she had used in the chat room. "[I]f all the people start writing in capital letters, it's kinda hard to figure out which one's mine. And, like, I put exclamation points in every sentence I write usually, like, in my emails and stuff so I can figure out which one I wrote." According to her response, the exclamation marks she added at the end of each sentence helped her recognize her own comments. However, as are introduced in the following examples, exclamation marks that belonged to a category of special symbols proved to be another useful source of non verbal cues.

Excerpt 36. Example from Session 8
20   **Heesu:** 'CAUSE SOMEONE'S HITTING MY HEAD.
21   **Euntae:** SORRY
22   **Euntae:** SERIOUSLY
23   **Heesu:** NOT FUNNY.
24   **Euntae:** SERIOUSLY!!!

Excerpt 37. Example from Session 3
214   **Researcher:** What kinds of games do you play?
218   **Heesu:** I DO NOT PLAY GAMES!!!
         !!

Excerpt 38. Example from Session 6
157   **Minsuk:** BADBOY
160   **Minsuk:** BADBOY
161   **Minsuk:** BADBOY
162   **Minsuk:** BADBOY!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!11

Excerpt 36 was taken from Session 8 where the conversation started with an argument between Heesu and Euntae. Prior to their engagement in the online discussion, the boys were playing around in the classroom. While passing by the back of Heesu, Euntae happened to tap Heesu's head jokingly. Heesu was very offended by Euntae's actions and she was in tears momentarily. Euntae then said he was sorry and asked for forgiveness to Heesu several times, and I also tried to settle down the situation in the meantime. In a few minutes, every member of the group logged onto the chat room and was ready to get started. However, Heesu was still not in the mood to "talk" with the other children, mentioning how upset she was. Euntae then made an apology as shown in lines 21 and 22 "in front of" other people. Although Euntae added "Seriously" in line 22, Heesu thought his attitude was not sincere. In line 24, Euntae wrote "Seriously" once more with triple exclamation points to add emphasis to his comment that he was not joking this time.

Previously, Heesu had mentioned that her messages were usually written in capital letters with a few exclamation marks at the end of the sentences. As can be seen in Excerpt 37, when she needed to express strong feeling, Heesu added numerous exclamation points. Sometimes, they inserted multiple marks to convey their excitement but failed to press the "Shift" key combination properly thus leaving "11" at the end of the sentence (see Excerpt 38).

Excerpt 39. Example from Session 1
22 **Heesu:** OK. I'M SOOOOOO BORED.

Excerpt 40. Example from Session 7
58 **Kyangshik:** NNNNNNNNNNNNNNNNEEEEEEEEEEEEEVVVVVVVVVVV
    VVVVVEEEEEEEEEEEEEEEEEEEEEERRRRRRRRRRRRRRRRRR

Participants' "vocal tone" could also be delivered by repeating letter(s) of a word they aimed to stress. By adding extra "o"s in Excerpt 39, Heesu appeared to express that "I'M REALLY REALLY REALLY BORED." Also, Kyangshik repeated every single letter of the word "never" to signify his strong disagreement to another child's statement. Compared to the use of exclamation marks, usually to put emphasis on the whole

sentence (see Excerpts 36, 37, and 38), the strategy to repeat the highlighted word seemed to be more effective in showing the participant's accent in a message.

Excerpt 41. Example from Session 2
118   **Minsuk:** THE FOX, THE RABBIT AND THE MOUSE WINS AND THEY
        LOCK THE MOTHER BEAR IN A CAGE FOR THE REST OF HER LIFE
120   **Heesu:** GOOD IDEA!!!!!!!!!(NOT REALLY!!!)

Excerpt 42. Example from Session 4
9   **Kyangshik:** READ A BOOK(BORING)

Excerpts 41 and 42 illustrated the use of parentheses as a way of offering additional information about the children's statements. According to Excerpt 41, it would first appear that Heesu was approving Minsuk's story. However, the additional information provided in parentheses was inserted to imply that her previous comment should be taken as a sarcastic reaction. Heesu wanted to inform other members of the group that she was being ironic. Without adding the "NOT REALLY!!!" in parentheses, most participants might have misunderstood her intention completely. In the case of Kyangshik in Excerpt 42, he answered that he had read a book today, and by what he added, he could let the group know that he had not found the reading very fun.

Although previous studies (e.g., Gajadhar & Green, 2003) have reported on the recurrent use of acronyms or abbreviations such as LOL for *laughing out loud*, BRB for *be right back*, and U R for *you are*, no instances of acronyms and abbreviations were found among the young learners of Case Study 1.

Interactive Patterns

This segment of analysis highlights aspects of the group's interactions while engaged in the synchronous CMC. The section starts by describing some of the messages that were prominent throughout the sessions. These messages are looked at more carefully in order to explain their influence on the group dynamics. Instances of tension between the individual and the group were often discovered. The tension could be mostly attributed to messages that represented children's playful resistance.

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Children's Playful Resistance

　　　　Children in this group often composed messages in ways that seemed aimed at entertaining others or themselves. They often posted "wicked" ideas as a means of answering the question I had given them, repeated comments by pressing <Ctrl + c> and <Ctrl + v>, and posted what seemed to be "random" messages. Actual examples follow. Excerpts 43 and 44 show Euntae's mischievous messages.

Excerpt 43. Example from Session 1
125　**Researcher:** So.. what do you all think?
126　**Minsuk:** GO BACK HOME AND BRING MORE MONEY
127　**Euntae:** Steal it and run away
129　**Heesu:** YOU KNOW, THE MILKS COME IN A LOT OF SIZES. I'D JUST GET TOE SMALLEST ONE!!!!
130　**Kyangshik:** just put it back and buy an another thing
144　**Euntae:** The cops must have work to do, or they will bankrupt.

Excerpt 44. Example from Session 2
102　**Researcher:** What do you think will happen next?
104　**Heesu:** THEY DON'T GET ANY BREAD 'CAUSE THEY DIDN'T HELP!!!!!!
105　**Euntae:** Those animals steal the bread
106　**Kyangshik:** the bear gonna eat bread alone
107　**Researcher:** again, the stealing theme..
108　**Euntae:** OK I'll try another idea
114　**Euntae:** Those animals murder bear, and get all it's properties including bread

　　　　From the very first day of the study, Euntae enjoyed posting impish answers, such as "stealing" and "murdering," to many of the questions given. At the end of the 10 chat sessions, Euntae mentioned that the most amusing experience about online chatting was when he was "creating mischievous ideas." When Euntae was typing this type of message, I could see that he was trying hard not to laugh out loud. He indicated during the interview that chatting was fun because there was hardly any restriction in doing something that would most likely not be allowed in real life. He told me, "Well, this is a bad thing, but if there are a lot of words [in the chat room], then I can just write a curse word and nobody will notice I say that" [Translated into English]. Although I could not find any examples of Euntae actually cursing in the chat room, it seemed that he was well aware of the freedom afforded by CMC and made the most of it.

Excerpt 45. Example from Session 3
151 **Minsuk:** CLUCK-CLUCK-CLUCK-CLUCK-CLUCK-CLUCK-CLUCK-
CLUCK-CLUCK-
152 **Minsuk:** CLUCK-CLUCK-CLUCK-CLUCK-CLUCK-CLUCK-CLUCK-
153 **Minsuk:** CLUCK-CLUCK-V

Excerpt 46. Example from Session 7
82 **Euntae:** IT BORING~IT BORING~IT BORING~IT BORING~IT BORING~
83 **Euntae:** IT BORING~IT BORING~IT BORING~IT BORING~IT BORING~
84 **Euntae:** IT BORING~IT BORING~IT BORING~IT BORING~IT BORING~

Repeating comments over and over was also a recurrent event throughout the chat sessions. The majority of the children used the <Ctrl + c> and <Ctrl + v> functions to repeat messages instead of re-typing the comments. They copied one statement and pasted it as many times as they wished. Minsuk and Euntae both indicated that they had already learned about the use of the <Ctrl + c> and <Ctrl + v> functions prior to the study. As can be seen in Excerpt 45, Minsuk left a "V" letter at the end of his message in line 153. This could be explained by the fact that although Minsuk intended to paste another "CLUCK," he failed to press the "Ctrl" key simultaneously with the letter "V." Additionally, Minsuk and Euntae's messages appeared sequentially, too quickly following the previous message to be re-typed in. In verbal communication, saying those words out repeatedly would be difficult. However, in the CMC condition, repetition of comments turned out to be very easy, possibly with a mere movement of fingers.

Excerpt 47. Example from Session 8
138 **Minsuk:** close down the school
140 **Euntae:** STEAL ELECTRICITY FROM OTHER PLOACE
145 **Heesu:** THEY CAN USE LESS ELECTRICITY.
146 **Researcher:** How about the students, Minsuk?
147 **Kyangshik:** LUKE I AM YOUR FATER
149 **Minsuk:** transferr them to another school, simple answer
150 **Kyangshik:** FATHER AND SON WE CAN RULE THE GALAXY
152 **Minsuk:** where is tyour wife?
155 **Kyangshik:** I'M JUST COPYING THE MOVIE
156 **Kyangshik:** THE STAR WARS 5

Excerpt 48. Example from Session 9
34 **Researcher:** How do you all keep cool?
35 **Heesu:** I DON'T KEEP MY SELF COOL.

36 **Researcher:** You enjoy the heat?
37 **Euntae:** GO TO THE CLUBHOUSE AND TURN THE A.C IN HIGH
38 **Minsuk:** ILIKECHOCOLATE
39 **Heesu:** YES.
42 **Kyangshik:** JUST TURN ON AIR CON AND TAKE A BATH WITH HOT
      WATER AND DRINK HOT WATER

While examining the entire transcripts of the electronic conversations, I often encountered playful comments that came out of the blue as shown in Excerpts 47 and 48. These random messages were completely irrelevant to the current conversation thread in the chat room. For example, while discussing ways to reduce the use of electricity in Excerpt 47, Kyangshik started posting a few lines from the movie Star Wars. Regarding his random messages, Kyangshik reflected during the interview, "I just wanted to watch that, the Star Wars… The conversation was too boring and that came up to my mind all of a sudden" [Translated into English]. Also, Minsuk wrote the unrelated message "ILIKECHOCOLATE" as seen in Excerpt 48. Euntae reflected that even though Minsuk's "I like chocolate" was completely inappropriate and off-topic, he thought the random messages were funny. Additionally, Heesu viewed random messages with a positive view that they could help change the current topic to a new one. She commented:

> Well, it's really really random. Like, when I'm talking with some people, like, actually talking to people in face to face, we start talking about something and then we change to another subject. 'Cause, like, our stories remind other people of their stories that doesn't even involve the story that the person told. 'Cause, like, maybe I have, like, the same word that you want to use or something or, like, it was similar. And then, like, somebody remembers, like, let's say somebody broke an arm and then later somebody, like, start talking about breaking their leg. And then it was their uncle and then somebody start talking of their uncles or so and the subject is totally changed… 'Cause if I tell of one thing like forever, it's, like, we will eventually say the same thing. Like, we'll repeat.

When exchanges were not very exciting, one could be distracted by other thoughts and sometimes daydream. However, people usually do not say these musing aloud when engaged in a face-to-face conversation or a classroom discussion. Yet, in the cases of Kyangshik and Minsuk, they simply typed what they were thinking about although their comments seemed totally irrelevant to the ongoing talk. In the CMC, this

kind of random message appeared to be either taken up by another participant as in Excerpt 47 if interested, or ignored entirely as if it had never happened as in Excerpt 48.

These types of incidents that I have described from Excerpts 43 through 48 might rarely become plausible in classroom settings or in real life discussion situations. However, CMC allowed children to make these unusual utterances. With these utterances, the children appeared to resist and even rebel against the label of "good" student online. In other words, they were involved in playful resistance and enjoyed the freedom provided by the chat room.

Tension between the Individual and the Group

Conversation is formed by contributions of individuals and thus is a group product. Each individual brings unique ways of interacting into the conversation which often triggers or disrupts the group discussion. In the study, a few instances of tension were found among the children's interaction. Interestingly, the conflicts usually tended to occur from comments that were the outcome of one or another child's playful resistance pattern described above.

This section focuses on three examples that portray the tension between an individual and the group. First, as is presented in Excerpt 49, one participant posted unrelated "random" comments that were repeated very frequently during the study. There then appeared a tension between the individual who kept posting these messages and other participants who were trying to stop her. In another incident, three children dominated the chat room by writing various impish responses to the current topic. Yet, the fourth person in the group refused to be part of the mischievous group (see Excerpt 51). Finally, as illustrated in Excerpts 52 and 53, there was generally less tension but concord among the children by joining the playful mood.

Excerpt 49. Example from Session 4

59	**Researcher:** How many American friends do you all have?	64	**Heesu:** AND THEY'RE ALL REALLY NICE!!!!!
61	**Heesu:** I HAVE LIKE TONS!!!!!!!	65	**Euntae:** ABOUT 40
62	**Euntae Yoon:** ABOUT 52	66	**Researcher:** You have 52 friends Euntae?
63	**Kyangshik:** 7		

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67	**Minsuk:** I HAVE A LOT BUT ONLY TWO MAIN	95	**Heesu:** HI
68	**Researcher:** What are their names Minsuk?	96	**Kyangshik:** PLEAS STOP SAYING HI!
69	**Euntae:** SORRY	98	**Heesu:** HI
70	**Euntae:** ABOUT 45	101	**Heesu:** HI
71	**Euntae:** NO	102	**Heesu:** HI
72	**Minsuk:** I FORGOT	104	**Heesu:** HI
73	**Heesu:** HI	107	**Euntae:** MAYBE SHE WANT TO GET SHOCK
74	**Euntae:** 3	108	**Kyangshik:** STOP
75	**Heesu:** HI	109	**Heesu:** HI
76	**Minsuk:** CAN YOU STOP WRITING HI?	111	**Heesu:** HI
77	**Heesu:** HI	112	**Kyangshik:** STOP
78	**Euntae:** 4 CHINESE	113	**Heesu:** GHI
79	**Heesu:** HI	114	**Kyangshik:** STOP
80	**Euntae:** REST, AMERICAN	115	**Heesu:** HI
81	**Heesu:** HI	117	**Kyangshik:** STOP
82	**Euntae:** ACTUALLY	......	
83	**Heesu:** HI	145	**Heesu:** HI
84	**Euntae Yoon:** SWEDISH	146	**Heesu:** HI
85	**Heesu:** HI	147	**Heesu:** HI
86	**Euntae:** AND	148	**Heesu:** I
87	**Heesu Kim:** HI	149	**Kyangshik:** STOP
88	**Researcher:** Wow, you have a lot of friends, Euntae?	150	**Heesu:** HI
89	**Heesu:** HI	151	**Kyangshik:** STOP
90	**Euntae:** YES	152	**Kyangshik:** STPO
91	**Heesu:** HI	154	**Kyangshik:** SSTOP
92	**Minsuk:** PORTARIGO	155	**Minsuk:** O
93	**Heesu:** HI	156	**Heesu:** HOHOHO
94	**Researcher:** Why are you keep typing "HI" Heesu??	157	**Minsuk:** K
		158	**Kyangshik:** STOP
		159	**Euntae:** S.O.S
		160	**Heesu:** HO

As presented in Excerpt 49, the group started off talking about each other's American friends. The conversation then was shortly interrupted by Heesu's recurrent "Hi" messages. Heesu began posting numerous "Hi"s out of the blue from line 73. Although Euntae continued writing how many friends he had and where they came from,

Minsuk and Kyangshik seemed to be distracted by Heesu's repeated "Hi"s. In line 76, Minsuk requested that Heesu refrain from writing "Hi." Additionally, Kyangshik initially asked Heesu to stop writing "Hi" in a polite way (line 96). Despite Minsuk and Kyangshik's appeal, Heesu did not cease posting the "Hi" messages but kept writing the same thing over and over again. In line 107, Euntae finally joined Minsuk and Kyangshik and alerted Heesu, which again failed to stop Heesu. During the next 50 messages, Heesu continued writing "Hi" and Kyangshik began to "shout" at her to stop, using all capital letters. Euntae even asked for help as shown in line 159.

In the post questionnaires, Kyangshik, Euntae and Minsuk answered as follows to the question asking, "What was the most annoying thing?" in that session:

> Euntae: *Hi (keep repeating)* because *it's just annoying.*
> Kyangshik: *When somebody wrote "Hi" every time* because *that's so annoying 'cause I can't read.*
> Minsuk: *My sister's Hi* because *it kept blocking other people's letters.*

All three participants responded that Heesu's "Hi"s were irritating. Moreover, Kyangshik and Minsuk expressed their frustration that they could not easily read other children's postings because of the recurrent "Hi" messages. During the interview, Kyangshik and Minsuk once more pointed out that the string of "Hi" was the most annoying encounter in their entire chat experience. Minsuk mentioned, "My sister annoying us" was the most distracting incident, but explained that Heesu possibly did that "'Cause she's bored."

Excerpt 50. Example from Session 7
2 **Heesu:** hihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihihi hihihi
3 **Heesu:** HI
4 **Heesu:** ONE HI ISN'T ENOUGH TO ANNOY ANYONE!!!!!
10 **Euntae:** IT'S ANNOYING TO ME

In Excerpt 50, Heesu again wrote multiple "Hi"s, later explaining that she intended to make others annoyed. When asked directly about her "Hi" messages, Heesu answered:

Well, I say "Hi" to everybody. I say "Hi" in real life more than I type it. Like, everyday I would say, like, a thousand times... I know [that I can type it only once] but, then, like, I said I'm too lazy to type, so I say "Hi" instead of "I'm bored." ... I don't copy and paste. It's, like, fun typing "Hi"s. You're just moving your fingers!

Based on her response, it appeared that Heesu was typing "Hi" mainly for three reasons: (a) she was imitating what she claimed to do offline; (b) she aimed to express her boredom; and (c) she considered the physical act of typing "Hi" as entertaining because it made her move her two finger tips. Regarding other children's anticipated reactions, Heesu was partly aware of their being annoyed but said, "I don't know [how they would think about]. I think it's much more annoying when you actually hear it in the real life!"

In sum, the tension between Heesu and the other children did not seem to be resolved. Even though Heesu was asked, urged, and even threatened by the children to quit writing "Hi," she did not give up and continued typing multiple messages with "Hi." Consequently, it appeared that Heesu succeeded not only in expressing her boredom over the topic but also in making other children annoyed.

Excerpt 51. Example from Session 3
342   **Minsuk:** ONCE UPON A TIME THERE LIVED A MAMMA BEAR, BABY BEAR AND DADDY BEAR
343   **Kyangshik:** the three bear gonna kill her
344   **Heesu:** THE BEARS COME BACK HOME AND GETS MAD AT GOLDILOCK PERSON
345   **Kyangshik:** and eat her for lunch
347   **Euntae:** GOLDILOCK MURDER BEARS WHEN THEY COME IN AND GET ALL THING IN THE HOUSE
351   **Minsuk:** GOLDILOCK KARATE CHOPS ALL THE BEAR'S HEAD BECAUSE SHE FELL
372   **Minsuk:** ONCE UPON A TIME THERE LIVED A FAMILY OF BEARS WHO WERE HAPPY THEN LITTLE GIRL NAMED GOLDILOCK KILS THEM ALL
377   **Kyangshik:** WHO CHOP BEARS' HEAD
379   **Heesu:** LAKSJDLAKSJDKLLAsdjqbwm,jmasdjlkhasjHAKLASDKLKJHKL QWEHKLKJHDKZJXJNJASNZKJCHKJHNZJKDLJKJHCZSKJHJKJDKJASDJKJHHD
380   **Euntae:** AND IT REST OF IT'S BODY
381   **Euntae:** EAT
382   **Kyangshik:** FOR LUNCH

383 **Minsuk:** I LIKE BEAR SOOP
385 **Heesu:** I'M GETTING BORED OF THIS CHOPPING JOKES!!!
386 **Euntae:** WITH MUSTARD
387 **Heesu:** HI
388 **Heesu:** HI
389 **Minsuk:** SOUNDS GOOD
390 **Heesu:** HI
391 **Kyangshik Hong:** YUP
392 **Euntae:** WANNA TASTE IT?
394 **Euntae:** I CAN MAKE IT FOR YAH
396 **Euntae:** EAT IT
397 **Euntae:** YUMM

Excerpt 51 shows children being involved in the story completion task. Each child appeared to be trying hard to come up with the most mischievous story as compared to other children. In the beginning, killing the girl and having her for lunch and murdering the bears were suggested by Kyangshik and Minsuk, respectively. Minsuk then posted an idea related to chopping the bears' heads which inspired the other boys to create and finish one wicked story in a cooperative manner. However, after posting her own idea of a plausible story, Heesu did not take part in building the dreadful story with the other members of the group. Instead, she expressed in line 385 that she was not at all interested in the boys' jokes. Heesu then repeatedly typed random messages as a means of avoiding participating in the group's prevalent story (see lines 379, 387, 388, and 390).

Unlike the example illustrated in Excerpt 49 where Heesu dominated the floor by typing numerous "Hi"s, the other children were taking over the conversation thread this time by joking about the bear story. Although she told them their story was not amusing in line 385, Heesu failed to stop the boys from extending the impish story. Also worthy of note was the fact that since Euntae had initiated a posting that he called a "fun idea" in Session 1, proposing this type of options for stories had become predominant in the group, especially during the first couple of sessions.

Excerpt 52. Example from Session 3

48 **Researcher:** Let's wait for Euntae [to log on]..

49 **Minsuk:** LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-

50 **Heesu:** HIHIHIHIHIHIHIHIHIHI HIHIHIHIHIHIHIHIHIHIHIHIHIHI HIHIHIHIHIHIHIHIHIHIHIHIHIHI HIHIHIHIHIHI

51 **Kyangshik:** suesuesuesuesuesuesuesu eusueuseuesa

52 **Minsuk:** LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-LA-

53 **Minsuk:** WHAT'S SUE

54 **Kyangshik:** fiesta

55 **Kyangshik:** ole

56 **Minsuk:** WHAT'S FIESTA?

57 **Minsuk:** WHAT"S OLE

58 **Kyangshik:** spanish for party

59 **Heesu:** HOLA HOLA HOLA HOLA HOLA HOLA HOLA HOLA HOLA HOLA HOLA HOLA HOLA HOLA HOLA

64 **Heesu:** OI MEANS HI!!!!!!

61 **Heesu:** OI!!!!!!

63 **Minsuk:** OINK

65 **Minsuk:** OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OI NK-OINK-OINK-OINK-OINK-OIN K-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OI NK-OINK-OINK-OINK-OINK-OIN K-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OINK-OI NK-OINK-OINK-OINK-OINK-OIN K-OINK-OINK-

66 **Kyangshik:** oui oui

67 **Heesu:** HIHIHIHIHIHIHIHIHIHIHIHI HIHIHIHIHIHIHIHIHIHIHIHIHIHI

68 **Kyangshik:** ouiouiouiuoiuouiouiuoui ouiuoioiuoiuouiouiouiuouiuouiou

Excerpt 53. Example from Session 7

144 **Heesu:** HHIIHHIIHHIIHHIIHHIIHI IHHIIHHIIHHIIHHIIHHIIHHIIHHII HHIIHHIIHHIIHHIIHHIIHHII

146 **Heesu:** OI

148 **Heesu:** OI

156 **Heesu:** OI

158 **Euntae:** HOLA

159 **Heesu:** OI

165 **Kyangshik:** OUI

170 **Kyangshik:** FRENCH

175 **Heesu:** CHAO

178 **Kyangshik:** CIAO

181 **Euntae:** HOLA, KONICHIWA, ANYOUNG HA SAE YO, BON JOUR, GUTEN TAG, HI, LEI HOW, PRIVITE\

Excerpts 52 and 53 showed the children importing foreign words into their conversation. This pattern was first begun by Kyangshik who posted a few words such as "sue," "fiesta," and "ole" as displayed in Excerpt 52 while the group was waiting for Euntae to log on to the chat room. Minsuk asked Kyangshik to explain the meanings of the words. In line 58, Kyangshik responded that the Spanish word "fiesta" meant party in English and it appeared that Heesu was suddenly attracted to Spanish. She wrote the Spanish word "HOLA" and copied the word several times in her message. Although Minsuk did not take up playing around with foreign words, Kyangshik followed up by copying the French word "oui" at the end of the excerpt.

Their interest in trying out foreign words was shown again later in Session 7 (see Excerpt 53). Perhaps triggered by Heesu, Kyangshik and Euntae seemed to enjoy showing off the foreign words that they knew. In both excerpts, Minsuk seemed not to be fascinated by these foreign words exercises but did not seem to be distracted by them either. It was one of the interesting instances in which potentially annoying messages seemed not to cause tension among the group members.

Group Dynamics in the Chat Room

I asked the children what they did when they saw a new message on the screen, read the comment first or note the name of its author. Most children indicated, "I just read the comments" rather than checking who composed that specific message. Although Euntae said that he looked at the name and message at the same time, he mentioned that he put more emphasis on the comments. In addition, when posting messages, it appeared that the children began to write as soon as they thought of an interesting question or comment instead of planning, organizing, and revising before pressing the "Enter" key. Heesu reflected, "If I think of something, I just type it. And I have really short attention span so I try to type fast 'cause I'm gonna forget what I was gonna type."

Pertaining to the children's preferences for responding to other group member's comments, Euntae told me that he did not have a preference but tended not to answer Heesu's comments "Just because she's a girl" [Translated into English]. Yet, if Heesu happened to make an interesting comment, Euntae would stay in her threads. Euntae also

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revealed that "talking" with Minsuk seemed to be most helpful since Minsuk, in his view, spoke better English than he did.

In the case of Heesu, she said that she did not want to respond to "people who always joke or people who are too serious." Heesu particularly pointed out that she did not feel like answering Euntae because, "All he says is, like, 'Oh, let's go steal it,' and then other boys agree with it. But, like, Minsuk and Kyangshik, they actually have some ideas, but then, like, they're just only agreeing with Euntae 'cause it's funny." Interestingly, Euntae and Heesu both identified each other as the most unlikely participant with whom they would interact in the chat room. On the other hand, Heesu expressed that she preferred to reply to my comments "'Cause you're being funny and serious at the same time." However, Heesu added:

> If it didn't include you, it'd be Kyangshik. 'Cause he doesn't, well, he has some ideas except he doesn't say them... 'Cause, like, usually when he's typing, it doesn't really sound like, if he actually messes up in person, you know that that person doesn't talk like that. So you know that they have another idea or something.

Kyangshik commented that he did not intentionally respond to a specific participant because "that kind of action is no use for him [in studying English]" [Translated into English]. However, Kyangshik reflected that he had a tendency to avoid answering Euntae's questions or comments. "His ideas are so weird. I'm afraid that other children might think I'm an idiot if I happen to respond to what he has written" [Translated into English]. Minsuk, however, did not identify any participant as a more or less preferred person with whom to interact.

In order to compare the children's responses from the interview and their actual performance in the chat room, I computed each individual's interactive counts from the electronic texts as presented in Table 4.9. Results focused on determining who sent how many messages to which members of the group, be it an individual person (including me) or the entire group. The children's messages included frequent "random" messages that came out of the blue and messages that seemed to be addressed to no specific audience. Among the 10 chat sessions, half of the conferences (Sessions 1, 2, 5, 6, and 10) were

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selected as a means of showing patterns in the initial, mid, and concluding discussions from the chat room.

Table 4.9 Mean Number of Messages Sent and Received in the Chat Room: Case Study 1

		Recipient of Message						
		ET	**HS**	**KS**	**MS**	**R**	**All**	**Rdm**	**NS**
Sender of Message	**ET**	0	4.2	2.8	9.4	7.2	14.2	2.2	2.0
	HS	3.8	0	1.2	2.8	8.8	9.4	4.4	2.8
	KS	2.0	2.6	0	2.0	5.4	7.4	1.6	2.8
	MS	3.6	2.6	2.0	1.2	7.0	13.0	10.0	2.6
	R	5.0	4.8	5.4	6.4	0	15.4	0	0.2

Note. ET: Euntae; HS: Heesu; KS: Kyangshik; MS: Minsuk; R: Researcher; Rdm: Random; NS: Not Specific

As can be seen in Table 4.9, the children generally addressed the highest number of messages to the entire group. In terms of the messages sent to an individual, Euntae sent a mean of 4.2, 2.8, and 9.4 messages per session to Heesu, Kyangshik, and Minsuk respectively. As noted in the interview, Euntae sent a great number of messages to Minsuk. Although Euntae mentioned that he was reluctant to "talk" to Heesu during the online conversation, he sent 4.2 messages on average per session, higher than the mean number of messages Euntae sent to Kyangshik (2.8). Heesu, who was also unwilling to respond to Euntae, turned out to have sent 3.8 messages per session to him which was the largest mean number of messages Heesu sent to an individual excluding me. Heesu sent a substantial number of messages to me instead of interacting with other members (who were all boys) of the group. Heesu's messages that fell into the "Not Specific" category included comments such as "I'm bored," which she usually posted when the boys were joking about nonsense ideas or when the task given was not exciting or challenging. Kyangshik, who generated the fewest number of messages in the group, sent slightly more messages to Heesu (2.6) as compared to Euntae (2.0) and Minsuk (2.0). In the case of Minsuk, he sent a mean of 3.6, 2.6, and 2.0 messages per session to Euntae, Heesu, and Kyangshik respectively. Minsuk even sent 1.2 messages on average per session to himself. Minsuk occasionally wrote "Hi Minsuk" or "Sup Minsuk" in the middle of the

conversation. Also noteworthy was the fact that Minsuk produced a great deal of "random" messages (10 per session).

Overall, it seemed as if Kyangshik received the fewest messages per session from other children. This could be because Kyangshik's contribution to the online discussion was minimal in terms of the mean number of messages and words he generated or his comments were often addressed to no specific audience, almost as if he were murmuring in the chat room. I tried to encourage Kyangshik to more engage actively in the conversation even as I tried to get Minsuk to reduce his recurring posting of "random" messages.

Task Influence on CMC Participation

The study involved three distinctive types of tasks: (1) a general topic discussion task, (2) a story completion task, and (3) a scenario discussion task. To address whether the children's participation or experience in the CMC was affected by the task, I first display the children's participation counts according to each task in terms of the number of messages and words they generated. Additionally, I present from interview data and observation notes the children's general thoughts about and reflections on the different tasks they encountered in the chat room.

Children's Participation in the Tasks

In order to describe children's involvement in each task type, data regarding the number of messages and words were further divided into subcategories. Every session was divided into an opening (O), a topic discussion task (TD), a story completion task (SC), a scenario discussion task (SD), and a closing (C) as illustrated in Table 4.10. Any comments posted between the entry into the chat room and the onset of the first task was grouped as an opening. Messages posted from the time the final task had been closed until the children left the chat room were counted as closing remarks.

Table 4.10 Numbers of Messages Produced by the Children per Task Type: Case Study 1

Name/Task	Session	1	2	3	4	5	6	7	8	9	10	Total
Euntae	**O**	4	9	0	8	23	0	3	0	1	11	59
	TD	8	24	33	21	23	22	31	15	49	35	261
	SC	8	9	13	15	5	1	6	14	13	22	106
	SD	18	13	38	23	13	21	11	4	16	9	166
	C	0	0	0	5	0	0	0	0	0	0	5
	Total	38	55	84	72	64	44	51	33	79	77	597
Heesu	**O**	9	3	77	2	7	4	5	3	4	54	168
	TD	7	16	26	36	14	14	16	15	12	9	165
	SC	16	10	28	47	5	3	30	4	4	10	157
	SD	17	10	12	17	4	7	9	4	6	10	96
	C	1	0	0	0	0	0	0	36	0	0	37
	Total	50	39	143	102	30	28	60	62	26	83	623
Kyang shik	**O**	0	2	23	5	1	1	6	7	6	15	66
	TD	3	10	12	13	13	17	15	11	28	3	125
	SC	5	9	10	13	4	1	17	13	12	15	99
	SD	7	21	11	8	9	11	8	8	30	8	121
	C	1	0	0	0	0	0	0	0	1	0	2
	Total	16	42	56	39	27	30	46	39	77	41	413
Minsuk	**O**	28	3	89	4	2	1	4	0	2	0	133
	TD	2	14	49	21	32	20	10	15	25	35	223
	SC	7	7	13	52	11	4	12	3	16	27	152
	SD	16	53	15	96	21	10	15	5	51	33	315
	C	0	0	0	0	0	0	0	0	0	0	0
	Total	53	77	166	173	66	35	41	23	94	95	823
TOTAL		**202**	**248**	**491**	**429**	**240**	**179**	**237**	**200**	**320**	**343**	**2881**

While subdividing each child's messages, I noticed that some children generated a large number of messages in the opening segment. During the opening period, the children greeted each other, talked about what they had done before they gathered, or played around while waiting for other participants to log on to the chat room. Usually, only a few comments were made in the opening segment. Yet, as shown in Table 4.10, a huge number of messages were posted as opening messages in some sessions. For example, in Session 3, a great deal of comments were produced before the first task was given whereas Euntae had not made any contribution to the opening. At that time, Euntae's computer took longer to start up and be connected to the Internet and the other

children were playing around while awaiting him. Also worthy of note was that Heesu and Minsuk always entered the chat room earlier than other children, and it seemed that they tended to generate more messages in the opening. However, children rarely posted messages after they completed the final task.

Table 4.11 Mean Number of Messages Produced by the Children per Task Type: Case Study 1

Task	Name	Mean	Percentage (%)	Rank
Topic Discussion	Euntae	26.1	33.72	1
	Heesu	16.5	21.32	3
	Kyangshik	12.5	16.15	4
	Minsuk	22.3	28.81	2
	Mean	19.35		
Story Completion	Euntae	10.6	20.62	3
	Heesu	15.7	30.54	1
	Kyangshik	9.9	19.26	4
	Minsuk	15.2	29.57	2
	Mean	12.85		
Scenario Discussion	Euntae	16.6	23.78	2
	Heesu	9.6	13.75	4
	Kyangshik	12.1	17.34	3
	Minsuk	31.5	45.13	1
	Mean	17.45		
Mean		16.55		
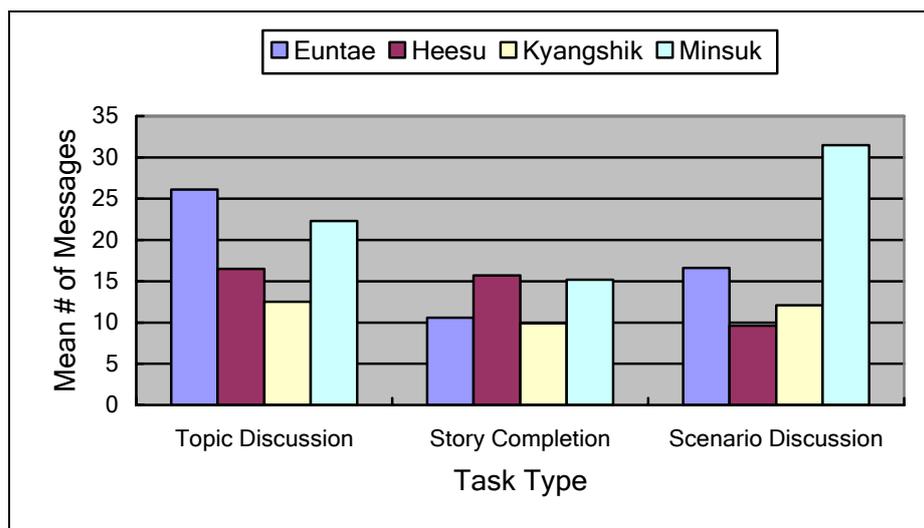
Figure 4.12 Mean number of messages per task type: Case study 1.

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According to Table 4.11 and Figure 4.12, children in this group contributed the most messages when they were engaged in the topic discussion task, producing a mean of 19.35 messages. The children also appeared to be active while working on the scenario discussion task with a mean number of messages of 17.45. On the other hand, they wrote the fewest comments during the story completion task where the mean was only 12.85 messages.

Table 4.11 and Figure 4.12 also show how each child's contribution was distributed to various tasks. In the case of the topic discussion task, Euntae was ranked first among the four group members, generating a mean of 26.1 messages followed by Minsuk (22.3). Kyangshik composed the fewest number of comments (12.5), not even reaching half of Euntae's contribution. Heesu also turned out to be relatively less avid and wrote fewer than the mean of the whole group.

However, Heesu was the most active participant when she was involved in the story completion activity followed closely by Minsuk with mean number of messages of 15.7 and 15.2, respectively. Euntae, on the other hand, did not contribute a great deal to the story completion question. He produced slightly more comments than Kyangshik who was again ranked the last.

During the scenario discussion task, Minsuk seemed to dominate the chat room by contributing to 45.13% of the messages. Minsuk was the only participant whose mean number of messages surpassed the mean of the entire group. Although there was a large gap between the first and second active participants, Euntae was moderately active by producing a mean of 16.6. For the scenario discussion task, Heesu composed the fewest number of messages which were below less than one third of Minsuk's mean number of messages. Kyangshik was ranked third among the children, higher than for the other two tasks.

Table 4.12 Mean Number of Words Produced by the Children per Task Type (Raw and Refined Data): Case Study 1

Task	Name	Mean		Percentage (%)		Rank	
		Raw	*Refined*	**Raw**	*Refined*	**Raw**	*Refined*
Topic Discussion	Euntae	94	*90*	20.39	*31.09*	2	*2*
	Heesu	77.8	*73.5*	16.88	*25.39*	3	*3*
	Kyangshik	29.7	*29.5*	6.44	*10.19*	4	*4*
	Minsuk	259.4	*96.5*	56.28	*33.33*	1	*1*
	Mean	115.23	*72.38*				
Story Completion	Euntae	50.7	*50.7*	28.09	*28.61*	2	*2*
	Heesu	43.4	*41.4*	24.04	*23.36*	3	*3*
	Kyangshik	30.8	*30.8*	17.06	*17.38*	4	*4*
	Minsuk	55.6	*54.3*	30.80	*30.64*	1	*1*
	Mean	45.13	*44.3*				
Scenario Discussion	Euntae	70.2	*70.2*	30.26	*30.40*	1	*1*
	Heesu	54.2	*54.2*	23.36	*23.47*	3	*3*
	Kyangshik	39.8	*39.8*	17.16	*17.24*	4	*4*
	Minsuk	67.8	*66.7*	29.22	*28.89*	2	*2*
	Mean	58	*57.73*				
Mean		72.79	*58.14*				

Note. Repeated words were counted only once for refined data.
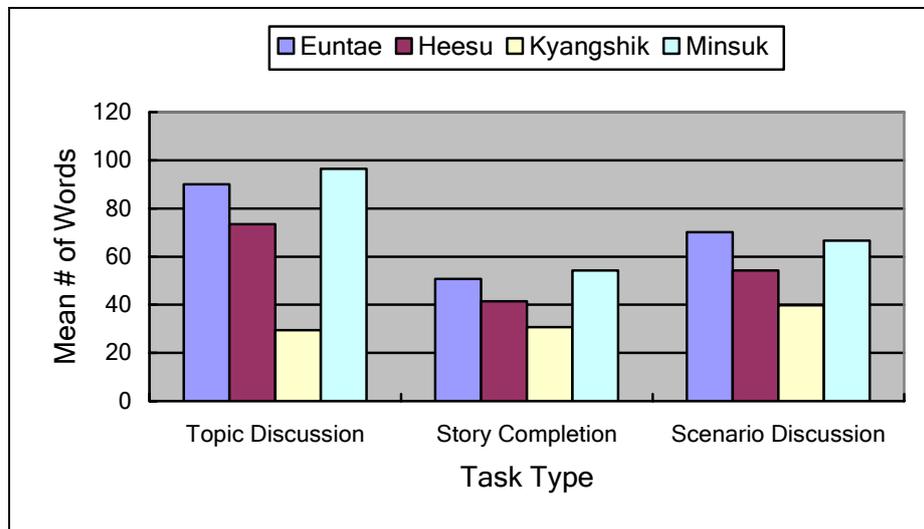
Figure 4.13 Mean number of words produced by the children per task type (refined): Case study 1.

As can be seen in Table 4.12, mean number of words of some children dropped when raw data and refined data were compared. Whenever the value of refined data showed a reduction when compared to raw data, it meant that the children had engaged in copying and pasting the same word(s) for effect or to amuse or annoy the group. In the case of Minsuk, for example, there was a sharp decrease in the mean number of words in terms of the topic discussion task. A closer look at the electronic texts revealed that Minsuk was frequently engaged in repeating the same words or sentences composed by either himself or other group members. Yet, no change of rank between the two versions of data was found. The report of the findings in the following focused on refined data that counted the repeated words only once.

According to Table 4.12 and Figure 4.13, children generated the largest number of words while taking part in the topic discussion task (mean 72.38 words) followed by the scenario discussion task (mean 57.73). Children's contribution was the lowest when they were completing stories they had partly read. More specifically, Minsuk produced the greatest number of words when engaged in the topic discussion activity, writing a mean of 96.5 words. Euntae was ranked second among the group members. Heesu was also an active participant who contributed a mean of 73.5 words, which was slightly above the mean of the entire group (72.38). In the case of Kyangshik, he wrote a significantly smaller number of words as compared to other children. Kyangshik's mean number of words was 29.5, which only held about 10% of the discussion.

Participation in the story completion task was similar to that of the topic discussion. Children's ranks remained the same. Minsuk was the most avid participant followed by Eutae, Heesu, and Kyangshik accordingly. However, the gap between Heesu who was ranked third and Kyangshik who was ranked last was less noticeable. Additionally, as compared to the topic discussion task, fewer instances of copying and pasting were discovered.

Whereas Minsuk was the most active individual in the topic discussion and story completion task, Euntae generated the largest number of words in the scenario discussion activity (mean 70.2) followed by Minsuk (66.7). Yet, Heesu and Kyangshik were ranked third and fourth, respectively, as in other tasks. What was more interesting was the fact

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that the percentage of participation for Heesu (about 23%) and Kyangshik (about 17%) were nearly identical in the story completion task and the scenario discussion task.

Table 4.13 Mean Number of Words per Message Produced by the Children per Task Type (Raw and Refined Data): Case Study 1

Task	Name	Mean		Rank	
		Raw	*Refined*	Raw	*Refined*
Topic Discussion	Euntae	3.60	*3.45*	3	*3*
	Heesu	4.72	*4.45*	2	*1*
	Kyangshik	2.38	*2.36*	4	*4*
	Minsuk	11.63	*4.33*	1	*2*
	Mean	5.58	*3.65*		
Story Completion	Euntae	4.78	*4.78*	1	*1*
	Heesu	2.76	*2.64*	4	*4*
	Kyangshik	3.11	*3.11*	3	*3*
	Minsuk	3.66	*3.57*	2	*2*
	Mean	3.58	*3.53*		
Scenario Discussion	Euntae	4.23	*4.23*	2	*2*
	Heesu	5.65	*5.65*	1	*1*
	Kyangshik	3.29	*3.29*	3	*3*
	Minsuk	2.15	*2.12*	4	*4*
	Mean	3.83	*3.82*		
Mean		4.33	*3.67*		
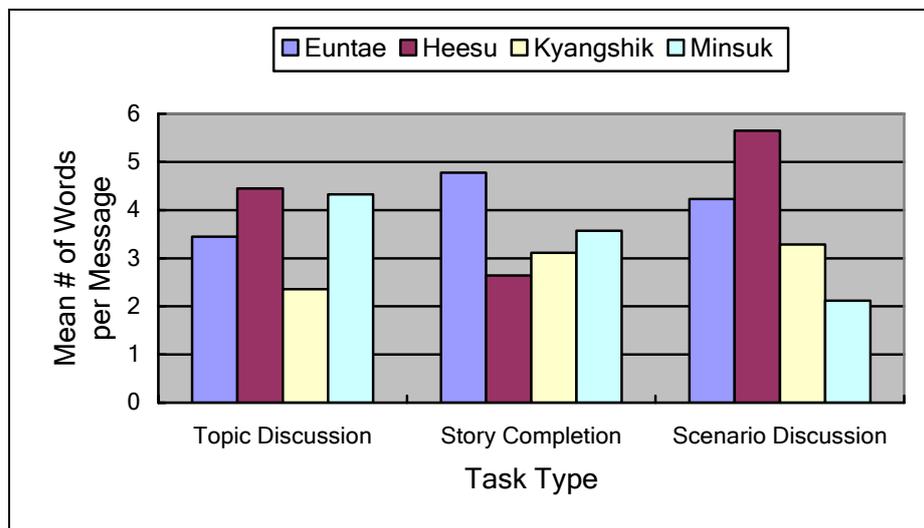
Figure 4.14 Mean number of words per message produced by the children per task type (refined): Case study 1.

Table 4.13 and Figure 4.14 present the mean length of the children's messages for each task. Repetition of words was recurrent throughout the online discussion; however, no marked difference was found except for one example in the topic discussion. Minsuk especially seemed to have been involved in the copying and pasting activity multiple times. The refined version showed a distinct shortening of length in his messages.

The differences in the length of messages were not much different from each other across the various tasks. The mean number of words per message all ranged from 3.5 to 4 words. For the topic discussion task, Heesu composed the longest message (4.45 words per message) followed tightly by Minsuk (4.33). Although Heesu did not seem to be an active participant in terms of the mean number of messages and words (she was ranked third in both categories), she tended to post elaborated responses. Euntae was ranked third in the group and Kyangshik wrote the shortest comments when working on the topic discussion activity. As described earlier, Euntae produced the greatest number of messages and a relatively large number of words; however, his messages turned out to be moderately short. Kyangshik was ranked fourth out of the four children in every area. Kyangshik not only wrote the fewest messages with the fewest words overall but also composed very short entries.

Although Heesu was the most avid participant in terms of number of messages, she appeared to have composed the shortest messages (2.64) for the story completion task. Kyangshik's entries were a bit longer (3.11) than Heesu's, yet were not as long as the mean of the whole group. Moreover, Kyangshik's contribution was minimal regarding the number of messages and words that he generated. Euntae's length of message turned out to be the longest with a mean of 4.78 words per message. Minsuk also produced moderately long messages with a mean per message of 3.57 words. Additionally, Minsuk contributed to the conversation actively by writing a large number of messages and words.

During the scenario discussion task, Heesu generally composed extended messages that were between 5 and 6 words even though she was not an enthusiastic participant based on the number of messages and words she posted. Euntae also wrote relatively lengthy comments (4.23). Euntae wrote a significant number of messages and

words. By contrast, messages generated by Kyangshik and Minsuk were brief, 3.29 and 2.12 words, respectively, and neither of those numbers reached the mean of the group.

In sum, children in the group produced the greatest number of messages and words when engaged in the topic discussion task. Their comments were the lengthiest when they were in the scenario discussion activity. However, the children tended to compose the fewest number of messages and words as well as the shortest comments when they worked on the story completion task.

Children's Thoughts on the Tasks

During the interview session, three out of the four children indicated that having three tasks for each session was adequate. According to Heesu:

> I think it was just suitable. [I]f you give too much questions, people will be, like, "I'm so bored. I'm so tired of this. I'm gonna type really random." Or if you give them too little, they'd be, like, "She's not gonna even look at this so why should I even write about it."

Euntae and Kyangshik mentioned that "I wish we had more tasks" and "I could have done even 10 questions" [Translated into English], respectively. By contrast, Minsuk suggested that I reduce the number of questions. He told me, "I only want one… 'cause [I had] nothing else to write."

With regard to the types of questions, Heesu and Minsuk pointed out that they preferred the story completion task because it was, in their opinions, the easiest question among the activities. Heesu further mentioned, "I think I like the story one. 'Cause, like, I said, I'm really lazy to do anything, so I like easier questions." Minsuk added, "I'll go for the story one… 'Cause it doesn't have any opinion." However, Euntae and Kyangshik selected the scenario discussion task as most interesting. According to Euntae, the scenario discussion task involved suggesting ideas and he thought this was the easiest and the most entertaining question. Yet, Euntae added:

> But math questions.. that's my least favorite day… Well, if I think that 'I'm solving math questions that other people can't do, it's a little fun, but it's just not fun… And the story activity is quite fun. You just need to come up with whatever story you want to make [Translated into English].

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Heesu specified the scenario discussion as the least amusing task because "I had fun answering it, but I don't like other people's answer." Whereas the story completion task was Heesu and Minsuk's preferred task, Kyangshik seemed to dislike it. He said to me, "Well, after reading such an easy story why should I extend the story? I've already read it before" [Translated into English]. Minsuk indicated the topic discussion task as the most difficult question. Minsuk pinpointed his problem as coming from questions that involved opinions which was challenging "because you have to think a lot... So I just agree with people, 'Yeah, they're right!'"

The children generally thought that talking with other children in the chat room might improve one's English. Heesu assumed that online chatting could be beneficial:

> 'Cause everybody talks differently like everybody. Not everybody can know the same words. And everybody talks in a different way. Like, someone might talk like a gangster, like, always uses slangs and stuff. Um, and, like, if that person actually uses slangs, they'll be, like, more people who use that. So if you actually chat with them, you can kind of forget what they're saying…

Kyangshik and Minsuk stated that the scenario discussion task would be most constructive in studying English, "'Cause you have to read and stuff. And you write a lot!" Euntae also selected the scenario discussion task as well as the topic discussion as the most useful tasks to improve one's English.

Furthermore, a few children suggested questions or tasks that might be of interest in the future such as "game type" activities. Kyangshik argued, "[Game] is kind of studying. All the games are written in English. Do you know how hard it is to read them?" [Translated into English]. In addition, Heesu offered two ideas:

> Let's say you asked someone what do you think will happen in the sequel to a book you really really like? Then, they'd be, like, they would be actually thinking 'cause they actually like that book or something. Or, for, like, sports, you could ask, like, well, they're gonna have a game. Which team do you think will win? Then, they always pick sides. It's kinda fun to hear them answering 'cause they're all thinking different things.

Children's Impressions of the Online Chat

In this section, I describe what children thought about their experiences in chatting with other children online based on the interview data, post-questionnaires, overall questionnaires, essays, and my observations.

Before vs. After

Every child felt that chatting in English with other children was not as challenging as they had imagined. "Before I took part in it, I thought it was gonna be hard. But now, after finishing it, it's easy," Kyangshik reported [Translated into English].

> In other words, [I thought] people would not understand me if the messages don't make any sense. Like, if the grammar is not correct, they won't know what I'm talking about… But after a couple of times, I got better… I didn't really care that much about the grammar any more [Translated into English].

At the end of the study, three of the four children expressed fondness for the synchronous discussion for various reasons. Euntae and Minsuk thought that the entire chatting experiences were very fun.

Heesu also stated in the overall questionnaire that online chatting was fun "'Cause I like talking!!!" However, she also expressed some degree of mixed feelings about the online chat. For instance, she wrote in the essay, "I think I like to talk to people in person 'cause I can actually see how they talk in real life… but I [also] liked chatting [online]." Heesu also commented during the interview, "[T]here were not a very, very, very fun talker. And I don't like typing." By integrating Heesu's responses, I noted that she was interested in chatting because she enjoyed talking with other people, but she had not enjoyed this particular interaction, nor did she like typing.

By contrast, according to Kyangshik, chatting with other children was boring. Even though he briefly mentioned during the interview that the 10 chat sessions were fun, Kyangshik did not seem to be excited about chatting online. Moreover, Kyangshik wrote in the essay, "The chatting was not fun because it was hard for me to type on the keyboard. It was hard since my hands often got wet with sweat" [Translated into English]. Yet, Kyangshik reflected that when submitting his school homework:

I prefer typing… [because] typing is much faster than writing by hand… And the computer usually points out errors… You know, if you make a grammatical mistake, a green line appears [on the screen]. You can make changes with [the help of] the line. So, it's much better [Translated into English].

It seemed as if Kyangshik had come to like and exploit the convenient functions of the computer, in particular the word processor; however, he did not want to engage in an interactive conversation that required him to stay online for a prolonged period and type immensely to keep up with the discussion. At the end of the interview, Kyangshik expressed, "When I grow up, I want to have a computer that types what I speak of" [Translated into English]. Additionally, Minsuk mentioned that he was frustrated when the computer lost the Internet connection because he inevitably missed the conversation.

Fun vs. Annoying

Euntae reflected, "Suggesting ideas, the fun ideas" was hilarious [Translated into English]. Kyangshik also agreed that he enjoyed reading entertaining ideas. Kyangshik mentioned that he considered Enntae's ideas to be amusing because his ideas were usually "nonsense" or "disgusting." In addition, Minsuk indicated, "It's fun insulting people." On the other hand, what seemed "cool" to Euntae, Kyangshik, and Minsuk was completely distracting to Heesu. Heesu commented that she disliked the other children's jokes. She continued, "I like sarcasm. But jokes like 'You look like a pig!' I don't like those, which is what THEY did."

Kyangshik and Minsuk pointed out that Heesu's "Hi" was most irritating. As I discussed earlier, Heesu composed numerous messages that only contained "Hi" in them, which she wrote to annoy the other children. Because Heesu's recurrent "Hi" messages made it difficult to read other children's comments, the rest of the children expressed strong negative reactions toward these postings. As a solution, Kyangshik commented, "You can just block your ears.. no, no, actually just block your eyes" [Translated into English]. Minsuk suggested, "Tell her to stop or just make her annoying. Keep typing hi, hi, hi, hi, hi, hi, hi."

Euntae reported that the most distinct obstacle to online chatting was what Beauvois (1992, 1998) referred to as 'conversation in slow'":

> The most annoying thing while engaged in chatting is that you can't talk fast. You can't answer fast, you can't speak in a fast manner. What I mean is that, for example, I'm responding to a question and then I found out that other people have already moved on and discuss a new topic… [If that kind of situation happens] I keep writing since I can't see at that time. After sending my comments, I then realize that people are talking about something else and I sometimes get embarrassed [Translated into English].

Euntae indicated in the essay that what he called "my extremely slow typing speed" was often an impediment to fully elaborating his comments.

Advantages vs. Disadvantages

The children identified several advantages and disadvantages of the online chat as summarized in Table 4.14.

Table 4.14 Advantages and Disadvantages of Online Chat Reported by the Children

Participant	Advantages	Disadvantages
Euntae	• You can suggest ideas. • Your English will improve. • Misspells, saying curse words, private messages are allowed. (You can't do it in normal communication)	• You can't say fast. • You can't show faces. • You can't show your anger. (It's annoying).
Heesu	• Your typing skills get better. • Your spelling gets better. • Your grammar could get better. • You can get to know people. • You get to see how people talk (way of talking).	• You are not being able to directly talk to them (I think it's just easier to actually talk). • You can't figure out if someone's talking the truth or not 'cause you're only typing.
Kyangshik	• Your typing skills get better. • Your English will improve especially reading and writing.	• It's faster to actually talk to people because it takes time to type.
Minsuk	• You get to talk. • It's fun. • You get to insult people.	• People can make you annoyed too and it gets on your nerves.

Note. Kyangshik's comments/responses have been translated into English.

Two children believed that the online chat could help them improve their English (Euntae and Kyangshik). Although Kyangshik did not mention it during the interview, he repeatedly answered positively in the post-questionnaires that chatting could aid him

learn English because "I just see the hard word" (Session 4), "Euntae's explanation was hard" (Session 5), and "Someone saying hard word" (Session 9). Furthermore, Heesu pointed out that one's spelling and possibly grammar might benefit from chat experiences. Pertaining to grammar enhancement, she stressed:

> [W]hen you're talking... if you actually say it out loud, even if you have bad grammar, they will kind of guess what you're saying. But when you're typing it in, people are not actually hearing you saying it, so, like, they can't really guess what you're saying.

Heesu also emphasized that chatting with other participants online provided opportunities to get to know other people and learn their way of talking.

According to Euntae and Minsuk, it was easier for them to do what was not permitted in "normal" communication such as misspelling words, typing curse words, insulting other people, and exchanging private messages. Additionally, some participants mentioned the advancement in typing skills (Heesu and Kyangshik). Other children commented that chatting online was fun (Minsuk) and that one could offer and receive various ideas through an online chat (Euntae).

On the other hand, a few disadvantages were noted by the children. Because the conversation in the chat room primarily depended on reading electronic texts that appeared on each individual's computer screen, a few children complained about the difficulty in recognizing other children's current emotional state or tone of voice precisely (Euntae and Heesu). Moreover, Heesu preferred to talk with people in person rather than chatting online because she did not feel like typing let her "directly" interact with other people. Another issue focused on the typing speed. Euntae who identified himself as a slow typist indicated that poor typing skills prevented him from "talking" fast. Also, Kyangshik, who was not fond of typing, commented that it would be faster actually to talk to the group. While one could annoy and insult other children as was pointed out by Minsuk as one of the advantages, Minsuk also reflected that "People can make you annoyed too."

"Yeah!" vs. "No"

According to the overall questionnaire and the essay, half of the children were eager to take part in the online chat if given another chance whereas the other half would prefer not to give it another try. Throughout the post-questionnaires, their interviews, overall questionnaires, and the essays, Euntae and Minsuk consistently indicated their fondness of the online chat because "It's fun" (Euntae) and "It was fun talking to people" (Minsuk). When asked in the interview, Euntae answered "Yeah!" to a question asking whether he was willing to participate again without hesitation. Euntae even wrote his the essay, "I just feel like my English skills have improved while doing it for a while and I'm so satisfied with it. At this point, I even feel sad since we're not going to chat anymore" [Translated into English].

However, on the basis of the responses provided by Heesu and Kyangshik, it appeared that they had complicated thoughts about the online chat. At the beginning of chatting, Heesu did not want to try the synchronous discussion again because "I don't know. I think I'd like to talk to people person to person." Then, by the end of the session, she indicated that she would like to engage in online chatting another time because "I like talking." Yet, reflecting on the online chat experiences, it seemed to Heesu that, "I think I like to talk to people face to face."

In the case of Kyangshik, until he answered "I don't know" in the post-questionnaire Session 9, he usually responded that he liked this activity because "It's fun." However, after completing 10 full sessions, Kyangshik wrote that he did not want any more because "It's boring." It is interesting to note that both Heesu and Kyangshik indicated during the interview that neither of them liked typing. Heesu told me that she was too lazy to move her fingers to type, and Kyangshik said that it was hard for him to type because his fingers were often slipping on the keyboard.

Researcher's Role in the Eyes of these Children in Case Study 1

On the first day of the study, before each individual had a chance to become familiar with each other, I briefly introduced myself. At that time, I presented myself as Annie, my English name. However, children in the group called me with various "titles." Heesu and Minsuk called me Annie, Kyangshik called me Teacher, and Euntae called me "Nuna" which refers to older sister in Korean. In Korean culture, younger people need to show respect to elders and they do not address older people by their given name. For example, a boy would address his older brother as "Hyong" and his older sister as "Nuna." A girl addresses her brother as "Oppa" and older sister as "Onni," rather than by their given names. This rule applies not only to family members and relatives but also to other people in general. Therefore, Euntae addressing me as "Nuna" would be considered a proper manner.

When asked about my role in the chat room, each participant described it in different ways. According to Heesu, I was a moderator/facilitator:

> [You're] kinda leading people to talk. 'Cause we can't, like, figure a way to talk. Like, when we're actually talking…you're thinking in your head, like, what you should say next. So you kinda think about what you should say when they're actually talking. Like, when you're typing… you're not even thinking, you're just answering what people are asking. So you're kind of leading us to, like, talk.

Heesu also mentioned that instead of chatting only with the other children, my taking part in the conversations was helpful for the group. Kyangshik referred to me as the "brain" in the chat room. "Like, you're giving us questions. Just like a computer" [Translated into English]. Euntae thought I was a teacher figure whereas Minsuk regarded me as one of his friends.

When I asked the children what I could do in the future to be more supportive, Euntae told me that I could continue as I had done. Heesu commented specifically:

> Um, I think it'd be funny if you give your answers too… Like, you might say Peter Pan will fly away to the moon. And then people would think of more ideas of what Peter Pan would, might do. Like, he walks on the moon or something and makes a house. Hee hee.

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Case Study 2

General Overview

This group was made up of children who had been living in the United States for a shorter period of time as compared to those in the other group. All participants indicated that they were more comfortable in Korean rather than in English. Even though the children were engaged in active discussion with each other in the chat room, they rarely talked to each other offline. In the few instances of conversing face-to-face, they always spoke in Korean. Additionally, there was only a small amount of oral chatting while they were involved in the electronic conversations. The digital voice recorder, which was placed in the middle of the table, ended up capturing their typing sounds solely.

Background Information about the Children

Hyunah

My first impression of Hyunah was that she was a classic example of a "good" student, who worked diligently on assigned tasks and did not play around during the session. Hyunah was a smart and motivated young girl who loved learning English. She studied English hard to achieve her dream of being an English professor. Whenever she encountered an unfamiliar word in the chat conversations, Hyunah always remembered that particular word and looked up the meaning of the word when she returned home. Then, she would memorize it so that she would not forget the word.

In the online discussion, Hyunah also tried to participate as seriously as possible. She usually typed her comments up and quickly reread her message before sending it out to the entire group. She said she wanted to post a creative and distinctive opinion that would stand out among others every time.

Jinho

Jinho was a child with a gentle and easygoing character. Even though Sooki, his cousin, told me that Jinho sang strange songs loudly all day long and was a troublemaker at home, he was quiet and talked in a soft voice when I asked him questions. As the sessions progressed, he started to talk about his summer in Austin, the computer games he played, and how bored he was at home. Jinho mentioned that he enjoyed coming to join the online discussions because he found it as something fun. We usually met in the evenings and Jinho did not mind staying late when sometimes our electronic conversations lasted longer than scheduled. Jinho often said he had nothing special to do at home.

Jungah

Jungah was a pleasant and energetic child. She loved talking and indicated that she was having much fun in the discussion with other children in the online environment. She could not bear silence that lasted more than a few seconds. She tried to be an active participant and lead other children at the same time while engaged in the conversations. Jungah had served as the student president of the elementary school she had attended in Korea. Jungah said that she always felt a certain obligation to take or expected to take a leading role among students. She was an open-minded girl who was interested in many topics and ready to react to various responses generated by other group members.

Kunwoo

On our drive to the university or back home, Kunwoo always sat next to me and cheerfully talked about his daily plans, activities, and family members. He seemed to be a kind, friendly, and even shy boy who did not talk to the other girls in the group. However, once he entered the chat room, he was a noticeable and almost aggressive child. He was one of the most avid participants and posted a large amount of annoying and insulting messages.

During the summer break, Kunwoo started having a private English tutorial in order to improve his grammar. During the grammar lessons, Kunwoo admitted that he became extremely conscious of his grammatical mistakes and learned how weak his

English grammar skills were. Kunwoo was also an independent child who brought his own laptop, a birthday gift from his parents, with all programs installed himself.

Sooki

Sooki mentioned that, as a 2nd grader, she became used to the use of computer by taking the Computer Applied Skills Course offered at her elementary school where she was exposed to word processing programs, Excel, and PowerPoint. Sooki also told me that she memorized various functions of the computer and was able to obtain computer certificates. Additionally, Sooki indicated mathematics as her favorite school subject. She solved challenging math problems every day and had received awards in math competitions.

Sooki was staying at her cousin Jinho's place with her mother to learn English. She spent the majority of her leisure time with Jinho playing computer war games and card games, but she was a tomboy who said she would never play with Barbie dolls. In the chat room, she was not the most talkative child but was a brave and confident child when expressing her opinions and making suggestions.

Children's Participation Patterns in the Synchronous CMC Venue

Having one more participant than Case Study 1, the total number of messages generated by the children in Case Study 2 was larger than that of Case Study 1. Yet, the mean number of messages produced by the children in Case Study 1 was higher than the mean of Case Study 2. Both group initially started with a small number of messages; however, Group 2 appeared to be steadier pertaining to the number of messages whereas the number fluctuated dramatically in Group 1.

Table 4.15 Number of Messages Produced during 10 Chat Sessions: Case Study 2

Session \ Name	1	2	3	4	5	6	7	8	9	10	Total
Hyunah	18	21	36	48	51	47	51	34	77	75	458
Jinho	21	46	35	70	31	53	37	40	45	81	459
Jungah	27	60	71	79	64	60	32	46	62	67	568
Kunwoo	23	80	100	98	61	117	77	69	93	64	782
Sooki	32	54	36	42	66	67	31	51	47	38	464
Researcher	17	36	43	56	52	78	60	71	85	86	584
Total	138	297	321	393	325	422	288	311	409	411	3315
Total w/o Researcher	121	261	278	337	273	344	228	240	324	325	2731
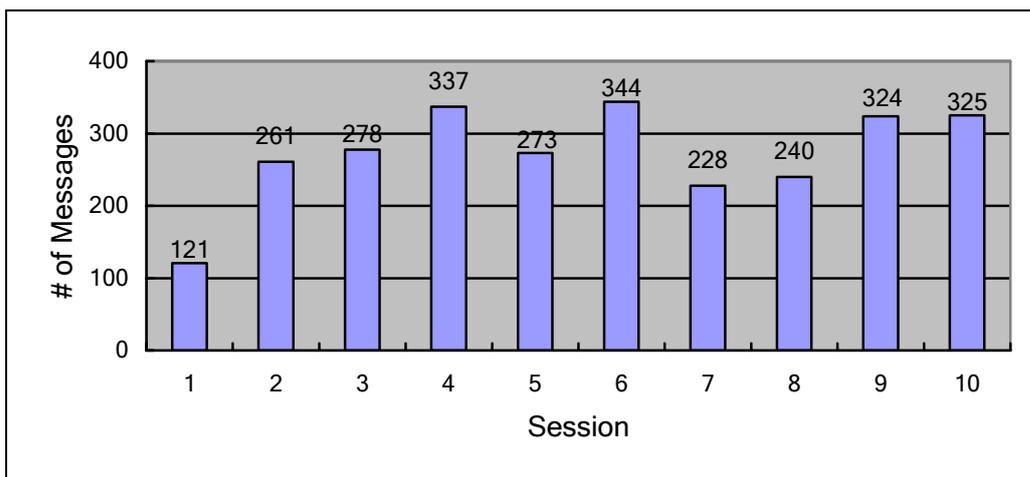
Figure 4.15 Mean number of messages produced during 10 chat sessions: Case Study 2.

According to Table 4.15 and Figure 4.15, the number of messages they posted during the very first session increased by nearly three times by the end of the study. Given the fact that none of the participants had been previously exposed to chatting online in English and that some of the children did not know each other until they gathered for the study, it is understandable that they generated very low number of messages in Session 1 as compared to the other sessions. In general, the number of messages they produced appeared to have increased as the sessions progressed except for

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a drop in Sessions 5 and 7. Even with some fluctuations, it seemed that the children were composing more comments, thus, being more involved in the chat as the sessions went on.

Table 4.16 Mean Number of Messages Produced by the Children: Case Study 2

	# of Messages/Session	Percentage (%)		Rank
			w/o Researcher	
Hyunah	45.8	13.82	16.77	5
Jinho	45.9	13.85	16.81	4
Jungah	56.8	17.13	20.80	2
Kunwoo	78.2	23.59	28.63	1
Sooki	46.4	14.00	17.99	3
Researcher	58.4	17.62		
Mean	55.3			
Mean w/o Researcher	54.62			
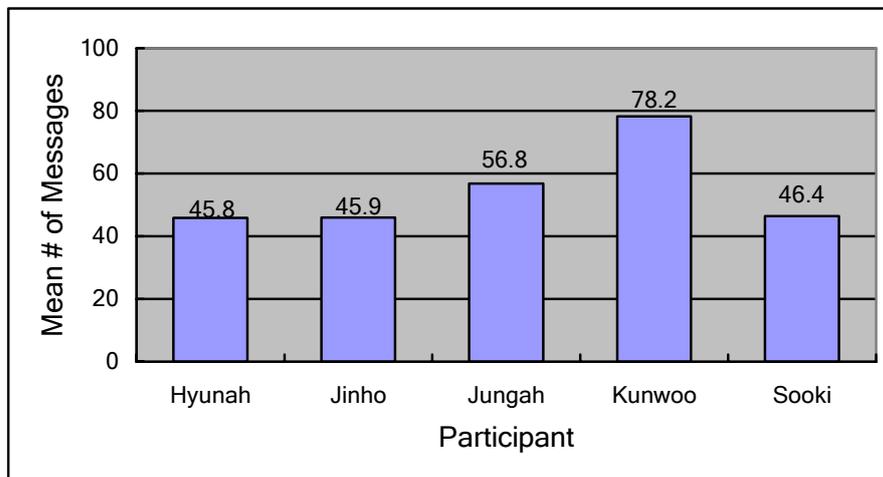
Figure 4.16 Mean number of messages produced by the children: Case Study 2.

Table 4.16 and Figure 4.16 illustrate the sketch of individual children's contributions to the online discussion in terms of their mean number of messages. Kunwoo produced the greatest number of comments, a mean of 78.2 messages per session, and was ranked first among the group. Although Jungah (56.8) posted about 20 fewer messages per session than Kunwoo (78.2), they were also active participants in the CMC venue, generating a number of comments above the mean (54.62). Hyunah, Jinho, and Sooki were not as active as other children in the group. They posted on average of 46.4, 45.9, and 45.8 messages, respectively which were all below, but not by far, the group's mean. What was interesting about this group of children was the fact that there was little variance in mean values among participants who belonged to the less active groups, which included Hyunah, Jinho, and Sooki. The differences among Sooki (46.4), Jinho (45.9), and Hyunah (45.8), pertaining to the mean, was not even one message.

Table 4.17 Numbers of Words Produced by the Children during 10 Chat Sessions: Case Study 2

Session Name	1	2	3	4	5	6	7	8	9	10	Total
Hyunah	245	197	233	259	270	230	173	155	307	263	2332
Jinho	102	160	123	4648	116	176	190	89	169	262	6035
Jungah	155	436	181	177	296	245	244	217	390	341	2682
Kunwoo	216	2190	620	8593	408	371	229	165	340	444	13576
Sooki	224	237	160	500	278	166	101	225	128	173	2192
Researcher	110	219	247	362	341	484	473	495	528	637	3896
Total	1052	3439	1564	14539	1709	1672	1410	1346	1862	2120	30713
Total w/o Researcher	942	3220	1317	14177	1368	1188	937	851	1334	1483	26817
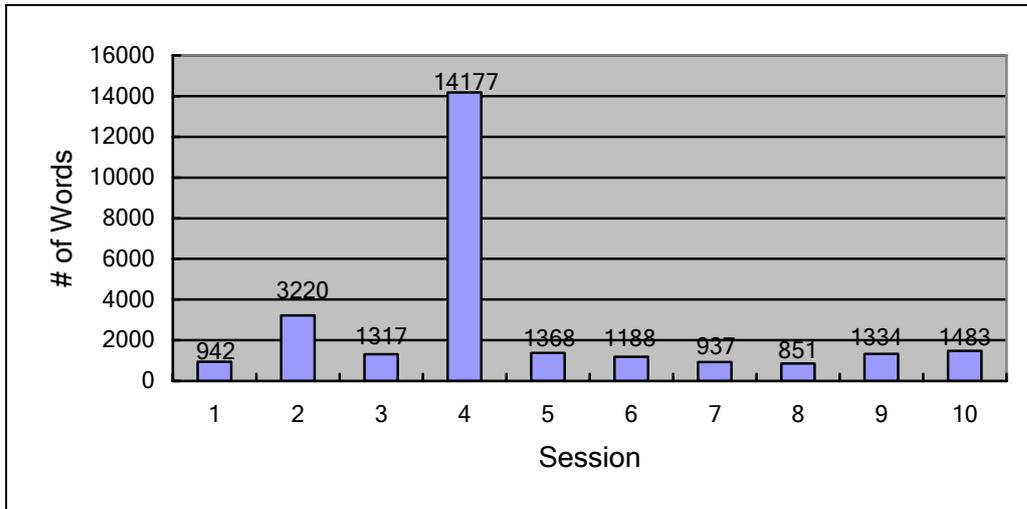
Figure 4.17 Number of words produced by the children during 10 chat sessions:
Case Study 2.

Table 4.18 Mean Number of Words Produced by the Children: Case Study 2

	# of Words/Session	Percentage (%)		Rank
			w/o Researcher	
Hyunah	233.2	7.59	8.69	4
Jinho	603.5	19.65	22.50	2
Jungah	268.2	8.73	10.00	3
Kunwoo	1357.6	44.20	50.62	1
Sooki	219.2	7.14	8.17	5
Researcher	389.6	12.69		
Mean	511.9			
Mean w/o Researcher	536.34			
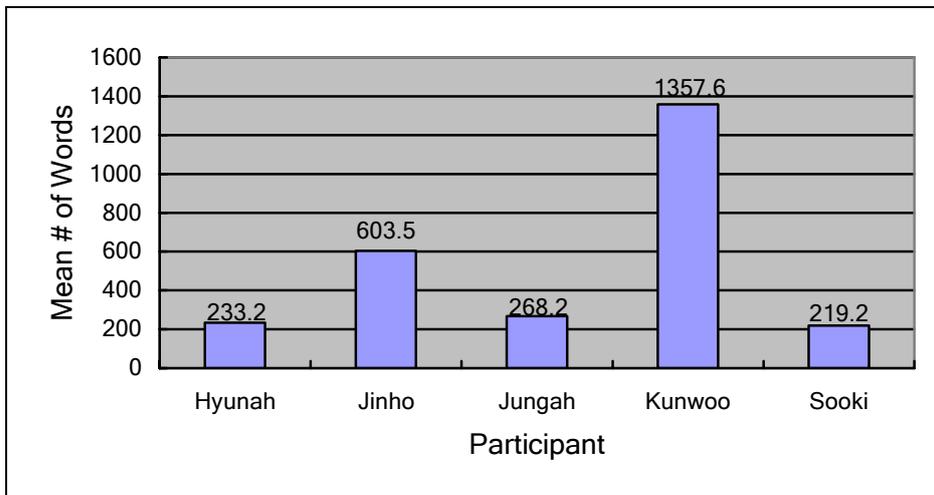
Figure 4.18 Mean number of words produced by the children: Case Study 2.

As shown in Table 4.17 and Figure 4.17, there was a gap between sessions that generated the smallest and the largest number of words. Whereas the children wrote only 942 words during Session 1, the number of words increased by nearly 15 times in Session 4 (14177). Additionally, Table 4.18 and Figure 4.18 suggest that Jinho and Kunwoo were the most active participants producing the largest amount of words 603.5 and 1357.6, respectively. According to Table 4.16, in particular, the number of words produced by Jinho and Kunwoo during Session 4 was surprisingly high as compared to that of other participant's. However, by reading the actual chat transcript of Session 4, I learned that a significant portion of their words resulted from meaningless duplication of the same sentences. As in Case Study 1, there were numerous instances when the children would repeat a word, a phrase, and a sentence in a single message in this group. In order to deal with this issue, I present a *refined* version of the counts with the repeated segments counted only once as well as the raw data next.

Table 4.19 Numbers of Words Produced during 10 Chat Sessions (Refined): Case Study
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| Session\Name	1	2	3	4	5	6	7	8	9	10	Total
Hyunah	245	197	233	259	270	230	173	155	307	263	2332
Jinho	102	160	123	508	116	176	190	89	148	257	1890
Jungah	155	436	181	177	296	245	244	217	390	341	2682
Kunwoo	216	298	292	652	408	371	229	165	340	249	3220
Sooki	212	237	160	125	278	166	101	225	128	173	1805
Researcher	110	219	247	362	341	484	473	495	528	637	3896
Total	1040	1547	1236	2083	1709	1672	1410	1346	1841	1920	15825
Total w/o Researcher	930	1328	989	1721	1368	1188	937	851	1313	1283	11929

Note. Repeated words were counted only once.
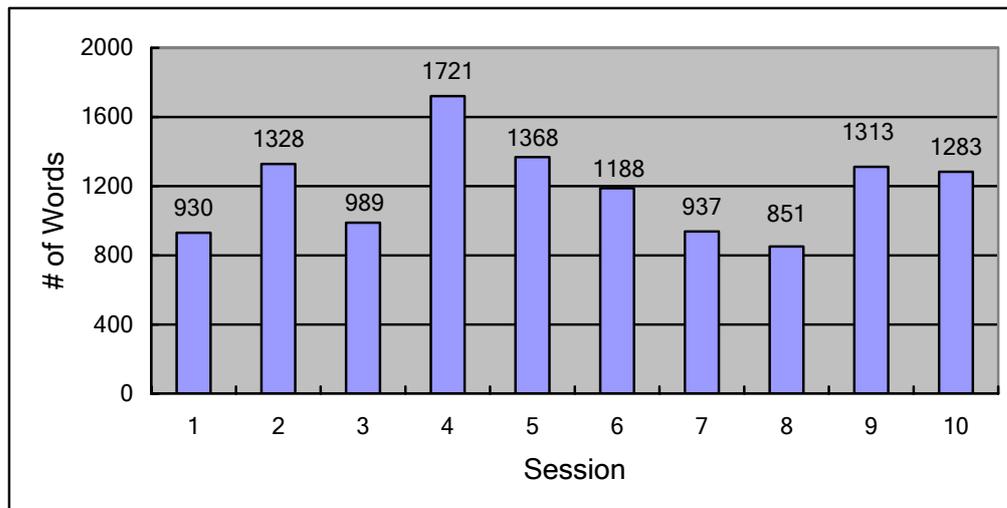
Figure 4.19 Number of words produced during 10 chat sessions (refined): Case Study 2.

Table 4.20 Mean Number of Words Produced by the Children (Refined): Case Study 2

	# of Words/Session	Percentage (%)		Rank
			w/o Researcher	
Hyunah	233.2	14.74	19.55	3
Jinho	189.0	11.94	15.84	4
Jungah	268.2	16.95	22.48	2
Kunwoo	322.0	20.35	26.99	1
Sooki	180.5	11.41	15.13	5
Researcher	389.6	24.62		
Mean	263.8			
Mean w/o Researcher	238.58			

Note. Repeated words were counted only once.
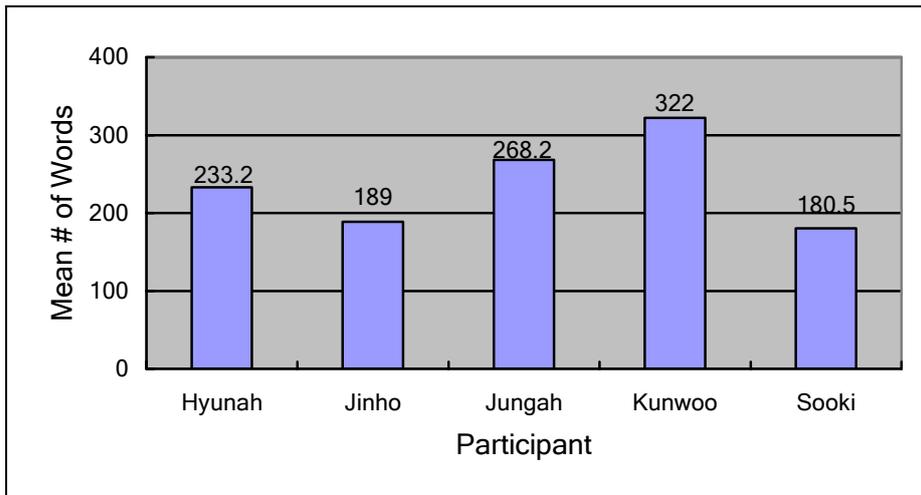
Figure 4.20 Mean number of words produced by the children (refined): Case Study 2.
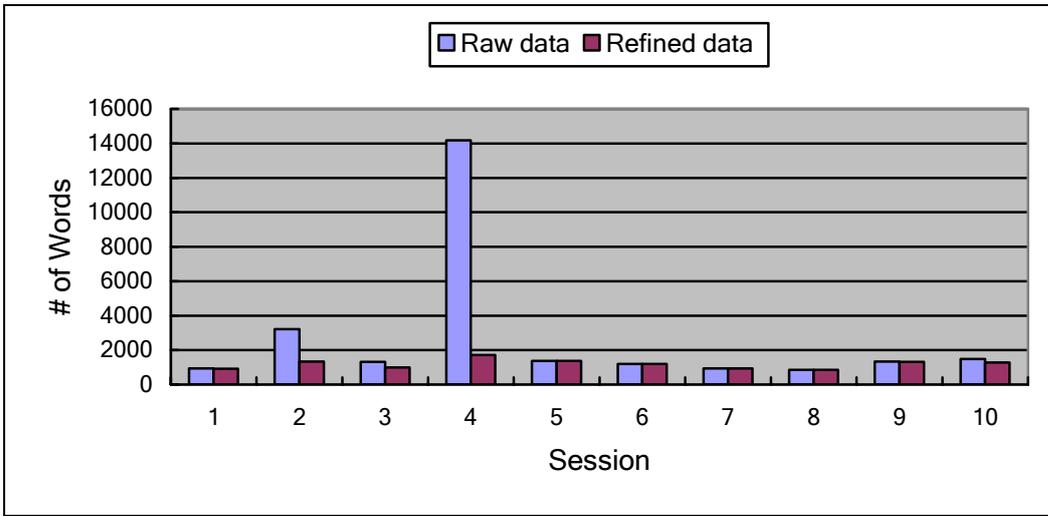
Figure 4.21 Comparison of the numbers of words produced by the children during 10 chat sessions between raw data and refined data: Case Study 2.
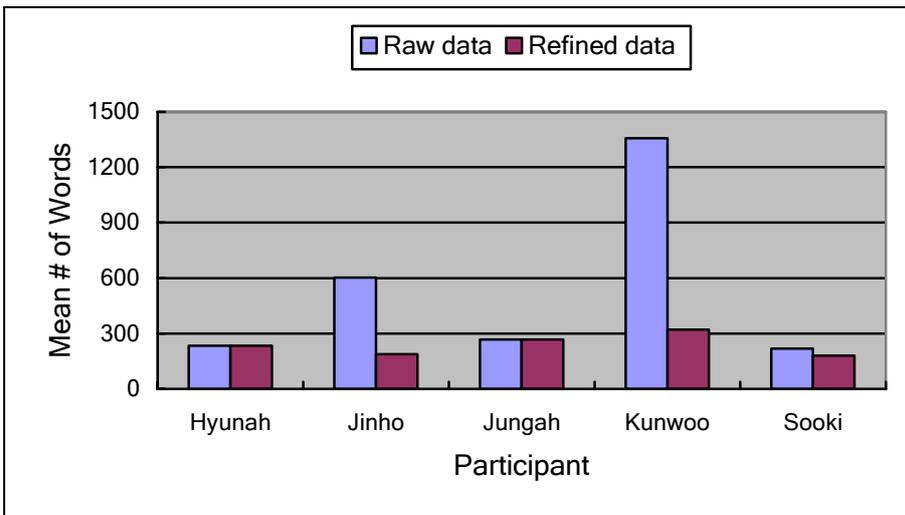
Figure 4.22 Comparison of the mean number of words produced by the children between raw data and refined data: Case Study 2.

As presented in Table 4.19, the total number of words that excluded repeated parts almost dropped by half when compared to that of Table 4.17. As summarized in Figure 4.21, the number of words in Sessions 2 and 4 showed a great difference. Figure 4.22 also demonstrated the fact that there was a considerable reduction in the mean number of words written by Jinho and Kunwoo. Notice that Jinho and Kunwoo changed ranks dramatically and the mean number of words for the two boys became very similar to those of the other participants. Except for those two boys, other children rarely wrote duplicated words, phrases, or sentences though. In Group 1, the only participant who showed a noticeable drop in terms of the mean was Minsuk. However, the drop of Minsuk's mean was not as radical as Jinho and Kunwoo.

According to Table 4.16 and Figure 4.16, Kunwoo made the most active contribution to the chat sessions by posting the largest number of messages followed by Jungah. On the other hand, Hyunah composed the fewest number of messages, thus seemed to be the least active participant. Jinho and Sooki produced slightly more messages than Hyunah, but were not as frequent contributors to the discussion as the active group. However, pertaining to the number of words as portrayed in Table 4.20 and Figure 4.20, Kunwoo ranked first among the children and was the most enthusiastic child in the CMC sessions. In the case of Hyunah, although her mean number of words (233.2) was still lower than the group's average (238.58), her contribution to the discussion seemed to be larger than relying on the counts for number of messages. Jungah also was an active participant whereas Jinho and Sooki did not contribute to as great an extent. Although the children in this group posted on average fewer messages than the first group, it turned out they composed larger number of words per session than those in Case Study 1 both in raw data (Case 1: 263.0; Case 2: 536.34) and refined data (Case 1: 198.1; Case 2: 238.58).

Table 4.21 Mean Number of Words per Message Produced by the Children: Case Study 2

	# of Words/Message	Percentage (%)		Rank
			w/o Researcher	
Hyunah	5.1	10.08	11.62	3
Jinho	13.1	25.89	29.84	2
Jungah	4.7	9.29	10.71	4
Kunwoo	17.1	33.79	38.95	1
Sooki	3.9	7.71	8.88	5
Researcher	6.7	13.24		
Mean	8.4			
Mean w/o Researcher	8.78			
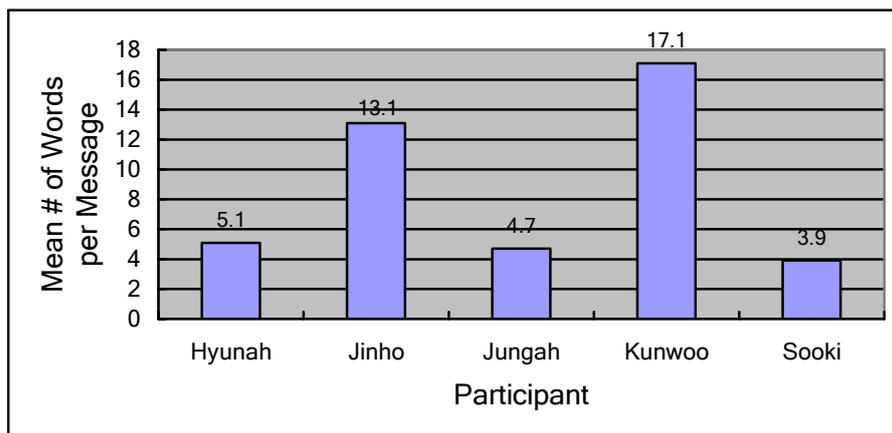
Figure 4.23 Mean number of words per message produced by the children: Case Study 2.

Table 4.22 Mean Number of Words per Message Produced by the Children (Refined):
Case Study 2.

| | # of Words/Message | Percentage (%) | | Rank |
			w/o Researcher	
Hyunah	5.1	17.83	23.29	1
Jinho	4.1	14.34	18.72	3
Jungah	4.7	16.43	21.46	2
Kunwoo	4.1	14.34	18.72	3
Sooki	3.9	13.64	17.81	5
Researcher	6.7	23.43		
Mean	4.8			
Mean w/o Researcher	4.38			

Note. Repeated words were counted only once.
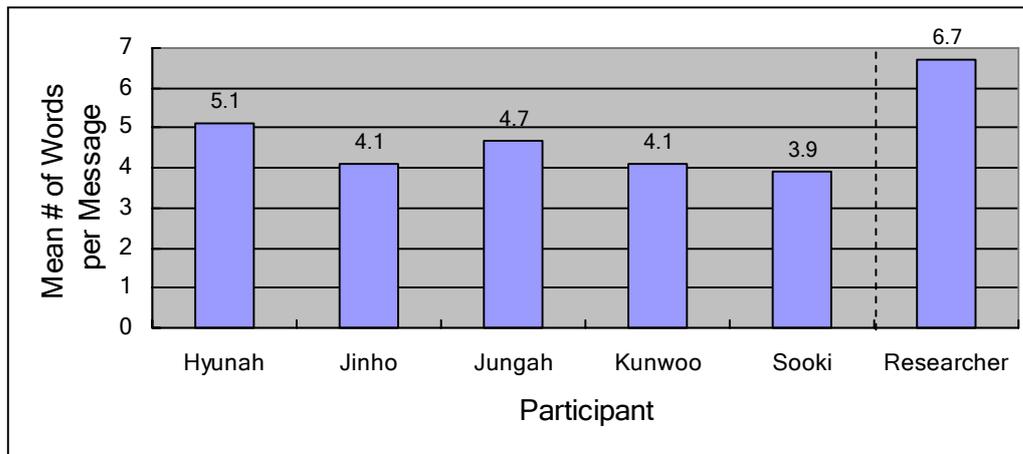
Figure 4.24 Mean number of words per message produced by the children (refined):
Case Study 2.
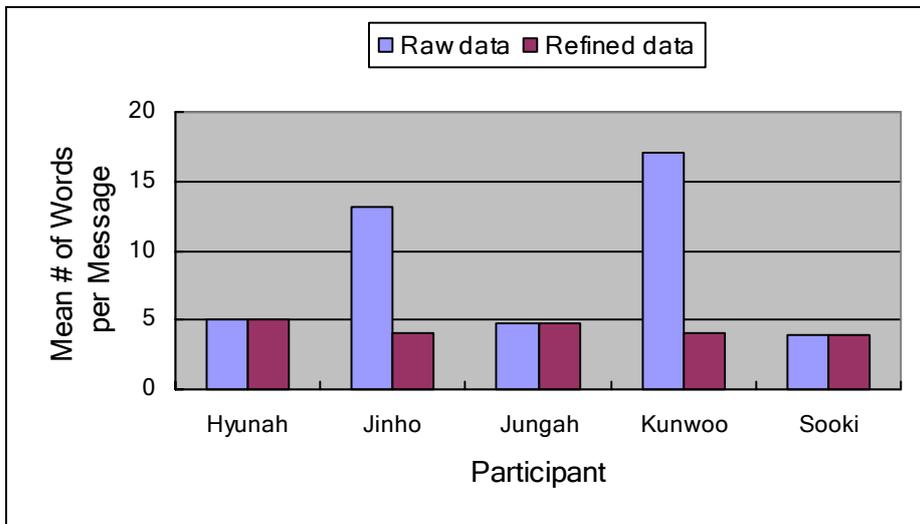
Figure 4.25 Comparison of the mean number of words per message produced by the children between raw data and refined data: Case Study 2.

The children in this group tended to write longer messages than those in Case Study 1. Table 4.21 and Figure 4.23 illustrated Kunwoo and Jinho as the ones who produced the longest messages (17.1 and 13.1, correspondingly). Except for those two boys, none of the participants in the group reached the grand mean of the group (8.4 messages). However, when these data were refined, the mean length of messages for Jinho and Kunwoo showed a considerable decline as presented in Figure 4.25. According to Table 4.22 and Figure 4.24, Hyunah composed the longest message among the children, producing on average of 5.1 words per message. As in Case Study 1, I who was the only adult in the group turned out to compose longer messages than the children.

Given that Hyunah was categorized as a less active participant in terms of number of messages (she was ranked fifth out of the give group members) and the number of words (her rank was third), it was interesting to learn that she tended to write long messages. By contrast, Kunwoo who contributed to a large extent by producing the greatest number of messages and the second highest number of words seemed to generate relatively short messages that consisted of on average, 4 words. Jinho, Jungah, and Sooki also turned out to write relatively short comments that ranked below the mean. In the case of Sooki, she was ranked third pertaining to the number of message but ranked last

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regarding the mean number of words. She then was ranked last once more regarding the length of messages.

Language Use within Messages

Recognition of an Error

Compared to children in Group 1, children in this group were less generous about misspellings, typos, and grammatical mistakes in their own or other members' messages. Numerous examples of error corrections were found in the chat room.

Error recognized by the writer. The children seemed to monitor their comments as soon as these appeared on the screen. Errors were generally picked up and fixed by the writer immediately.

Excerpt 54. Example from Session 7
41 **Hyunah:** Welcome to Austn!!
42 **Hyunah:** Austin!!

Excerpt 55. Example from Session 10
127 **Sooki:** why are you living in the wrold jin?
129 **Sooki:** world

As shown in Excerpt 54, Hyunah realized that she, by mistake, had omitted the letter "i" from the word "Austin." In the following message, she quickly sent another message to the group with the corrected word "Austin" but did not rewrite the entire sentence again. In the case of Sooki, she noticed a typo in her message where she should have changed the order of the letters "o" and "r" in the word "world." Like Hyunah, Sooki sent a message only with the word corrected shortly after.

Excerpt 56. Example from Session 6
43 **Jinho:** I LIKE CAMPUTER GAMES
45 **Jinho:** COMPUTER

Excerpt 57. Examples from Session 6
185 **Kunwoo:** THEN THE GOVERNMENT TOLD THEM THAT THE MAIL 217
      WAS FOR THE NEXT DOOR NEIBOR
188 **Kunwoo:** NEIGHBOR

Examples shown in Excerpts 54 and 55 resulted, most likely, from typos caused by slips of the finger. However, Excerpts 56 and 57 present instances of words being spelled incorrectly, possibly because of confusion or lack of knowledge. In the above cases, Jinho and Kunwoo spelled the words "computer" and "neighbor" inaccurately, but those misspellings were soon identified and repaired by the original writers. Again, the writers simply sent the word correctly spelled in a follow-up message.

Excerpt 58. Example from Session 4
40   **Kunwoo:** I had an hour of violin lessom
41   **Kunwoo:** n

Excerpt 59. Example from Session 4
63   **Jungah:** I really really want to go to schoo
65   **Jungah:** l

The self error correction illustrated in Excerpts 58 and 59 were briefer than the other corrections explained in Excerpts 54 through 57. Rather than writing the corrected version of "lessom," Kunwoo simply wrote the letter "n" in the following message as a means of signaling the letter "n" needed to replace the incorrect letter "m" (see Excerpt 58). As can be seen in Excerpt 59, Jungah mistakenly dropped the letter "l" at the end of the word "school." She then added the left out letter in a separate message.

Excerpt 60. Example from Session 10
90   **Jinho:** SOMETHONG
91   **Jinho:** SOEMTHING

Excerpt 61. Example from Session 10
199   **Hyunah:** Hollowin
203   **Hyunah:** Oops
204   **Hyunah:** Holloween

One similarity between comments composed by Jinho and Hyunah in Excerpts 60 and 61 was that while they likewise spelled a word incorrectly and made an attempt to repair the errors in subsequent messages, neither succeeded in making corrections. In the case of Jinho, although he switched the letters "o" to "i" properly, he committed another mistake in writing the first syllable. Additionally, Hyunah typed "Oops" in-between her

messages to indicate that there had been a slight mistake in her previous entry. When trying to fix the incorrect spelling "Hollowin" on her second try, she ended up only fixing the last syllable. Hyunah did not realize, until the end of the discussion, that her revised comment had failed to catch the misspelling of the word "Halloween."

Excerpt 62. Example from Session 2
5   **Kunwoo:** It was mistake
6   **Kunwoo:** a mistake

Excerpt 63. Example from Session 10
333   **Hyunah:** kill people aren't right
334   **Hyunah:** ing

As portrayed in Excerpts 62 and 63, Kunwoo and Hyunah made changes to grammatical errors they committed in their comments. Kunwoo added a missing article "a." In the case of Hyunah, she added the "ing" in the subsequent comment to correct the gerund in her initial message but did not notice the still unacceptable number agreement in the verb, "isn't" instead of "aren't."

Excerpt 64. Example from Session 1
47   **Kunwoo:** I would say to the cashier that I will take some extra money for her or him the next time he comes
48   **Kunwoo:** I come

Excerpt 65. Example from Session 5
128   **Kunwoo:** I want wormtail to die
130   **Kunwoo:** I want for wormtail to die\

These two examples, both posted by Kunwoo, are interesting in terms of error correction types. In Excerpt 64, Kunwoo modified the "he comes" segment at the end of line 47 to "I come" as displayed in line 48. This adjustment could only be made on the basis of the context. Throughout the online sessions, Kunwoo appeared to be especially conscious of mistakes of not only his own but also other children's, whether the mistakes were crucial or trivial. Kunwoo even hyper-corrected his own statement as shown in Excerpt 65. Although his message in line 128 was completely legitimate, he quickly composed an upgraded sentence that he considered as more grammatically accurate.

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Error recognized by another member of the group. The errors overlooked by the writer were often identified or corrected by other children in the group. As in the children in Case Study 1, children in this group employed various corrective feedback such as explicit corrections, recasts, clarification requests, and repetitions to inform others of the mistakes.

Excerpt 66. Example from Session 8
81 **Sooki:** you loods like a so weired
82 **Kunwoo:** ????
84 **Sooki:** weird

Excerpt 67. Example from Session 8
235 **Jinho:** MY LASSROOM IS SO HOT
236 **Kunwoo:** lassroom
238 **Kunwoo:** ?
239 **Jinho:** CLASSROOM

Kunwoo either posed multiple question marks (Excerpt 66) or repeated the incorrect word followed by a question point (Excerpt 67) in order to highlight that the message posted was not clearly understood. Following Kunwoo's corrective feedback, Sooki and Jinho clarified their comments by posting another message with the word correctly spelled. Although Sooki's sentence (line 81) consisted of several misspellings and grammatical inaccuracy, she only repaired the word "weired" to "weird."

Excerpt 68. Example from Session 2
85 **Sooki:** KBS channer was free because it was channer for people
90 **Sooki:** but there are a lot of funny channers in Korea programs
103 **Sooki:** others channers, we needed to pay money and we can watch
105 **Jungah:** Is that channel or channer? I confused
107 **Jungah:** I think channel

Excerpt 69. Example from Session 3
178 **Jungah:** I want to heard Ms.Koh!
179 **Kunwoo:** heard?
181 **Kunwoo:** hear
183 **Kunwoo:** is right

As can be seen in Excerpt 68, Sooki misspelled the word "channer" instead of writing "channel" three times in a row. Yet, the error was not pinpointed by any children

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until Jungah asked for clarification in line 105, indicating that Sooki's messages had not been understood. However, before Sooki could respond, Jungah posted a message about what she considered as reasonable. In Excerpt 69, Kunwoo posed a question form repeating "heard" to point out that Jungah's comment contained some kind of mistake that needed to be reformulated. Because Jungah's uptake to his corrective feedback did not immediately follow, Kunwoo offered the repaired form.

Excerpt 70. Example from Session 10
319 **Jinho:** OR USED ALL MISAIL
321 **Hyunah:** you mean missiles
323 **Jinho:** YES

Excerpt 71. Example Session 8
304 **Sooki:** or make a another bildings
305 **Jungah:** what are you mean?
306 **Jungah:** I mean what do you mean?
307 **Jungah:** haha

Pertaining to the misspelling "MISAIL" written by Jinho in Excerpt 70, Hyunah provided corrective feedback using a recast by implicitly suggesting the correct form of the word, and Jinho accepted the recast. In Excerpt 71, Jungah indicated that Sooki's comment was not clear. However, Jungah soon saw that her clarification request to Sooki was ill-structured and needed to be reformulated, which she immediately repaired in the following entry. In the next line (307), she sent out laughter to the group expressing her embarrassment.

Excerpt 72. Example from Session 3
6 **Sooki:** assume
7 **Jungah:** awsome
9 **Kunwoo:** awesome

Excerpt 73. Example from Session 5
177 **Sooki:** SHAT UP JINHO
180 **Jinho:** spells wrong
185 **Jungah:** and not shat up, shut up

Instances illustrated in Excerpts 72 and 73 present a misspelled word or phrase pointed out by more than one children in the group. In particular, Excerpt 73 shows a nice example of children collaborating in order to repair the incorrect spelling and provide the correct form "awesome." In Excerpt 73, Jinho pointed out Sooki's mistake, perhaps as a way to tease Sooki who had just "shouted" at him to be quiet. Sooki did not reply, and Jungah jumped in also identifying Sooki's mistake as well as offering a repair.

Excerpt 74. Example from Session 8
135   **Jungah:** Mabey..
141   **Jungah:** Mabey that goast was so angry about they cheat him, so he will go their and eat all of goats!
201   **Jungah:** Mabey they shouldn't turn on the light many times.
204   **Kunwoo:** maybe
207   **Kunwoo:** not mabey
264   **Jungah:** ok. Mabey we shouldn't turn the light turn on or off~

Excerpt 75. Example from Session 10
233   **Jungah:** I have no idea~ but mabey that was so so hard. Mabey you can make one!
259   **Jungah:** mabey
266   **Kunwoo:** it is not mabey, it is maybe
326   **Jungah:** Mabey we could just stay calm

In the chat room, Jungah frequently used the word "mabey" when she posted messages as shown in Excerpts 74 and 75. However, what kept distracting Kunwoo was her misspelling of the word. Whenever Jungah wrote "mabey" in a sentence, Kunwoo explicitly indicated that Jungah's "mabey" was incorrect and provided the correct form "maybe." Unfortunately, Kunwoo's continuous efforts in offering corrective feedback did not lead to an uptake that yielded productive repair and neither was it acknowledged by Jungah. Even after Kunwoo clearly corrected Jungah's misspelling, Jungah recurrently spelled the word "maybe" inaccurately. It appeared that Jungah was either overlooking Kunwoo's comments or resisting to correct her misspelling, perhaps regarding it as correct.

Except for Kunwoo, the children considered making mistake while composing messages as understandable because, "The meaning of their comments is comprehensible" and "the other children are just like me" [Translated into English].Yet,

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Hyunah and Sooki reflected that they wanted to correct other children's errors. Hyunah commented:

> I was thinking to myself, "Why does that person write like that?" Even though I wanted to point out their error, I was afraid that they might think that I was ignoring them, so I couldn't [repair their errors] [Translated into English].

According to Sooki:

> For me, it's natural that other children make mistakes [while writing]. If I happen to point out their errors, they may get upset… [However,] someone needs to revise their errors. Because children don't know what is correct or not, the teacher would better make changes to them. I wish you had repaired the errors for us [Translated into English].

Sooki felt that they could benefit more if the more capable adult, me in this case, monitored and corrected errors as they occurred in their discussion.

Kunwoo expressed that he was annoyed by mistakes committed by other members of the group.

> Other people's mistakes are so irritating and I feel like correcting them myself… If I correct their error and the person who made the mistake does not respond to my action, that's even more irritating because it implies that they are ignoring me. However, what can I do? I just move on [with the conversations] [Translated into English].

After talking with Kunwoo's mother over the phone, I learned that Kunwoo had just started having private grammar lessons from a native speaker of English. She told me, with concern, that Kunwoo had become very conscious of grammatical errors since the start of these lessons. Kunwoo also often expressed that he was frustrated when he read comments made by the tutor on his essays full of corrections made in red ink.

Use of L1

In Case Study 1, some children often wrote a few words or sentences phonologically in Korean, as a syllabic script. For example, they chose to write "An Young," meaning "Hi" in Korean. Their use of L1 among these children was deliberate,

intended to have fun in the conversations. Although similar examples regarding the use of L1 were also found in Case 2, the children's goal seemed quite different in this case.

Excerpt 76. Example from Session 6
246 **Jinho:** I THINK THEY FAUGHT SO BROTHER AND SISTER WILL BE GA-CHUL(KOREAN) AND FATHER AND MOTHER WILL BE E-HON(KOREAN)
251 **Sooki:** WHAT IS THAT MEAN JINHO
253 **Sooki:** WHAT IS GA CHUL
255 **Jinho:** THEY WILL BE GET BAD FUTURE
256 **Jungah:** that is so sad Jinho
258 **Jinho:** KOREAN SOOKI
259 **Sooki:** OKEYK
261 **Sooki:** BUT I SILL DON'T UNDERSTAN GA CHUL

Excerpt 76 showed an instance when Jinho attempted to express some Korean words in phonological script. After each word, he indicated in parentheses that those words were meant to represent Korean words. "GA-CHUL" and "E-HON" mean "run away from school" and "getting a divorce" in English, respectively. Jinho later reflected that, "I want to write a sentence but if I know the word in Korean but not in English, I just change the Korean word into English letters." It was understandable that Jinho might not know these words at this time, which obviously are not basic English words that he would often use in real life. Jungah seemed to have caught Jinho's intention and responded to him saying, "that is so sad Jinho." However, as can be seen in line 253, Sooki did not understand Jinho's sentence and asked for further explanation. Jinho attempted to clarify his story by indicating that those words were Korean, but Sooki did not realize his intention until he briefly explained the meaning orally. Jinho later expressed, "I was frustrated when Sooki did not understand the word."

Excerpt 77. Example from Session 3
28 **Kunwoo:** I like black noodle, Kimchi, dry seaweed,...
29 **Jungah:** what's black noodle
30 **Researcher:** What is black noodle?
31 **Jungah:** ?
32 **Kunwoo:** ¿ ¿ ¿
33 **Hyunah:** I like kimchi and Korean pizza. I almost like every Korean food.
34 **Jungah:** what was that??
35 **Jungah:** ME too
36 **Kunwoo:** ¿¿¿
37 **Kunwoo:** OK?
38 **Kunwoo:** and ¿¿¿¿
40 **Jungah:** and ¿¿¿..I like it
41 **Kunwoo:** say something!

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42 **Hyunah:** So, I like to go to Korean buffet.
45 **Kunwoo:** I like korean mushroom
46 **Kunwoo:** strawberry
50 **Jinho:** I like ramean
51 **Jinho:** nodlle
54 **Jinho:** noodle
55 **Kunwoo:** Kalkooksu
57 **Jinho:** I like it
58 **Jungah:** I like noodles
60 **Jinho:** I like wang-ddoo-gung
62 **Sooki:** ?
63 **Kunwoo:** I also like Mi Yuk GOOK
64 **Sooki:** don't use korean anymore
65 **Jungah:** ??????????????¿¿?
66 **Jungah:** ok
67 **Sooki:** don't use korean any more
68 **Jungah:** ok
69 **Kunwoo:** I like Wang Ramean
70 **Jungah:** okokokokok
71 **Kunwoo:** sorry
72 **Sooki:** Is there a wang ramean?
73 **Kunwoo:** Sin ramean
74 **Jinho:** I like den-jag-jji-gae
75 **Hyunah:** I like cup ramen.
77 **Jungah:** Yeah
78 **Jinho:** And then I like Kimchi-jji-gae
79 **Kunwoo:** Kkat nip
80 **Kunwoo:** ggat nip?
81 **Jungah:** That's not the food
82 **Kunwoo:** ¿ ¿
84 **Jinho:** What is ggat nip
85 **Jungah:** ¿¿
86 **Jinho:** oh
87 **Jinho:** i got lit
88 **Jungah:** ggant nyp.
89 **Hyunah:** It's hard to write Korean food in English!
90 **Jungah:** ggatnyp
91 **Jungah:** yeah!!!!!!!
92 **Jinho:** I don't like ggat nip
93 **Jungah:** But I think everyone got it

In Excerpt 77, the children were supposed to discuss their favorite foods. As can be seen from the messages, most of them found it difficult to explain the food and to make sure other children understood which food they liked exactly. At the beginning, Kunwoo mentioned that one of his favorite foods was "black noodle," about which Jungah and I asked for clarification. In lines 32 and 36, Kunwoo wrote what "black noodle" meant in Korean, which came out as upside down question marks. If Korean fonts were properly installed on the laptop that a child was using, she or he could read the Korean words shown on the screen. Otherwise, the Korean words would appear as broken characters such as upside down question points or squares. Sooki, who happened to encounter broken characters on her screen, requested other members of the group not "use Korean anymore" as shown in lines 64 and 67.

Also worthy of note was the fact that the children tried to come up with various phonological representations that they considered to sound close to original Korean words. For example, Kunwoo suggested that he liked "kkat nip," which he quickly modified to the spelling "ggat nip." Then, Jungah wrote it as "ggant nyp," but changed it

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to "ggatnyp." Additionally, at the end of the conversation, Hyunah confessed, "It's hard to write Korean food in English!" In line 91, Jungah strongly agreed with Hyunah's opinion, but she acknowledged that although spelling Korean words in English was challenging, the children all understood each other.

Language Play

Fewer and less varied instances of language play were observed for this group than for Group 1. Although not frequently, the children in Group 2 made use of abbreviations, which had not been observed in Group 1.

Excerpt 78. Example from Session 6
93   **Kunwoo:** IDON'TWANTTOTALKABOUTGAME!!!
100   **Kunwoo:** YEAHRIGHT
105   **Kunwoo:** IAMNOTGOINGTOUSESPACES
109   **Kunwoo:** IAMNOTGOINGTOUSESPACEANYMORE

Excerpt 79. Example from Session 10
270   **Jinho:** PLEASE
271   **Jinho:** P L E A S E

Excerpt 80. Example from Session 7
169   **Kunwoo:** ENOYREVE OLLEH
172   **Kunwoo:** READ IT BACKWARD
178   **Kunwoo:** YEHT DLUOW THGIF LLA GNOLA

Excerpt 81. Example from Session 3
313   **Sooki:** BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBYYYYYYYYYYYYYYYYY
        YYYYYYYYYEEEEEEEEEEEEEEEEEEEEEEEEEEEE

Excerpt 82. Example from Session 3
288   **Kunwoo:** What I'm talking about
289   **Kunwoo:** is
290   **Kunwoo:** to
291   **Kunwoo:** move
294   **Kunwoo:** on

As the children in Case Study 1 "played around" in the chat room, a few members of Case 2 entertained themselves in the discussion in several ways. As shown in Excerpts 78 through 82, the children sometimes connected every word in a message without any

space, pressed the "Enter" key after every word of a sentence, wrote words backwards, and typed each letter of words several times. Although there were recurrent messages that contained words with repeated letters as Sooki did in Excerpt 81, other instances of language play rarely happened during the online conversation.

As reported in the Findings section for the other group, Minsuk in Case Study 1 frequently posted split messages that included one word or even one letter in one entry for amusement purposes. In this group, Kunwoo composed split entries for fun a few times. However, he also pointed out that he wrote messages not as a sentence unit but word by word because his typing was not fast enough.

Excerpt 83. Example from Session 2
257   **Jinho:** What r u doing after eatting dinner????

Excerpt 84. Example from Session 5
177   **Sooki:** SHAT UP JINHO
179   **Sooki:** S.U KUNWOO
180   **Jinho:** spells wrong
182   **Sooki:** S..U

Excerpt 85. Example from Session 8
178   **Kunwoo:** >>>>>>>>
180   **Kunwoo:** >>>>
182   **Kunwoo:** let us >>> on

Although instances of abbreviations were not found in Group 1, the children in Group 2 sometimes came up with a simplified version of a word. In Excerpt 83, Jinho used the shortened "r u" instead of "are you," reflecting one of the most widespread aspect of online culture. Jinho reflected later that he had been initially ignorant of abbreviations such as "NM," meaning "Nothing Much." However, by exchanging e-mails with his church friends in English, Jinho had become familiar with the use of abbreviations and now he often shortened a word because he was too lazy to write the entire word. Sooki, in Excerpt 84, created an acronym "S.U" to represent "Shut up" when she failed to spell the phrase correctly. Not only in this piece of conversation shown but also in other discussions, she used "S.U" to request other members of the group (usually the boys) to "be quiet" in the chat room. Additionally, Kunwoo replaced the word

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"move" by a string of symbol ">" as shown in Excerpt 85. Even though the character ">" was not an acronym or an abbreviation of a word or a phrase, Kunwoo noted that using symbols were "just more convenient," also the reasons for employing acronyms or abbreviations.

Non verbal Cues

Children utilized various strategies to reduce the shortcomings in the conversation. They often used emoticons, capital letters, special symbols, interjections, and letter repetition as a means of expressing the writer's emotions and tone of voice.

Excerpt 86. Example from Session 4
51 **Researcher:** Are you enjoying your summer break so far?
52 **Jungah:** ....
56 **Jungah:** -_-

Excerpt 87. Example from Session 9
111 **Kunwoo:** if you go in to the ice box you would die hyunah
113 **Kunwoo:** @_@
114 **Kunwoo:** >_<

Emoticons commonly appeared in the chat room to fill in missing emotional cues. In Excerpt 86, Jungah posted a certain face image in order to answer my question about the summer break. "-_-" is an emoticon to symbolize a sigh, annoyances, or boredom. In this case, "-_-" represented Jungah's response that her summer break was boring and not very enjoyable. The emoticons that Kunwoo used in Excerpt 87 had different eye figures from Jungah's emoticon. In general, "@_@" could be interpreted as Kunwoo saying "What?" to himself or as representing a hypnotized state he was imaging himself. Additionally, he posted ">_<" to show his frustration with the circumstances. Kunwoo indicated in the interview that he used various emoticons while engaged in online chat for amusement.

Excerpt 88. Example from Session 9
306 **Sooki:** that was great ieda jungah
307 **Jungah:** thanks~^^

Excerpt 89. Example from Session 9
317   **Hyunah:** kindergarteners love toys.
322   **Researcher:** Yeah, visiting kindergartens.. the kids will love your visit!
323   **Hyunah:** ^^
352   **Jungah:** that sounds interesting~ Hyunah^^

Excerpt 90. Example from Session 7
200   **Hyunah:** I don't have something to say. ^^;

    "^^" and "^^;" introduced by Jungah and Hyunah, are some of the most popular emoticons used among young Korean people. They often add those emoticons to their e-mail and chat texts as well as when they sent mobile text messages. The mouth in both "^^" and "^^;" is optional, but the symbol still signifies *happiness*. Jungah (line 307) and Hyunah (line 323), in Excerpts 88 and 89 respectively, expressed their happiness toward other people's compliments of their opinions. Sometimes, the smiley face was attached to the sentence as an encouragement for friendly discourse to other people such as Jungah's example in line 352. The ";" added to the eyes part "^^" is supposed to represent beads of sweat or cold sweat, hence nervousness or embarrassment. For example, Hyunah in Excerpt 90, appended "^^;" at the end of her comment to show that she was slightly embarrassed with not having much to "say" in the chat room. During the interview, Hyunah indicated that she often used the "^^" smiley when she agreed with other children's ideas or did not have anything to type in.

Excerpt 91. Example from Session 5
90   **Hyunah:** Malfoy stinks...

Excerpt 92. Example from Session 4
321   **Researcher:** Any ideas?
322   **Jungah:** ....

Excerpt 93. Example from Session 5
183   **Jungah:** I don't want anybody die in Harry Potter
187   **Sooki:** BUT IT WILL
188   **Sooki:** BY MY HAND
189   **Jungah:** no comment
191   **Sooki:** THAN I BECAME RICH
192   **Jungah:** ....
195   **Hyunah:** ....--;

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197 **Jungah:** ....
....
198 **Hyunah:** @@;
200 **Jungah:** -_-

Another interesting use of cues found in this group was the use of ellipsis or multiple periods. When an ellipsis appeared at the end of a comment as presented in Excerpt 91, it implied a pause or hesitation about their opinions. On the other hand, the multiple full stops in Jungah's message in Excerpt 92 was used to indicate, "I don't have anything more to say," which replaced the shaking of the head. In the case of Excerpt 93, the multiple full stops composed by Jungah and Hyunah both signified "No comment," as had been written down by Jungah in line 189, as a response to Sooki's strange comments. Hyunah even added a small emoticon "--;" at the end of the multiple periods to emphasize her frustration.

Excerpt 94. Example from Session 3
123 **Researcher:** What do you think will happen in the next story, if there is a one?
124 **Jinho:** one what?>
129 **Jinho:**)(!@#$%^&*()
132 **Jinho:** I have no clue

Excerpt 95. Example from Session 1
94 **Kunwoo:** MOVEON!!!
95 **Jungah:** move on
97 **Jungah:** move on!!!!!!!!!!!!!!!!!!

Excerpt 96. Example from Session 5
121 **Hyunah:** I heard J.K.Rowling became very ve~~~~~~~~~~ry rich

Excerpt 97. Example from Session 5
165 **Kunwoo:** Sooki, do you only know the word KILL
166 **Kunwoo:** ?
167 **Kunwoo:** ??????????
168 **Kunwoo:** ??????????????????????????
175 **Kunwoo:** It looks like you only know the word KILL

As portrayed in Excerpt 94, Jinho listed a string of symbols in line 129 to highlight that he was confused and did not have any idea about the question. On the other hand, Kunwoo and Jungah made use of numerous exclamation marks at the end of their

messages (see lines 94 and 97 in Excerpt 95). Those exclamation points helped their entries be prominent in the chat room as well as putting emphasis on their strong feelings. The multiple question marks that appeared in Excerpt 97 also were indented to stress Kunwoo's doubts about Sooki's recurrent use of the word "KILL." As shown in these excerpts, a simple list of special characters or repetition of punctuations added a layer to the online discussion that was not there when these cues were absent.

Excerpt 98. Example from Session 2
242   **Jungah:** Say Something!!!!!!!!!!!!!!!!!!!!!!!!!!!
244   **Jungah:** SAY SOMETHING!!!!!!!!!!!!!!!!!!!!!!!!!!

Excerpt 99. Example from Session 5
301   **Kunwoo:** Wasn't I EXTREMELY quite
302   **Kunwoo:** ?

Excerpt 100. Example from Session 5
228   **Jungah:** I think that mother bear is so poor because she got some MEAN kids.

Although capital letters were commonly used as a norm in Case Study 1, capitals were mostly used to emphasize a particular word or a sentence in this group. As in Excerpt 98, by rewriting the same sentence capitalized in the subsequent message, it almost felt like Jungah was "saying it aloud" in the chat room. Also, the words "EXTREMELY" and "MEAN" shown in Excerpts 99 and 100 were stressed by the use of capital letters to indicate the writer's emphasis on their comments.

Excerpt 101. Example Session 4
171   **Jungah:** They will drink that(ew..)
192   **Hyunah:** EW..
198   **Hyunah:** EW EW...

Excerpt 102. Example Session 5
78   **Kunwoo:** sigh

Excerpt 103. Example from Session 7
86   **Hyunah:** I'm back!!!!!!
88   **Hyunah:** tada
90   **Hyunah:** ~
91   **Hyunah:** ^*^

An interjection, a word either added to a sentence or standing alone, was used to convey the emotion of the author. The interjections used in the group usually mimicked sounds or actions to show emotional expressions. For example, "ew" in Excerpt 101 signified that what they were talking about was disgusting. The word "sigh" in Excerpt 102 showed Kunwoo's disappointment or frustration whereas "tada" was a pleasant proclamation of Hyunah's own return to the chat room.

Excerpt 104. Example from Session 3
174   **Kunwoo:** I am beeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeegggggggggging you to move on

Excerpt 105. Example from Session 4
58   **Kunwoo:** but I rather go to school
60   **Kunwoo:** instead of loafing all around
61   **Kunwoo:** BOOOOOOOOOOOOOOOOOOOOOORRRRRRRRRRRRRRRRRIIIIIIIIIIIIIINNNNNNNNNNGGGGGGGGGGGGGGg

Finally, repeating letters of a word that the writer needed to highlight was another tactic employed to achieve one's aim in the discussion. By extending the letters "e" and "g" in Excerpt 104, Kunwoo was particularly adding "vocal tone" to his message. In Excerpt 105, Kunwoo not only capitalized the word "BORING" but also repeated every letter multiple times to put stronger emphasis on his statement.

Interactive Patterns

The children's patterns of interaction were sorted as I had done Case Study 1 although the details turned out to be slightly different. The findings are presented according to the categories of children's playful resistance, tension among group members, and group dynamics.

Children's Playful Resistance
Some children had fun becoming engaged in an activity that usually would not be allowed in a classroom at school. They responded mischievously to the tasks heedless of other group members' reactions to their playful actions. The children's impish behavior

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included posting naughty ideas and "random" comments, recurrently copying and pasting a phrase or a sentence by pressing <Ctrl+c> and <Ctrl+v>, sending private messages, and being involved in activities not related to the task assigned to them.

Wicked ideas. A few children enjoyed displaying their impish sense of humor while composing messages. As presented in the following examples, the children's mischievous ideas usually involved the act of a character being "killed" or "killing."

Excerpt 106. Example from Session 8
142 **Kunwoo:** THE THIRD GOAT WOULD SAY THAT THEIR IS THE FOURTH GOAT GRUFF AND THE MONSTER LETS HE GO. AND WHEN HE DISCOVER THAT HE HAS BEEN TRICKED BY THOSE THREE GOATS, HE RUNS AFTER THEM. THE GOATS DISCOVER THAT THEY ARE BEING CHASED AND RUN AS FAST AS THEY CAN. AND THEY MEET A HUNTER THAT IS A FRIEND OF THEM AND TELL HIM THAT THE MONSTER IS FOLLOWING THEM. AND WHEN THE MONSTER CAME IN THEIR SIGHT, THE HUNTER SHOOT THE MONSTER AND KILL IT. AND THE THREE GOATS LIVED HAPPILLY EVER AFTER BY EATING THE FRESH GRASS OVER THE RIVER. THE END
144 **Kunwoo:** THERE
146 **Kunwoo:** AT THE FIRST SENTENCE
152 **Hyunah:** scary~
154 **Kunwoo:** can I continue the story?
158 **Kunwoo:** i wrote?
160 **Jungah:** Why everyone always want to "kill" stories?
163 **Sooki:** because the story needed than they can become a friends?
164 **Hyunah:** ??????????????????????????????????????/
169 **Kunwoo:** after the hunter killed the monster and after goats thanked the hunter, the hunter said " Don't thank me because I am going to make you in to a fresh goat meat and that would be served fo the king and i will get a fabulous prize!!!" as a resualt they were killed too
171 **Hyunah:** another killing story.
173 **Sooki:** yeah..

Excerpt 107. Example from Session 8
197 **Jinho:** TURN OFF THE LIGHT IF OUTSIDE IS SHINY
199 **Jinho:** CRASH THE COMPUTER
205 **Jinho:** KILLED THE WHO USED THE ELECTRICCITY
206 **Jungah:** kill..again..
208 **Jinho:** ELECTRICITY
209 **Hyunah:** another killing story
215 **Kunwoo:** KILL KILL KILL CURSE AND KILL!!!!!!!!!!!!!!!
217 **Jinho:** CRASH THE ALL STUFF IT USE BY ELECTRICITY

It was interesting to note that Kunwoo's initial story (line 142 of Excerpt 106) was quite long and created a plausible plot although it involved a bit of violence when he wrote about the monster being killed by the hunter. However, Kunwoo came up with a follow-up story later on in the conversation in which he killed all three goats (see line 169). Hyunah, who expressed that Kunwoo's first story was "scary" with a positive attitude, seemed to be disappointed with his subsequent one. Furthermore, Jungah and Sooki conveyed their frustration with Kunwoo's "another killing story" too.

Jinho also suggested radical solutions to the question asking, "What can we do as students to save electricity?" Even though Jinho first answered the task seriously, he soon entered into a playful mode as can be seen in lines 199, 205, and 217. Kunwoo appeared delighted to see Jinho's impish ideas whereas Jungah and Hyunah were displeased by the boys' comments.

During the interview, Jungah reflected that the most distracting factor while chatting online was Kunwoo's jokes. According to Jungah:

> The boys are so nasty and have bad manners. Basically, everyone has to participate when we are having a discussion in the chat room, but they just play around by themselves… Their misbehavior needs to be pointed out, and if they don't listen carefully, they will have to figure out a way to have their attitudes fixed… I'd be indifferent to them rather than coaxing them [Translated into English].

Sooki also commented that "Jinho and Kunwoo are not expressing their own opinions but mainly engaged in insulting other children and getting into mischief" [Translated into English] was the most annoying experience in the chat room. As can be inferred from Excerpts 106 and 107, while Jinho and Kunwoo were enjoying their mischievous behavior, other members of the group not only were irritated but also getting tired of the recurring impish jokes.

Random comments. Messages that were not completely related to the topic or task sometimes appeared on the screen. Although comments that came out of the blue occurred repetitively in Case Study 1 (e.g., *I like chocolate*), random messages in this group were mostly a one-time event.

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Excerpt 108. Example from Session 7
55   **Kunwoo:** I WOULD
56   **Kunwoo:** ADVICE
57   **Kunwoo:** HIM
58   **Kunwoo:** THAT
61   **Kunwoo:** THE REST ROOMS HERE ARE DIRTY
67   **Kunwoo:** ASKLJ!#!#!FRJK@#$!&^*
69   **Kunwoo:** WHO CAN TRANSLATE THAT
71   **Kunwoo:** IN ENGLISH?
74   **Kunwoo:** HOW ABOUT THIS
76   **Kunwoo:** I WILL TELL HIM THAT
79   **Kunwoo:** THE MONITERS HERE STINKS
80   **Kunwoo:** I WOULD TELLTHAT HE SHOULD BECAREFUL OF MONITERS THAT STINKS

    While exchanging helpful tips for a newly arrived friend, Kunwoo started talking about rest rooms and monitors whereas, for example, other children discussed telling a newcomer about their classes. Additionally, as displayed in lines 67, 69, and 71, Kunwoo asked a random question about interpreting his clueless messages that combined alphabet letters and various symbols. However, Kunwoo's comments were not responded to by any of the children.

    <Ctrl+c> and <Ctrl+v>. As observed in the other group, repeating the same word, phrase, or sentence, as portrayed in Excerpt 109, was a common incident.

Excerpt 109. Example from Session 4
348   **Kunwoo:** goose-fox-grain goose-fox-grain goose-fox-grain goose-fox-grain goose-fox-grain goose-fox-grain goose-fox-grain goose-fox-grain goose-fox-grain goose-fox-grain goose-fox-grain goose-fox-grain
349   **Jungah:** stop do that
350   **Kunwoo:** goose-fox-grain v???
351   **Jungah:** !!!
352   **Kunwoo:** ????????

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Occasionally, children would reiterate a particular sentence a few times deliberately to highlight their comments so that they would receive attention and responses from other members of the group. However, when the repetition was intended for playful purposes, the act of copying and pasting happened multiple times in the same message as shown in lines 348 and 350. Because the writer attempted to repeat the same phrase as many times as possible, the <Ctrl+c> and <Ctrl+v> functions, which were hot keys for "Copy" and "Paste," were generally used. The writer would sometimes leave a letter "v" at the end caused by not properly pressing the "Ctrl" key and the letter "v" simultaneously. For Hyunah, the continuous appearance of copying and pasting turned out to be very annoying. She indicated that it was hard for her to bear "the boys' typing the same word again and again" [Translated into English].

Private messages. Blackboard chat allowed sending a private message to a particular user in the chat room. Participants logged on in the chat room could either double click on the name of the person to which they wished to send a private message or click the "Private Message" function located in the lower left panel. Although I did not inform them of the Private Message feature, the children quickly figured out how to send a private message to other members of the group. Those messages only appeared in the windows of the users who exchanged private message and not in any other user's chat window. Thus, whether the children were engaged in sending and receiving such messages was only captured when I walked around the group or through the conversations in the chat room as presented in Excerpt 110.

Excerpt 110. Example from Session 8
50 **Kunwoo:** HE IS SENDING
55 **Jinho:** YOU SENDING TOO
56 **Kunwoo:** PRIVATE MESSAGES TO ME

Kunwoo pointed out that Jinho's private messages were his most distracting experience while engaged in the online chat. Kunwoo reflected that, in the private messages, Jinho used to tease him about not being able to think about a certain answer of the assigned task. Additionally, Kunwoo added that whenever Jinho wrote insulting

messages to him privately, he became so annoyed that he could not help fighting back to him by sending private messages as well.

Off-task behavior. Kunwoo was one of the avid participants in the chat room who posted the largest number of messages and words. However, from time to time, he seemed to be relatively "quiet" not composing messages for a few minutes. During that time lapse, Kunwoo would often engage in instant messaging, using MSN messenger, with his father who had returned to Korea not long ago.

Excerpt 111. Example from Session 4
84　**Kunwoo:** I think I won't write for long 10 minutes
114　**Kunwoo:** Kunwoo appears again!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
118　**Kunwoo:** and disappears again

Excerpt 112. Example from Session 5
301　**Kunwoo:** Wasn't I EXTREMELY quite
302　**Kunwoo:** ?
304　**Researcher:** Why were you so quiet Kunwoo?
305　**Kunwoo:** I got some messages
306　**Jinho:** BECAUSE YOU CAHTTING WITH YOUR FATHER
307　**Kunwoo:** from my dad

As displayed in Excerpt 111, Kunwoo sometimes informed the group members of his temporary nonattendance in the conversation. If anyone had not noticed or mentioned his disappearance, he tended to remind other children of his return as shown in Excerpt 112. Even when Kunwoo had had a short chat with his father during our conversations, he usually would return to the chat room shortly after he had sent messages to his father to check the discussion he had missed while away.

Tension between the Individual and the Group

Various examples of conflict situations were continuously found in the group. Sometimes, the tension occurred between two children, whereas there also were instances of argument between groups of children.

Tension between two children. At nearly every chat session, Kunwoo teased Jinho, either directly or indirectly, in a mischievous manner. Kunwoo's naughty

comments to Jinho began during Session 2, and those types of comments tended to appear not only more often but also in even more impish ways.

Excerpt 113. Example from Session 5
130   **Kunwoo:** I want for wormtail to die\
133   **Kunwoo:** Becauese he looks very alike to Jin Ho
142   **Kunwoo:** I want the troll to die because it looks like Jin Ho

Jinho occasionally paid no attention to Kunwoo's offensive messages, not responding to the messages at all as shown in Excerpt 113. However, conflict circumstances between Kunwoo and Jinho commonly appeared toward the end of the study when Kunwoo's teasing become more habitual and insulting and Jinho expressed his frustration by opposing his comments.

Excerpt 114. Example from Session 8
288   **Kunwoo:** Can I tell you one book title?
295   **Kunwoo:** It is called "The people killer, Jin Ho"
298   **Kunwoo:** he kills people with his face
299   **Jinho:** i'M GONNA CUT YOUR HEAD OFF
301   **Jinho:** YOU MORON
302   **Jungah:** don't say that!
303   **Kunwoo:** OK do it then

Excerpt 115. Example from Session 9
74   **Jinho:** DIE
77   **Jinho:** AND GO TO THE HEAVEN
79   **Jinho:** IT WILL COLD
80   **Jinho:** AND COOL
81   **Kunwoo:** who are you talking to youjin ho thing
82   **Kunwoo:** ?
84   **Jinho:** YOU DON'T HAVE TO CARE KUNWOO
85   **Kunwoo:** moron
86   **Jinho:** YOU MORON
87   **Kunwoo:** copy cat

As can be seen in Excerpts 114 and 115, Kunwoo initiated mischievous behaviors of making fun of and teasing Jinho. In the above examples, Jinho was threatening Kunwoo (Excerpt 114) and was attempting to disregard what Kunwoo had said to him (Excerpt 115). Yet, the conflict between two of them did not seem to be resolved even

though Jungah tried to arbitrate between the two opposing children as shown in Excerpt 114. Although Jinho was not good at disagreeing with Kunwoo except by threatening and trying to ignore Kunwoo's impish comments, Jinho seemed to have developed a cleverer way of contradicting Kunwoo later on.

Excerpt 116. Example from Session 9

162 **Kunwoo:** I would recommend this site to every person in the world. http://www.Jinhostupidclub.com
163 **Jinho:** The blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah
164 **Kunwoo:** or this site
166 **Kunwoo:** http://www.Jinhostupidmoronclub.com
168 **Sooki:** stop i think you're stupid than Jinho
169 **Kunwoo:** excuse me
171 **Kunwoo:** it is not your buiseniss
178 **Jinho:** http://www.KUNWOOstupidMORONgaylittledumbidiotbabyclub.com
180 **Kunwoo:** copy cat
182 **Kunwoo:** http://www.Jinhogaycopyclub.com
184 **Jinho:** http://www.KUNWOOstupidMORONgaylittledumbidiotbabyclub.com come here it has KUNWOO stupid picture and then moron picture and then he's gay andthen he's dummy
190 **Kunwoo:** i think that when i meet an alien i would find the stupidest one and name it the thing Jinho
196 **Jinho:** shut up little moron dummy gay baby
199 **Kunwoo:** =_=

Excerpt 117. Example from Session 9

294 **Jinho:** Kunwoo
297 **Jinho:** ARE YOU
301 **Jinho:** WHAT IS 2302938402394820 TIMES 12983742394??????/
302 **Jinho:** KUNWOO??
309 **Kunwoo:** how about you?
311 **Jinho:** I KNOW THE ANSWER
312 **Kunwoo:** what is it?
313 **Jinho:** IF I CALL THAT YOU CAN KNOW THAT
315 **Kunwoo:** I don't know so you answer it
316 **Jinho:** WHY??
318 **Kunwoo:** yeah jin ho
319 **Sooki:** shut up Kunwoo and Jinho
320 **Jungah:** stop do that guys
321 **Hyunah:** Stop bothering each other

Excerpts 116 and 117 presented sophisticated survival skills developed by Jinho against Kunwoo's persistent teasing. As shown in Excerpt 116, Kunwoo created a phony URL that looked similar to one of the addresses used for the story completion task, which was www.kizclub.com. At first, Jinho responded to Kunwoo by repeating "blah blah blah" to indicate Kunwoo's fake URL was not entertaining. However, while Kunwoo was engaged in an argument with Sooki, Jinho thought of a longer and more insulting URL than Kunwoo's and posted it as in line 178. In the following message, Kunwoo called Jinho a "copy cat" and posted another URL that incorporated certain elements from Jinho. In line 184, Jinho copied and pasted the URL he had invented and also explained what the website contained. Kunwoo tried to insult Jinho by referring to him as "the thing Jinho," but the thread seemed to end with Kunwoo's "=_=" emoticon which represented an annoyed or exhausted face.

In Excerpt 117, Jinho suggested that Kunwoo solve the very difficult math problem he proposed. Jinho might have expected that Kunwoo would be embarrassed with the mass math calculation; however, Kunwoo humiliated Jinho by asking for the correct answer from him. Although Jinho and Kunwoo's confrontation was dissolved by the interference of other members of the group, it seemed that Jinho's trick did not work out for Kunwoo as he had intended. Jinho commented that Kunwoo had been very irritating in the chat room. When it came to Kunwoo, Jinho told me that he made a competitive attempt at conversation as a means of dealing with Kunwoo's teasing. Yet, Jinho said, "I don't really hate Kunwoo or something. He's just a cute little mischief."

Excerpt 118. Example from Session 8
5   **Kunwoo:** HELLO LOSERS!!! [JIN HO AND HIS COUSIN]
13   **Kunwoo:** HELLO LOSERS!!! [JIN HO AND HIS COUSIN]

Excerpt 119. Example from Session 6

214	**Kunwoo:** STUPID SOOKI		230	**Sooki:** I'M ORDER THAN YOU
222	**Kunwoo:** STUPID SOOKI		232	**Kunwoo:** ????????/
223	**Sooki:** BETTER THAN YOU		234	**Kunwoo:** ORDER?
225	**Kunwoo:** ??????????		236	**Kunwoo:** AND I DON'T EVEN CARE
226	**Kunwoo:** STUPID SOOKI		238	**Sooki:** ASKED JINHO I'M BETTER THAN JINHO
228	**Kunwoo:** STUPID SOOKI			
229	**Kunwoo:** STUPID SOOKI			

240 **Kunwoo:** NO YOU ARE NOT

243 **Sooki:** S.U I'M BETTER THAN YOU I LEARN 16 YEARS OLD'S MATH

245 **Sooki:** THAN S.P

249 **Kunwoo:** I THINK THAT YOU ARE THE AGLIEST AND THE STUPIDEST GIRL I'VE EVER SEEN

260 **Kunwoo:** LET'S WORK AS A TEAM TO FIGHT AGAINST SOOKI, JIN HO

262 **Hyunah:** Stop bothering each other

Kunwoo not only teased Jinho but also insulted Jinho's cousin Sooki. In Excerpt 118, Kunwoo called both Jinho and Sooki "LOSERS" as soon as he entered the chat room. As presented in Excerpt 119, Kunwoo started teasing Sooki, and Sooki threatened Kunwoo by her age. Although she misspelled the word "older" into "order," what Sooki meant to emphasize was the amount and depth of knowledge she had obtained as compared to Kunwoo who was younger than her. Sooki boasted about her mathematical learning in line 243 that, as a 12 year-old-girl, she had already mastered the level of math that a 16-year-old would be learning. Regardless of Sooki's age or her advanced math knowledge, Kunwoo wickedly teased Sooki about her appearance. Additionally, after a while, Kunwoo asked to ally himself with Jinho so that they could battle with Sooki as a team. It was interesting to note that although Jinho and Kunwoo teased each other all the time, Kunwoo asked for help from Jinho. However, Jinho never responded to Kunwoo's offer, and Hyunah intervened to cease the conflict between Kunwoo and Sooki.

Excerpt 120. Example from Session 2

158 **Kunwoo:** They are all Koreans

159 **Researcher:** That's a good one!

160 **Researcher:** You can ask each other!!

161 **Jinho:** They are all Asion

162 **Hyunah:** Everyone, what do you guys do after school?? I usually do my homework and play computer games..

163 **Kunwoo:** And They all have brown or black

164 **Kunwoo:** hairs

165 **Kunwoo:** And Jinho has a terrible face

166 **Sooki:** also brown of black eyes

167 **Sooki:** What is that meant?

168 **Jinho:** We can speak Korean

169 **Kunwoo:** Also with tiny brain

170 **Sooki:** no

171 **Kunwoo:** Jinho

173 **Sooki:** koran was smart

174 **Jungah:** How did you know that??

175 **Kunwoo:** Jinho has small brain

176 **Kunwoo:** Not all of us

177 **Jinho:** you have too

178 **Hyunah:** Not me..

179 **Sooki:** Kunwoo are you hate jinho?

180 **Kunwoo:** Who are you talking to you pea brain

181 **Kunwoo:** no

153

182 **Jungah:** I think so
183 **Sooki:** than why?
184 **Kunwoo:** I 'm doing it just for fun
185 **Sooki:** no it doen't
186 **Hyunah:** You are mean...
187 **Jungah:** Say something
188 **Jinho:** You have 1g brain Kunwoo
189 **Kunwoo:** What do you mean it doesn't
190 **Kunwoo:** ?
191 **Jungah:** ??????????????? Jinho
192 **Kunwoo:** Sooki?
193 **Jungah:** Whay are you talking about??
194 **Sooki:** because it looks you hate
195 **Jinho:** brain
196 **Kunwoo:** I' was just kidding
197 **Hyunah:** you don't look like you're doing it for fun..
198 **Kunwoo:** guys
199 **Jungah:** Why are we talk about "BRAIN"???
200 **Jinho:** yeah it is! I just fun
201 **Hyunah:** It's like we're talking about our brain.
202 **Jinho:** tust me and Kunwoo
203 **Sooki:** because Kunwoo said that Korean had a small brain
204 **Jinho:** Just

205 **Kunwoo:** KIDDINGKIDDINGKID
DINGKIDDINGKIDDINGKIDDINGKID
DINGKIDDINGKIDDINGKIDDINGKID
DINGKIDDINGKIDDINGKIDDINGKID
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206 **Sooki:** okey

After answering with some regular ideas, Kunwoo fell into his impish mode of teasing Jinho, starting from line 165. Although Jinho did not respond to Kunwoo's jokes until line 177, Sooki raised objections to Kunwoo's comments. Yet, not only Sooki but also other children in the group seemed to misunderstand Kunwoo's joking and thought that Kunwoo was insulting everyone in the group. Even though Kunwoo explained to other children that his only target for teasing was Jinho, which he indicated as "just for fun," Sooki and Hyunah accused Kunwoo of behaving in an unfriendly way and of being mean to Jinho. In the meantime, Jungah attempted to draw children's attention from the "brain" topic to the initial topic given for the task which was later joined by Hyunah. Because many children were blaming Kunwoo, Jinho came out against the other

members of the group defending Kunwoo to soothe their anger and annoyance toward Kunwoo's mischievous jokes. Kunwoo then repeated the word "KIDDING" in capitals as a way to express his dejected feeling as well as to stop the argument around him.

In the post-questionnaire, Hyunah indicated that today's chatting, Session 2, was not very exciting by circling the "😐" icon on the questionnaire. Hyunah wrote, "I think we were talking about something out of the main subject." She explicitly pointed out that "The time that we talked about the 'small brain'" was the most distracting experience during Session 2 because "I think it's boring and I had nothing to say." On the other hand, Kunwoo, who started with the brain subject in the chat room, also pinpointed that "Things about brain" was most annoying because "they didn't understand me." It appeared that Kunwoo became frustrated when other children misunderstood his joke and could not laugh about it.

Excerpt 121. Example from Session 9

299 **Jungah:** I will go to the village and share the posters and samples with other neighbors. Or we could go to the downtown and have a event and I hope it will be help my company~^^*

304 **Kunwoo:** how about glueing ad at walls

305 **Kunwoo:** ?

306 **Sooki:** that was great ieda jungah and Jinho?

307 **Jungah:** thanks~^^

314 **Hyunah:** Oh! How about go to the kindergarten and give them the sample toys and make them to know about our factory's toys

317 **Hyunah:** kindergarteners love toys.

328 **Kunwoo:** or adver tise in a big place that helds big events

329 **Kunwoo:** holds

330 **Researcher:** Any good idea, Sooki

331 **Sooki:** no

332 **Jinho:** NOTHING TO SHARE

333 **Hyunah:** You didn't answer anything

334 **Kunwoo:** with your tiny brain

337 **Jinho:** AFTER KILL THE KUNWOO

340 **Hyunah:** Killing story...

341 **Kunwoo:** how about going to a large place that holds big events?

342 **Jungah:** no comments..

344 **Jungah:** killing again

345 **Kunwoo:** place like a large gym

346 **Hyunah:** Disneyworld,land?

348 **Hyunah:** There are tons of people

349 **Sooki:** Jinho you needed to say something

350 **Kunwoo:** yeah

351 **Hyunah:** I agree

352 **Kunwoo:** but he can't

354 **Jinho:** WHAT WAS TH QUESTION????????????????

356 **Kunwoo:** with his tiny brain

357 **Hyunah:** Concentrate!!!!!!!

358 **Kunwoo:** agree wit that

359 **Jungah:** you didn't know the quesition?

360 **Sooki:** stop

361 **Kunwoo:** waht?

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362 **Kunwoo:** what?
363 **Sooki:** stop
364 **Jungah:** stop
365 **Kunwoo:** what/?
366 **Researcher:** Can anyone repeat the question for Jinho?
367 **Researcher:** or at least summarize?
368 **Jungah:** how can you help your company if your company lose a lot of moneys?
369 **Sooki:** yes name of toy austin
370 **Jungah:** right~ thanks for comment
371 **Hyunah:** Try to think that you are the co-owner at "Toy Austin", the toy company. The comany is losding money.. share your ideas to saving money.
372 **Jinho:** WORK HARD
375 **Kunwoo:** How about selling the company and recreate it ?

376 **Sooki:** but we don't have any money to work hard Jinho
377 **Kunwoo:** How about selling the company and recreating it ?
378 **Hyunah:** That's too simple
379 **Kunwoo:** no it is not
380 **Jinho:** THEN GET SOME ANOTHER JOB
381 **Hyunah:** I didn't say to you!
382 **Jungah:** that's too hard Kunwoo..
383 **Kunwoo:** then who?
384 **Hyunah:** Jin
385 **Hyunah:** ho
386 **Jungah:** your mean Jin
387 **Kunwoo:** How about selling the company and recreating it ? ?
388 **Jungah:** ho
389 **Jungah:** no
390 **Kunwoo:** How about selling the company and recreating it ?
391 **Hyunah:** great.....................

As presented in Excerpt 121, the children discussed various ways to save a company that was losing money in a toy business until I asked ideas from Sooki and Jinho in line 330. Although both of them answered negatively to my request to propose other solutions, Hyunah and Sooki pressed Jinho to suggest his own ideas as shown in lines 333 and 349. Also, Kunwoo saw the group's pressure on Jinho as another good opportunity to mock Jinho and tease him for having a "tiny brain." Yet, while making fun of Jinho, Kunwoo posted some interesting ideas that contributed to the group discussion. Initially, there appeared a certain tension between Jinho who would not suggest any ideas and who seemed indifferent of the group dynamics and a group of children who were trying to pressure him to get involved in the conversation. However, the group turned to a collaborative mode, and they made an effort to help Jinho not only comprehend the question but also improve his "simple" and uncommitted response. Even though Jinho's opinions were not up to the children's expectations, they succeeded in making him engage in the conversation as well as in ending the conflict between Kunwoo and Jinho.

Jungah and Hyunah reflected that chatting in Session 9 "was cool because there was some interesting questions" and "I think we had best topic today…" respectively. However, Jungah wrote that she was most annoyed because "The boys were not joined the chat… [and] it made the chat awful -_-" in the post-questionnaire. Sooki also mentioned that the discussion was not very pleasant "because of Kunwoo." On the other hand, although many members of the group tried to support him to participate in the task, Jinho felt that this question was most irritating to him because "I don't know about answer." Jinho's comments revealed that Jinho was not fully devoted to the online chat discussion because he did not fully understand the task. Additionally, Kunwoo indicated that this question was the funniest among the tasks assigned in Session 9 "Because I like things about stocks."

Tension between groups of children. Whereas tension between individuals or an individual and the group was described previously, in this section I focus on tension occurring between groups of children.

Excerpt 122. Example from Session 3

204	**Jinho:** killed the dog
205	**Sooki:** i will kill a dog from my hand!!!!!!!!!!!!!!!!!!!!!1
206	**Hyunah:** I'll go tell the neighbor that keep his dog quiet.
208	**Sooki:** kill
209	**Jinho:** or sell it
211	**Hyunah:** Or I'll call the police.
212	**Jungah:** That's the fantastic idea~
213	**Kunwoo:** I would jump over the fence and beat up that dog and glue its mouse completelywith a super glue
214	**Jinho:** so we can get the money and
216	**Jinho:** sell it
218	**Jinho:** or killed it
221	**Hyunah:** Sooki, it seemed like you like to kill someon who you don't like..
222	**Kunwoo:** I would jump over the fence and beat up that dog and glue its mouse completelywith a super

223	**Jinho:** That's better
224	**Hyunah:** Giue the dog's mouth... That's impossible.
225	**Sooki:** KILL IS THE MOST FUNNY AND FANTASTIC THINGS AND IT WAS JUST SIMPLE THING!!!!!!!!!!!
226	**Kunwoo:** Or take Knife with me
236	**Hyunah:** Guys! That's too dangerous and scary!
237	**Jungah:** ....
238	**Sooki:** just simple one
239	**Sooki:** it was the best way
240	**Kunwoo:** I would take an atomic bomb with me and
241	**Jungah:** call the pound is simple one
242	**Kunwoo:** and
243	**Hyunah:** We should better not talking about killing the dog..
247	**Sooki:** to make that dog became a shat up

Excerpt 122 described the children's discussion on how to deal with a neighbor's dog who kept barking all night. As can be seen from the above excerpt, Jinho, Sooki, and Kunwoo offered impish explanations such as killing or selling the dog and bonding the barking dog's mouth so that the dog could not make more sounds. Although Hyunah proposed normal ideas at the beginning, she then commented negatively to the solutions suggested by Sooki and Kunwoo in lines 221 and 224. Finally, Hyunah warned the mischievous children that their ideas were "too dangerous and scary" and attempted to discourage them from making such further naughty. Although Jungah was not enthusiastic about stopping the children from making wicked jokes; she silently supported her twin sister Hyunah. However hard Hyunah and Jungah tried to create a constructive chat room atmosphere, the tension between the children producing regular ideas and mischievous ideas was not resolved until the end of the study.

Group Dynamics in the Chat Room

Responding to a message. Pertaining to the ways children responded to the messages, the majority of children tended to put emphasis on the comments rather than the names of the person who posted the comment. Jinho, Kunwoo, and Sooki indicated that they rarely checked the names that appeared right next to the comments. On the other hand, Hyunah and Jungah mentioned that they looked at the contents of the messages followed by the names. Jungah wistfully said that "Other people don't seem to be interested in my comments." In fact, Jungah would often type her ideas and ask for some response regarding her recent postings as presented in Excerpts 123 and 124.

Excerpt 123. Example from Session 8
121   **Jungah:** I think it will say " There are some many rabbits, go look!" and the third one could go there. How about that?

Excerpt 124. Example from Session 5
47   **Researcher:** Why do you think that character will be killed?
56   **Jungah:** because the author want to write something special than another author?! Most of the author write Happy Ending Story.
62   **Jungah:** did you saw mine?
79   **Jungah:** Did you saw mine, Ms.Koh?

Jungah frequently added "How about that?" at the end of her message as a means of encouraging other children to comment on what she had written. If none of the children paid attention to her message, Jungah would post again to the group or ask for my opinion.

Excerpt 125. Example from Session 5
61 **Kunwoo:** DOES ANYBODY KNOW WHEN THE NEXT BOOK iS GOING TO BE PUBLISHED?
69 **Kunwoo:** DOES ANYBODY KNOW WHEN THE NEXT BOOK iS GOING TO BE PUBLISHED?
70 **Hyunah:** NO
73 **Kunwoo:** DOES ANYBODY KNOW WHEN THE NEXT BOOK iS GOING TO BE PUBLISHED?
76 **Kunwoo:** DOES ANYBODY KNOW WHEN THE NEXT BOOK iS GOING TO BE PUBLISHED?!!!!!!!!!!!!!!!!!!!!!!!111
77 **Hyunah:** NO
78 **Kunwoo:** sigh
……
131 **Hyunah:** Does anyone know when can we see the next Harry Potter movie??
134 **Sooki:** NO
135 **Jinho:** maybe next year
136 **Researcher:** Maybe next year?
137 **Hyunah:** I hope so..

Kunwoo also expressed that he became irritated when other children did not respond to his comments. He shared his strategy to solve the problem:

> I write it a couple more times. If no one still replies to my comment, I'd fill the comment through a few lines. That's why I get involved in the copy and paste stuff. I repeat it because no one listens to my messages. If I repeat it, it will stand out more [among other comments] [Translated into English].

As can be seen from Excerpt 125, Kunwoo initially asked the group about the next Harry Potter book. Because none of the children gave him the answer that he wanted, Kunwoo repeated his comment four times. Hyunah was the only participant who briefly responded "NO" to Kunwoo's question. Because his question was being ignored, Kunwoo gave up, wrote "sign," and joined the ongoing conversation. However, when Hyunah asked about the next Harry Potter movie after a while, a few people responded to her even though no one knew when exactly the next movie would come out. As would be explained shortly,

some children pointed out that Kunwoo was the least likely person to whom they would respond or send messages to because he always talked about unpleasant ideas or jokes.

Excerpt 126. Example from Session 3
112 **Researcher:** Do you all remember the story?
120 **Sooki:** i don't remember the last part
127 **Sooki:** i don't remember the last part!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! !!!!!!!!!!!!!!!!!!!!!
143 **Sooki:** excuase me!!!!!!!!!!!!!!!!!!!!!! can anybody tell me what is the last story in the peter pan book????????????????
145 **Sooki:** please???????????????!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!????????????
157 **Sooki:** okey i hate peterpen book and than all of charecter will die from me Ha Ha Ha
169 **Sooki:** move on!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
182 **Sooki:** NOOOOOOOOOOOOOOOOOOOOOOOOOOO PETERPEN WILL DIE FROM MY HAND!!!!!!!!!!!!

In the case of Sooki, she indicated in the interview that if no one responded to her message, "I would change my comment to a topic that can interest other people because people don't tend to answer boring comments." When Sooki actually encountered that situation, she desperately tried to gain other children's attention so that she could get help from them. However, as soon as she learned that everyone was busy writing their own stories, she became very aggressive and requested the group to move on.

Sending a message. In terms of message posting style, Hyunah told me that she tended to think first of what she was going to write in her message, refine her thoughts slightly, and then started typing the message. She also indicated, "I prefer writing a few sentences before I hit the "Enter" key... because my ideas often get longer [while typing them down]." Jungah also tended to write longer messages that contained a few lines, the same as Hyunah. "Initially, I split messages when I post them. But, I don't do it anymore because if someone interrupts between my messages, my story doesn't connect. So it's just easier [for other children] to read," said Jungah [Translated into English]. Additionally, she usually typed what came to her mind and revised her message before she pressed the "Enter" key. By contrast, Kunwoo was inclined to type a few words in one message instead of composing a full sentence. Kunwoo commented, "It's because my typing speed is slow. And, if I don't type fast, people soon move on to something else."

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Hyunah wanted to respond to every participant in the chat room; however, she was reluctant to reply to someone who posted "weird comments." Jungah noted that she was most willing to react to Hyunah's comments because she tended to suggest "the best ideas." Yet, Kunwoo was the least likely participant that she would write to. Jungah expressed that Kunwoo's jokes were annoying. Additionally, Kunwoo was again considered the least favorite person to respond to by Sooki. According to Sooki:

> Kunwoo always talks about weird stuff… If he happened to post a good opinion, I would read and respond to his comments… It looks as if Kunwoo is taking part in this activity for fun, not very seriously [Translated into English].

However, Sooki adored people who were not afraid of expressing their own opinions. Kunwoo selected Jinho as the most unlikely person to talk to although he initiated teasing Jinho multiple times. When I pointed this out, Kunwoo defended himself that he was only responding to Jinho due to the stifling situation around him. Not to my surprise, Jinho pointed Kunwoo as the most unlikely person with whom to exchange ideas. Both Jinho and Kunwoo did not point out anyone in the group as a favorite person to talk to. Jinho mentioned that he usually felt like answering to me because I was the one who posted and distributed the tasks for the children in the chat room.

Table 4.23 Mean Number of Messages Sent and Received in the Chat Room: Case Study 2

		HA	JH	JA	KW	SK	R	All	Rdm	NS
	HA		2.2	2.8	3.2	1.6	10.8	14.2	0	2.4
	JH	1.4		3.2	5.4	3.8	10.0	13.6	1.0	4.2
Sender of Message	JA	4.2	3.2		4.8	5.0	14.2	13.6	0	2.0
	KW	1.6	5.8	3.0		8.2	19.8	20.6	2.2	2.6
	SK	2.2	5.8	5.2	5.6		9.0	13.4	0.4	1.2
	R	4.2	3.6	5.8	5.8	3.4		25.0	0	0

(Column groups: *Recipient of Message* spans HA, JH, JA, KW, SK, R, All, Rdm, NS)

Note. HA: Hyunah, JH: Jinho, JA: Jungah, KW: Kunwoo, SK: Sooki; R: Researcher; Rdm: Random; NS: Not Specific.

As in Case Study 1, I selected half of the chat sessions (Sessions 1, 2, 5, 6, and 10) in order to portray the sending and receiving of messages among the children. As presented in Table 4.23, all children sent the greatest number of messages to the whole group followed by messages to me. In many instances, the children would respond to me by answering the question that I posted to them, something that was different from Group 1.

Kunwoo sent the highest number of messages to Sooki and Jinho, producing a mean of 8.2 and 5.8 messages respectively. Kunwoo not only teased Jinho but also often mocked Sooki. Additionally, Kunwoo frequently denied Sooki who questioned him closely about his mischievous behavior. Not surprisingly, Jinho sent the greatest number of messages to Kunwoo followed by to Sooki and Jungah. Although Kunwoo and Jinho both pointed out each other as the least favorite person to whom to send messages, it turned out that they exchanged quite a few messages between themselves, possibly teasing messages to each other. In the case of Sooki, she sent out messages to Jinho, Kunwoo, and Jungah relatively evenly, with only Hyunah receiving much fewer messages. Even though Sooki identified Hyunah as the most helpful person in the chat room because she appreciated Hyunah's opinions, Sooki sent the fewest number of messages to her. Excluding Jungah, nearly all children sent the lowest number of messages to Hyunah. Unlike the first group, the number of random messages was low.

Participants' roles. In the chat room, no specific role was assigned to individual participants. I did not ask them to be a writer, viewer, bystander, or a person who moderated the conversation, kept the time of our discussion, or initiated a new thread. However, unlike Group 1, recurring patterns of participants taking particular roles were discovered.

Excerpt 127. Example from Session 2
23 **Kunwoo:** everyone joined the session finally
24 **Kunwoo:** except for jin
     Jinho joined the session
25 **Kunwoo:** now
26 **Researcher:** Hi Jinho!
27 **Jungah:** jin joinded
28 **Researcher:** Good to see everyone here!

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29 **Sooki:** who is fin
30 **Kunwoo:** Jin ho
31 **Sooki:** not fin jin
32 **Hyunah:** what are we talking about?????
34 **Jinho:** Are guys kidding me?
37 **Kunwoo:** Just a short way of saying your name. What's today's question?
38 **Jungah:** who start call him jin?

Kunwoo usually was an initiator of new ideas or of ways to interact in the chat room. He began many ways of playing around or mischievous jokes as described in earlier sections. In Excerpt 127, Kunwoo began calling Jinho as "Jin" which he described as a short way of saying Jinho's name. Jungah quickly started calling Jinho as Jin as shown in line 27. However, Kunwoo soon realized that the children were paying too much attention to Jinho's nickname and tried to start the discussion by posing, "What's today's question?" When he entered the chat room, Kunwoo generally asked for me to start by saying, "Can we start?"

Hyunah, on the other hand, did not seem to be happy with the group of children playing around with Jinho's name. She expressed her annoyance by asking "what are we talking about?????" and attempted to get out of the playful atmosphere. In the CMC sessions, when the conversation went off topic, Hyunah was the one who always tried to calm down the situation and reminded others to return to the original task. She believed that "It's a waste of time to engage in off-topic conversations, especially the boy's strange (usually the killing stuff) stories" [Translated into English].

Excerpt 128. Example from Session 2
129 **Jungah:** I think they asked another animals but they couldn't pull it so asked another, another, and another and finally they pulled it.
131 **Sooki:** but That was real story jung
133 **Sooki:** Sorry jungah
136 **Jungah:** well, yeah Sooki. That's the real story
138 **Sooki:** Ha Ha
140 **Jungah:** Mabey they didn't eat it.

Excerpt 129. Example from Session 10
380 **Jungah:** choose one 1.just stay calm 2. help one of them 3. help both of them 4. fight alone
384 **Jungah:** 4. enter the war

As the oldest child in the group, Sooki often adjusted herself into an "authoritative" position in the chat room. Sooki sometimes acted as the moderator of the conversation. If Kunwoo teased her, for instance, Sooki would even threaten him with her age. Excerpt 128 was selected from one of the story completion tasks. When we first began the study, I asked them to try to come up with a creative finale if they already knew the ending of the story. When Sooki learned that Jungah's story matched the original conclusion of the story, she urged Jungah to produce another story because it violated the intention that I had initially proposed to the group.

Jungah often took on the role of attempting to bring consensus from the various ideas of the children when the group needed a unified opinion. For example, in Excerpt 129, Jungah provided multiple choice answers to synthesize the children's wide ranging ideas. She even took a step further, seeing herself as fulfilling her self-assigned role as a "leader." Jungah reflected:

> I think I have a leadership. As a 4th grader, I was the student president of my school in Korea and my mom told me that I had a really loud voice. In such situation [shown in Excerpt 128], I just automatically act like that. It became a sort of a habit in Korea since I thought not acting my part would disappoint the teachers [Translated into English].

Task Influence on CMC Participation

Although order of the task was adjusted and a few questions were added or deleted to those I had used with Group 1, children were again assigned to three types of tasks, a topic discussion (TD), a story completion (SC), and a scenario discussion (SD) task.

Children's Participation in the Tasks

The sessions were again separated not only by type of tasks but also by opening (O) and closing (C) segment that began and ended the session as in Case Study 1.

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Table 4.24 Numbers of Messages Produced by the Children per Task Type: Case Study 2

Name/Task	Session	1	2	3	4	5	6	7	8	9	10	Total
Hyunah	O	1	1	0	6	5	4	7	3	3	10	40
	TD	7	8	10	15	27	20	20	6	18	14	145
	SC	3	2	13	15	7	10	12	8	29	17	116
	SD	7	10	10	8	9	11	11	15	26	32	139
	C	0	0	3	4	3	2	1	2	1	2	18
	Total	18	21	36	48	51	47	51	34	77	75	458
Jinho	O	1	1	0	3	0	7	4	2	0	9	27
	TD	8	11	15	14	15	22	20	9	10	33	157
	SC	8	6	10	47	10	15	10	5	7	19	137
	SD	3	27	9	3	5	9	2	24	28	20	130
	C	1	1	1	3	1	0	1	0	0	0	8
	Total	21	46	35	70	31	53	37	40	45	81	459
Jungah	O	0	7	1	12	8	9	7	3	5	10	62
	TD	8	16	30	25	37	22	10	10	13	15	186
	SC	7	7	22	23	7	18	10	9	21	14	138
	SD	10	30	14	11	9	8	4	23	20	27	156
	C	2	0	4	8	3	3	1	1	3	1	26
	Total	27	60	71	79	64	60	32	46	62	67	568
Kunwoo	O	1	15	0	12	1	5	3	2	2	4	45
	TD	7	15	26	15	39	27	38	27	31	18	243
	SC	4	8	24	52	11	34	22	18	21	21	215
	SD	10	39	41	16	8	50	14	22	39	21	260
	C	1	3	9	3	2	1	0	0	0	0	19
	Total	23	80	100	98	61	117	77	69	93	64	782
Sooki	O	2	7	0	4	2	2	1	4	1	4	27
	TD	9	13	10	13	48	15	15	16	17	16	172
	SC	7	8	16	11	5	34	6	15	14	9	125
	SD	13	24	9	3	9	14	9	15	15	8	119
	C	1	2	1	11	2	2	0	1	0	1	21
	Total	32	54	36	42	66	67	31	51	47	38	464
TOTAL		121	261	278	337	273	344	228	240	324	325	2731

Even though children in this group did not produce as many opening comments as those in Case 1, they were lively in greeting each other, sharing information about their daily lives as well as playing around while waiting for all the children to enter the chat room. Additionally, children in this group made many closing remarks before they left the chat room, whereas most children in the other group quickly logged off as soon as the final task was completed (see examples of an opening and a closing comment in Excerpts 130 and 131.)

Excerpt 130. Example from Session 4

2 **Kunwoo:** ~_~
3 **Jungah:** hi
4 **Jungah:** ..
5 **Kunwoo:** -_-
6 **Jungah:** say something
7 **Kunwoo:** ~_~
8 **Hyunah:** hello~
9 **Researcher:** Hi everyone~
10 **Jungah:** not caracter
11 **Jungah:** i mean character
12 **Kunwoo:** ~_~
13 **Jungah:** ....
14 **Researcher:** It's really good to see you all tonight!
15 **Hyunah:** ^^;
16 **ANNIE:** ^__^
17 **Kunwoo:** #_#
18 **Jinho:** -_-
19 **Hyunah:** ^ *^
20 **Researcher:** How are you? How was your day?
21 **Kunwoo:** +_+
22 **Sooki:** 8-8
23 **Jinho:** good
24 **Jungah:** - _-
26 **Sooki:** 8-8
27 **Hyunah:** preety good
28 **Kunwoo:** +_+
29 **Jungah:** I got a horrible day
30 **Jungah:** ....
31 **Hyunah:** I went to Round Rock.
32 **Jungah:** ME too
33 **Researcher:** Why Jungah?
34 **Kunwoo:** I had a violin lesson
37 **Jungah:** I don't want to tell anybody..SORRY~~~~~~~~~~~
38 **Jungah:** ....
39 **Researcher:** Ok, we all understand
40 **Kunwoo:** I had an hour of violin lessom
41 **Kunwoo:** n
42 **Researcher:** What did you do at Round Rock?
43 **Hyunah:** I went Round Rock for my dad's car problem.
48 **Hyunah:** And then I got tutoring.

Excerpt 131. Example from Session 3

312 **Researcher:** We'll talk more tomorrow! Okey?
313 **Jungah:** ok
314 **Hyunah:** Sure!!!!!!!!!!!!!!
315 **Kunwoo:** That's it
316 **Sooki:** BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBYYYYYYYYYYYYYYYYYYY YYYYYYYYEEEEEEEEEEEEEEEEEEEEEEEEEE
319 **Hyunah:** Bye Bye everyone
320 **Jungah:** Good Night!

Table 4.25 Mean Number of Messages Produced by the Children per Task Type: Case Study 2

Task	Name	Mean	Percentage (%)	Rank
Topic Discussion	Hyunah	14.5	16.06	5
	Jinho	15.7	17.39	4
	Jungah	18.6	20.60	2
	Kunwoo	24.3	26.91	1
	Sooki	17.2	19.05	3
	Mean	18.06		
Story Completion	Hyunah	11.6	15.87	5
	Jinho	13.7	18.74	3
	Jungah	13.8	18.88	2
	Kunwoo	21.5	29.41	1
	Sooki	12.5	17.10	4
	Mean	14.62		
Scenario Discussion	Hyunah	13.9	17.29	3
	Jinho	13.0	16.17	4
	Jungah	15.6	19.40	2
	Kunwoo	26.0	32.34	1
	Sooki	11.9	14.80	5
	Mean	16.08		
Mean		16.25		
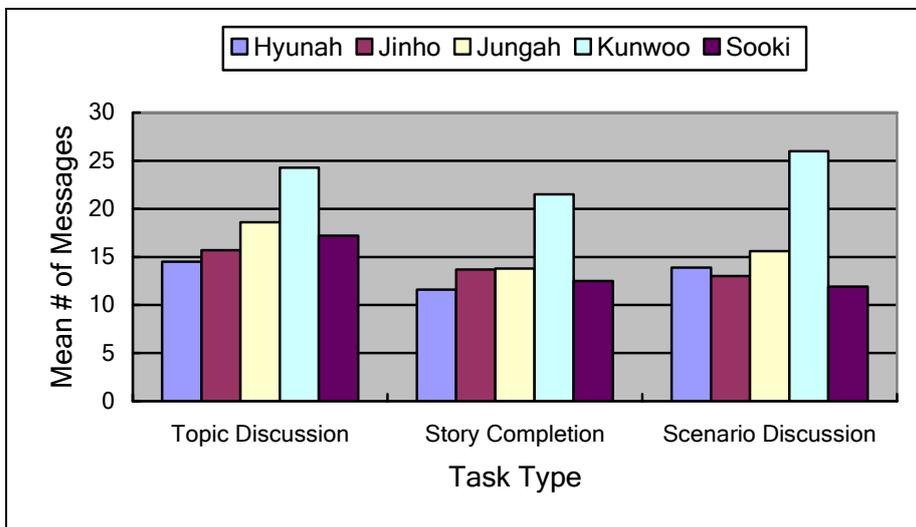
Figure 4.26 Mean number of messages produced by the children per task type: Case Study 2.

As shown in Table 4.25, children generated the largest number of messages when they were involved in the topic discussion task. According to Table 4.25, the mean for topic discussion was the highest (18.06) followed by scenario discussion (16.08) and story completion (14.62), which was the same pattern found in Case Study 1. The two groups on average produced a similar number of messages as shown in the grand mean of each group, 16.55 and 16.25 respectively.

Table 4.25 and Figure 4.26 also indicate that Kunwoo contributed the greatest number of messages across the three tasks. Also worthy of note was the fact that Kunwoo's messages consistently took up more than one fourth of the entire messages generated by the group. Jungah was the next most active participant who posted a large number of messages throughout the tasks, although there was a gap between the mean number of messages by Jungah and Kunwoo. Sooki seemed to take part in the discussion to a certain extent for the topic discussion, but her participation dropped for story completion and was ranked fifth out of the five children for the scenario discussion task. In the case of Jinho, his number of messages did not reach the mean of the group all the time. Yet, as compared to other tasks, Jinho participated relatively actively when engaged in the story completion activity. However, Jinho's mean (13.0) was still only half of what Kunwoo generated (26.0) in that task type. Hyunah was ranked last for topic discussion and story completion tasks, producing the fewest number of messages.

Table 4.26 Mean Number of Words Produced by the Children per Task Type (Raw and Refined Data): Case Study 2

Task	Name	Mean		Percentage (%)		Rank	
		Raw	*Refined*	**Raw**	*Refined*	**Raw**	*Refined*
Topic Discussion	Hyunah	66.8	*66.8*	17.80	*19.04*	4	*4*
	Jinho	41.8	*41.3*	11.14	*11.77*	5	*5*
	Jungah	77.9	*77.9*	20.76	*22.21*	2	*2*
	Kunwoo	117.3	*93.3*	31.25	*26.60*	1	*1*
	Sooki	71.5	*71.5*	19.05	*20.38*	3	*3*
	Mean	75.06	*70.16*				
Story Completion	Hyunah	65.9	*65.9*	3.98	*15.91*	5	*4*
	Jinho	514.1	*98.0*	31.07	*23.67*	2	*2*
	Jungah	85.9	*85.9*	5.19	*20.74*	3	*3*
	Kunwoo	906.5	*119.6*	54.79	*28.88*	1	*1*
	Sooki	82.2	*44.7*	4.97	*10.79*	4	*5*
	Mean	330.92	*82.82*				
Scenario Discussion	Hyunah	79.5	*79.5*	20.12	*23.00*	3	*3*
	Jinho	43.6	*43.6*	11.04	*12.62*	5	*5*
	Jungah	82.3	*82.3*	20.83	*23.81*	2	*2*
	Kunwoo	139.4	*89.9*	35.28	*26.01*	1	*1*
	Sooki	50.3	*50.3*	12.73	*14.55*	4	*4*
	Mean	79.02	*69.12*				
Mean		161.67	*74.03*				

* *Refined* data: Repeated words were counted only once.
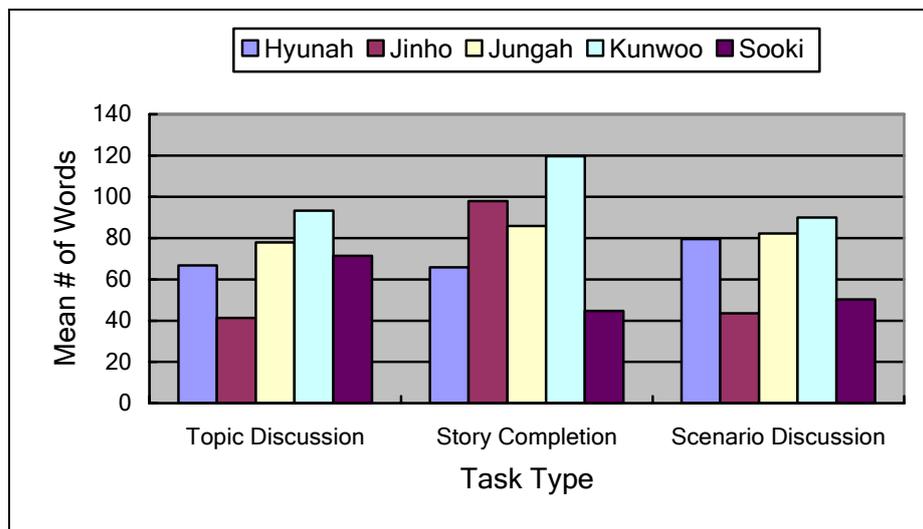
Figure 4.27 Mean number of words produced by the children per task type (refined): Case Study 2.

Table 4.26 and Figure 4.27 confirmed that Kunwoo was the most avid participant in both versions of data. Even though there was a noticeable gap between the raw and the refined data for Kunwoo, he was recurrently ranked first in all three tasks. Kunwoo was also the only participant consistently engaged in copying and pasting the same words or sentences repetitively across the entire tasks. In particular, Kunwoo's copying and pasting appeared to have peaked in the story completion task along with Jinho and Sooki whose refined mean for story completion also dropped sharply. The considerable number of messages in story completion could be explained from Session 4. There was a conflict situation between Kunwoo and Jinho while engaged in the story completion task during that session. The tension arose when Kunwoo began teasing Jinho mischievously as had often happened in the other chat sessions. After mocking Jinho for a few minutes, Kunwoo aggravated Jinho more by posting the following sentence twice: "He will try again by putting a poop of an elephant and peep of a dog and there comes out Jinho!!!!" Inspired by Kunwoo's comments, Jinho changed the "He" at the beginning of the sentence to "Kunwoo," copied the sentence and pasted it in each message over ten times in a row. Kunwoo then pasted his original sentence many more times than Jinho did as a means of fighting back. While Kunwoo posted the copied messages, Jinho pasted his sentence numerous times in a single message, which Kunwoo immediately did as well. Therefore, the chat room was covered with the pasted sentences from Jinho and Kunwoo, which were more than fifteen pages when the transcript was printed out. In the meantime, the other children who were not involved in the argument attempted to conciliate the fight between Jinho and Kunwoo by posting "Stop it" or "Stop saying that guys~~." Sooki took a step further and repeated the word "STOP" for hundreds of times which caused her to have a disparity between the raw and the refined data.

Unlike the mean number of messages, children distinctly wrote the greatest amount of words for the story completion task, producing a mean of 82.82 as presented in the refined data in Table 4.26. They composed the second largest number of words while engaged in topic discussion followed by scenario discussion. Yet, the mean difference between the topic discussion and the scenario discussion task was minimal, only about one message. While the former group only generated a mean of 58.14 words, the children

in this group composed more words, producing a mean of 74.03. Also worthy of note was the fact that, although the children in Case Study 1 were least attracted to story completion (mean 44.3 words), this group of children was very interested in the story completion task (mean 82.92).

Kunwoo was again the most active participant in all three tasks. Not only did he post messages most frequently, he contributed to the chat room to a great extent by composing the largest number of words among the children in the group. Jungah also produced a great number of words, holding on average of 22~24% of the entire words generated in the online conversations. Although Jinho wrote the least number of words for the topic discussion and scenario discussion activities, he was ranked second pertaining to the story completion task. As had been observed for the overall mean number of messages, Hyunah and Sooki were again not as active as the other children.

Table 4.27 Mean Number of Words per Message Produced by the Children per Task Type (Raw and Refined Data): Case Study 2

Task	Name	Mean		Rank	
		Raw	*Refined*	Raw	*Refined*
Topic Discussion	Hyunah	4.61	*4.61*	2	*1*
	Jinho	2.66	*2.63*	5	*5*
	Jungah	4.19	*4.19*	3	*2*
	Kunwoo	4.83	*3.84*	1	*4*
	Sooki	4.16	*4.16*	4	*3*
	Mean	4.09	*3.89*		
Story Completion	Hyunah	5.68	*5.68*	5	*3*
	Jinho	37.53	*7.15*	2	*1*
	Jungah	6.22	*6.22*	4	*2*
	Kunwoo	42.16	*5.56*	1	*4*
	Sooki	6.58	*3.58*	3	*5*
	Mean	19.63	*5.64*		
Scenario Discussion	Hyunah	5.72	*5.72*	1	*1*
	Jinho	3.35	*3.35*	5	*5*
	Jungah	5.28	*5.28*	3	*2*
	Kunwoo	5.36	*3.46*	2	*4*
	Sooki	4.02	*4.02*	4	*3*
	Mean	4.75	*4.37*		
Mean		9.49	*4.63*		
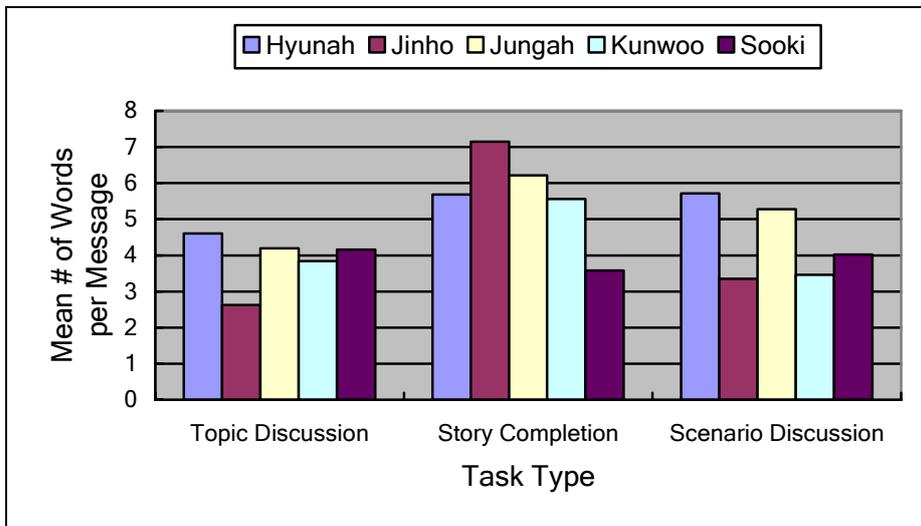
Figure 4.28 Mean number of words per message produced by the children per
task type (refined): Case study 2.

As can be seen from the refined data of Table 4.27 and Figure 4.28, the children
wrote the longest messages when they were engaged in the story completion assignment
whereas they wrote the shortest messages for the topic discussion task. This phenomenon
was also completely opposite to Group 1, who generated the shortest messages in the
story completion task. The children in Case Study 2 composed messages that were
slightly longer than those in the other group, with mean lengths of 4.63 and 3.67 words
respectively.

Although Kunwoo made the greatest contribution to the online discussion in
terms of the number of messages and words, he turned out to write relatively short
messages. According to the raw version of the data, Kunwoo and Jinho appeared to write
extremely long messages especially during the story completion task. Yet, when the
repeated parts were excluded from the counts, the length of messages was shortened
remarkably. Kunwoo was ranked fourth out of the five group members in the entire tasks.
However, it was interesting to note that Hyunah, who was considered a less active
participant, found to write the longest messages especially for the topic discussion and
the scenario discussion activities. Across the three tasks, Jungah consistently was ranked
second and was found to compose moderately extended comments. Also worthy of note

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was Jinho. He produced the shortest messages while involved in topic discussion and scenario discussion. However, Jinho's messages were found to be the longest in the story completion task although the content was usually filled with impish ideas (see Excerpt 132, for example). Except for topic discussion, Sooki composed messages that were relatively brief in length.

Excerpt 132. Example from Session 7
177   **Jinho:** THE ALL BEARS ALL COMMING AND THEN THEY SAW THE GIRL SO FATHER KILLED THE GIRL BECAUSE SHE ATE ALL BABY BEAR SOUP AND THEN BROKE TH BABY CHAIR AND THEN USE THE BABY BED.................
189   **Jinho:** THAT'S A BEAR TEN COMMANDSMENT
210   **Jinho:** 1. EAT THE ALL FOOD (DONM'T LEFT 2 DON'S SAID COURSE WORD 3 DON' LIE 4 DON'T STEAL 5 DON'T LOSE 6 HATE THE NEIGHBORHOOD 7 DON'T CRYING 8 DON'T USE OTHER BEAR STUFFS 9 DON'T AFRAID 10 KILLED IF SOMEONE USE YOUR STUFFS

To summarize, children appeared to be most active when engaged in the topic discussion task. However, they did not generate as many words and their length of messages turned out to be very short. By contrast, the participants generated the least number of messages for story completion, but they wrote the largest number of words as well as created the longest messages when in the story completion task. The children's participation seemed less active for the scenario discussion activity. The mean number of messages, words, and the length of their messages did not reach the mean of the whole group.

Children's Thoughts on the Tasks

Children generally commented that the number of tasks in each online chat session was satisfactory even though Kunwoo wanted to have more tasks to discuss. Hyunah, Jinho, and Sooki reflected that they had the most fun when engaged in the story completion task. "It's fun because I can write the rest of the story by myself," said Hyunah. Hyunah also wrote in the final essay that, "I had so much fun writing the sequel stories because I felt like I was creating a real story" [Translated into English]. Sooki also

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pointed out, "It's fun to imagine what will happen next [in the story] as well as to read other children's [stories]" [Translated into English]. However, Jinho mentioned, "If I already know the story, it's not fun. If I don't know the story, it's fun." Jungah and Kunwoo indicated the topic discussion as the most entertaining task because "I can talk about my own opinion."

On the other hand, the scenario discussion activity was found to be the least favorite task for Hyunah, Jinho, and Kunwoo. According to Hyunah, "I encountered the largest number of [English] words that I didn't understand and there were also a lot of times that I couldn't think of an answer" [Translated into English]. Moreover, many children mentioned that the scenario discussion was the most difficult task. Although Hyunah indicated the scenario discussion task as the most challenging assignment, she believed that it would be most helpful to improve her English skills. Hyunah explained, "Even though the task is difficult, you get to hear other children's opinions and propose your ideas while solving the problem" [Translated into English]. Additionally, Sooki commented that all the tasks would be useful to enhance her English because "Everything we do here is actually study. But it's fun and it's a study that I enjoy!" [Translated into English].

Excerpt 133. Example from Session 6
304   **Jinho:** i DON'T GET IT
305   **Jinho:** THE QUESTION
316   **Jungah:** I don't understand this info perfectly..
334   **Jungah:** Sorry, I don't really got it

Excerpt 134. Example from Session 7
233   **Hyunah:** is this math question??
234   **Hyunah:** Why??
235   **Hyunah:** ???????????????????//
236   **Hyunah:** --;
237   **Hyunah:** ----
238   **Jungah:** I think it's math quesition and I'm not good at math~!-_-!
245   **Hyunah:** This complicates me!!!!!!!!!!!!!!!!

As presented in Excerpts 133 and 134, the children told me that when they encountered a question they did not fully comprehend, they become frustrated or

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annoyed. Some children mentioned that other children's ideas that were sent to the chat room were very helpful in such instances. Hyunah reflected:

> I usually wait for other people to post their ideas. [After reading their opinions,] I then come up with my own… I always look up the new words [I just learned] when I return home. Since I know some other words [when engaged in the online discussion] I usually infer the meaning of the new words from the words that I already know [Translated into English].

Jungah expressed that she was frustrated when she did not understand the question of the task. However, she commented:

> I get to understand it though by reading and listening to other people's comments over and over again... comments posted by those who have good English skills… I think Hyunah and Kunwoo are very good [at English]… If I come across a word that I don't understand, I ask [other children] or look the word up when I go back home. But, the more I read the sentence [of the task,] the sooner I get to comprehend the question [Translated into English].

Jinho indicated in a few of the post-questionnaires that the most annoying thing was that, "I didn't get the question."

Children's Impressions of the Online Chat

Before vs. After

Prior to the study, all children thought that chatting in English would be difficult. Many children were especially self-conscious about their own English proficiency relative to other group members because some of them had not met before the study. Jinho and Sooki commented that they were at first afraid that other children would be very good at English and speak in English all the time. However, Jinho expressed that he was relieved when he knew that "Everyone was kind of in the similar level." Jungah also mentioned, "I was really worried because we were doing it in English and my typing skill was not very good" [Translated into English].

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However, the overall questionnaire they filled out at the end of the study revealed that all five children were very satisfied with this new and challenging experiences. The children wrote:

- Hyunah: *It was fun and interesting to discuss the thoughts with friends.*
- Jinho: *I don't know whatever it feels good.*
- Jungah: *It was too excited that share our ideas!*
- Kunwoo: *I like chatting about a subject with others.*
- Sooki: *It's fun and I can discuss my own opinions.*

Excerpt 135 was a part of our conversation after we had finished the final task of that day. Jungah was willing to discuss more questions and Jinho said he did not care about the late time if he could talk a bit more.

Excerpt 135. Example from Session 3
293   **Researcher:** Right, this was the last one..
295   **Researcher:** Do you guys want more questions..??
296   **Researcher:** It's already 8:30
298   **Jungah:** yeah
301   **Jinho:** We don't care
307   **Jungah:** I want more

Fun vs. Annoying

The children were able to express their thoughts clearly instead of simply saying "It's fun!" Hyunah elaborated in the essay, "While chatting (in English), I learned some English words that I didn't know before and I also got to know other friends' views on various topics, such as societal or school issues" [Translated into English]. Jungah also mentioned, "By engaging in chatting, I enjoyed presenting one's own ideas about the tasks with other children. Also, because I have never been involved in English chatting before, it was even funnier" [Translated into English]. According to Kunwoo, "I learned that if one tries to use a language constantly, you get better at that language. Chatting with other friends was sometimes boring, but I think it was very helpful. However, I realized that I have a long way to go" [Translated into English]. Kunwoo also indicated that it was his first time to chat with many people. Sooki noted that, "Although, at first, I was not familiar with this program, which allowed me to express my ideas freely, I now

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feel so happy that it has been a useful and enjoyable time for me" [Translated into English]. She reflected that she particularly enjoyed the story completion task and used to read the next story during the break time. Additionally, Jinho expressed a positive view of his overall experience: "In the beginning, I was nervous and curious about what was going to happen there, but it was fun and I got to make friends as well as learn English by chatting in English" [Translated into English].

Obviously, the majority of the children were annoyed with some of the boys' impish jokes as mentioned in an earlier section. There was another issue pointed out by the children. Some of them mentioned that "silent" moments when no one wrote for a few seconds in the chat room were unbearable.

Excerpt 136. Example from Session 2
215 **Hyunah:** Say something....
216 **Jinho:** umm...
....
....
217 **Jungah:** My hobbie is...
218 **Kunwoo:** you first
219 **Jungah:** I have no idea
220 **Jinho:** My hobby is soccer
221 **Kunwoo:** you know laddies first

Excerpt 137. Example from Session 4
356 **Jungah:** say something
357 **Jinho:** .
358 **Kunwoo:** SAY WHAT!!!!!!!!

Hyunah, Jungah, and Kunwoo frequently wrote "Say something" in the chat room. If no message appeared for a few seconds lasting up to a minute, one of the three children would write "Say something" in order to facilitate discussion. "I really don't like when no one is writing. Then, the time flies so meaninglessly," said Jungah [Translated into English]. In one of the post-questionnaires, Kunwoo noted that "Nobody spoke much" was the most annoying experience. Sometimes, "Say something" helped encourage the conversation to be continued as shown in Excerpt 136. On the other hand, when participants did not have anything to talk about, it could irritate other members of the group instead.

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Advantages vs. Disadvantages

Unlike Case Study 1, none of participants mentioned the improvement of their typing speed as an advantage; however, they acknowledged that it could help them in learning English. Various disadvantages were pointed out by the children as displayed in Table 4.28.

Table 4.28 Advantages and Disadvantages of Online Chat Reported by the Children

Participant	Advantages	Disadvantages
Hyunah	• Learning from listening to others' thoughts. • Discuss seriously. • Help me talking in English.	• We can just discuss it in computer, not orally. • Some people talked about strange things. • Some questions I didn't have such great ideas.
Jinho	• Becoming friends with other children.	• Eyesight gets bad.
Jungah	• It's so fun to chat with others. • It's so fun to share our ideas. • The questions are fun.	• The people can think that it's just fun so they don't think about other people.
Kunwoo	• Makes me realize my grammar mistakes. • It's fun.	• Once the message is sent, that's it. • Teacher didn't make any corrections.
Sooki	• People usually are afraid of talking in English, but the pressure is reduced in the chat room.	• Since we only type in English and rarely talk to each other, there is no close feeling among us. So it's hard to be friends with the other children.

Note. Jinho and Sooki's comments were translated into English.

Hyunah and Sooki appreciated the chat experiences as an opportunity to help them to speak in English from having discussed in English for ten sessions. Although chatting was a form of writing to express opinions, they viewed it as "talking" to other friends. Reading and sharing other children's ideas on various topics seemed to have enriched the online discussion. The fun of getting to chat online with other friends was also attractive to these children. Also, Jinho made use of this experience socially as a way to make friends.

On the other hand, because the communication completely depended on reading the texts on the computer screen and typing their comments, they noticed the restrictions

such as not being able to talk orally to each other or express their feelings. Additionally, some children did not participate in the discussion seriously, instead teasing and insulting other members of the group, which disturbed other children from concentrating on the talk. Sooki mentioned the social distance caused by online conversation. In fact, the children rarely talked to each other outside the classroom. Jungah noted, "The atmosphere inside and outside the chat room is very different. I don't think we talk to other children outside." However, Jungah commented, "I think it's better though. If I'm having a discussion with someone that I know, I will be shy and worried about what they will think of my ideas. But, with these children, I didn't have much of that feeling because I probably won't see them again" [Translated into English]. Kunwoo complained that his errors did not have a chance to be corrected.

"Yeah!" vs. "No"

All the children indicated during the interview, in the post-questionnaires, overall questionnaire, and the essay that they would like to try the online synchronous discussion if they were given another chance. Jinho and Sooki mentioned, "It's fun," and Hyunah and Jungah answered that "I love to do this! It's so interesting to share many comments and ideas with other students." Kunwoo agreed that it was a fun way of talking with other children. He also believed that, "It would improve my English."

Many children considered that the online conversation was a useful way to learn English. "At first, it was awkward [to discuss in English], but I got used to it after trying it a couple times," said Hyunah. She also mentioned that it was helpful because "We can talk about lots of thing in English all the time without using any Korean" [Translated into English]. Jungah also noted that in order to keep up with the current discussion, "I had to think [my ideas] in English." Kunwoo, who was especially conscious of his grammatical errors, commented that, "It's good because I can look at my own writing. I don't like to look at my papers edited by my tutor because it's too long. But, it's not too long here, so I can easily figure out what I wrote incorrectly" [Translated into English]. However, Sooki pointed out the possibility that chatting could enhance one's fluency but not accuracy. According to Sooki:

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Since the children in the group speak poorer English than native speakers, grammatical skills would not improve. What we can benefit [from CMC] is the way to improve how we express our opinions... You can only develop the aspects of grammar by memorizing and learning about it [Translated into English].

Researcher's Role in the Eyes of the Children in Case Study 2

None of the children in this group called me "Annie." As shown in Excerpt 138, Jungah first began calling me "Ms. Koh" in Session 3. By Session 5, not only Jungah but also Kunwoo and Hyunah called me "Ms. Koh" as can be seen in Excerpt 139. Jungah reflected, "I didn't know how to call you except for 'Ms. Koh'… It was so interesting to see other children accept my idea and also start calling you 'Ms. Koh' just the way I did" [Translated into English]. Kunwoo also commented that he called me "Ms. Koh" because "You are the teacher and I thought it would be rude to write 'Young Ihn Koh' [Translated into English]. On the other hand, Sooki, the only participant who had never been immersed in an American school unlike the other children, called me "Teacher" until the last day of our study.

Excerpt 138. Example from Session 3
172   **Jungah:** What do you think,Ms.Koh?
178   **Jungah:** I want to heard Ms.Koh!

Excerpt 139. Example from Session 5
79   **Jungah:** Did you saw mine, Ms.Koh?
83   **Sooki:** ME TOO TEACHER
115   **Kunwoo:** SAY WHAT? MS.KOH!!!!!!!!
181   **Hyunah:** I think we should move on, Ms.Koh

The children looked up to me as the one who evaluated their opinions (Hyunah), asked questions (Jinho), led the discussion (Jungah), gave questions (Kunwoo), or as the "Conductor" (Sooki). The children were generally satisfied with my role in the CMC, but they also offered a few suggestions to maximize my part in the chat room. Jungah recommended, "Why don't you take part in the discussion once or twice in a while. You might even want to participate more" [Translated into English]. When I confessed to Jungah that it was hard to control my involvement because I did not want other children

to respond to me when they could talk to each other, Jungah nodded and added, "It's true. I personally tend to pay more attention to your comments" [Translated into English]. Hyunah also advised that the children could profit from my contribution if I could propose an idea when the children were "silent" or ran out of opinions. Also, Sooki asked that I make corrections or suggest a better sentence to a comment that was not written properly.

Cross Case Comparison of the Two Groups

This section explores similarities and distinct phenomena between the two groups by way of summarizing the findings. Before I delve into the comparison, I first briefly discuss the children's general participation patterns in CMC environment.

Although the children in Case Study 1 seemed to contribute more to the online discussion by producing a larger number of messages than those in Case Study 2, the latter group turned out to be more actively involved in terms of the number of words and the length of messages. In other words, the former group tended to post many messages but their messages were relatively short, whereas the second group did not generate as many messages as the first group but their messages were more elaborated. Furthermore, there was a noticeable difference between the raw and the refined version of the data for Case 2 than for the other group. This aspect implied that the children in the second group were more frequently engaged in repeating the same word, phrase, or sentence than the children in Group 1.

Similar Features in the CMC across Groups

Children's New Literacies

I was initially concerned that the children might have trouble getting used to chatting with other children in an online situation. Some children indicated that they had never been exposed to synchronous chatting before; however, it did not take long for

them to become familiar with the new experience. The majority of the children reflected that it was a fun experience not because of the computer's impressive character in itself but because of the computer's capability to empower them to interact with other children in a new way. The children's main reason for the "fun" was because the online discussion allowed them to express and share their ideas as well as to listen to others' opinions.

Non verbal cues. A few children noted that one of the disadvantages of computer-mediated discussion was the lack of non verbal cues including facial expressions, emotions, or body gestures. For example, one participant complained that it was hard to show his annoyance or anger when someone had been teasing him. However, the children were able to overcome the restrictions they encountered during the online conversation by employing various strategies.

First, they made use of a variety of emoticons to display their feelings. One interesting aspect I noticed about their use of emoticons was that they exclusively used the upright Asian emoticons (i.e., ^_^, +_+, or -_-), and never the western style smileys drawn from left to right (i.e., :-) or :-(). The children inserted those small images to supplement elements missing in the online situation. Second, the children often added special symbols such as exclamation marks, question marks, and repeated full stops to their comments. Those symbols were frequently inserted multiple times as a means of emphasizing their statement in the chat room. Third, some children capitalized certain words in their comment to show more stress on certain parts of their messages. However, other children typed in all capital letters for practical reasons, which was to make their comments more prominent among the group, to avoid having to press the "Shift" key when they needed to, or simply because other children did so. Yet, capitalization was one of the efficient ways to enhance the online texts. Finally, the children also repeated one or more letters of a word to signify a strong feeling in their message.

Playfulness. Perhaps because the study was conducted in a setting the children might see as "less academic," they took the freedom to interact with others and to behave in the chat room as they wanted. Making most of the lack of restrictions in this environment, the children in both groups "played around" extensively while engaged in

CMC. The children developed sophisticated techniques to play around during the conversation.

First, the children entertained the discussion by posting messages in a number of ways that included composing split messages that only contained one word or letter in each message, typing their comments with no space between the words or extra spaces between the letters, or writing their messages backward. Second, the children, particularly the boys, often suggested mischievous ideas (i.e., "killing" stories) as an answer to the discussion question and posted random comments (i.e., *I like chocolate*). Third, the children frequently repeated their own or other participants' comments pressing the <Ctrl+c> and <Ctrl+v> on the keyboard. Most children were already familiar with the use of such keys prior to the study and were able to make proper use of them when needed. Finally, although those messages did not appear on the computer screen, some children were reported to have been involved in private messages. Even though I had never mentioned the private message function of Blackboard to the groups, a few children somehow figured out a way to utilize it as a means to tease and annoy other people.

Group Dynamics

Both groups of children tended to send a large number of messages to the entire group or to me, instead of interacting with particular other children. By analyzing selected conversations using coherence graphs, I found that the children responded to me to a great extent because I was the one who gave them questions to start each task. Due to the simultaneous and speedy posting of comments from the group members, the children were usually busy keeping up with the discussion in the chat room. Although the children were generally engaged in typing their comments to the task, there was a difference in group dynamics depending on the type of tasks assigned. For the story completion, the children rarely responded to each other's stories but were more focused on creating and typing their own stories. On the other hand, for the topic discussion or the scenario discussion activity, more instances of interaction were observed.
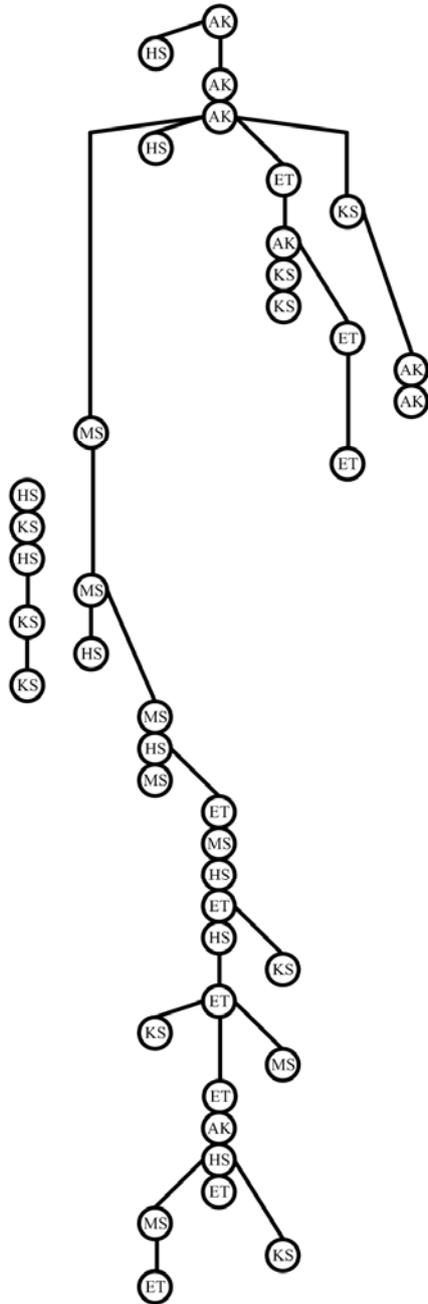
Figure 4.29 Coherence graph of a story completion task from Session 2.
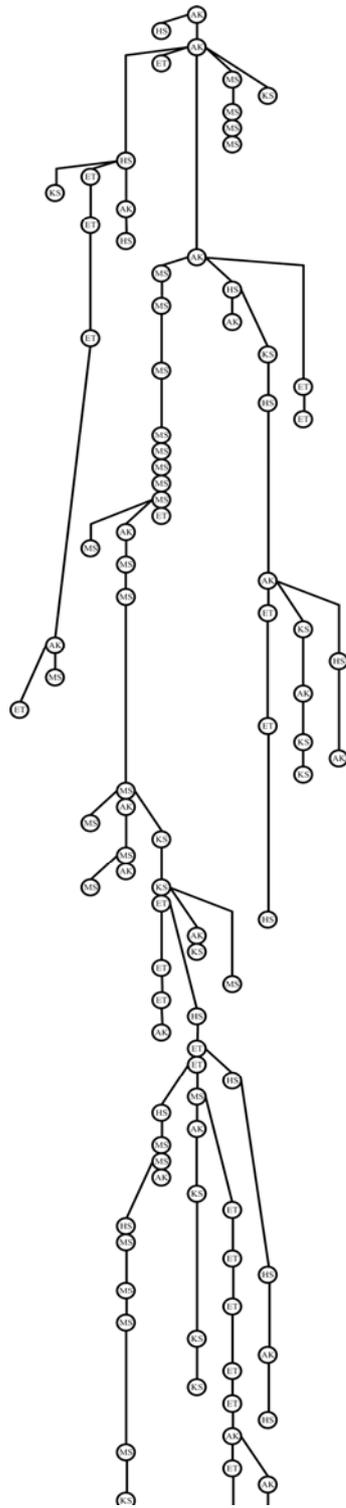
Figure 4.30 Coherence graph of a topic discussion task from Session 5.

Error Correction

Most children were generous about other group members' mistakes and errors that occurred in the chat room (cf. Kunwoo). The children noted that as long as the flawed comments were understandable they would not be harsh on them, admitting that they also made similar mistakes all the time. The errors were most likely captured by the writer or pointed out or corrected by other members of the group. However, the errors recognized were generally minor, largely misspellings or typos and a few grammatical mistakes. In other words, although those mistakes and errors rarely prevented the flow of their conversations, the children appeared to be conscious of those small elements when they read their own and other children's messages. Additionally, errors identified and repaired by another participant were seldom appreciated by the one who had initially made a mistake.

Children's Impressions

The children reflected that they enjoyed this innovative experience because it provided them with various opportunities to interact with other children of their age. Most children were initially concerned that their English skills would not be good enough to communicate in English in CMC. Yet, they later commented that chatting with other friends online in English was not as difficult as they had imagined. The children mentioned that as the session progressed, they became less conscious of their mistakes or grammatical errors, except for Kunwoo in Case Study 2, but concentrated more on composing their own ideas to contribute to the conversations. They also suggested that they might benefit from online chatting to improve their English learning. Some children in both groups pointed out the restrictions of CMC such as not being able to show facial expressions or emotions as well as talking to other children orally in person.

Distinctive Features of the Groups in CMC

General Atmosphere of the Groups

The children established different attitudes toward their opportunity to participate in online discussion. They generally joined the chat room with a comfortable and relaxed manner. However, the children in Case Study 1 tended to be less serious about taking part in this activity. For example, Euntae enjoyed suggesting impish ideas for the tasks, Heesu became bored easily and would type "Hi" repeatedly, Kyangshik usually simply agreed to other children's mischief and often posted "random" messages, and Minsuk was largely engaged in diverse ways of "playing around" and inventing ways to annoy other people. On the other hand, although some children (e.g., Jinho and Kunwoo) put more emphasis on the playing around in the chat room, other children in Case Study 2 were serious participants who seemed to want to discuss and share various ideas with other friends in a new environment (e.g., Hyunah, Jungah, and Sooki).

The two groups' atmosphere was different not only inside but also outside the chat room. Children in Case Study 1 were very lively offline. It did not take long for them to mingle and become friends with other members of the group before and after the study. Yet, because of the unbalanced gender demographics (i.e., one girl and three boys), the three boys seemed to get along well but they did not interact much with the girl in the group. However, children in the other group were mostly reserved and quiet once they exited the chat room. Even Kunwoo, the most active and mischievous child online, seemed very calm, almost shy, outside the chat room. They rarely spoke to each other offline. This difference could be due to each child's individual personality and characteristics; however, those aspects were not examined closely in this study.

Due to the differences in the children's attitudes and each group's atmosphere, the two groups developed unique interactive patterns under the CMC condition, particularly pertaining to the tension among the group members.

Tension in Case Study 1. The tension reported in this group was related to Heesu's repetitive posting of "Hi" messages and the boys' continuous development of impish ideas. The boys indicated that Heesu's "Hi"s were the most annoying

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phenomenon in the chat room, whereas Heesu pointed out the boys' naughty jokes were not funny at all, but distracting to her. Hence, the tension appeared to be gender divided to some extent. Furthermore, although Jinho and Kunwoo, the only two boys in Case 2, were occupied in mischievously insulting each other, the boys in Case 1 often teased each other in more playful ways than the boys in Case 2. However, the children in Case 1 paid less attention to other children's opinions and put more emphasis on their own matters, and therefore generated a higher numbers of random messages than the other group.

　　　　Tension in Case Study 2. The predominant cause of tension among the children in the second group was the teasing between Jinho and Kunwoo. The majority of the children indicated that they would not respond to the boys' naughty jokes which were irritating to them. When Jinho and Kunwoo started insulting each other though, the other members of the group tended to get involved in the conflict and actively attempted to reconcile the argument between the boys so that the entire group could participate in the online discussion more seriously. Moreover, the children in this group were more attentive to other children's comments and produced fewer comments that came out of the blue. In general, the children in Case 2 participated in CMC more faithfully.

Participation in and Preferences for the Different Tasks

　　　　Case Study 1. As shown in the children's general participation in the CMC earlier, the children in Case 1 were found to produce slightly more messages than the other group. Yet, Case Study 1 generated, on average, much fewer words and shorter messages as compared to Case Study 2. The children were most active when they were engaged in either the topic discussion or the scenario discussion task. They made the least contribution to the online discussion when working on the story completion task. Euntae and Kyangshik enjoyed the scenario discussion activity, which allowed them freely to suggest amusing ideas. In contrast, Heesu and Minsuk preferred the story completion task, because the task itself was easier and did not require them to think much.

　　　　Case Study 2. The children in the second group generated a larger number of words and longer messages than the children in Case 1. More than half of the children pointed out the story completion as the most entertaining task because they could create

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their own stories. Moreover, Jinho who usually wrote the shortest length of message tended to compose fairly lengthy comments in this task even though his stories were mostly mischievous in nature. The scenario discussion activity was generally agreed upon as the most challenging task though possibly as the most helpful task to enhance their English learning.

Children's Impressions

Heesu and Kyangshik in Case Study 1 said that one's typing skills could improve by way of online discussion. However, those two children indicated that they did not like to type their comments in the CMC. Heesu noted that she preferred to talk person-to-person and Kyangshik made a complaint that typing on the keyboard was difficult for him because his hands would sweat.

On the other hand, the entire groups in Case Study 2 indicated that they would be willing to take part in the online conversation again if given another opportunity. They not only appreciated their experiences in discussing various issues with a group of children in English, a few also stated they enjoyed the social interaction they had while engaged in the study (i.e., making new friends). Additionally, Kunwoo told me that he could recognize his errors more easily in the online texts. However, some children realized that because the interaction occurred in an online environment through the computer screen, it was hard for them really to get to know other children in the group. Therefore, even though they actively talked to each other and played around together online, they tended to stay quiet once they had exited the chat room.

CHAPTER 5

DISCUSSION

Overall, the children and I enjoyed this informal opportunity to discuss various topics in an electronic chat room. The children came to know each other differently from how they would have encountered each other or other children in a classroom. I began the study with an aim to explore the children's experiences and general impressions of online chatting. As for their experiences in the CMC environment, I intended to examine their patterns of language use and interactions with other children in the chat room as well as their reactions to three different online task types. Extensive analysis of data and triangulation with various data sources provided the following overall answers to my research questions.

The major findings pertaining to experiences were the children's language use within messages (recognition of an error either by the author or by another member of the group, language play, and non verbal cues), their interactive patterns in CMC (playful resistance, tension among group members, and group dynamics), and task influence on CMC involvement (their participation according to each task and impressions of the tasks). In addition, the children's impressions of the online chat were reported based on their change of feeling before and after the CMC experiences, what they found fun or annoying, the advantages and disadvantages they saw in the use of CMC, and whether they would be willing to take part in online chatting if given another opportunity.

On the basis of these findings, in this chapter, I expand the discussion and focus on two main issues that I find most important: (a) whether CMC is a good way to learn a second language and what it offers to the learners, and (b) whether children are equipped with new literacies required in this new era. Then, the discussion is followed by sections on limitations of the study and implications for practice and further research.

Is CMC a Beneficial Medium to Learn a Second Language?

The children in the study generally defined chatting as "talking," "sharing one's own opinions," "exchanging ideas," "talking without speaking," "communicating with computer," or "talking in the Internet." As partially pointed out by the participants, synchronous CMC resembles several features of face-to-face oral communication, including the real-time interactional patterns (i.e., immediate response expected) as well as the use of various discourse functions (i.e., greetings and questioning) (Chun, 1994; Kern, 1995). However, although it incorporates some of the oral competence needed for face-to-face communication, synchronous CMC requires the ability to read and write, and thus can be regarded as a hybrid form of language (Beauvois, 1998).

Children's Preference for Fluency over Accuracy in CMC

In the study, the children frequently misspelled words, committed typographic errors, omitted punctuations, composed messages either all capitalized or with no capitalized letters, utilized a variety of symbol systems, employed numerous emoticons, and made grammatical mistakes. This phenomenon may primarily be due to the online chatting's requirement for quick writing and its highly interactive and free style of communication. In other words, although synchronous CMC allowed for "simultaneous conversation" with more than one person (Kern & Warschauer, 2000, p. 12), the exchanges in the chat room appeared to be faster and more complicated than traditional face-to-face discussions. In addition, the children were posting messages in a relatively less restricted atmosphere partly because I did not ask them particularly to pay attention or try to avoid errors in their comments.

Therefore, in order to keep up with the fast paced discussions, the children generally seemed to put more emphasis on the fluency of the conversation rather than its accuracy. The children generally reflected that the most enjoyable experiences was "talking" with other children and sharing ideas on diverse topics in the chat room. Although one participant complained that I did not correct his grammatical errors, the children were usually tolerant about their own and others' mistakes, attributing them to a

lack of typing skills or a lack of proper knowledge of the target language. They noted that as long as they could understand other children's comments, they tried not to be harsh about errors for two reasons: (a) they knew they themselves could make similar kinds of mistakes, and (b) they did not want to embarrass or offend another member of the group by emphasizing their errors. This phenomenon corroborates with findings reported in Lee (2002) and Sotillo (2000). Both Lee and Sotillo studied adult language learners and observed learners' enhanced fluency as well as their tendency to maintain the ongoing discussions instead of focusing on the accuracy of the linguistic forms. The children's preference for fluency, however, does not imply that aspects of accuracy can be ignored when engaged in electronic discussions. These features may need to be addressed at a certain point in a lesson to make students aware of maintaining balance between content (fluency) and accuracy (Lee, 2002). Specific pedagogical solutions are discussed later in this chapter.

It is also possible that the children were fond of the CMC experience because it was new to them. Although writing is the main medium of discussion, CMC also resembles the immediate flow of a conversation. As indicated by the children, the skill of writing was one they felt to be the most challenging in learning English. Writing usually involves intense planning as well as continuous organization of the author's ideas and the way to elaborate on those ideas. Furthermore, in order for an L2 learner to compose a piece of writing, much conscious effort must be devoted to wording and particular grammatical rules (e.g., word order of subject and verb and agreement of tense for each sentence), which makes writing slow, laborious, and even tedious. Hence, people tend to think thoroughly while writing, trying to avoid making mistakes. However, CMC allowed for the children to write as if they were speaking. Because the children viewed CMC as one type of conversation that happened to use a written form as a delivery medium, they seemed to have allowed themselves to write their comments more freely, not being preoccupied by incorrect sentence structures and grammatical details. In the chat room, they felt less afraid of writing, and writing was no longer a tedious activity to them. In addition, regarding some L2 learners' fear for making mistakes when speaking,

CMC might have offered a less restricted space where they acknowledged that sometimes making errors in CMC was acceptable.

Their preference for fluency could also be due to the types of tasks assigned in the chat room. Unlike the structured jigsaw or information gap tasks often used by teachers for collaborating online groups, the tasks used for the study were relatively less structured and instead required more of the children's opinions, thoughts, and imagination to complete them. For example, some children noted that the story completion task was their favorite activity because they felt they had become real story authors while creating and writing a finale for the story. When the children were engaged in the story completion task, they particularly tended to compose longer messages to make their stories as plausible as they could. At the same time, having studied only these limited types of tasks was one of the shortcomings of the study.

Although the current study did not show whether the participants' fluency in their second language had improved, it did suggest that children appeared to have compromised between fluency and accuracy as long as the meaning was conveyed properly. In other words, the children tended to accept incorrect linguistic elements in messages unless these errors were an obstacle to the flow of their discussions (Gass, 1997). As one child commented, CMC might be an effective vehicle to offer learners ample opportunities to share and suggest various ideas rather than serving as a tool to learn grammatical details. It is possible that CMC fosters another chance to develop communicative competence needed for learners of a second language.

Children's Error Correction in CMC

Having been newly exposed to a new way of interacting, the children also faced how they should deal with their own or other children's errors in the chat room. Should these errors be repaired or should they be overlooked? If the children's initial impression of chatting was that it was writing, they would have tried not only to point out other members' errors but also recognized and repaired their own. By contrast, if the medium was primarily considered as a spoken mode, most of the errors would have been overlooked as often happens in our daily conversations. However, as the sessions

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progressed, the children became familiar with the characteristics of CMC which had integrated aspects of both written and spoken discourse. Therefore, although not every error was identified in the chat room, the children were sometimes observed to point out other children's errors and corrected their own mistakes as described in Figure 5.1.
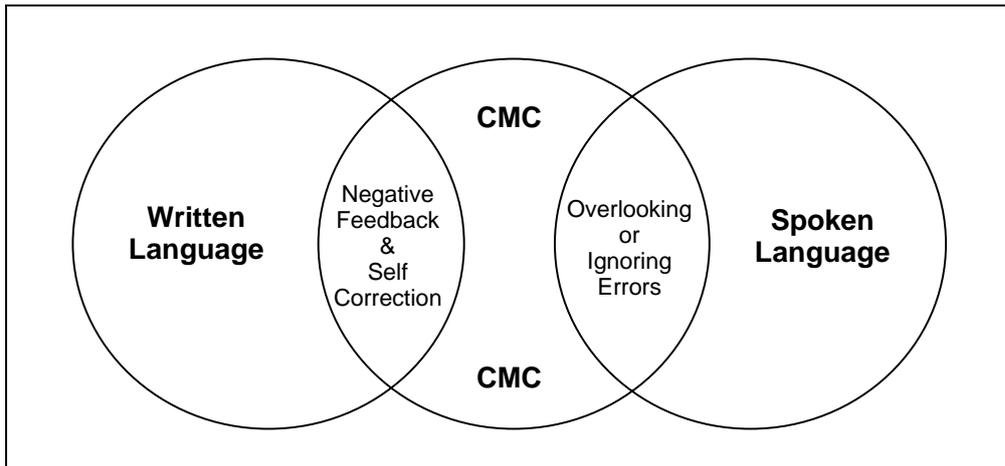

Figure 5.1 Children's error correction patterns in the CMC venue.

Negative feedback to other children's errors. Even though the children were usually generous about others' erroneous messages, they often pointed out other group members' errors when those incorrect features were preventing them from understanding the text. Although examples of explicit feedback to an error were found (e.g., *It's in your face, not on your face*), the children tended to point out other children's errors in an implicit manner as observed in the Spanish immigrant children investigated by Morris (2005).

The young learners who took part in the study also provided various types of implicit interactional feedback to signal that an error had occurred in their comments. Unlike the explicit negative feedback, implicit negative feedback, or negotiation of form, helped other children recognize their errors and possibly repair those errors as well. These implicit negative feedback used by the children included a recast (e.g., A: *Or used all misail*; B: *You mean missiles*), a clarification request (e.g., *Is that channel or channer? I confused*; *What are you mean?*), or repetition (e.g., A: *No mony for you!!!*; B:

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Mony?). To date, many studies have suggested the use of negative feedback as a means of promoting L2 development mainly due to its potential to increase a learner's recognition of errors and facilitate the production of pushed output by repairing the incorrect forms (Long, Inagaki, & Ortega, 1998; Lyster, 1998; Lyster & Ranta, 1997; Macky & Philip, 1998; Oliver, 2002). In this study, even though the majority of errors were limited to lexical features, the negative feedback offered valuable opportunities for the children to be involved in the negotiation of forms. However, it was beyond the scope of the current study to track learners' uptake on and learning from the corrective feedback (see Heift, 2004, for example).

One reason the children only implicitly indicated others' errors may have been because of CMC's rapid pace. In a spoken discourse, people tend to be more flexible about an interlocutor's incorrect utterances, whereas every single error is much more rigidly monitored and required to be repaired in a written discourse. The children, who quickly became used to the distinctive features of CMC were not willing to break the conversation flow by offering negative feedback whenever they encountered ill-formed utterances. Rather, they only asked for an explanation or a repair of an error, to the extent that such a request did not disrupt the discussion, when the error was preventing them from understanding the meaning of the discussion.

The children's use of implicit negative feedback can also be ascribed to the unique setting of the study. Although the children were individually logged onto the chat room, they were physically gathered around a table in the same place facing each other. Being able to see each other's face closely while engaged in chatting may have encouraged the children to point out other members' errors in an implicit and more polite way. However, if they had been more distantly located, they might have offered more negative feedback with a more explicit and rigorous attitude.

Additionally, not everyone in the group knew each other prior to the start of the study. Before they first met and began talking to each other in the chat room, the children had no clue about the English proficiency of some of the other members of their group. The children generally reflected that they were initially afraid that their own English proficiency would be too low as compared to others. However, as the sessions

progressed, the children appeared to realize that although there were some children whose English was slightly better than their own, they were all in the same boat learning English to improve their proficiency. Although a few participants mentioned that other people's errors were sometimes bothersome, they considered they could have made the same mistake as well or they would point out the errors politely in an implicit way so as not to offend or embarrass those who had committed the mistake. They seemed to have created a small learning community naturally where they understood each other's errors and offered implicit corrective feedback when they thought the correction was necessary to help other children pay attention to the ill-formed utterances in the online chat.

Self correction. In real life, people rarely engage in self correction while talking with others. However, it is interesting to note that CMC allows for self correction because, even though CMC is similar to the flow of spoken language, it is also similar to the written form at the same time.

The children's self correction can be explained in two ways: (a) they wanted to facilitate the smooth flow of their conversation, and (b) they wanted to avoid other children's negative feedback to their erroneous entries. First, the children did not want their errors to mislead other participants. Because children were posting their comments simultaneously, the conversation could become complicated. As a way of reducing the confusion, the children attempted to repair their errors so that their mistakes would not interrupt the flow of the online discussion. Therefore, self correction could help convey a closer version of what the author intended. Second, the children were trying not to receive negative feedback from other members of the group. Being the target of negative feedback may have made them feel uncomfortable and embarrassed. Furthermore, they may have been afraid that other children would laugh at them for their ignorance. As one of the children indicated in the interview, he considered other children's mistakes as "another chance to insult them" rather than acknowledge the mistake as "my bad." Hence, self correction could provide an opportunity to show, "I am not so stupid as to make this kind of simple error. I already know the correct usage of the word but it was just a typo."

One child in the study, who was particularly conscious of his own grammatical errors, reflected that it was easier for him to fix his mistakes because the messages he posted were generally short as compared to the essays he had to write for his private tutor. The chat room was beneficial for self correction in two ways: (a) the production of output (Swain, 1985, 1995), and (b) the relatively brief discourse of CMC (Kelm, 1992). The electronic texts posted in the chat room let the children recognize and repair their interlanguage easily (Blake, 2000). Although the children generally posted their comments as quickly as they had formulated their thoughts, they appeared to monitor their sentences and sometimes edited them before posting. In addition, the brief nature of their comments allowed the children to identify their errors relatively easily. As Swain (1995) has argued, such output drew the learners' attention to the form of the language and pushed the learners to produce improved output in the second language. In sum, CMC appeared to have created plentiful opportunities to provide input and feedback that could help the children produce better language, or what Swain (1995) called, "pushed output."

Are Children Ready to Enter the New Millennium of the Internet?

In this section, I focus on the children's new literacies discovered and practiced in the chat room. First, based on Leu and Kinzer's (2003) framework of New Literacies on the Internet, I discuss how competent the children in the study were in dealing with the innovative medium of the online chat. I then present some examples showing the children's new literacies and argue that they appeared to have been adept at the new literacies required to enter into the new millennium of the Internet.

Exploring Children's New Literacies

Among the ten general principles proposed by Leu and Kinzer (2003), five issues seemed to be most relevant to my study. First, Leu and Kinzer argued that, to date, although the new literacies of Internet technologies have been gaining much attention over traditional literacies, the conventional aspects of literacy needed to be maintained

and even reinforced (Principle 3). In the study, synchronous CMC very much depended on the children's ability to read other participants' messages and post their ideas as well as respond to other children's opinions. Even though they needed to exploit properly various functions offered in the chat room, the children were required to be engaged in reading and writing messages on the computer screen, foundational literacies on which the new literacies depended.

Second, Leu and Kinzer's (2003) framework highlights the social aspects of learning and how new literacies encourage social learning strategies (Principle 6). The children who took part in the study often helped and also learned from each other. A few times, I observed one child helping another who was struggling with the temporary loss of the wireless connection, to regain the connection so that she or he could re-enter the chat room. Additionally, the children enjoyed sharing knowledge of playful functions such as "Copy" and "Paste" and Private Message functions that were possible when chatting with other members of the group.

Third, Leu and Kinzer (2003) considered achieving access to new forms of linguistic and cultural learning experiences through new technologies as important (Principle 8). Most children soon adapted themselves to the new environment in which they could not only invent new linguistic features but also encounter culturally diverse cyber situations. The children created various ways to compose and post their entries to avoid monotonous communication. They also indicated that talking to other children online and offline appeared to be very different: Although they could form a close discussion group in the chat room, it was not easy for them to continue the same atmosphere outside the chat room.

Fourth, speed of reading, writing, processing, and responding/communicating is one of the essential elements of new literacies, according to Leu and Kinzer (2003) (Principle 9). In order to keep up with posting in the chat room, the children were required to read and write by typing at a moderate speed as well as thinking and communicating in a timely manner. Some children reflected that the online conversation often moved from one subject to another quickly while they were still typing their thoughts about a previous topic. When this kind of situation occurred, they revealed that

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they often tried to finish writing their sentences as quickly as possible so that they could move on and join the new thread of conversation.

Last, but not least, Leu and Kinzer (2003) put emphasis on strategic knowledge as necessary for effective use of new technologies (Principle 10). Unlike other emerging technologies (i.e., e-mail, listservs, web sites, bulletin boards, and blogs), chat rooms have unique traits such as allowing for a simultaneous conversation with one or many people. When engaged in chatting in Blackboard and reading online stories from other web sites, the children had to learn what exactly they should do to exploit different technology. For example, when reading the stories on other web sites, they made use of the learner control function to read the stories at their own pace but when they returned to the chat room, they soon became used to the spoken flow of conversation when interacting with other children.

Overall, I would say the children in the study were generally equipped with enough of the new literacies required by the new age of information and communication technology. Some children in this study had been previously exposed to online chatting; however, none of them had engaged in chatting in English before. Hence, I was the one who introduced an innovative medium, synchronous discussion, to these children so that they could explore their "new" communicative experiences. Yet, unlike my initial concern that children would have difficulty dealing with CMC on Blackboard, these children were very quickly able to maneuver a new tool and also rapidly developed new skills during the span of ten chat sessions.

Exploring Children's New Literacies: A Closer Look

In the chat room, the children made various linguistic and social attempts to maximize their opportunities to be entertained in the less restricted CMC venue. Unlike face-to-face interaction, the chat room offered more humorous and uninhibited conditions echoing Bakhtin's (1984) concept of a carnival square. Even though the children were never instructed on how to play around in the chat room, they were clever and sophisticated enough to invent novel strategies and to insert various layers of playfulness

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in the cyberspace. In the following, I first explain Bakhtin's concept of carnival and then discuss the children's language play and flaming.

Bakhtin's carnival. Mikhail Bakhtin, a Russian philosopher and theorist, established his work on carnival in his seminal book *Rabelais and His World* (1984). Inspired by the historical Renaissance festivals, the main theme of Bakhtin's concept of carnival is transformation and renewal: turning the social hierarchy topsy-turvy. In his view, The carnivalesque atmosphere is filled with playfulness, laughter, creativity, liberation, and grotesqueness. In a Bakhtinian carnival, the stage is not saved only for the actors; instead of watching the actors' performance from a distance, the spectators are also encouraged to participate actively. Thus, social orders among people are decentralized. Although the carnival can be characterized by resistance and rebellion, "[Carnival] is not primarily one of anger for him, but most saliently, one of satire, critique, and ultimately, play" (DaSilva Iddings & McCafferty, 2007, p. 33). The following section describes instances of the children's language play in light of Bakhtin's concept of carnival.

Language play. DaSilva Iddings and McCafferty (2007) pointed out that, whereas language play in first language learning has been explored, only a few studies have looked at the potential of language play for L2 development. Those few studies on L2 have suggested that language play not only serves to create fun and amusement but also reveals beneficial features that might promote L2 learning (Broner & Tarone, 2001; Cook, 1997; DaSilva Iddings & McCafferty, 2007; Warner, 2005). In particular, DaSilva Iddings and McCafferty argued that children generally favor carnival activities and are able to expand their creativity to make use of their L2 knowledge.

The children in my study were engaged in a variety of language play in the chat room. As mentioned in the interview with the children, they were aware of the fact that the chat room, like a Bakhtinian carnival, was a freer place, allowing them to do "[what] you can't do… in normal communication." When the children were bored with the discussion or had nothing to say, they created their own playful environment where they tried different types of language play, including repetition using "Copy" and "Paste" functions, making changes to the spacing of letters, words, and sentences, and posting

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naughty jokes. Capitalizing on the freedom in the chat room, the children seemed to be resisting their "good" student image from the classroom, rebelling "to set up their own structures in a carnivalesque learning environment" (Na, 2003, p. 124).

   Flaming. Although the chat room provided the children with a more playful and freer environment, a dark side of CMC coexited with the Bakhtinian carnival. In the chat room, the children were frequently engaged in *flaming*, producing vicious, insulting, and offensive messages to other children in the group. The children in Case Study 1 tended to be engaged in mild flaming that generally involved teasing other children for amusement. Due presumably to the group composition, three boys dominating the group with one girl, the boys usually teased the girl or made fun of and insulted each other just as Faigley (1992) reported for undergraduates engaged in an anonymous synchronous CMC discussion. One participant indicated that he had to search an alternative way to show his anger to another boy who was teasing him, thus had chosen to curse him. This is an example that describes the emergence of flaming as due to the lack of social constraints (Sproull & Kiesler, 1991).

   However, some children in Case Study 2 were more aggressive and abusive, making the chat room disturbing and unpleasant for other children. Particularly, Kunwoo very often initiated flaming in CMC. Most times, Kunwoo was flaming Jinho, the only other boy in the group. One possibility for Kunwoo's recurring bullying of Jinho can be explained as "*social* rather than *asocial* behavior" (Abrams, 2003, p. 252, emphasis in original). Although Kunwoo had met Jinho only on the first day of the study, he started attacking Jinho from Session 2 and continued until the end of the study. It appeared that Kunwoo was targeting Jinho to signal that he wanted to be friends with him. Even though Jinho denied that he was being bullied by Kunwoo, as the witnesses of bullying, the other children (that is, the three girls) usually attempted to conciliate the flaming between the two boys. Kunwoo may have enjoyed causing flaming in the chat room; however, as the sessions progressed, other children began to regard him as a "weird" person and tended to ignore his comments by not talking to him.

   Although studies that observed flaming reported that it was not a frequent instance (Abrams, 2003; Beauvois, 1998; Kreeft Peyton & Bruce, 1993), the children in

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the current study appeared to get involved in flaming repeatedly, just as the adult L2 learners engaged in CMC in Lee's (2003) study. In our chat room, flaming was rather a distraction to the flow of the conversations; however, these types of aggressive and naughty behavior may have provided the children with an authentic preview of a flaming incident they could encounter in real life with native speaking children. Additionally, by engaging in flaming either directly or indirectly, the children could have learned the necessary skills and strategies to cope with a flaming situation.

Limitations of the Study

Several limitations that could influence the interpretation of and conclusions drawn from the study are reported in this section. The major drawback of my study was related to the way the groups were formed. The study was conducted under a unique but, at the same time, unusual setting, unlike a conventional classroom-based environment at school or a language learning institute. First, the population was strikingly different from one we would find at school. The children did not know each other well prior to the study but began to know other people better only as the chat sessions progressed, in driving to the university together, and seeing each other often during the study. Second, the children were only engaged in the chatting for a short span of time in a small classroom at the university with which they were not at all familiar, as compared to doing CMC as part of an after-school or in-school curriculum, on a regular basis, say once a week with their friends or classmates they already know well. Third, during the CMC sessions, the children were sitting in front of a laptop assigned to them, awkwardly facing each other, instead of being in a computer lab at school where they could be more distant from each other while taking part in CMC. Fourth, the majority of the children, eight out of nine children, had been immersed in the target language and culture, having stayed in the United States and received American schooling at a local school for at least half a year at the time of study. Although their level of English proficiencies varied, ranging from intermediate to near native, none of them were novice L2 learners, being able to read and write in English to a great extent.

Another limitation of the study was the data coding skills I made use of. The findings were based on an analysis of the children's conversational phenomena instead of utilizing pre-established discourse analytic approaches to analyze the electronic texts produced by the children. I could have adopted conversation analysis and examined the turn-taking patterns, employed a feminist perspective and focused on gender aspect between boys and girls, or looked at the data with a critical stance by accessing critical discourse analysis. By applying different lenses to the same data, the perspectives and findings would change and be very different from those I have offered.

An additional limitation is related to my influence. My role as a participant observer and an "authoritative" figure in the chat room can be generally characterized by my age, gender, status, and personality. From one point, some children were extremely curious about my age and tried to guess how old I was as we walked out of the classroom and headed to the parking lot. Because I did not reveal my age to the children, they ended up concluding that I was in my early twenties, younger than my real age. They appeared to think the age gap between them and me was not as large, and talked to me in a very friendly manner. Also, I can categorize myself as one of those "good" students, who let the children do what they wanted to do (e.g., playing around) to some extent, but sometimes not allowing them to be abusive in the chat room. The children might not have been as impish as they were in the first place, had I been a scary or a more authoritative person (i.e., a classroom teacher). In addition, if this CMC experience had been a part of their classroom activity at school, they might not have misbehaved in the ways shown in the study, considering the consequences.

Implications for Practice

Retrospective: I Could Have…

While I was conducting the study and after the study was completed, I realized that there were several things that I could or should have done for the children in the chat room. To list a few:

1. I could have arranged follow-up sessions to review errors that had occurred in one's comments and explain words they had newly learned through the CMC experiences. I missed certain opportunity for vocabulary learning.

2. I could have reduced some children's engaging in abusive and offensive behavior by taking stronger action. Sometimes, the children's flaming incidents were uncontrollable and distracted the flow of online discussions.

3. I could have allowed the children to contribute in the decision-making of the discussion topics for the CMC sessions at the meeting. A few of them commented during the interview that the discussion might have been more intriguing if they were given a chance to choose or vote on their favorite topics they expected to talk about with other children.

4. I could have stopped them from sending private messages to each other or to other people. Unless the children were monitored carefully, it was difficult to catch them involved in private messages because those secret messages only appeared on their computer screen, not even on the moderator's screen.

Recommendations for Practitioners

In this section, I suggest several pedagogical implications for integrating synchronous CMC in L2 classrooms.

Use of print-outs. As a means of dealing with the issue of error correction, a teacher using CMC could make use of the transcripts of the electronic texts. To date, most chatting tools provide "Record" or "Save" function in the chat room that allows the transcripts to be retrieved and printed out after the chat session has ended. The print-outs can be a beneficial source to identify the learner's own or other group members' errors, "helping them notice a mismatch between their interlanguage… [and] facilitate second language acquisition" (Chandler, 2003, p. 293). By reviewing the errors made in the chat room, students can gain insights into their own and each other's error patterns. As a follow-up activity for the CMC, the teacher may distribute the transcripts to the students and make them recognize and repair their own errors, a method found to be effective by Chandler (2003) and Ferris and Roberts (2001) in a traditional classroom setting.

Moreover, in order to encourage a constructive atmosphere and critical perspectives among students, the teacher can pair the students with a peer or form a small group where they can exchange their transcripts with other classmates and point out and edit other students' errors as well as explain why each others' errors were wrong. Feedback is generally known as a valuable source to prevent the students from making the same mistakes on subsequent writing (Pica, Holliday, Lewis, & Morgenthaler, 1989).

Role of teacher being changed. What would be the role of a teacher in a situation where the children are not afraid to try a new medium but tend to enjoy it, and where the children might be more proficient in managing the chat room as well as in adopting sophisticated language use in it? As suggested by some children in my study, the teacher needs to be more involved. According to Leu and Kinzer's (2003) proposal, the teacher's role becomes more essential in the new literacies classroom (Principle 4). Those children are ready to enter the new millennium of information and communications technology. Today, young people are often referred to as "N-Generation (Net Generation)" (Tapscott, 1998). They gain access to various technologies at very early ages and literally are "growing up with technology" (McNeely, 2005, p. 4.2).

Therefore, in order for the teacher to cope with these tech-savvy children, the teacher needs to be more comfortable with using the technological medium she or he attempts to implement in the classroom, not becoming overwhelmed with it. Furthermore, many researchers have drawn attention to new staff development and teacher education (Cervetti, Damico, & Pearson, 2006; Leu & Kinzer, 2003; Luke, 2000) and/or have presented authentic examples of new literacies in- and out-of-school to share their experiences and observations about those classes (Antsey, 2002; Kist, 2005; Larson & Marsh, 2005; Lewis & Fabo, 2005). One of Cervetti, Damico, and Pearson's recommendations for teacher education seems worthy of note:

> With respect to technology, future teachers should learn about, through, and with technology-based media. Learning *about* entails awareness of what is available to them as teachers to use in their classrooms. Learning *through* involves engagement in technology-based programs designed to enhance their knowledge and skill as teachers. Learning *with* means that they embrace technologically based environments—such as Web sites, discussion groups, blogs, and others—as

sites for their own development as teachers and learners. Some of these goals could be achieved through a specific course about technology. However, many of them require all teacher educators to use technology-based tools in classes with other foci (p. 383, emphasis in original).

Soothing flaming. Why could the children be impish, deviant, and aggressive in the chat room (e.g., posting naughty jokes, sending offensive comments, and bullying other children)? As I discussed earlier, flaming incidents in the study became a dark side of the chat room, with the children abusing freedom and engaging in a Bakhtinian carnival. Many children expressed strong feelings against flaming as one of them reflected that flaming was even a "disaster." These social reactions and responses to flaming are recreating the big issues surrounding the need to educate the children about appropriate manners one should have online at an early age. The "rules, norms, and community standards" in cyberspace are referred to as "netiquette" (McLaughlin, Osborne, & Smith, 1995, p. 94). Because children in the new millennium get early exposure to new technologies as compared to those in the last century, a teacher may need to explain and discuss behaviors that are acceptable and unacceptable as well as the consequences. The teacher is also suggested to arrange a follow-up discussion session to reflect with the children on their thoughts about the CMC experiences and probably set up rules collaboratively to monitor online discussions.

Furthermore, the teacher should talk to the student who has been engaging in flaming and explain that what she or he did was inappropriate. In the study, Kunwoo in Case Study 2 was the most "wicked" child bullying Jinho and creating an unpleasant atmosphere for other members of the group. Although Kunwoo enjoyed the spirit of freedom to misbehave in the chat room, other children reacted by ignoring him, not "talking," or responding to him in the CMC venue. The teacher can talk to the child individually and explain the social consequences he would confront, being isolated in the chat room.

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Implications for Further Research

This study intended to capture young L2 learners' experiences and impressions when engaged in synchronous CMC sessions. I found that the unique features of CMC, combining the fast flow of the spoken mode and the more strict accuracy required of written discourse, encouraged the children to enjoy the bliss of conversational elements by freely suggesting ideas on various subjects and sharing opinions with other peers. Moreover, the children had opportunities to get involved in making self-corrections and to provide corrective feedback to other children in the group. Additionally, I learned that the children were competent members of the new age of the Internet. They were already proficient in managing the CMC medium and were able to develop new skills during a very short span of time. The children were sophisticated enough to allow themselves to overcome the monotonousness of the online communication by engaging in various types of language play. Also, the children employed numerous strategies to compensate for the lack of non verbal cues in the chat room: They used a variety of emoticons and symbol systems, capital letters, and repetition. However, an unpleasant atmosphere often emerged due to the children's adept abilities at playing around.

Future research needs to investigate the use of CMC in an academic, classroom setting at school, with children more distant to each other. In addition, although the study was conducted during a short time period, a semester-long project or longitudinal study including CMC as part of it should be pursued to explore better the children's experiences and impressions of the online discussions. For example, CMC can be implemented on a more regular basis, say once a week, as one part of the curriculum. To date, only a handful of studies have focused on children using the CMC medium, a notable exception being Lissi's (1998) study on deaf children's use of CMC, and when it comes to L2 learning, this area seems to be rarely explored (cf., Morris, 2005). Active examination of the integration of CMC for L2 children is likely to shed light on new findings in the field.

Another future direction of study is to diversify the children taking part in the study in terms of their nationality, age, level of English proficiency, and current place of

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residence. Although I only had Korean children belonging to a particular context in the groups, it would be interesting to include native speakers or other international students of similar ages, to investigate younger learners, study other children of novice, intermediate, advanced, or near native proficiency. For example, as compared to my English as a second language (ESL) children whose behaviors online would have reflected an amount of acculturation into American culture, other English as a foreign language (EFL) children in Korea would show different findings from the current study.

In addition, what would happen if different types of tasks were used for CMC? Pica, Kanagy, and Falodun (2003) predicted that negotiations of meaning would most likely occur when learners work on jigsaw and information gap tasks in a traditional classroom setting. Comparing jigsaw, information gap, decision-making, and opinion tasks in a CMC condition, Blake (2000) found that jigsaw tasks were the most effective in boosting meaning negotiation among L2 college students. It is possible that younger learners may respond differently to such task differences.

Appendix A

Complete List of Tasks for Case Study 1

Session #1

1) What do you think about school life here?
   What do you enjoy most and what do you like least?
   You can compare to schools in Korea.

2) www.kizclub.com
   Level 1- *My Week* (read until Friday)

3)
   > Suppose a child goes to the store to buy the milk
   > his mom needed.
   > When he tries to pay, the cashier says
   > he does not have enough money.
   > If you were the child, what would you do?
   > Discuss with your friends and try to come up with
   > a single answer!

Session #2

1) What is your favorite TV program? Why do you like it?
   Who is your favorite character there?

2) www.kizclub.com
   Level 3- *Baking Bread* (read until Slide #13)

3)
   > Your neighbor has a dog that is barking
   > all night. And you can't get a good night
   > sleep because of it.
   > What will you do?

Session #3

1) Do you like playing games?
   What is your favorite game? Why do you like that game so much?
   Who do you usually play with?

2) www.kizclub.com
   Level 3- *The Three Bears* (read until Slide #15)

3)

The farmer, the Goose, the Grain, and the Fox

Imagine that you are a farmer with a goose, a fox, and some grain.

You have to get across a river with all your belongings.

However, you can only take one thing on the boat at a time.
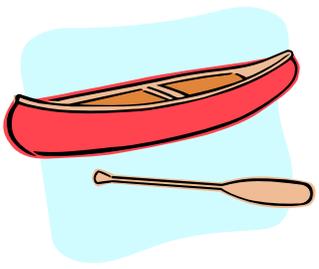
You cannot leave the goose with the grain, or she will eat it.

You cannot leave the fox with the goose, or the fox will eat the goose.

How can you get all your belongings safely to the other side?

Session #4

1) If you were to meet a new student who just came to Austin, what advice would you give to that person? (e.g., making friends, going to school..)

2) http://www.britishcouncil.org/kids-stories-magic-spell.htm
   (read until "Nothing has happened," said Billy, disappointed.)

3)

Venn Diagrams

A **Venn diagram** is helpful when comparing and contrasting two objects, events or people. Differing characteristics are placed in the outer portions of the circle. Common characteristics are placed in the intersecting portion of the circles.

Example:

Dogs

Crocodiles

Mammal
Warm-blooded
Fur
Lives on land
Pet

Can be mean
Can bite and
hold on
Has four legs

Reptile
Cold-blooded
Scales
Lives in water
Wild animal

Directions: Complete the Venn diagram. List at least 3 characteristics of each section.

Tree

Human

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Session #5

1) Did you all read Harry Potter or watch the Harry Potter movies?
   The author, J. K. Rowling said that she would kill one of the characters in the story. Who do you think she will kill in her next book?

2) www.kizclub.com
   Level 3- *The Enormous Carrot* (read until Slide #7)

3)
One night the King couldn't sleep, so he went down into the Royal kitchen, where he found a bowl full of mangoes.
Being hungry, he took 1/6 of the mangoes.
Later that same night, the Queen was hungry and couldn't sleep.
She, too, found the mangoes and took 1/5 of what the King had left.
Still later, the first Prince awoke, went to the kitchen, and ate 1/4 of the remaining mar
Even later, the second Prince, ate 1/3 of wha
Finally, the third Prince ate 1/2 of what was left, leaving only three mangoes for the servants.
How many mangoes were originally in the bowl?

Session #6

1) Who is your favorite cartoon character? Why or why not?

2) www.kizclub.com
   Level 3- *The Mouse & the Lion* (read until Slide #4)

3)
Grumpy Mrs. Smith

The students in Mrs. Smith's third grade class at Utopia Elementary School have noticed that their teacher has been short-tempered since they returned from the holiday break. They know that Mrs. Smith has been having some back trouble lately, which she attributes to the large amount of "stuff" she carries to her classroom from her car each day.
It is now February and the children want the same easy-going Mrs. Smith that they had before the holidays to return to their classroom. What should they do?

Session #7

1) How do you like the food here?
   Which food do you like better, American food or Korean food? Why?

2) http://www.britishcouncil.org/kids-stories-lucky-envelope.htm
   (read until "They argued until it was dark. Then the phone rang. Dalia answered it."

3)

The school's electric bill is too high and each class is being asked to determine how they can help.
What can we do as students to save electricity?

Session #8

1) Are you enjoying your summer break so far?
   What have you done and where have you been? Can you tell us about the funniest thing you have done or the funniest place you have been?

2) www.kizclub.com
   Level 3- *Country Mouse & City Mouse* (read until Slide #8)

3)

Come up with things that everyone in the group has in common.

In order to find those out, you may ask each other about physical characteristics, out-of school activities,
family members, preferences, experiences, etc.

Session #9

1) Summer in Texas is very hot. How can we avoid being too hot?
   What advice/tips would you give to new friends who just arrived here?

2) www.kizclub.com
   Level 3- *The Three Billy Goats Gruff* (read until Slide #13)

3)

Roger, Laura, Brenda, and Mark work in the city as a singer, stockbroker, salesperson, and cook, but not necessarily in that order.

The salesperson and the singer car pool with Laura.

Mark plays tennis with the salesperson and the cook.

The cook drives to work alone.

Roger envies the salesperson.

Which person has which career?

	Singer	Stockbroker	Salesperson	Cook
Roger				
Laura				
Brenda				
Mark				

Session #10

1) What types of girls/boys do you like?

2) Have you all read Peter Pan?
   If there is a follow-up story for Peter Pan, what will happen in the next story?

3)

You are all a co-owner of the company, "Toy Austin."
It has come to your attention that the company is losing too much money.
You and other members of the company have agreed to have a meeting.
Please discuss with your fellow co-owners to find out what the problem is and figure out how to solve the problem.
Hope you can agree on a solution that will help "Toy Austin"!

Appendix B

Complete List of Tasks for Case Study 2

Session #1

1) What do you think about school life here?
   What do you enjoy most and what do you like least?
   You can compare to schools in Korea.

2) www.kizclub.com
   Level 1- *My Week* (read until Friday)

3)

> Suppose a child goes to the store to buy the milk
> his mom needed.
> When he tries to pay, the cashier says
> he does not have enough money.
> If you were the child, what would you do?
> Discuss with your friends and try to come up with a single answer!

Session #2

1) What is your favorite TV program? Why do you like it?
   Who is your favorite character there?

2) www.kizclub.com
   Level 3- *The Enormous Carrot* (read until Slide #7)

3)
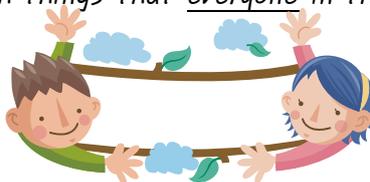
> Come up with things that everyone in the group has in common.
>
> In order to find those out, you may ask each other about physical
> characteristics, out-of school activities,
> family members, preferences, experiences, etc.

Session #3

1) How do you like the food here?
   Which food do you like better, American food or Korean food? Why?

2) Have you all read Peter Pan?
   If there is a follow-up story for Peter Pan, what will happen in the next story?

3)
> Your neighbor has a dog that is barking all night. And you can't get a good night sleep because of it.
> What will you do?

Session #4

1) Are you enjoying your summer break so far?
   What have you done and where have you been? Can you tell us about the funniest thing you have done or the funniest place you have been?

2) http://www.britishcouncil.org/kids-stories-magic-spell.htm
   (read until "Nothing has happened," said Billy, disappointed.)

3)
> **The farmer, the Goose, the Grain, and the Fox**
> Imagine that you are a farmer with a goose, a fox, and some grain.
> You have to get across a river with all your belongings.
> However, you can only take one thing on the boat at a time.
> You cannot leave the goose with the grain, or she will eat it.
> You cannot leave the fox with the goose, or the fox will eat the goose.
> How can you get all your belongings safely to the other side?

Session #5
1) Did you all read Harry Potter or watch the Harry Potter movies?
   The author, J. K. Rowling said that she would kill one of the characters in the story. Who do you think she will kill in her next book?

2) www.kizclub.com
   Level 3- *Baking Bread* (read until Slide #13)

3)

Venn Diagrams

A **Venn diagram** is helpful when comparing and contrasting two objects, events or people. Differing characteristics are placed in the outer portions of the circle. Common characteristics are placed in the intersecting portion of the circles.

Example:

Dogs | Crocodiles

Mammal
Warm-blooded
Fur
Lives on land
Pet

Can be mean
Can bite and
hold on
Has four legs

Reptile
Cold-blooded
Scales
Lives in water
Wild animal

Directions: Complete the Venn diagram. List at least 3 characteristics of each section.

Tree | Human

Session #6

1) Do you like playing games?
   What is your favorite game? Why do you like that game so much?
   Who do you usually play with?

2) http://www.britishcouncil.org/kids-stories-lucky-envelope.htm
   (read until "They argued until it was dark… Dalia answered it."

3)

Grumpy Mrs. Smith

The students in Mrs. Smith's third grade class at Utopia Elementary School have noticed that their teacher has been short-tempered since they returned from the holiday break. They know that Mrs. Smith has been having some back trouble lately, which she attributes to the large amount of "stuff" she carries to her classroom from her car each day.
It is now February and the children want the same easy-going Mrs. Smith that they had before the holidays to return to their classroom. What should they do?

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Session #7

1) If you were to meet a new student who just came to Austin, what advice would you give to that person? (e.g., making friends, going to school..)

2) www.kizclub.com
   Level 3- *The Three Bears* (read until Slide #15)

3)
One night the King couldn't sleep, so he went down into the Royal kitchen, where he found a bowl full of mangoes.
Being hungry, he took 1/6 of the mangoes.
Later that same night, the Queen was hungry and couldn't sleep.
She, too, found the mangoes and took 1/5 of what the King had left.
Still later, the first Prince awoke, went to the kitchen, and ate 1/4 of the remaining mangoes.
Even later, the second Prince, ate 1/3 of what was left.
Finally, the third Prince ate 1/2 of what was left, leaving only three mangoes for the servants.
How many mangoes were originally in the bowl?

Session #8

1) Who is your favorite character? (in stories, movies, cartoons…)
   Do you want to resemble the character? Why or why not?

2) www.kizclub.com
   Level 3- *The Three Billy Goats Gruff* (read until Slide #13)

3)
The school's electric bill is too high and each class is being asked to determine how they can help.
What can we do as students to save electricity?

Session #9

1) Summer in Texas is very hot. How do you survive the heat in Texas?
   How can we avoid being too hot?

2) http://www.britishcouncil.org/kids-stories-cold-planet.htm
   (read until "They flew through space and landed near Neila. "Hello," said Billy. Neila waved.)

3)

You are all a co-owner of the company, "Toy Austin."
It has come to your attention that the company is losing too much money.
You and other members of the company have agreed to have a meeting.
Please discuss with your fellow co-owners to find out what the problem is
and figure out how to solve the problem.
Hope you can agree on a solution that will help "Toy Austin"!

Session #10

1) What do you want to be when you grow up?
   What do you think is an "ideal" job?

2) http://www.britishcouncil.org/kids-stories-haunted-house.htm
   (read until "We looked in the lab and there was a cat. And there on the table—a horrible rat.")

3)

You are an important member of the UN council.
Today the UN Council has convinced to discuss
a possible solution to end the war between
Israel and Lebanon. We hope that you can agree
on a solution to end the horrible war.
*Remember: A divided UN council will not be
effective and can possibly cause more severe war
between the two countries.

Appendix C

Background Questionnaire (Original: Korean)

나는…

이름:_____

1. 나는 (   )살 입니다. (생일: _____년 _____월 _____일)

2. 나는 미국에 온지 (   )년 (   )개월이 되었습니다.

3. 나는 미국에서 _____ school에 다닙니다.

4. 나는 미국에서 (   )학년 입니다.

5. 나는 한국에서 영어를 배운 적이 (있습니다 , 없습니다)

   영어를 배운 적이 있다면,

   (1) 언제부터 영어를 배웠나요?

   _____

   (2) 한국 초등학교에서 영어 수업을 받은 적이 있나요?

   ① 예   ② 아니요

6. 하루에 컴퓨터를 이용하는 시간은 얼마나 되나요?

7. 컴퓨터로 가장 많이 하는 것은 무엇인가요?

8. 채팅을 해본 적이 있나요?   ① 예   ② 아니요

9. 내가 가장 좋아하는 것은 무엇인가요?

_____

10. 내가 가장 싫어하는 것은 무엇인가요?

_____

수고했습니다!

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Appendix C (cont'd)

Background Questionnaire (English Translation)
I am…

Name: _____

1. I am (　　　) years old. (Birthday: year_____ month_____ date_____)

2. I have been living in the U.S. for (　　)year (　　)months.

3. In the U.S., I go to _____ school.

4. In the U.S., I am in (　　) grade.

5. I learned English in Korea (　YES　,　NO　)

  If answered YES,

  (3)　　When did you first learn English?

  _____

  (4)　　Did you learn English in elementary school in Korea?

  ① Yes　　　② No

6. On average, for how long do you use computer everyday?

7. What activities do you do most with computers?

8. Have you ever done used chatting before?

  ① Yes　　　　② No

9. What are your favorite things to do?

_____

10. What are your least favorite things to do?

_____

Appendix D

Post Questionnaire

What Do You Think?

Name: _____

1. What do you think of today's chatting? (Please circle one)

‹ --- ›

😁　　　　　　　　　😐　　　　　　　　　😫

Why? _____

2. What was the funniest thing?

_____

Why?

_____

3. What was the most annoying thing?

_____

Why?

_____

4. Do you think chatting can help you learn English?

　① Yes　　　　　　　② No

　Why? _____

5. Would you like to try this again?

　① Yes　　　　　　　② No

　Why? _____

Appendix E

Essay Question (Original: Korean)

그 동안 채팅에 임하느라 모두 수고가 참 많았습니다!

친구들과 영어로 하는 채팅을 해보니 어땠나요?

느낀 점을 **한글로** 적어봅시다.

_____

_____

_____

_____

_____

_____

_____

_____

- 수고했습니다! ^o^ -

Wrapping up the Chatting…

Name: _____

Thank you very much for participating in the chatting.

All of you did a great job!

 What do you think of chatting in English with friends?

Write about your feelings and thoughts **in Korean**, while

you were chatting with other friends on various themes and issues.

_____

_____

_____

_____

_____

_____

_____

- Thanks! ☺ -

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Appendix F

Exit Questionnaire (English Translation)
OVERALL What Do You Think?

Name: _____

1. What do you think of the entire chatting experiences? (Please circle one)

‹ --- ›

😬   😐   😠

Why? _____

2. What do you think are the advantages of using chatting? (Name THREE)

_____

_____

   Why?

   _____

3. What do you think are the disadvantages of using chatting? (NameTHREE)

_____

_____

   Why?

   _____

4. After these experiences, do you think chatting can help you learn English?

   ① Yes   ② No

   Why? _____

5. Would you like to try this again?

   ① Yes   ② No

   Why? _____

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