AN EXPLORATORY CASE STUDY OF THE PARTICIPATION AND INTERACTION AMONG ELEMENTARY SCHOOL ENGLISH LANGUAGE LEARNERS AND NATIVE SPEAKERS IN ONLINE DISCUSSIONS

by

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A thesis submitted in conformity with the requirements for the degree of Master of Arts
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ABSTRACT

Research studies demonstrate that L2 learners participate more equally when using synchronous computer mediated communication (CMC). However, most of these studies have involved adult students only, in college or university settings. Few have explored the use of synchronous CMC with elementary school learners. Thus, this case study explored the participation of Grade 8 native speakers and English language learners as they interacted in the online environment. It examined the number of turns taken by each participant, the discourse functions used, as well as participants’ perceptions of communicating online. This was accomplished through collection of chat transcripts, questionnaires and semi-structured interviews. It was found that native speakers tended to take more turns in online discussions. Also, responses and questions were the discourse functions that were used most by participants in this research. Finally, the students viewed this mode of communication favourably, and believed that it aided their communication with one another.
ACKNOWLEDGEMENTS

I would like to acknowledge my thesis supervisor Dr. Antoinette Gagné for her guidance and encouragement. I have truly valued your assistance with this project as well as my academic development. In addition, I have appreciated your flexibility and generosity with your time.

I would like to thank Dr. Julie Kerekes for agreeing to be on my thesis committee and for her time and feedback about my research.

A huge thank you goes to Mr. M. I will be eternally grateful to you for your flexibility and assistance with my project. Thank you for being so accommodating and taking time out of your busy schedule to make this project work.

Finally, I would like to say a big thank you to my family for their patience and support as I complete this journey. I would especially like to thank my mom and dad for their never ending encouragement and belief in me. You have taught me the value of lifelong education. Also, thank you to my husband Paul for his patience and encouragement.
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CHAPTER 1: INTRODUCTION

1.1 Introduction

Computer mediated communication (CMC) is being used increasingly by second language (L2) educators to generate greater opportunities to engage L2 learners and enhance their language learning experience. Specifically, synchronous CMC has been utilized successfully to increase L2 output (Braine, 1997; Kern, 1995). It has also been used effectively to promote more equitable participation among small groups of adult L2 learners (Freiermuth, 2001; Freiermuth, 1998; Warschauer, 1996a), which has usually been measured by the number of turns taken per student. Synchronous CMC is “real-time” communication where “written messages are sent instantly between one person and a group of people who are all on-line together” (Warschauer, Turbee & Roberts, 1996, p. 2). It occurs through the use of special software programs for local area networks or via the Internet (Warschauer & Healey, 1998).

Despite the positive findings, most of the studies have involved adult L2 learners only in college or university settings. Few have explored the use of synchronous CMC with elementary school learners. One exception is Morris (2005), whose study investigated the interaction and corrective feedback provided by fifth grade Spanish learners, as they completed a jigsaw task, using synchronous CMC. Many schools are implementing this technology to facilitate communication among students and to develop computer related skills. Little is known about how young English language learners (ELLs) and their peers interact in the online environment. However, the increasing use of this technology in educational settings necessitates an investigation in order to ascertain whether it is equitable for all learners. This will allow
educators to make an informed choice about whether to include this technology into their pedagogical repertoire.

Please note that the terms ELLs and ESL students are used interchangeably in this work. However, ELL is the preferred term, which is reflected by its use within the Toronto District School Board and the Ontario Ministry of Education (see English Language Learners/ ESL and ELD Programs and Services: Policies and Procedures for Ontario Elementary and Secondary Schools, Kindergarten to Grade 12).

1.2 Rationale

The use of group work is pervasive in most elementary school classrooms across Ontario. Many educators claim that group work enhances student achievement and develops their social skills. The literature cites many positive benefits of group work for native speakers (Leki, 2001). Recently, however, many researchers have recognized that these benefits may not necessarily hold true for L2 learners, especially when they are asked to work with native speakers. In fact, many adult ESL students experience difficulty when working in small mixed groups (Leki, 2001; Melles, 2004). Leki (2001) discovered that when working in mixed groups, adult ESL students’ contributions were not taken seriously by native speakers or they were often undermined.

Freiermuth (1998) contends that in mixed groupings, native speakers may dominate the interaction, causing greater strain for non-native speakers. ELLs may then actually have more opportunities to participate in teacher-centered classrooms rather than in small group work (Freiermuth, 2001). This has important implications for ESL students’ learning outcomes. If they have fewer opportunities to participate in small groups, they will not be able to interact as much and practice the target language. Hence, their learning will be negatively affected.
Accordingly, unequal participation among group members during small group activities should be a serious concern for educators, because small group work is linked to learning gains (Cohen, 1994). Research demonstrates that low status learners learn less, while students who discuss and work together manifest higher gains on test scores (Cohen, 1994).

In a large city like Toronto, it is a reality that many schools have sizeable populations of ELLs. One cannot ignore the large numbers of students from diverse backgrounds who are immigrating to Toronto. Thus, mixed groupings are a reality in many classrooms across the Toronto District School Board. However, teachers can attest to the fact that it is not an easy task for ELLs to participate in small group activities with their native speaking peers. This can be due to a number of factors, such as differences in linguistic and cultural/pragmatic proficiency (Zhu, 2001). The lack of balance in participation that occurs in these mixed groupings has negative consequences for the ELL and the native speaker. First of all, by remaining silent, the ELL does not have the opportunity to develop his/her oral communication or social skills. In addition, his/her thinking is limited by native speakers who assume that their ideas are superior. The native speaker is also negatively affected as he/she develops certain stereotypes about ELLs which will likely affect subsequent interactions. This of course, has a negative influence on classroom dynamics overall. Thus, many educators are searching for tools, such as technology, to support the participation of all learners.

Synchronous CMC has been endorsed as a beneficial tool, which offers numerous advantages for teachers and adult L2 learners. One such advantage is that it helps facilitate equitable group interaction and learning for adult L2 learners. Research demonstrates that networked discussions tend to be more balanced without dominant participants (Beauvois, 1998; Fitze, 2006; Freiermuth, 2001; Kelm, 1992; Kern, 1995; Sullivan & Pratt, 1996; Warschauer,
CMC can also promote increased learner autonomy (Peterson, 1997). However, little research exists on the use of synchronous CMC in the elementary school, despite the increasing implementation of this technology in the classroom. Would the use of online chat be as beneficial for younger ELLs? Would it help them participate more resulting in a more balanced discussion? It would appear that the benefits that synchronous CMC offers adult L2 learners with respect to more equal participation may not necessarily be transferable to younger ELLs. Hence, a closer examination is required, so educators can make an informed decision about whether to include CMC as a part of their lessons. Thus, the objective of this research was to answer the following questions:

1. Are there differences in how elementary school English language learners and their native speaking peers participate in small groups during online chat?
   a. Are there differences in the number of turn taking opportunities for native speakers and English language learners, as they interact via synchronous CMC?
   b. What are some of the differences in terms of the interactional features utilized by native speakers and English language learners during online discussions?

2. a. What are English language learners’ perceptions of the utility of synchronous CMC in facilitating their participation and equitable group interaction with native speakers?
   b. What are native speakers’ perceptions of interacting with ELLs in online discussions?
1.3 My Positioning as Teacher/Researcher

I am a teacher employed with the Toronto District School Board. Currently, I teach Grade 7 core (which consists of English, History, Geography and Math) half-time and ESL half-time. During my teacher training, I was instructed about the benefits of small group work on student learning. I was also informed about how difficult it was to successfully get students to work cooperatively in small groups. Within my first few years of teaching, I noticed that ELLs always seemed to be excluded or withdrawn from small group interaction. This was something that many of my colleagues struggled with as well. I attempted to think of techniques to improve small group dynamics in my class. This is still something that I contend with today. In addition, I have always been interested in computer technology on a personal and professional level. I utilize online chat regularly to communicate with some of my colleagues about school-related issues. I have also taken some online courses and found the dynamics among participants to be quite interesting. Thus, I have grown more curious about its integration in educational settings in order to enhance student learning, although it has not been easy.
CHAPTER 2: REVIEW OF LITERATURE

The first section of this literature review focuses on the benefits of group work in general for all learners, and then narrows its focus to ELLs. The next section examines research regarding ELLs’ experiences as they engage in small group work and how they do not necessarily reap the advantages that group work is purported to offer, particularly when they are placed in small groups with native speakers. Next, the literature on synchronous CMC is reviewed, in terms of the benefits it offers in a language learning context. Finally, students’ perceptions of communicating via online chat are explored.

2.1 The Benefits of Group Work

Small group work offers numerous advantages for learners, which includes greater learning gains (Cohen, 1994). In addition, higher order thinking skills, prosocial behaviour, and interracial acceptance can be fostered (Cohen, 1994). Cohen (1994) also suggests that small group work can promote language learning and oral communication as learners have consistent opportunities for active practice. Research also suggests that a type of small group learning, known as cooperative learning develops intrinsic motivation and self-esteem and lowers anxiety (Oxford, 1997). Cooperative learning is conceived of as being “much more than small group work” (Oxford, 1997, pg. 444). It involves greater structure, and it prescribes more techniques to teachers. In addition, it is active learning based on the principles such as positive interdependence, accountability etc. (Oxford, 1997)
2.2 Cooperative Learning and ELLs

Cooperative learning is reported to be especially advantageous for ELLs, since it optimizes the conditions necessary for language development. For instance, a higher volume of comprehensible input is provided in small cooperative learning groups than in traditional whole class discussions, which is beneficial for language acquisition (Kagan, 1995). This language may be more complex, which facilitates language development, as learners attempt to comprehend what is being said (McGroarty, 1993). In addition, the cooperative group provides greater opportunities for language production (Kagan, 1995; McGroarty, 1993), which includes question formation (McGroarty, 1993). Furthermore, cooperative groups promote language acquisition, as ESL students practice a target language that is more closely linked with their identity than the formal language of whole class discussions (Kagan, 1995). Moreover, cooperative learning groups provide a richer feedback context, where students have more chances to receive feedback in a natural context (Kagan, 1995). In this case, correction is usually used to enhance understanding rather than correction for its own sake (McGroarty, 1993). Thus, small group cooperative learning appears to be quite beneficial in assisting ESL students’ language acquisition, as well as developing other cognitive and social skills.

2.3 English Language Learners’ Experiences with Small Group Work

Although there are many positive benefits of small group work reported in the literature, many researchers acknowledge that ELLs may not be able to benefit from it in the same way as their native speaking peers. Instead, they encounter a unique set of challenges in face-to-face small group work. For instance, research on ESL writing composition groups demonstrates that some ESL students of Chinese heritage may demonstrate a reluctance to speak during peer
response sessions and may subsequently withdraw from interactions (Nelson & Carson, 1998). This could have a substantial detrimental effect on group dynamics, with ELLs not gaining the benefits of group work discussed previously.

When ELLs are asked to work with native speakers in small groups, the interactional dynamics become even more complex. Differential participation may occur, with some higher status members dominating the interaction (Cohen, 1994). These higher status members tend to be native speakers rather than ELLs. In her research of multilingual peer response groups in a university setting, Wachholz (1997) found that ESL students had little to say in conference groups and were sometimes excluded from the discussion by native speakers, especially when the focus of the conference was on the use of culture-specific terms. She asserts that the native speakers in her research were often impatient with ESL students’ lack of understanding, yet she does not clarify how often this impatience was manifested. Similarly, Zhu (2001) researched the interaction and oral feedback provided in mixed peer response groups in an American university. The transcripts of her recordings indicated that when ESL students were in the role of writers (that is their papers were discussed), they took fewer turns as a whole than their native speaking peers. In addition, they were more likely to be interrupted when providing feedback. Thus, their participation in these response groups was more restricted in comparison to their native speaking counterparts.

Leki (2001) conducted qualitative research about non-native speakers’ group work experiences across the curriculum at the university level. Her qualitative research focused on two participants as they attempted to negotiate group work with their native speaking peers. Leki (2001) noted some problematic aspects of mixed groupings for ELLs. Particularly, their contributions were usually either rejected or limited, while their native speaker group mates
positioned themselves as experts. These non-native speakers were then compelled to assume subordinate roles. In general, the non-native speakers in Leki’s research expressed negative feelings towards group work, even dreading it, due to their perception that group members tended to doubt their potential contributions.

At the elementary school level, some ELLs also struggle and experience problems when they are asked to complete tasks in small groups. Mueller and Fleming (2001) recorded 6 groups of grade 6 and 7 children, as they worked to complete a science project. Although they did not specifically intend to research the participation of ESL students, Mueller and Fleming (2001) observed that in one of the groups, one ELL did not participate actively throughout the work sessions and mostly remained silent. Thus, this student did not gain the benefits of involvement in a group project, which were discussed earlier.

However, the participants in Melles’ research study articulated a more balanced view of working in groups with native speakers. Melles (2004) interviewed 19 adult ESL students in focus groups. They highlighted various benefits and challenges of group work. In reference to working in mixed groups, the participants believed that native speakers’ presence was advantageous as it assisted them with the development of their linguistic skills.

Thus, the potential of group work to promote learning and enhance student achievement is recognized by many educators. However, it is fraught with distinct problems, particularly for ESL students who are asked to work collaboratively with native speakers. According to the literature reviewed, native speakers may dominate the interaction, limiting ESL students’ participation or excluding them completely. With such imbalances in group dynamics, many concerned educators turn towards the potential of computer technology for assistance. However, is the use of such technology really more helpful to ELLs as they interact in small groups?
2.4 Synchronous Computer Mediated Communication

Increasingly, CMC is being used in language teaching. E-mail, chat rooms, discussion forums, and bulletin boards are some of the popular CMC tools used in language classrooms. Synchronous CMC involves instantaneous communication which can be text-based or accompanied by the use of audiovisuals (Lee, 2004). In addition, interaction in the chat mode can involve a single user chatting to another single user or it can include one-to-many communication (Lee, 2004). However, all participants must be online at the same time in order to receive immediate feedback (Lee, 2004).

2.4.1 Equal Participation and Synchronous CMC

The literature indicates that one of the main advantages of utilizing synchronous CMC in the L2 classroom, is more balanced participation occurs, with no one student or teacher dominating the discussion (Beauvois, 1998; Beauvois, 1992; Bohlke, 2003; Fitze, 2006; Kelm, 1992; Kern, 1995; Lee, 2002; Sullivan & Pratt, 1996; Warschauer, 1996a). Several researchers have noted the equalizing effect of synchronous CMC on interaction between students (Beauvois, 1998; Bohlke, 2003; Braine, 1997; Fitze, 2006; Kelm, 1992; Kern, 1995; Sullivan & Pratt, 1996; Warschauer, 1996a). Most noticeably, shyer students tend to increase their level of participation, thus balancing the discussion (Beauvois, 1998; Chun, 1994; Kelm, 1992; Lee, 2002; Warschauer et al., 1996). This increased involvement by more reticent students is partly attributed to the fact that networked discussions eliminate the need to worry about pronunciation issues which can deter students from communicating orally in the target language (Ortega, 1997). In addition, text-based CMC hides other personal characteristics which may cause some to focus on who is delivering the message rather than the message itself (Thorne & Payne, 2005).
In synchronous electronic discussions, participation also tends to be more equal between teachers and students, causing the teacher to be one of many participants (Beauvois, 1998; Chun, 1994; Kern, 1995; Ortega, 1997; Sullivan & Pratt, 1996). This results in a shift in authority from the teacher to students (Warschauer et al., 1996), as they take greater control and responsibility for the discussion (Chun, 1994).

One of the earlier studies was conducted by Chun (1994) who undertook a descriptive investigation of networked discussions with her university level German class. Learners conversed about a range of topics electronically over two semesters. Chun calculated the average number of messages produced per session and found that it ranged from 2.8 to 17.8 over two semesters. Although this may appear to be a large range, Chun accounts for the differences in terms of the discussion styles, stating that some students wrote longer messages than others. She also makes special mention of the fact that several of her more reticent students made more contributions during online discussions. Chun did not directly compare learners’ participation in oral and networked discussions. However, she observed student involvement in oral class discussions and noted this aspect impressionistically.

The next group of studies directly compared teacher and learner participation in network discussions and face-to-face discussions. For instance, Beauvois (1998) compared the participation of two sections of a university French course face-to-face and online. Students conversed about the previous night’s readings, with the aid of some guiding questions. When the students discussed the selected topic orally, responses appeared to be quite limited. Only three students volunteered a response and the teacher talked the most in this scenario. However, during the first electronic discussion for one section, the students produced a total of 186
messages, while the teacher only generated 35 messages. Thus, greater student participation occurred in the networked discussions, providing greater balance.

In Kern’s (1995) research, two intact university French classes partook in 50-minute networked discussions, responding to a series of general questions about the readings which were posted by the instructor. Oral discussions were also held, which served as a follow-up on issues which arose during the networked sessions. Kern (1995) remarks that in the electronic mode, every student participated whereas orally, five students dominated the discussion and four students did not contribute at all. There was also less teacher talk in the online discussions. During the networked discussions, the instructor only took 4% of the turns. According to Kern (1995), synchronous CMC can facilitate classroom discussions, increase student response and promote status equalization.

The aforementioned studies compared oral whole class discussions and electronic whole class discussions. Ortega (1997) suggests that participation may appear to be drastically more equal in the online environment, when examining such large groups of learners. However, in practice, oral discussions usually occur in small groups in L2 communicative classrooms (Ortega, 1997). She suggests that it would be useful to compare participation in networked environments, using smaller groups of learners. Subsequent work has compared learner participation in small groups, face-to-face and electronically.

Sullivan and Pratt (1996) examined the participation and discourse of intermediate ESL learners engaged in face-to-face conversations and in online discussions. These students engaged in whole class discussions of the readings and they were also organized into smaller peer response groups, each consisting of four students. In these response groups, students were responsible for critiquing each other’s essays. The investigators noted that in the oral peer
response groups, the author of the work talked the most about his/her paper. Also, students sometimes went off on tangents, making the talk less focused. However, during online peer response sessions, the writer of the essay spoke less and the discussion was more balanced. Thus, Sullivan and Pratt’s research support the positive balancing effects of using networked computers for small group discussions.

Warschauer (1996a) employed a counterbalanced approach when he compared face-to-face and electronic discussions. Sixteen students were divided into small groups, each comprised of four learners. Two groups conversed about the theme of family orally, while the other two groups communicated about the topic via the computer. The same intact groups then switched their mode of discussion. The transcripts indicate that participation among three of the four groups was noticeably more balanced in the electronic mode. It is unclear as to why one of the groups did not exhibit a greater trend toward equal participation in the electronic mode. Warschauer (1996a) suggests that the composition of the groups may have been a mitigating factor, as three of the groups included students from Japan. He postulates that these students may have been shyer in the first place and may not have felt as comfortable talking face-to-face due to cultural influences. Therefore, participation among the three groups would appear to be significantly more balanced when these learners conversed online (Warschauer, 1996a).

Fitze (2006) followed a similar counterbalanced approach when he examined the use of online chat with high-intermediate and advanced ESL learners. However, his sample size was larger and his work was completed over a longer period of time (four weeks). Fitze’s intact groups consisted of 13 and 14 students. His findings indicated that in general, participation was more balanced among students when they discussed online. However, when he reviewed each class separately, the mode of discussion did not appear to make a significant difference in
balancing participation for Class A. Fitze (2006) suggests that in Class A, there may have been an established equitable group dynamic, in terms of student participation. This dynamic may have prevailed regardless of the conference setting. Fitze (2006) recommends that future studies should consider the role of group dynamics.

In another study, Bohlke (2003) compared intermediate German learners’ written discourse in group electronic discussions and oral discourse produced by the same learners in small face-to-face groups. The participants discussed a series of questions from two different worksheets. After the first 12 to 15 minutes, the intact groups changed their mode of communication. Bohlke (2003) found that participation was generally more balanced among students who conversed via synchronous CMC, especially for groups that consisted of 4 students. However, groups of 5 learners did not demonstrate more balanced participation when they communicated electronically. Bohlke (2003) suggests that in networked discussions, groups of 4 learners may be more ideal.

Freiermuth (1998) contributed to this line of research when he investigated the utility of synchronous CMC and its ability to promote equal participation among group members. He compared oral and online discussions among ESL students at an American university. He divided his two intact English classes into groups of three. The control groups discussed a topic face-to-face, while the other groups conversed about the same topic on a chat program. He observed that turns were more evenly distributed for each of the three groups who chatted online. However, for the other two groups who talked orally, he noted the dominance of one member in each group.

Thus, it appears that synchronous CMC assists in equalizing participation for most groups of learners. However, several factors can play a role, such as group dynamics or group
size. It should also be remembered that previous research utilized non-native speakers in a second language or foreign language context. Communication among mixed groups of native speakers and non-native speakers was not examined. However, in mixed groups, communication can be stifled as variations in cultural and social norms can limit participation opportunities and influence the flow of conversation (Freiermuth, 2001). This is particularly true for ESL students, as native speakers may take control of the discussion.

### 2.4.2 Mixed Groups and Synchronous CMC

Building on previous research, Freiermuth (2001) investigated whether synchronous CMC could assist in balancing participation among native speakers and non-native speakers in small mixed groups. He found that the widely touted benefits of synchronous CMC held true when native speakers and non-native speakers interacted online. Twenty-four participants in an undergraduate ESL and English composition course were divided into small groups of 4, so that each group was composed of two international students and two American students. During one class period, three groups discussed opening a business face-to-face, while the other three groups accomplished this task online. Freiermuth (2001) found that turns were more evenly distributed among the online groups and concluded that in mixed groups, synchronous CMC appeared to provide more opportunities for non-native speakers to participate.

Schwienhorst (2004) explored the use of a type of synchronous CMC, known as a MOO (object-oriented Multiple-User Domain) with Irish participants who were studying German, and German students who were learning English. These learners were organized into dyads and triads for tandem language learning. Schwienhorst measured the number of topic initiations in German and English for both native speakers and non-native speakers. His results revealed that
the amount of topic initiations was balanced between native speakers and non-native speakers in each language. He claims that this balance can be taken as an indication of equal participation rates by native speakers and non-native speakers and suggests that it may be due to a combination of the electronic environment as well as the framework of tandem learning.

These investigations examined the participation of adult native speakers and non-native speakers involved in networked discussions. The results of these studies have been quite favourable, demonstrating that participation does tend to be more balanced in online discussions. However, would such balanced participation occur for elementary school ELLs and their peers? Or would there be stark differences in terms of the number of turns taken by native speakers and ESL students as they conversed in the online environment? To my knowledge, such questions have not been examined with elementary school learners.

2.5 How Balanced Participation Supports L2 Learning

How does balanced participation in synchronous electronic discussions support L2 learning? According to Chun (1994), as the teacher’s control diminishes, learners acquire more opportunities to develop their discourse skills and interactive competence, which are important for L2 learning. Her research established that learners displayed greater initiative and sociolinguistic competence in requesting confirmation and clarification. Fitze (2006) also discovered that the participants in his study produced a higher number of statements which demonstrated interactive competence when they communicated via the computer.
2.6 Discourse Functions in Synchronous CMC

Researchers have analyzed the unique interactional features utilized in online discussions. Darhower (2002) explored the online conversations of intermediate learners of Spanish at an American university. He discovered that they displayed their intersubjectivity with one another and conversed in Spanish most of the time. In addition, they illustrated their social cohesiveness through the use of humour, certain greetings and leave-takings, role play, and sarcasm. Darhower (2002) believes that the chatroom is a learner-centered forum where the language and discourse functions used are beyond those found in the traditional L2 classroom.

Interactional features in the online environment can also vary according to the type of CMC involved. Sotillo (2000) analyzed the differences in the use of discourse functions such as greetings, topic initiations and comprehension checks by adult ESL learners in asynchronous and synchronous computer-mediated environments. The results of her study indicated that asynchronous and synchronous discussions were quantitatively and qualitatively different, as students displayed more informal electronic speech and a greater variety of discourse functions when using synchronous CMC.

However, a questionable aspect of chatroom interaction is off-task discussion. Lee (2004) maintains that even if participants have been given very specific instructions, they may experience difficulty remaining focused on the task at hand. Darhower (2002) observed that off-task discussion was quite prevalent when his intermediate learners of Spanish participated in networked group discussions. Sotillo (2000) also comments on this aspect, stating that some of the participants in her research were more interested in socializing and attempted to move the discussion away from the selected topic. Among secondary school learners, off-topic talk via the computer network was found to be a key concern in research that compared dyads who
chatted online versus face-to-face (Marttunen & Laurinen, 2009). Thus, the authors assert that students at all levels require support when they are engaged in electronic discussions. However, Kung (2004) asserts that the students in her study stayed on task and encouraged each other to participate in the online discussion. Such off-task discussion will be an important determinant in terms of understanding the value of synchronous CMC and whether elementary school teachers decide to put it to use.

It is believed that the examination of discourse features will provide insight on group dynamics and whether the discussion was truly equitable. Li (2002) asserts that when studying CMC, it is important to consider initiating messages, followed-up messages, not followed-up messages and following messages in order to understand the power dynamics in CMC settings. Accordingly, this study takes a closer look at discourse functions such as topic initiations and responses in order to better understand the nature of online interaction and whether ELLs were truly involved in the discussion or whether their peers took control.

2.7 Student Perceptions of Synchronous CMC

Generally, research participants have described their experiences using synchronous CMC in positive terms (Beauvois, 1995; Freiermuth, 1998; Kelm, 1992; Lee, 2002, Meskill & Anthony, 2007). In Beauvois’ (1995) research, students reported that they enjoyed the student-centered nature of conversing online. In addition, when chatting via synchronous CMC, they believed that they experienced less anxiety and thus were able to express themselves more effectively. Also, they cited interpersonal benefits, believing that they got to know their classmates better. The participants in Lee’s (2002) research, who were learning Spanish, also described similar benefits, claiming that they did not feel as intimidated conversing with their
peers online. In Xie’s (2002) investigation, the participants cited one of the main benefits of synchronous CMC as being that it afforded more participation opportunities to students who do not talk as much in class. Meskill and Anthony (2007) researched the perceptions of lower level learners of Russian as they engaged in various CMC activities. Most of the participants perceived the online discussions favourably, and believed that their Russian language learning was enhanced by the online interactions.

However, online interaction with native speakers may generate different responses. Lee (2004) researched the perceptions of non-native speakers of Spanish enrolled in a U.S. university, after they interacted with native speakers via synchronous CMC. She found that overall, students depicted a positive experience. Yet there were some perceived disadvantages, as some participants expressed a concern that the online discussions were dominated by the native speakers due to their superior language proficiency.

Ware (2004) conducted a more in-depth analysis about student perceptions of technology use and communication via CMC. She interviewed three adult ESL students about their perceptions of technology use in a writing class, which included both asynchronous discussion boards and synchronous chat sessions. One Chinese female participant affirmed the positive aspects of this medium, believing that it afforded a good opportunity to exchange ideas with peers. However, a Chinese male participant demonstrated a different point of view about online writing. On one hand, he described online discussions favourably when he utilized it for his personal purposes. However, he did not see the pedagogical value of discussion boards in his writing class. He viewed online discussions as another course requirement for the teacher and did not appreciate the peer interaction that it was intended to promote.
The other female participant expressed much anxiety in having her writing on display in an online forum. She prepared her responses carefully ahead of time, and missed seeing the discussion board as an opportunity for social interaction. In addition, she did not enjoy participating in online chat discussions, as she felt that she did not have enough time to prepare her messages and believed that she spent most of her time trying to read what others were saying. Thus, although initial reports indicated that students found online communication to be beneficial, Ware’s research demonstrates the variability of participant experiences as they utilize this form of technology.

This research determines the perceptions of elementary school ESL students and native speakers about online communication. This will help shed light on why online discussions were successful or unsuccessful. Also, participant perspectives are significant as there will be little value in balanced participation in online discussions, if learners do not see its merit. Will elementary school learners view synchronous CMC positively? Will ESL students or native speakers assess online discussions more favourably?
CHAPTER 3: METHODOLOGY

The purpose of this study was to investigate the participation and interaction of elementary school ELLs and native speakers in online discussions. This exploratory research examined the number of turns taken by ESL students and their peers, the total number of words contributed by each participant, as well as his/her average turn length. In addition, the proportion of turns taken by each participant was calculated. This was carried out for a number of reasons. First, these numbers and calculations were aligned with previous research studies in the field that examined group equity in the online environment (see Beauvois, 1998; Freiermuth, 1998, 2001; Kern, 1995). All of these research investigations explored the number of turns taken by each participant, as an indicator of group equity. Secondly, descriptive data is more suited to an exploratory case study rather than other quantitative statistics. It was also believed that these calculations would help provide a fuller picture of whether participation was more balanced in each group, and would thus supplement the discussion.

Next, the quality of interaction was investigated by tabulating the discourse functions employed. Finally, students’ perceptions of discussing and presenting their thoughts online were ascertained. This chapter explicates the research methodology that was used in this study, beginning with the research style.

3.1 Research Style

The case study was selected for this study because it offers a number of advantages. One advantage is that it is based in reality, and illustrates real people in real contexts which allow readers to comprehend ideas more clearly rather than presenting abstract theories and principles
(Cohen, Manion, & Morrison, 2000). I wanted to explore the usefulness of synchronous CMC for ELLs in a real classroom, where elementary school students spend a large portion of their day, interacting with their fellow classmates and teachers. An investigation about the value of online chat for ESL students in an educational setting needed to consider the everyday reality of the classroom, in order to obtain a more complete picture.

An additional strength of the case study is its accessibility to a wider audience (Cohen et al., 2000). Various scholars have commented on this aspect, remarking that the case study is more “publicly accessible”, and the results appeal to a wider audience, including those who may not be in the academic community (Cohen et al., 2000). It was hoped that this research would offer some insight about the benefits of online chat for everyday practicing teachers, who are struggling to support the participation and inclusion of their ELLs.

The exploratory and descriptive nature of the research questions in this inquiry also made the case study suitable. I did not wish to make causal or correlation claims about the use of synchronous CMC and student participation, student contributions or student perceptions. Instead, I intended to explore whether there were any differences in online interaction between ESL students and native speakers in terms of turn taking opportunities and discourse functions used. I also wished to ascertain whether students differed in their perceptions of the online environment. The lack of generalizability of the results has often been cited as a critique of the case study (Cohen et al., 2000). Since this research was a detailed investigation of volunteers from one classroom, the research is not generalizable.
3.2 Research Context

This research was conducted at a senior public school in Toronto. It is located in a low-middle class to middle class neighbourhood. The school building is comprised of two floors and four portables. Each classroom is equipped with one computer which is connected to the school network. There is also a computer lab on the second floor that houses approximately 36 networked Dell computers. These computers are arranged in rows around the perimeter of the room, with some computers organized in two back-to-back rows in the middle. In addition, there are 10 Dell computers in the library. At the time of the research, the operating system on the computers was Windows 2000, which posed a number of challenges. First of all, newer software could not be obtained until the operating systems were upgraded. In addition, many computers were not performing well and required maintenance. During the study, 10 computers in the lab and 4 computers in the library were not operational at all. This posed some challenges for teachers wishing to integrate technology into the curriculum, as there were not enough computers available for the larger classes.

The availability of the computer lab itself also became an issue during the research study. It was already allocated for Information and Communication Technology (ICT) for 19 periods. Teachers could then sign up to use the lab for the remaining periods when the computer lab was not in use. However, since this research was conducted only in the morning, when participants were learning History, scheduling became an issue. Thus, it was difficult to gain access to the computers, when 36 were available for a population of approximately 500 students.

In this research context, the computer lab was mainly used for research assignments, website analysis, word processing and PowerPoint presentations. A few teachers utilized asynchronous CMC, such as blogs, and online threaded discussions. However, online chat was
not as widely adopted due to its association with MSN messenger and the perception that MSN messenger is largely a social activity with little educational validity. Teachers at this senior public school were uncertain about its value and its ability to be purposefully and successfully integrated into the curriculum.

A senior public school’s population is comprised of students who are either in Grade 7 or Grade 8. In Ontario, Grade 7 and 8 students are still considered to be at the elementary school level. At the senior public school, there were approximately 500 students enrolled. These students were from a variety of different cultural backgrounds. Also, 13% of the school population had lived in Canada for fewer than 5 years. At this school, ELLs were classified in stages, according to language proficiency, which are described in the Ontario Ministry of Education document, *English as a Second Language and English Literacy Development: A Resource Guide*. According to this resource, students at Stage 1 are in the very beginning stages of language acquisition, and utilize English for survival purposes. Stage 2 learners use English appropriately during familiar activities and contexts. Stage 3 learners use English with increasing independence in most situations. Stage 4 ELLs demonstrate a language proficiency that approximates first-language speakers. At the research site, Stage 1 and Stage 2 ELLs were withdrawn from their English classes on a daily basis to receive language support. Stage 3 and Stage 4 learners were integrated and received programming accommodations and/or modifications by the classroom teacher.

### 3.3 Participants

The participating Grade 8 class in this research study was purposefully selected. Permission was sought to work with the class because it had the greatest number of ELLs, which
would increase the likelihood of obtaining enough ELL volunteers for this study. There were 6 ELLs in the class, who were all at a Stage 2 or higher in terms of language proficiency. The class teacher was approached and permission was received to work with the class. The study was discussed with the class and consent forms were distributed to students who indicated an interest in participating. Information letters and consent forms were sent home and all participants’ parents or guardians were requested to keep a copy of the form for their records. A total of ten consent forms were returned. It was hoped that a greater number of students would return consent forms. However, after a certain time period had elapsed, a decision was made to proceed with the research, in order to accommodate the homeroom teacher.

The ELLs included in this study were students who arrived in Canada within the past 3 years and who were at least at a Stage 2, in terms of English language proficiency. ELLs were selected in this manner because teachers usually experience a greater struggle to support their participation and inclusion during these early stages of arrival in a new country. Students also required basic reading and writing skills in order to participate in the online chat and keep up with the flow of conversation. Thus, they needed to at least be at Stage 2 in terms of reading and writing. In this research study, a native speaker was categorized as a student who was born in Canada, and had not received any English language support throughout his/her schooling.

Five of the students were Chinese ELLs, and consisted of Mandy - ELL, Jason - ELL, Yasmine - ELL, Amy - ELL and Elliott - ELL. At the time of the research, Mandy - ELL had been in Canada for 3 months. Jason - ELL and Amy - ELL had resided in Canada for 15 months, while Yasmine - ELL had lived in Canada for 2 years. Elliott - ELL had lived in Canada for the longest period of time, which was 3 years. Mandy - ELL, Jason - ELL, Yasmine - ELL, and Elliott - ELL were all withdrawn from class for one Language Arts period per day, and were
receiving English language support. Amy - ELL was not receiving any formal support from the ESL teacher, but her subject teachers were accommodating her in class. Mandy - ELL and Yasmine - ELL were considered early to intermediate ELLs, while Jason - ELL, Elliott - ELL and Amy - ELL were intermediate to advanced ELLs. Sam, Sarah, Raymond, Millie and Tim were the native speakers in this research, and were all of Asian heritage. All students were functional on the computer.

The volunteers were asked to participate in the online discussion, while the other students conversed about the same topic in small groups, face-to-face. The topics were related to an aspect of the Grade 8 History curriculum. Thus, while the discussion itself was not voluntary, the mode of communication was. Since the activities planned constituted normal, purposeful classroom activities, students were not placed at risk.

3.4 Role of the Researcher

At the beginning of each chat session, I provided the topic of discussion electronically in the chat window. I clarified the topic as needed, explaining any vocabulary, or rephrasing the question provided. In addition, I offered technical support as necessary. I was also present in each chat room and monitored the discussion for appropriate behaviour. I assisted students in refocusing, if they were completely off task. In addition, I answered questions that were directly addressed to me. My original intention was to limit my participation during the online discussions. However, during some episodes, it became necessary for me to become more of an active participant to keep the discussion going, as well as challenge students’ thinking. Students thinking critically and conversing with one another in a purposeful manner can be difficult for this age group. Thus, it was necessary for me to intervene in order to encourage discussion.
Although this may have affected the results of the research, my participation was needed so that the students could obtain some educational value from the discussions. Also, it presents a clearer picture of what was involved when using this tool in an elementary school setting.

3.5 Group Composition

Students were organized purposefully into groups of 5. Each group was comprised of at least 2 ELLs and 2 native speakers, in order to have a relative balance. Small group composition was utilized in this study because it is the standard form used in most elementary school classrooms, when students are asked to complete various group tasks. In addition, in online discussions, larger groups tend to frustrate learners as they must cope with large volumes of text; leading them to become overwhelmed with too much information (Berzsenyi, 2000; Ingram, Hathorn, & Evans, 2000). Group 1 consisted of Sam, Millie, Tim, Elliott - ELL and Mandy - ELL. Sarah, Raymond, Amy - ELL, Yasmine – ELL and Jason – ELL formed Group 2. Feedback was obtained from their classroom teacher about the group composition. He approved this arrangement, believing that it was optimal for fruitful discussion.

3.6 First Class/Toronto Educational Link (TEL)

The First Class system was used in this research study because this software is widely utilized within the Toronto District School Board, and it is readily available as it is already installed on all of the computers in the school. The Toronto District School Board sponsors and operates the Toronto Educational Link (TEL), which is accessed through First Class. First Class also has a chat feature and transcripts can be easily saved. A challenge in implementing online
chat in an educational setting can be changing people’s view of this medium as being primarily social in nature to being a helpful educational tool (Ingram et al., 2000). Hence, TEL was appropriate in this context, as it would encourage students and teachers to view the chat tool as an educational platform rather than a social medium, since it is extensively used as such within the Toronto District School Board. Activation of TEL student accounts needed to be requested by the sponsoring teacher. Afterwards, a separate request had to be made to enable the chat function for students. However, these tasks were not onerous, as an e-mail simply had to be sent to the help desk.

3.7 Procedure

Data collection occurred over a 2-week period at the request of the homeroom teacher. The class was studying a unit on the Canadian Charter of Rights and Freedoms that the teacher believed should involve a lot of discussion, which would suit the purpose of this research. Five chat sessions were held in total, each one lasting approximately 30 minutes. During lunch, one session was allocated for training, to explain the research and to promote comfort and familiarity with First Class. Students were encouraged to not sit beside anyone in the computer lab in order to minimize oral communication, and encourage CMC communication.

As recommended in the literature (see Berzsenyi, 2000; Ingram et al., 2000; Linder & Rochon, 2003), the lunch training session was devoted to discussing online chat, including its benefits, drawbacks and rules for appropriate and effective participation. During this session, additional instructions about “netiquette” were provided, which refers to “the evolving rules for considerate behaviour on networks” (Harasim, Hiltz, Teles, & Turoff, 1995, p. 210). Students were instructed explicitly about the use of appropriate language and the fact that this activity
would be a part of regular class work. They were also reminded that the researcher would monitor the discussions. Instructions were also provided on how to use the chat function on First Class.

A second training session was not needed as originally planned. During the lunch training session, students appeared to be highly comfortable with the use of First Class and also had time to engage in a trial online discussion about a general topic of interest. According to research, implementing an icebreaker is beneficial in order to assist students in developing adequate chat room literacy before partaking in more task-oriented conferences (Berzsenyi, 2000). In addition, success is enhanced when training sessions incorporate information and hands on practice (Harasim et al., 1995). After the hands-on trial discussion, students stated that they were comfortable enough using First Class and did not require another training session. Thus, the second training session was eliminated.

The remaining four electronic discussions occurred twice a week during class time. These discussions were related to a Canadian Charter of Rights and Freedoms unit that was being studied at the time of this research. One of the tasks involved groups of 4 or 5 students constructing their own charter and identifying similarities and differences between their charter and the Canadian Charter of Rights and Freedoms. However, before beginning this task, the classroom teacher wanted students to engage in a discussion in order to better prepare for the actual writing of their charters. Thus, the first episode revolved around answering the guiding question, “What ten rights and freedoms do you believe that people should have in a country and why?” This was intended to be a starting point upon which students could build.

The second task in this unit of study involved asking students to select one right or freedom that does not appear on the Canadian Charter of Rights and Freedoms and creating
arguments in terms of why it should be included on the charter. Again, the classroom teacher believed it would be beneficial for students to share and discuss prior to the task in order to gain some more insight and clarify their thinking. Thus, the second discussion involved answering the guiding question “Add a right to the Charter of Rights and Freedoms that is not already included on the charter and then defend your choice”.

The third and fourth discussions were based on case study journals that students were asked to write. Students were asked to discuss the cases presented, take a stance and then develop possible solutions. Students were expected to submit a written journal for evaluation. Thus, before writing their journals, students were to engage in a discussion in order to help them consider various perspectives on the cases, as well as solutions. It was hoped that this would enable them to develop richer journals. During the third and fourth online discussions, students first read the case study and then selected an option that was provided and discussed their reasoning in order to consider opposing perspectives. These case studies were intended to highlight the challenges that can occur when certain rights or freedoms conflict with one another; for example, the right to privacy versus freedom of the press. All of these discussions were intended to be a springboard for the follow-up activities that were implemented by the homeroom teacher which was the development of the students’ charter of rights and freedoms, as well as the journal writing about the case studies. A transparent task with an end product at the conclusion of the discussion will assist in making groups accountable for their discussions (Ingram et al., 2000). Students were informed that they would be assessed on their contributions, in terms of quantity, as well as quality, and that feedback would be provided to their teacher.

The researcher accompanied the students to the computer lab and provided them with the topic of discussion. On two occasions, the computer lab was being used by another class. Due
to this factor, as well as some of the computers in the library not functioning, some students were sent to use the computers in the computer lab independently, while the remaining students worked in the library. This was not ideal as the researcher could not supervise the students in the computer lab or observe their interactions.

After each session, the researcher saved the transcripts, so that they could be analyzed quantitatively and qualitatively. Once saved, the transcripts were automatically e-mailed to the researcher. Each participant’s name was then removed from the electronic transcripts and replaced with pseudonyms. In addition, any identifying markers (e.g. use of real names within the conversation itself by other students) were removed. Thus, when the transcripts were printed electronically, students’ anonymity was preserved.

In addition, students were asked to self-assess their participation after each online chat on a self-evaluation form (see Appendix D). Students responded to basic questions about how much they contributed to the online discussion and how they felt about their interaction with their group members. This was completed for data triangulation purposes. Focus group interviews were conducted with participating students at the end of the research study to ascertain their perceptions about online discussions. The native speakers in the research were grouped together and interviewed during one lunch period, while the ELLs were interviewed during a different lunch period. This was done to promote comfort so that students could speak openly about their experiences participating in the research and their perceptions about communicating online with either ELLs or native speakers.

At the completion of this research study, I attempted to continue to utilize online discussions with the ELLs. However, I was not able to implement these learning opportunities on a regular basis, largely due to scheduling conflicts and the inaccessibility of the computer lab.
Hence, after the research study occurred, monthly online discussions were held for the ELLs. The ELLs also continued to express their enjoyment of communicating online.

### 3.8 Data Analysis

#### 3.8.1 Transcripts

The main source of data for this research investigation was the transcripts of the online chats. In the electronic version of the transcripts, student names were deleted and replaced with pseudonyms. However, the rest of the transcripts were left intact. Thus, the original colours, fonts and spacing used by participants online were preserved. (Please see Appendix E for a full transcript of one episode). The turns that each participant took per chat session were counted and tabulated. This was done so that a comparison could be made in terms of the participation of native speakers versus the participation of the ELLs. A turn was counted each time a participant typed something (Freiermuth, 1998). Thus, a change in turns was indicated when there was a switch in names on the transcripts, which is similar to Freiermuth’s research.

In the following sample, there is a total of two turns. Elliott - ELL has taken one turn, and Millie has taken another.

**Elliott - ELL:** yo tim
**Millie:** education.

A turn was counted even when a participant typed a smiley face on a separate line. Although words were not typed, a smiley face contributed to the meaning of the discussion. When consulting the participants, they explained that a smiley face could be used to express agreement or contentment with the direction of the conversation. They concurred that if they had been talking face-to-face, they would have nodded or responded yes in agreement instead and
thus a turn would be taken. Consequently, the decision to count a smiley face as a turn was made. Similarly, a single question mark was also counted as a turn. The volunteers in this research explained that when they typed a question mark, it was an indication that they were confused and did not understand something. Rather than typing “what?”, they simply typed a question mark to promote greater efficiency. Again, participants believed if they were confused in oral conversations, they would have responded with “what?” or “pardon?”, which is equivalent to taking a turn.

The information was entered into a database for each student. In addition, the proportion of turns per participant was calculated by dividing the number of turns taken by each participant by the total number of turns in the conversation. This was completed to help demonstrate any differences in participation among ELLs and native speakers in online discussions. The total number of words a participant typed was also counted. The average length of each turn could then be determined by dividing the total number of words typed by the total number of turns taken by the participant. Acronyms were counted as a single word. Thus, although “LOL” means “laugh out loud”, it was simply counted as one word.

Transcripts were also examined qualitatively for the discourse functions utilized by each participant. This was based on Sotillo’s (2000) categorization scheme (Appendix F). These discourse functions were selected as they can be useful to illustrate group dynamics in the online environment and will assist in ascertaining whether native speakers appropriated the conversation or whether the ELLs took a more active role. This provides a better understanding of whether participation was truly equal in the online environment. Thus, transcripts were read and discourse functions were tallied for each student and entered into a database.
3.8.2 Self-evaluation

The student self-evaluation form (Appendix D) consisted of a few statements, where students expressed agreement or disagreement. For instance, they were asked to rate their contributions, their group members’ contributions and how they perceived the group dynamics during the online discussion. The students completed their ratings on a scale of 1 to 5; 1 indicating strong disagreement, and 5 expressing strong agreement. Additional space was provided on this instrument for comments. In order to preserve confidentiality, names were removed and replaced with corresponding pseudonyms. Self-evaluation forms were examined for students’ perceptions of their participation online. This data was compared and checked against students’ actual level of participation in order to understand how student perceptions compared with their online behaviour.

3.8.3 Focus Group Interviews

The focus group interviews involved a series of open-ended questions about students’ perceptions about participating in online chat and its utility as an educational tool that benefits their learning (see Appendix G). Groups of 5 students were interviewed at a time. The interviews were recorded, transcribed, and examined. Transcribed interviews were reviewed for perceived advantages and disadvantages in communicating via synchronous CMC. In addition, transcripts were analyzed for comments about how students felt about interacting with their peers in the online environment, as well as comments which suggested why CMC worked or did not work on students’ part.
CHAPTER 4: RESULTS AND DISCUSSION

4.1 Introduction to the Results and Discussion

The results of this research will be divided into three main sections, in order to answer the research questions that were under investigation: (1) Are there differences in how elementary school English language learners and their native speaking peers participate in small groups during online chat? (2) What are some of the differences in terms of the language features utilized by native speakers and English language learners during online discussions? (3) What are English language learners’ perceptions of the utility of synchronous CMC in facilitating their participation and equitable group interaction? What are native speakers’ perceptions of interacting with ELLs in online discussions? The results for Group 1 are discussed first, followed by the results for Group 2.

4.2 Differences in the number of turn taking opportunities for native speakers and English language learners as they interact via synchronous CMC

Group 1

The first online chat occurred in the computer lab with all participants present. It lasted for approximately 35 minutes. As illustrated in the table, Millie and Sam appear to have dominated the discussion, while Mandy and Elliott, the two ELLs took significantly fewer turns. However, Mandy - ELL’s turn lengths tended to be longer than Elliott - ELL’s. Interestingly, Tim, a native speaker, participated the least in the discussion, and used a number of repetitive phrases.
As previously mentioned, a decision was made to tabulate the total number of turns taken per participant, in order to remain consistent with previous research studies. This would facilitate a comparison if required. The total number of words was counted to provide a more complete picture of the volume of each participant’s writing and hence their involvement in the discussion. Finally, average turn length and the proportion of turns taken were calculated to further illustrate participants’ contributions in online discussions.

The duration of the second session was approximately 30 minutes. During this session, some of the participants were in the library with the researcher, while Sam, Millie and Tim were in the computer lab. This situation was not ideal; however, a scheduling conflict and computers requiring maintenance necessitated the split. During this study, one class was already scheduled to use the computer lab during the second period and some of the library computers were not

<table>
<thead>
<tr>
<th>Participant</th>
<th>Total Number of Turns</th>
<th>Total Number of Words</th>
<th>Average turn length (total number of words/total number of turns)</th>
<th>Proportion of turns taken (total number of turns per participant/total turns in chat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elliott – ELL</td>
<td>34</td>
<td>72</td>
<td>2.1</td>
<td>16 %</td>
</tr>
<tr>
<td>Mandy – ELL</td>
<td>20</td>
<td>105</td>
<td>5.25</td>
<td>9%</td>
</tr>
<tr>
<td>Sam</td>
<td>74</td>
<td>669</td>
<td>9</td>
<td>34 %</td>
</tr>
<tr>
<td>Millie</td>
<td>61</td>
<td>596</td>
<td>9.8</td>
<td>28 %</td>
</tr>
<tr>
<td>Tim</td>
<td>15</td>
<td>17</td>
<td>1.1</td>
<td>7%</td>
</tr>
<tr>
<td>Researcher</td>
<td>11</td>
<td>126</td>
<td>11.45</td>
<td>5%</td>
</tr>
</tbody>
</table>
functioning either. The other class’ teacher graciously agreed to supervise the remaining participants in the computer lab.

For the second session, the network was slow, and Sam encountered technical difficulties logging onto the computer. Apparently, he was able to enter his username and password, but it took a long time for the computer to connect to the network. He was finally able to join the chat about 10 minutes later. Despite him joining the chat late, he still took more turns than Elliott - ELL, Tim and Millie.

Interestingly, Mandy, an ELL, took the greatest amount of turns, although her turn lengths tended to be shorter. She was followed by Sam, who took 30 turns, and then Millie who took 24 turns. Similar to the previous episode, Tim was the student who participated the least during this session.

Table 2

<table>
<thead>
<tr>
<th>Participant</th>
<th>Total Number of Turns</th>
<th>Total Number of Words</th>
<th>Average turn length (total number of words/total number of turns)</th>
<th>Proportion of turns taken (total number of turns per participant/total turns in chat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elliott - ELL</td>
<td>20</td>
<td>79</td>
<td>3.9</td>
<td>12 %</td>
</tr>
<tr>
<td>Mandy - ELL</td>
<td>44</td>
<td>111</td>
<td>2.5</td>
<td>27 %</td>
</tr>
<tr>
<td>Sam</td>
<td>30</td>
<td>187</td>
<td>6.2</td>
<td>19 %</td>
</tr>
<tr>
<td>Millie</td>
<td>24</td>
<td>134</td>
<td>5.6</td>
<td>15 %</td>
</tr>
<tr>
<td>Tim</td>
<td>12</td>
<td>15</td>
<td>1.25</td>
<td>7 %</td>
</tr>
<tr>
<td>Researcher</td>
<td>31</td>
<td>277</td>
<td>8.9</td>
<td>19 %</td>
</tr>
</tbody>
</table>
The third session lasted for approximately 35 minutes. For the third online discussion, the participation trend in this group continued, with Millie and Sam taking the greatest number of turns, and having longer average turn lengths. Elliott - ELL had the next highest number of turns, followed by Mandy – ELL and then Tim. Interestingly, Mandy ELL’s participation decreased during this online episode.

Table 3

<table>
<thead>
<tr>
<th>Participant</th>
<th>Total Number of Turns</th>
<th>Total Number of Words</th>
<th>Average turn length (total number of words/total number of turns)</th>
<th>Proportion of turns taken (total number of turns per participant/total turns in chat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elliott - ELL</td>
<td>55</td>
<td>125</td>
<td>2.27</td>
<td>18.5 %</td>
</tr>
<tr>
<td>Mandy – ELL</td>
<td>29</td>
<td>75</td>
<td>2.59</td>
<td>9.7 %</td>
</tr>
<tr>
<td>Sam</td>
<td>63</td>
<td>704</td>
<td>11.2</td>
<td>21 %</td>
</tr>
<tr>
<td>Millie</td>
<td>105</td>
<td>879</td>
<td>8.4</td>
<td>35 %</td>
</tr>
<tr>
<td>Tim</td>
<td>28</td>
<td>66</td>
<td>2.36</td>
<td>9.4 %</td>
</tr>
<tr>
<td>Researcher</td>
<td>17</td>
<td>199</td>
<td>11.7</td>
<td>5.7 %</td>
</tr>
</tbody>
</table>

For the final session, which was 38 minutes long, the participants had to be split up again for the aforementioned reasons. Millie was in the computer lab, while the rest of her group members were in the library. Sam was absent for the final online discussion. It is interesting to note that Tim took the greatest number of turns, although they were shorter. Millie was next, followed by Mandy - ELL and Elliott - ELL respectively.
### Table 4

**Group 1 Total Number of Turns, Total Number of Words, Average Turn Length and Proportion of Turns Taken for Session 4**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Total Number of Turns</th>
<th>Total Number of Words</th>
<th>Average turn length (total number of words/total number of turns)</th>
<th>Proportion of turns taken (total number of turns per participant/total turns in chat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elliott - ELL</td>
<td>19</td>
<td>34</td>
<td>1.8</td>
<td>13.2 %</td>
</tr>
<tr>
<td>Mandy - ELL</td>
<td>20</td>
<td>59</td>
<td>2.95</td>
<td>14 %</td>
</tr>
<tr>
<td>Sam</td>
<td>absent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Millie</td>
<td>33</td>
<td>307</td>
<td>9.3</td>
<td>23 %</td>
</tr>
<tr>
<td>Tim</td>
<td>35</td>
<td>139</td>
<td>3.97</td>
<td>24 %</td>
</tr>
<tr>
<td>Researcher</td>
<td>37</td>
<td>361</td>
<td>9.8</td>
<td>26 %</td>
</tr>
</tbody>
</table>

Overall, two of the native speakers in the group, Sam and Millie, took the most turns among the student participants in this research and their average turn length was also higher. Elliott ELL’s level of participation remained fairly consistent throughout the episodes, with the exception of Session 3. His participation during the third online discussion was somewhat higher. Mandy - ELL’s involvement was also fairly consistent, with the exception of the second session, where she had a higher participation level. Tim contributed the least during the first 3 sessions. However, he increased his level of participation dramatically during the final online discussion.

Unlike previous research studies, online communication does not appear to have promoted group equity among adolescent native speakers and ELLs as they converse online in small groups, in terms of the turns taken by each participant, as well as the number of words contributed. For Group 1, the native speakers, with the exception of Tim participated more, as
evidenced by the number of turns taken, as well as the longer average turn lengths. In fact, Millie and Sam account for slightly more than half of the total turns taken in the first and third sessions. In the final session, Millie and Tim account for just under half of the turns taken in the discussion.

This difference could be attributed to a variety of factors, such as the nature of the topic, which was academically challenging, as well as the complexity of the task. Although the homeroom teacher had covered the topic of the Charter of Rights and Freedoms, some of the participants may have had more background knowledge about the topic. In addition, to the nature of the topic, the ELLs experienced the additional challenge of attempting to understand the language. Mandy - ELL commented on this aspect during the focus group interviews, stating that she could grasp the main idea of the discussion, but had difficulty comprehending certain vocabulary words, which then sometimes made participation difficult. Hence, the native speakers would have an advantage as they possessed the language to participate effectively.

Individual participant characteristics could also have contributed to the differences in participation rates. These characteristics have the potential to have a large impact, especially with an adolescent population. The classroom teacher mentioned that Tim is a quieter student by nature who rarely speaks in class unless encouraged to do so. This was also noted by the researcher during the focus group interviews. Thus, even though Tim was communicating online, his personality traits may have had a greater influence, preventing him from participating fully in the discussion. Millie and Sam are known to be more outgoing and confident students, which may have enabled them to engage in the discussion more.

Furthermore, a lack of typing skills may also have been a mediating factor. In his focus group interview, Elliott - ELL mentioned that he had poor typing and spelling skills and thus
would likely communicate more face-to-face. Due to his poor typing skills, Elliott - ELL also believed that he would communicate more effectively with native speakers face-to-face. Thus, his perception that he had poor typing skills could serve as an impediment to his contributions. Finally, classroom dynamics, with previously established roles and norms perhaps had the greatest impact on participation levels. Peer relationships are particularly significant for adolescent research participants. This factor was highlighted by the ELLs during focus group interviews and will be discussed in greater detail below. Briefly, the ELLs perceived that some of their peers were not kind or supportive towards them. Thus, this could have affected the dynamics of the group, and the contributions that the ELLs made. Accordingly, the complex nature of adolescent participants can be a strong influencing factor, affecting research outcomes in any study. In this situation, it was likely more influential than the CMC medium itself.

As stated previously, it was my intention to keep my participation to a minimum during the online discussions; however, it varied from session to session. At the beginning of each episode, I provided the topic for discussion. Participants then responded to the questions; however, if the discussion appeared to be stagnant or participants were confused, I intervened. I also provided clarification as needed and posed questions for further discussion. It appeared that the native speakers were encouraged to expand on their thoughts more, while the ELLs and Tim needed several prompts to actually respond to the guiding questions. However, all of the members in Group 1 responded to my contributions accordingly.

**Group 2**

The first online discussion lasted for approximately 38 minutes. The results for the second group differed from the first. In this group, an ELL participated the most in the first
online chat session. Amy - ELL had the highest number of turns, and her average turn length was also the greatest. She had almost double the number of turns as Sarah, a native speaker. However, Jason and Yasmine, both ELLs, took the fewest turns, and their turn lengths were shorter as well.

Table 5

<table>
<thead>
<tr>
<th>Participant</th>
<th>Total Number of Turns</th>
<th>Total Number of Words</th>
<th>Average turn length (total number of words/total number of turns)</th>
<th>Proportion of turns taken (total number of turns per participant/total turns in chat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarah</td>
<td>26</td>
<td>144</td>
<td>5.5</td>
<td>18 %</td>
</tr>
<tr>
<td>Raymond</td>
<td>Absent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amy - ELL</td>
<td>50</td>
<td>332</td>
<td>6.6</td>
<td>35 %</td>
</tr>
<tr>
<td>Jason - ELL</td>
<td>19</td>
<td>46</td>
<td>2.4</td>
<td>13 %</td>
</tr>
<tr>
<td>Yasmine - ELL</td>
<td>9</td>
<td>23</td>
<td>2.6</td>
<td>7 %</td>
</tr>
<tr>
<td>Researcher</td>
<td>40</td>
<td>379</td>
<td>9.5</td>
<td>28 %</td>
</tr>
</tbody>
</table>

The second online discussion endured for approximately 30 minutes. In the second session, it is evident that Raymond, a native speaker, and Amy – ELL had the greatest amount of turns. Raymond and Amy - ELL’s turns account for half of the total number of turns in the chat. However, Amy - ELL had the greater number of words and average turn length amongst her group members. Similar to the previous discussion, Jason - ELL and Yasmine – ELL participated the least, which is demonstrated by their total number of turns, as well as their average turn length.
Table 6

Group 2 Total Number of Turns, Total Number of Words, Average Turn Length and Proportion of Turns Taken for Session 2

<table>
<thead>
<tr>
<th>Participant</th>
<th>Total Number of Turns</th>
<th>Total Number of Words</th>
<th>Average turn length (total number of words/total number of turns)</th>
<th>Proportion of turns taken (total number of turns per participant/total turns in chat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarah</td>
<td>31</td>
<td>99</td>
<td>3.2</td>
<td>13 %</td>
</tr>
<tr>
<td>Raymond</td>
<td>51</td>
<td>171</td>
<td>3.4</td>
<td>22 %</td>
</tr>
<tr>
<td>Amy - ELL</td>
<td>65</td>
<td>332</td>
<td>5.1</td>
<td>28 %</td>
</tr>
<tr>
<td>Jason - ELL</td>
<td>21</td>
<td>58</td>
<td>2.8</td>
<td>9 %</td>
</tr>
<tr>
<td>Yasmine - ELL</td>
<td>25</td>
<td>53</td>
<td>2.1</td>
<td>11 %</td>
</tr>
<tr>
<td>Researcher</td>
<td>41</td>
<td>387</td>
<td>9.4</td>
<td>17.5 %</td>
</tr>
</tbody>
</table>

During the third online episode, which was 37 minutes long, the same participation pattern presented itself. Amy – ELL was once again the leader in terms of the number of turns that she took, illustrating her high level of involvement and participation in the discussion. Raymond was next, followed by Sarah. In this discussion, Jason - ELL and Yasmine - ELL had the fewest turns. Yasmine- ELL’s involvement was particularly limited, which was manifested by the fact that she only took 8 turns in total, and she only averaged approximately 2 words per turn.
Table 7

**Group 2 Total Number of Turns, Total Number of Words, Average Turn Length and Proportion of Turns Taken for Session 3**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Total Number of Turns</th>
<th>Total Number of Words</th>
<th>Average turn length (total number of words/total number of turns)</th>
<th>Proportion of turns taken (total number of turns per participant/total turns in chat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarah</td>
<td>29</td>
<td>127</td>
<td>4.4</td>
<td>15 %</td>
</tr>
<tr>
<td>Raymond</td>
<td>37</td>
<td>413</td>
<td>11.2</td>
<td>19 %</td>
</tr>
<tr>
<td>Amy - ELL</td>
<td>63</td>
<td>430</td>
<td>6.8</td>
<td>32 %</td>
</tr>
<tr>
<td>Jason - ELL</td>
<td>16</td>
<td>68</td>
<td>4.2</td>
<td>8 %</td>
</tr>
<tr>
<td>Yasmine - ELL</td>
<td>8</td>
<td>15</td>
<td>1.9</td>
<td>4 %</td>
</tr>
<tr>
<td>Researcher</td>
<td>42</td>
<td>607</td>
<td>14.4</td>
<td>22 %</td>
</tr>
</tbody>
</table>

During the final online discussion, which lasted for 39 minutes, Raymond had the greatest amount of turns amongst his group members, followed closely by Amy - ELL. On her self-evaluation, she attributed her lower participation to fatigue, which limited her concentration (see Appendix H). However, she appeared to be more involved in the discussion than most of her group members. Sarah contributed to the conversation, although her turns tended to be shorter. Once again, Yasmine - ELL participated minimally in this session. Jason - ELL experienced technical difficulties, and was not able to log on to the network. Hence, he joined the discussion about 20 minutes after it had begun.
Table 8

*Group 2 Total Number of Turns, Total Number of Words, Average Turn Length and Proportion of Turns Taken for Session 4*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Total Number of Turns</th>
<th>Total Number of Words</th>
<th>Average turn length (total number of words/total number of turns)</th>
<th>Proportion of turns taken (total number of turns per participant/total turns in chat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarah</td>
<td>38</td>
<td>135</td>
<td>3.6</td>
<td>19.4 %</td>
</tr>
<tr>
<td>Raymond</td>
<td>45</td>
<td>348</td>
<td>7.7</td>
<td>23 %</td>
</tr>
<tr>
<td>Amy - ELL</td>
<td>42</td>
<td>185</td>
<td>4.4</td>
<td>21 %</td>
</tr>
<tr>
<td>Jason - ELL</td>
<td>9</td>
<td>25</td>
<td>2.8</td>
<td>4 %</td>
</tr>
<tr>
<td>Yasmine - ELL</td>
<td>10</td>
<td>15</td>
<td>1.5</td>
<td>5 %</td>
</tr>
<tr>
<td>Researcher</td>
<td>52</td>
<td>422</td>
<td>8.1</td>
<td>27 %</td>
</tr>
</tbody>
</table>

Throughout the 4 online episodes, Amy - ELL and Raymond had the highest number of turns and had the greater turn length in comparison with the rest of their group members. They were followed by Sarah, and then Jason - ELL and Yasmine - ELL. This contrasts with Group 1, where native speakers appropriated the conversation. In this instance, communicating online benefited Amy, an ELL, and aided her communication with native speakers. Thus, as was the case in Freiermuth’s research (2001) of mixed groups communicating online, benefits resulted for Amy - ELL, as she was able to equalize her participation and even contribute more than some native speakers. According to her homeroom teacher, Amy – ELL rarely participated and contributed ideas during whole class or small group discussions when she was placed in groups with native speakers. Therefore, CMC removed the barriers that can be present when communicating face-to-face, and allowed her to express herself more freely, which was
mentioned by Amy - ELL during the focus group interviews. She stated that she did not have to concern herself with pronunciation issues, which enhanced her participation.

With the exception of Amy - ELL, the native speakers participated more than the other ELLs in the second group. These findings are not aligned with previous research completed in this area. A host of factors could have combined intricately to influence the results of this investigation. Two will be highlighted as they are believed to have been a stronger force; individual characteristics and classroom dynamics. First of all, it is safe to assert that Amy - ELL was the most motivated member of the group. This was confirmed by her homeroom teacher, who related that Amy – ELL consistently stayed after class to seek feedback on her writing and tests. In addition, she reported to her teacher that she wanted to be one of the top performing students in her class. She also achieved good results in her classes. Her homeroom teacher agreed that Amy was very keen and a hard worker. She also had stronger language skills than the other ELLs in her group, which enabled her to be confident when typing her responses and to participate more in the discussions. She was also very opinionated, which likely facilitated her ability to express herself. Jason - ELL blamed his poor typing skills for his lower level of participation. Yasmine - ELL’s minimal participation is partially due to her shy and self-conscious nature. Also, her language skills are not as strong as Amy - ELL’s or Jason - ELL’s., as determined by her academic achievement in English, as well as samples of her reading and writing. Thus, these factors likely deterred her from involving herself more in the discussions. Yet again, the complex nature of adolescents could have been more significant than the medium itself.

Previously established classroom dynamics and norms were also likely influential factors which affected the outcomes of this research. According to the ELLs, Sarah and Raymond were
more accommodating and kinder to ELLs in general. This could have assisted Amy - ELL’s participation, as she felt comfortable enough to voice her opinions and participate more during the discussions.

Similar to Group 1, I attempted to keep my involvement in the discussions to a minimum. However, it appeared that Group 2 required more support to begin their online discussions, as well as to sustain them. Amy – ELL would get frustrated because her group members would simply agree with her statements and not ask follow-up questions. The rest of Group 2, needed more encouragement to respond to questions, and expand or elaborate on their thoughts. Therefore, my participation varied between the two groups, as Group 2 needed more support. I attempted to encourage them to think critically. Amy – ELL, in particular, responded well to my input and my encouragement to expand her thoughts and ideas.

4.3 Differences in the language features utilized by native speakers and English language learners during online discussions

The chat transcripts were reviewed and participants’ speech acts were categorized. (Please refer to Appendix F for a complete definition of the categories, as well as examples). The discourse functions used by each participant were then tabulated for each participant and entered into a database. The accuracy of the coding was checked with another rater. A total of 182 speech acts were categorized. Agreement was achieved on the classification of 165 of these speech acts. Thus, an agreement rate of 90.7 % was obtained.
Group 1

In terms of discourse functions utilized by participants, Sam asked the most questions. His involvement in the conversation is illustrated through his use of questions. Elliott – ELL and Millie also asked a number of questions. Sam and Millie also had the most responses, followed by Mandy - ELL, Tim and Elliott - ELL. Mandy - ELL’s responses tended to consist of agreement with other statements made, while Sam and Millie provided their opinions and then either elaborated or explained their statements. There were also relatively few instances of participants being off topic. There were only 5 examples of off-topic chat in total during this episode. There were also a few adversarial moves used. All of the participants issued challenges or adversarial moves; however, Elliott – ELL, Millie and Sam utilized this discourse function more. There were hardly any examples of humour, and no closing moves.

Table 9

<table>
<thead>
<tr>
<th>Category</th>
<th>Mandy – ELL</th>
<th>Elliott – ELL</th>
<th>Tim</th>
<th>Millie</th>
<th>Sam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greetings</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Topic Initiation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questions/requests</td>
<td>2</td>
<td>10</td>
<td>3</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Response – elaboration, explanation,</td>
<td>12</td>
<td>6</td>
<td>11</td>
<td>42</td>
<td>48</td>
</tr>
<tr>
<td>clarification, agreement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adversarial moves/challenges</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Off topic</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Topic shift moves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humour</td>
<td>3</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Floor holding moves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing moves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncategorized</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
In the second online discussion, both ELLs and native speakers tended to respond to statements being made or questions being asked. There were also some questions asked by the participants. An interesting exception is Elliott – ELL, who asked more questions and made more requests. In this episode, there were very few instances of off topic discussion. Elliott - ELL was only off-topic once. Also, there were very few adversarial moves. Similar to the first online discussion, there was no use of closing moves by either the native speakers or ELLs.

Table 10

*Group 1 Discourse Functions for Session 2*

<table>
<thead>
<tr>
<th>Category</th>
<th>Mandy – ELL</th>
<th>Elliott – ELL</th>
<th>Tim</th>
<th>Millie</th>
<th>Sam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greetings</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Topic initiation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questions/requests</td>
<td>12</td>
<td>12</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Response – elaboration, explanation, clarification, agreement</td>
<td>16</td>
<td>1</td>
<td>7</td>
<td>15</td>
<td>21</td>
</tr>
<tr>
<td>Adversarial moves/challenges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Off topic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Topic shift moves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humour</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Floor holding moves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing moves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncategorized</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

In the third online discussion, the participants continued to mostly respond to statements and questions and then elaborate or explain their answers. Sam and Elliott - ELL asked quite a few questions. Millie and Sam also utilized a number of adversarial moves, challenging one another’s point of view. During this online episode, the ELLs did not use any adversarial moves.
Once again, there were hardly any instances of participants being off-topic. The only case can be attributed to Mandy – ELL. There were no closing moves or use of humor. Interestingly only Mandy – ELL and Tim attempted to greet their peers during the third episode.

Table 11

<table>
<thead>
<tr>
<th>Category</th>
<th>Mandy – ELL</th>
<th>Elliott – ELL</th>
<th>Tim</th>
<th>Millie</th>
<th>Sam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greetings</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topic initiation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questions/requests</td>
<td>3</td>
<td>13</td>
<td>1</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Response – elaboration, explanation, clarification, agreement</td>
<td>16</td>
<td>17</td>
<td>21</td>
<td>85</td>
<td>39</td>
</tr>
<tr>
<td>Adversarial moves/challenges</td>
<td></td>
<td></td>
<td></td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Off topic</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topic shift moves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floor holding moves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing moves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncategorized</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

In the final online discussion of the series, all of the students had a higher level of responses. There were only a few questions or requests that were made by the participants in comparison. Elliott – ELL and Tim each utilized one adversarial move. Mandy - ELL, Elliott - ELL and Tim employed greetings. There were no examples of closing moves, humor or off-topic conversation.
Table 12

**Group 1 Discourse Functions for Session 4**

<table>
<thead>
<tr>
<th>Category</th>
<th>Mandy – ELL</th>
<th>Elliott – ELL</th>
<th>Tim</th>
<th>Millie</th>
<th>Sam</th>
</tr>
</thead>
<tbody>
<tr>
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<td>2</td>
<td>1</td>
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</tr>
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<td>6</td>
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<tr>
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<td>11</td>
<td>31</td>
<td>29</td>
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</tr>
<tr>
<td>Adversarial moves/challenges</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>Off topic</td>
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<td></td>
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<tr>
<td>Topic shift moves</td>
<td></td>
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<tr>
<td>Humour</td>
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<tr>
<td>Floor holding moves</td>
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<tr>
<td>Closing moves</td>
<td></td>
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<tr>
<td>Uncategorized</td>
<td>1</td>
<td>3</td>
<td></td>
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</tbody>
</table>

It is evident that generally, Millie and Sam had a greater number of responses and a higher number of adversarial moves in comparison to their ELL counterparts. The ELLs in this research investigation had a higher number of greetings. There were very few cases of being off topic and very little use of humour. Neither the ELLs nor the native speakers used any closing moves.

Language proficiency and the task itself can explain these differences. The challenging nature of the task, which involved understanding many new vocabulary words that the ELLs had not likely encountered or remembered, would influence their comprehension of the Charter of Rights and Freedoms, as well as the case studies. Also, since the ELLs were from China, the concept of the charter possibly could have been foreign to them, and thus challenging, as they do not have the same rights and freedoms in their home country. Thus, it would have taken a
longer time to think and formulate their responses, or they may not have had the language to respond as efficiently or ask as many questions compared to their native speaker group members. Also, this would likely have influenced their ability to utilize adversarial moves, and challenge their peers’ thinking, as they did not possess enough background knowledge or have the language to do so.

Unlike previous research (see Darhower, 2002; Lee, 2004; Sotillo, 2000), there was not as much variety in the use of discourse functions as would be expected. There were no closing moves, and very little use of humour by the ELLs or the native speakers. The contributing factors could be a lack of a sense of community, as well as group dynamics. In this research, groups were involuntary, thus if the participants felt like they were forced to work with one another and did not feel like they were part of a community, they would not feel the need to use closing moves or humour. Also, if the ELLs did not perceive the native speakers in a favourable manner and vice versa, they would not employ closing moves or use humour with one another.

Being off topic was also very rare, which was highlighted as a significant concern in a number of CMC studies (see Darhower, 2002; Lee 2004; Marttunen & Laurinen, 2009; Sotillo, 2000). This difference can be accounted for because all of the participants in this study were aware that the researcher would be monitoring the conversation. Since they were adolescents in a school environment, they were perhaps less likely to go against the wishes of an adult, unlike previous research with adult participants. Also, the challenging nature of the discussion likely arrested the progression of off-topic discussion, as students had to concentrate in order to articulate reasonable responses. Since the participants were volunteers, they were also likely more motivated to stay on task. They were aware that their peers were completing the same task
face-to-face, and knew that these discussions would be beneficial to them when they attempted to complete their assignments.

At first glance, it may appear that the native speakers, Millie and Sam controlled the discussion, while the ESL students’ participation was quite limited, calling into question the educational value of online discussions. However, the ELLs did make several attempts to provide their input and challenge their peers. They also practiced their target language skills. Additionally, their classroom teacher believes that had the same conversation occurred face-to-face, the ELLs would have remained silent and not participated at all. Hence, chatting online did not result in all learners contributing equally to the discussion, as found in previous research studies. However, it still provided the ELLs with more opportunities to participate.

**Group 2**

In Group 2, all of the students had a higher level of responses than any other category. However, most of these responses tended to consist of agreement with statements that Amy - ELL made. In fact, this became particularly evident towards the end of the first session. Amy - ELL asked more questions compared to her group members. There were also limited cases of being off topic by the participants. The participants also did not appear to joke with one another during the first session. In addition, there was only one closing move by Yasmine - ELL.
Table 13

**Group 2 Discourse Functions for Session 1**

<table>
<thead>
<tr>
<th>Category</th>
<th>Sarah</th>
<th>Raymond</th>
<th>Amy – ELL</th>
<th>Jason – ELL</th>
<th>Yasmine - ELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greetings</td>
<td>2</td>
<td>1</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Topic initiation</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questions/requests</td>
<td>1</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Response – elaboration, explanation, clarification, agreement</td>
<td>20</td>
<td>34</td>
<td>9</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Adversarial moves/challenges</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Off topic</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Topic shift moves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humour</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Floor holding moves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing moves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
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<td>Uncategorized</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the second online discussion, the same pattern emerged. Amy – ELL appeared to be the most engaged participant, asking the most questions and making numerous responses. She also used a few adversarial moves. Raymond was also off topic for a total of 11 times. Most of the participants also employed a closing move. All of the students in this group had a higher level of responses than any other type of discourse function. These responses consisted mostly of agreement with statements that Amy – ELL made, as illustrated in the following excerpt. As mentioned previously, the transcripts were left unchanged. The students experimented with different font styles and colours.

**Amy - ELL:** like, government should provide those to the poor people if they really need

**Sarah:** ยา


Raymond: \textit{ya}

Yasmine - ELL: \textit{ya}

Jason - ELL: \textit{ya}

Raymond: \textit{yup}

Jason - ELL: \textit{ya}

Sarah: \textit{ya}

Amy- ELL: \textit{can you guys stop YAing/}

Table 14

\textit{Group 2 Discourse Functions for Session 2}

<table>
<thead>
<tr>
<th>Category</th>
<th>Sarah</th>
<th>Raymond</th>
<th>Amy - ELL</th>
<th>Jason - ELL</th>
<th>Yasmine - ELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greetings</td>
<td>2</td>
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<tr>
<td>Questions/requests</td>
<td>1</td>
<td>4</td>
<td>15</td>
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<td>2</td>
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<td>24</td>
<td>30</td>
<td>26</td>
<td>14</td>
<td>17</td>
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<td>Off topic</td>
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<tr>
<td>Topic shift moves</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humour</td>
<td>3</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floor holding moves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing moves</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Uncategorized</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
In the third online discussion, Amy - ELL continued to be the most productive participant. She had the most responses and asked the most questions. Raymond was next, and then Sarah, Jason – ELL and Yasmine - ELL. Their responses were mostly agreement with Amy - ELL. Amy – ELL, Raymond, and Jason – ELL also used an adversarial move. In this particular session, none of the participants were off topic and there was no use of closing moves.

Table 15

*Group 2 Discourse Functions for Session 3*

<table>
<thead>
<tr>
<th>Category</th>
<th>Sarah</th>
<th>Raymond</th>
<th>Amy – ELL</th>
<th>Jason – ELL</th>
<th>Yasmine – ELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greetings</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Topic initiation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questions/requests</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response – elaboration, explanation,</td>
<td>23</td>
<td>33</td>
<td>53</td>
<td>13</td>
<td>6</td>
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<tr>
<td>clarification, agreement</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Adversarial moves/challenges</td>
<td>1</td>
<td>3</td>
<td>1</td>
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<tr>
<td>Off topic</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topic shift moves</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Humour</td>
<td></td>
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<tr>
<td>Floor holding moves</td>
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</tr>
<tr>
<td>Closing moves</td>
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<td>5</td>
<td>3</td>
<td>1</td>
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</tr>
</tbody>
</table>

In the final episode, Amy ELLs’s engagement and contribution to the discussion was evident yet again. Raymond and Sarah had many responses as well. All of the participants had a higher number of responses than questions. Jason – ELL and Yasmine - ELL did not appear to be as actively involved in the conversation, which is evidenced by their low number of responses.
and questions. There were only four examples of being off topic in total. Also, none of the participants employed closing moves.

Table 16

*Group 2 Discourse Functions for Session 4*

<table>
<thead>
<tr>
<th>Category</th>
<th>Sarah</th>
<th>Raymond</th>
<th>Amy – ELL</th>
<th>Jason – ELL</th>
<th>Yasmine – ELL</th>
</tr>
</thead>
<tbody>
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<td>1</td>
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</tr>
<tr>
<td>Topic initiation</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Questions/requests</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Response – elaboration, explanation,</td>
<td>23</td>
<td>34</td>
<td>31</td>
<td>6</td>
<td>8</td>
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<tr>
<td>clarification, agreement</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Adversarial moves/challenges</td>
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<td></td>
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<tr>
<td>Off topic</td>
<td></td>
<td></td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Topic shift moves</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Humour</td>
<td>9</td>
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<td>1</td>
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<tr>
<td>Floor holding moves</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing moves</td>
<td></td>
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<tr>
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<td>4</td>
<td>4</td>
<td>2</td>
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</tbody>
</table>

Throughout the 4 online discussions, Amy - ELL was an involved participant who utilized a great variety of discourse functions. She was followed by Raymond, and Sarah. Jason - ELL and Yasmine - ELL had the fewest responses and questions. There were some closing moves used by the participants, and very little use of humour. Throughout the online discussions, there were a limited number of cases of students being off topic. This is contrary to previous research findings. This contradiction can be explained by the aforementioned factors for Group 1. The fact that Amy - ELL used a greater variety of discourse functions than the rest
of her ELL counterparts, may be due to her higher level of motivation, as well as her more advanced language proficiency.

In addition to the research questions that were answered, a few noteworthy themes emerged, which include group dynamics, negative social interactions and verbal and non-verbal communication. These themes could also help explain the results of this research, and are highlighted because they are important for educators to consider when implementing online discussions.

4.4 Group Dynamics

Group 1

In the first online discussion, there was more of an inclusive environment established, as participants made several attempts to converse with one another. During the first session, questions and responses were directed to all group members. However, during the second, third and fourth episodes, the formation of sub-groups occurred. Millie and Sam could be considered a dyad; while Tim, Elliott - ELL and Mandy - ELL could be considered a trio. In the third session, Millie and Sam conversed with one another almost exclusively, while the other group members directed questions at one another, or answered questions that were asked of them by the researcher. In her self-evaluation of the second episode, Millie claims that the discussion was difficult because few ESL students expressed themselves (see Appendix H).

The following is an excerpt from the third online discussion. It is an example of a typical exchange between Sam and Millie. Note the absence of comments directed to any of the other participants.
Millie: Why wouldn't you name the person that got accused?
Sam: if you did then you are putting yourself in danger
Millie: Not really.
Millie: Your just reporting the case.
Millie: It's not like they'd hunt you down for writing it in the newspaper.
Sam: yeaah... but wat if that person got mad and went after you?
Sam: and ppl would do that
Sam: do *
Millie: He's a teenager.

In the meantime, Elliott - ELL, Mandy - ELL and Tim directed their questions to one another by adding the name of the recipient at the beginning. The following is typical of what occurred in the third discussion:

Elliott - ELL: what do you agree about Mandy
Mandy - ELL: Tim just publish his name??

In the fourth session, even with Sam absent, Millie answered questions that were only posed to her or the group in general by the researcher. She elaborated and explained her own responses, but she did not really attempt to converse with her group members. Elliott - ELL, Tim and Mandy - ELL, on the other hand, continued to work around Millie and direct their comments towards one another. Thus, Millie and Sam formed a sub-group, while Mandy - ELL, Elliott - ELL and Tim comprised another.

Although an online community was established, it cannot be assumed that strong connections will develop among members, especially if the groupings are involuntary, which can cause members to not actively participate or enjoy participating (Darhower, 2007). For adolescents, involuntary groupings are likely to have a greater influence on group dynamics, due
to the centrality of peer relationships at this stage, which could affect the participation of some members. Previous social stigmatization of ESL students also worked against the formation of an online community in these circumstances. Mandy – ELL provided some insight into this issue during the focus group interviews. The following is an excerpt from the focus group interviews with the ELLs.

Researcher: Any final comments?

Mandy - ELL: I think, I think sometimes, umm like we’re Sam, Millie, Elliott - ELL, Tim and me right. Sometimes just Sam and Millie talking with the case. I think if there’s only one Sam or Millie in my group, that’s better.

Researcher: So you said sometimes they talk without you right?

Mandy - ELL: Yeah.

Researcher: Why do you think so?

Amy - ELL: They always ignore us ‘cause we are ESL.

Mandy - ELL: Yeah.

Researcher: So they ignored you because you’re ESL students?

Amy - ELL: Yeah. Once all three of us sit together and they said whoa ESL people. And Elliott - ELL. Four people. And we all said there’s only one ESL in this table.

Mandy - ELL: We’re still a table.
Therefore, it appears that the some of the ESL students in the class perceived that they were being stigmatized and thus mistreated or ignored. This could have caused them to feel uncomfortable with the group they were placed in, and not participate as much, since they were now in groups with the peers who they felt were not sensitive to their needs as ELLs. Mandy - ELL coped with this situation by directing her comments exclusively towards Elliott - ELL and Tim. Mandy - ELL elaborates on this issue further in the next excerpt.

Mandy - ELL: Umm, I want to change those people to be Jenna or.

Amy - ELL: She says she want to change those people like Millie, Sam, like with Jenna, Sarah, those people.

Researcher: Would that make you feel more comfortable to participate?

Mandy - ELL: Yeah.

Researcher: So it had to do with some of the people.

Mandy - ELL: Yes.

The pre-established social structure in the class affected the outcomes of this research. In this investigation, it affected Mandy - ELL’s participation and lead to the emergence of sub-groups. During the focus group interview, Mandy - ELL indicated that she would prefer to have other classmates that were more sympathetic to ELLs in her group rather than Sam and Millie. She also mentions that this would have made her feel more comfortable and thus she would have increased her level of participation. Accordingly, involuntary groupings are significant because it can affect group dynamics and help explain the apparent lack of participation by certain group
members. If the ELLs in this group did not feel like they were being included in the conversation, it would have affected their participation. This also helps explain why students did not employ any closing moves or use humour, if they did not really feel amicable towards one another. This is similar to Darhower’s (2007) research, where the more cohesive group employed many more leave takings than the group that was not as cooperative.

**Group 2**

The dynamics of Group 2 were quite different. Group 2 experienced difficulty initiating and maintaining the flow of conversation, and required a fair amount of support and encouragement to do so. Amy, an ELL, clearly developed into the leader of the group from the first online discussion. In the first session, she attempted to initiate and maintain the discussion by directing questions to her peers. The following is an excerpt from the first online conversation:

Amy - ELL: women should have chance to be Prime Minister too
Sarah: I think that everyone even if they r poor should get education
Amy - ELL: and some people who don't have arms or legs or have barrier on learn_they should have same jobs as normal people
Sarah: ya that is true
Amy - ELL: and by the way_can Yasmine say something?

Amy - ELL continued to demonstrate her leadership in the second online discussion, as she assumed the role of monitor and manager. When Raymond was off topic and experimented with his font style, she attempted to manage his behaviour.
Throughout the second, third, and fourth online discussions, Amy - ELL was clearly in control. She communicated her ideas and opinions, while her group members expressed agreement with her statements. An excerpt from the third session highlights this dynamic. This particular conversation was a response and discussion about a case study.

*Amy - ELL:* public know their name, the only consequence is they feel bad, and public treat them like culprits

*Raymond:* ok let the government know but not the public it would be a great amount of embarrassment

*Amy - ELL:* police and government have the right to know, but not public

*Raymond:* ya

*Jason - ELL:* ya

*Sarah:* ya

Although Amy - ELL emerged as the group leader, it should be noted that overall, Group 2 established a fairly inclusive and cooperative community. They directed questions to all group members and responded to one another throughout all 4 episodes. The ELLs perceived Sarah and Raymond as being kinder and more receptive to ELLs, which explains the differing group dynamic, community formation, and subsequent participation level by Amy - ELL, at least.
During the focus group interview, Amy - ELL and Mandy - ELL alluded to their preference for Raymond and Sarah.

Amy - ELL: There’s only one native speaker or two? Raymond…..

Researcher: Yeah. Raymond and Sarah.

Amy - ELL: They’re nice.

Mandy - ELL: I think Raymond and Sarah is better.

Amy - ELL: Yeah.

Mandy - ELL: They’re nice.

Due to the ESL student’s preference for Raymond and Sarah, involuntary groupings did not have a negative effect on Group 2. The group members continued to interact with one another throughout all of the episodes.

4.5 Negative Social Interactions

In spite of the more inclusive community that Group 2, established, a negative social undercurrent that was directed towards Yasmine - ELL appeared to be present during some of the online discussions. In the second online session, Yasmine - ELL had remained fairly quiet for most of the conversation. However, at one point, she typed “Hey Sarah”. Amy - ELL picked up on this, and the following conversation about Yasmine - ELL transpired.
Amy - ELL: she only types HEY Sarah

Sarah: lol

Amy - ELL: ...

Jason - ELL: she types "ok" too lol

Sarah: lol

Amy - ELL: T_T

Yasmine - ELL: all hunan should habe eduction too

Raymond: I THINK EVERYBODY SHOULD BE ABLE TO GET MINIMUM WAGE OR HIG HER

Amy - ELL: habe?

Amy - ELL: eduction?

Jason - ELL: what is a habe?

Sarah: dunno

Raymond: I DON'T NO

Yasmine - ELL: me too

Amy - ELL: me too, don't get it

Sarah - ELL: shy did u rite it

Amy - ELL: you just said it! how come you don't even know!

In this excerpt, Yasmine - ELL attempted to contribute to the discussion, but made some spelling errors. Although she made these errors, they did not impede the comprehension of her message. However, Amy - ELL not only noticed these errors, she chose to emphasize them. The other members of the group followed Amy - ELL’s example and questioned Yasmine - ELL. Sarah asked Yasmine - ELL why she had written what she did.
The presence of these negative social interactions online is significant as they could impact the participation of certain group members. In this instance, the negative comments directed at Yasmine - ELL likely affected her confidence and thus her contribution to the discussion. I was not able to ask Yasmine-ELL to comment on this during the focus group interview, as the other ESL students were present. It is important for educators who wish to use this tool to monitor for the presence of these negative social interactions, as ideally all members of the group should feel confident enough to contribute equally and learn during the online experience.

4.6 Verbal and Non-verbal Communication

Students were mainly engaged in the topic of discussion and did not tend to chat orally despite their proximity to one another. However, there were a few instances, where some visual and oral communication occurred among students. One of the more interesting cases of visual communication occurred in Group 1’s first online discussion. During this particular discussion, it became quite heated at one point, following talk about people having the right to food, shelter and education. Elliott - ELL made a controversial statement, asserting that he did not care about the poor. The following dialogue ensued.

Sam: because to most people in the world, i'm sure that they would care about you if you didn't hav money or food.
Mandy - ELL: agree!!
Elliott - ELL: why you care about it
Millie: …
Millie: You don't make sense Elliott-
Sam: I already explained that like 20 times...
Millie: We just told you all the reasons why we care.
Tim: yeah
Sam: do u really no understant why we're explaining his to yo u?

During this exchange, Sam stood up and glared at Elliott – ELL in frustration twice. Thus, while students were able to converse via the computer, Sam felt the need to be seen in this instance, demonstrating the power of visual/gesture communication. Elliott - ELL, however, did not notice the visual signals that were being directed towards him. There was also an instance of oral communication which occurred during the second session. Elliott - ELL verbally requested assistance from Jason - ELL who complied and attempted to help him.

In Group 2, Raymond disrupted the flow of conversation, with his experimentation with the style of the font. This frustrated his group members who asked him online to cease what he was doing and to participate in an appropriate manner.

Amy - ELL: R-A-Y-M-O-N-D !!!!!!!!!!
Raymond: SURE
Jason - ELL: hey raymond
Raymond: I'LL STOP
Jason - ELL: stop plz
Raymond: OK

During this exchange, Jason - ELL also asked Raymond to stop what he was doing orally. Raymond agreed to comply with the request. Thus, even though students could communicate over the networked computer, they sometimes felt the need to emphasize their message by communicating it through the use of visual gestures or the spoken word.
4.7 English language learners’ perceptions of the utility of synchronous CMC in facilitating their participation and equitable group interaction

Overall, the ELLs in this research rated the online chats favourably which is similar to other CMC research investigating participant perceptions (see Beauvois, 1995; Freiermuth, 1998; Kelm, 1992; Lee, 2002, Meskill & Anthony, 2007). Amy - ELL strongly agreed with all of the statements on her self-evaluation, indicating her agreement that the online tool helped her contribute equally and facilitated her communication with native speakers (see Appendix H). In her comments, Amy - ELL elaborated that it was helpful for her to converse online, and that it enabled her to communicate more effectively with her peers. On her self-evaluation, Mandy - ELL also indicated her agreement with the statements. She believed that chatting online could help her communicate more effectively. Jason - ELL and Elliott - ELL also rated online discussions favourably on their self-evaluations.

Yasmine - ELL agreed with the statements that discussing online helped her contribute equally and assisted her communication with native speakers. However, she did not agree with these statements as strongly at the beginning of the project. By the final session, however, her comfort level increased and she also commented that she believed it was a good idea for ESL students to communicate online.

During the focus group with the ELLs, all of them except for Elliott - ELL expressed their belief that communicating online was useful for their learning, helping them to engage in dialogue with native speakers more effectively and improve their English. When asked to elaborate on how the online discussions enhanced their English, the ELLs believed that it helped them learn new vocabulary. Elliott - ELL disagreed, citing his poor spelling as an influencing
factor. Thus, he felt that the online discussions did not make a difference for his learning, as he was too busy trying to formulate his responses correctly.

Amy - ELL, Mandy - ELL and Yasmine - ELL also perceived that discussing online was more comfortable than dialoguing face to face. Amy - ELL preferred online chat because she did not have to worry about her pronunciation and believed that communicating via CMC allowed her more time to think. Mandy - ELL also preferred talking online because when conversing face-to-face, she believed she was shy and experienced difficulty putting words together. These views are similar to those expressed in previous research (see Beauvois, 1995; Lee, 2002). Once again, Elliott - ELL claimed that his lack of typing skills and poor spelling hindered his ability to communicate online, and thus he preferred communicating face-to-face. Jason - ELL did not express a clear preference for one mode of discussion over the other, contending that his oral communication skills were pretty effective, so he would be able to communicate well in any setting.

Jason - ELL, Elliott - ELL and Yasmine - ELL did not believe that online chat helped them communicate more effectively with native speakers, attributing this to their poor typing skills. They believed that saying something verbally was easier. Mandy - ELL articulated an opposing view that discussing online with native speakers was beneficial because it helped eliminate some of the stigma that is associated with being an ESL student. Amy - ELL agreed with Mandy - ELL, asserting that discussing online helped her communication with native speakers because it removed some of the embarrassment that can occur when talking face-to-face, particularly having to ask her peers to repeat what they said over and over again due to her inability to sometimes understand their speech.
During the interview, Amy - ELL revealed one of the most significant but unintended outcomes that conversing online held for her.

Amy - ELL: We’re chatting online they starting to treat me like a person. Like a really normal student.

Researcher: Who’s that? You mean Sarah and Raymond?

Amy - ELL: No. Like Millie. And Garfield. (Garfield did not participate in the research but he is Amy’s classmate).

For Amy - ELL, these online discussions provided both academic and social benefits, as her peers changed the way that they interacted with her.

The ELLs in this research also expressed an interest in seeing this mode of discussion used more regularly at school. Amy - ELL stated that she would like to see CMC applied more, but not all the time because she would also welcome the chance to improve her oral communication skills.

4.8 Native speakers’ perceptions of interacting with ELLs in online discussions

According to the self-evaluation forms, most of the native speakers rated synchronous CMC positively and believed that online chat aided their communication with ELLs, with the exception of Sam for Session 2. In their comments for Session 2, Millie and Sam both articulated the need for their other group members to participate more in the discussion. In the focus group interview for native speakers, Sarah, Raymond, and Tim perceived that they contributed equally to the conversation, while Millie and Sam believed that they participated
more than their peers. All of the native speakers believed that communicating online benefited their communication with ELLs. Raymond noted that it helped facilitate their understanding due to the elimination of pronunciation issues. Thus, when the ELLs actually typed and wrote their thoughts, it helped the native speakers understand and communicate with them more successfully.

All of the native speakers in this research study rated the use of online discussions positively and expressed a desire to see it used more regularly in class, listing various reasons. Tim believed that it gave everyone a chance to speak and was thus beneficial. Millie articulated that communicating online was easier and eliminated being nervous, while Raymond and Sarah believed that it helped them learn more about computers and the online community. The favourable reactions to online discussions held by most of the participants in this research study, suggest that its use as one of the many tools in an educator’s repertoire is warranted.
CHAPTER 5: CONCLUSION, IMPLICATIONS, AND LIMITATIONS

Conclusion

From the findings of this research study, it is apparent that elementary school native speakers and ELLs participate differently in online discussions. With the exception of Amy - ELL and Tim, the native speakers tended to take more turns. This is contrary to previous work completed with adult L2 learners, where it has been found that participation tends to be equalized in online discussions (see Beauvois, 1992; Beauvois, 1998; Bohlke, 2003; Fitze, 2006; Freiermuth, 2001; Kelm, 1992; Kern, 1995; Lee, 2002; Sullivan & Pratt, 1996; Warschauer, 1996a). In this study, participant traits, inflexible groupings, as well as the previously established social structure in the class were highly influential in terms of affecting how the participants contributed and interacted with one another online.

In terms of discourse functions, all of the participants in this research tended to either respond or ask questions. There were very few instances of humour use, as well as closing moves. Further, there were also very few cases of participants being off-topic when conversing in the online environment. This contradicts previous research findings, where being off topic materialized as a significant concern. This suggests that synchronous CMC can be used as a viable communication tool in an educational environment. Another finding of this research was the differing group dynamics that developed as the groups progressed through the series of four online discussions. In Group 1, cohesiveness was lost after the first online discussion. It became apparent that there were two sub-groups; Millie and Sam, and Mandy - ELL, Elliott - ELL and Tim. Millie and Sam usually directed their questions and responses to one another. Mandy - ELL, Elliott - ELL and Tim engaged in a separate conversation. This likely affected the
outcomes of the study, as the native speakers typed large volumes of text to one another and were able to keep up with the flow of the conversation.

In Group 2, Amy - ELL surfaced as the group leader, as she asked questions, and managed and monitored her peers’ behaviour. The other students in Group 2 tended to express their agreement with her opinions. However, they all interacted and conversed with one another online, which demonstrates the more inclusive and cohesive group atmosphere that was created. However, the presence of social negativity towards certain group members occurred in Group 2, highlighting the fact that the online environment can be a space for negative social interactions. Despite the fact that students were communicating via synchronous CMC, some of them still felt the need to express themselves either visually through the use of gestures, or orally in order to ensure that their message was understood.

Most of the participants in this research study viewed synchronous CMC positively, which supports previous research findings (see Beauvois, 1995; Freiermuth, 1998; Kelm, 1992; Lee, 2002, Meskill & Anthony, 2007). They also stated that they would like to see synchronous CMC used more regularly at school, highlighting its appeal. The participants believed that it was beneficial for their learning. For the ELLs, they cited the opportunity to improve their English by learning new vocabulary as a key benefit.

Overall, the research participants believed that CMC helped them communicate more effectively with one another. The native speakers cited the elimination of pronunciation issues and being able to see what the ELLs were typing as a main factor in terms of how CMC helped them improve their communication with ELLs. Similarly, the ELLs in this research confirmed that CMC helped them communicate more successfully with native speakers as they did not have to be embarrassed about their pronunciation.
Classroom Implications

When glancing at the results of this research study, one cannot be reprimanded for thinking that the use of online chat did not truly promote group equity, leading to a questioning of its potential. After all, with the exception of Amy - ELL, none of the ELLs in this research appeared to be really outstanding participants in any of the discussions. However, the participants’ positive impressions about this mode of communication suggest that it should be used in the classroom. It appeared to be a quite a motivating tool, encouraging contributions. This is not to recommend that it is used exclusively in the class, as the participants themselves articulated. However, it can be used to supplement and enrich certain areas of the curriculum.

In order to implement online discussions successfully in the classroom, a number of factors should be taken into consideration. First of all, groupings should be more flexible and not remain static. For the purposes of this research, groups were left intact, which affected the findings of this study. However, it is apparent from the results and focus group interviews that involuntary groupings had a negative effect on the participation of some members in Group 1. Classroom teachers would have greater insight into classroom dynamics than I did. Participant personality traits also need to be considered carefully when forming online groups, or any benefits afforded by CMC may be eliminated.

Implications for Teachers

In addition to the classroom implications, there are various implications for teachers who wish to use this technology as a part of their pedagogical repertoire. Recent research demonstrates that learners at all levels require support when they engage in electronic discussions (Marttunen & Laurinen, 2009). Thus, teachers will need to somehow support
learners as they engage in online discussions, whether it is through extra coaching or direct
guidance and monitoring during the discussion itself. The students in this research would have
benefited from more coaching, not necessarily about the online medium itself; but in terms of
how to effectively engage in small group discussions. For example, they would have benefited
from direct teaching about effective communication strategies, such as how to initiate and
maintain the flow of conversation, especially for Group 2. The students in Group 2 experienced
some difficulty being able to initiate and maintain the dialogue.

The results of this research also indicate that direct teacher intervention is sometimes
required, particularly when socially negative interactions occur, as it did in Group 2. In this
situation, the teacher would need to clarify meaning or take steps to ensure that the negativity did
not progress further. Direct teacher monitoring is also required to help ensure that group
dynamics do not develop in the manner that it did for Group 1, where two sub-groups developed.
However, this can be quite difficult when there are many groups who are conversing online at
the same time and the lines of text are moving quickly on the screen. Thus, the teacher would
need to develop a creative solution to deal with this dilemma, such as perhaps monitoring groups
that require more supervision closely and simply reviewing the transcripts of more cohesive
groups at a later time. Teacher monitoring should also help to reduce cases of students being off-
topic, although there were very few instances of this during the research.

Debriefing at the end of an online discussion, as well as examination of the discourse
produced may also be advantageous. This was not done in this study, because of the time
constraints involved. However, if the teacher reviewed the transcripts with students and they
were made aware of their actual participation levels as well as the quality of their contributions,
it may encourage a richer online discussion the next time.
This research also has implications for task design for the online environment. Careful construction of creative tasks which are suitable for online discussions is required of the educator. This will promote the successful use of online discussions, particularly when it is used to facilitate conversations amongst ELLs and native speakers. Synchronous CMC can be used in the class in a variety of curriculum areas. However, it may be more beneficial when used for tasks that lend themselves to discussion, such as a debate or discussion of opinions.

The teacher must also ensure that all students are carefully prepared and ready to engage in the online discussion. All students must have sufficient background knowledge of the topic. In this research study, it was difficult to ascertain the readiness of the students as the study was conducted with a class that was not mine. It was assumed that all students had a certain level of knowledge about the Charter of Rights and Freedoms and the case studies as these topics were being covered in class.

All of these implications underscore the vital role of the educator when using synchronous CMC. According to Meskill and Anthony (2007), some may like to conceive of CMC as a space where students can learn independently with and from one another. However, their findings and this research study demonstrate that this is not the case. In these contexts, the instructor’s facilitation and continued involvement in tasks is critical to student learning (Meskill & Anthony, 2007). Thus, the success of online discussions necessitates careful consideration and implementation by the teacher.

**Technical Implications**

In order to promote the successful use of synchronous CMC, there are some technical factors that need to be accounted for. First of all, teachers would need to ensure that there is
sufficient access to the technology, which is not always easy. At this senior public school where
the research was conducted, one computer lab with approximately 30 computers was not nearly
enough for such a large student population. It would be difficult for students to take advantage
of this technology on a regular basis. In addition, the computer lab itself was in use for half of
the day, restricting access to the lab. Thus, during the research, scheduling conflicts occurred.
However, instead of completely eliminating the use of this technology, teachers will need to be
more selective and resourceful about when to supplement their curriculum with synchronous
CMC.

Secondly, the successful use of synchronous CMC necessitates educators being
knowledgeable and comfortable with the use of the software. Teachers will need to know how to
set up the groups on the network, and monitor the progression of the discussions. They will also
need to know how to save the chat transcripts should they wish to use them in debriefing
sessions. Teachers must also ensure that their students have sufficient technical skills to engage
in online discussions; although this was not an issue for the participants in this research study.
In spite of these technical considerations, most online chat platforms are relatively user friendly.

Limitations

There are several limitations of this research that will be addressed. Before proceeding,
however, one central issue will be commented on. Questions may arise in terms of the emphasis
that is placed on equal participation in this study. After all, equal participation cannot be
assumed to equate with equal learning. Although, this may be the case, an emphasis is placed on
equity in terms of participation because of its importance in education in Ontario. For instance,
oral communication is a part of Language Arts and students are allocated a grade for this strand.
There is also a specific expectation that students are able to discuss appropriately in small groups. Also, in the learning skills section of the report card, students receive an Excellent, Good, Satisfactory or Needs improvement for a section entitled “Participation”. A component of participation includes working productively and communicating effectively in small groups. Thus, ELLs need to acquire the knowledge and social skills to do so, while simultaneously practicing the target language. This difficult situation is not helped when native speakers dominate the conversation or exclude ESL students. Consequently, emphasis is placed on equity in participation in this research study.

A limitation of this study includes the fact that it is not generalizable due to the small sample size. Only 10 students volunteered for this research study. Since the participants volunteered for this research, it is likely that these students had some interest in, or were quite comfortable using computers. This may have influenced their participation rates and skewed their perceptions in a more positive light, so that they viewed synchronous CMC as being more beneficial.

It is also recognized that the context of this research was somewhat contrived and artificial, as volunteers were placed in a computer lab or library during instructional time, as they communicated online. If this research were to occur in a different setting, other results may be obtained. Perhaps more off topic conversations would have resulted or perhaps a different group dynamic may have been established. Hence, the unique context of this research study limits its generalizability.

Another limitation of this research study was the time constraints involved, which limited the length of this research study. In a naturalistic setting like a school, the researcher only has a certain amount of access to the participants. They engaged in 2 online discussions twice a week
for a total of 4 sessions. This provides a somewhat limited view of the participation of elementary school ELLs and native speakers in online discussions. Thus, a longer research study may provide greater insight about the participation and interaction of ELLs in the online environment.

Finally, this research only looked at one task type, which was discussion based as participants expressed their opinions related to the Charter of Rights and Freedoms or responded to and voiced their opinions about the case studies provided. Further investigation about the use of online discussion for a greater variety of tasks should be undertaken. It would be interesting to see whether synchronous CMC could be used successfully toward the completion of other task types.

**Implications for Future Research**

Due to the small sample size in this study, future research in this area with a larger sample of students at different grade levels would be useful. Greater insight would be obtained in terms of how feasible it is for teachers to implement small group online discussions for a whole class at a variety of ages. This would also shed light on whether the use of online chat afforded greater participation opportunities for a greater number and variety of students during online discussions.

Research involving different groupings would also be beneficial. In this study, groups were left intact, and were composed of native speakers and ELLs. Would different outcomes result if all of the members of the group were ELLs? Would grouping by ability level affect outcomes as well?
Future research should also investigate how ELLs and native speakers interact online as they work to complete a greater variety of tasks. In this research study, the tasks involved were discussion based. Participants provided their opinions about the Charter of Rights and Freedoms or various case studies. It would be interesting to determine whether different results would be obtained if students were to complete other task types. For example, would different outcomes occur if students were to complete a jigsaw task?

Finally, more research should be conducted in a variety of environments in order to better understand the utility of synchronous CMC in promoting group equity for native speakers and ELLs. For instance, research could be conducted to explore how native speakers and ELLs interact with one another online outside of school hours for educational and enrichment purposes. Perhaps, more off topic turns would occur, or a greater variety of discourse functions would be used, as students would feel more comfortable and relaxed outside of school.

Thus, the potential of synchronous CMC to enhance the learning experience and increase the level of involvement for both native speakers and ELLs is evident from this research study. Although participation was not equal in the online discussions, both native speakers and ELLs reported enjoying this type of interaction, which demonstrates its promising future. However, educators must now look for more innovative ways to implement this tool, in order to benefit all learners.
References


Appendix A

Letter of information and consent form - principal

Dear Principal,

I am a Masters of Arts student at the University of Toronto/OISE. The purpose of this letter is to request your permission to conduct my research at your school. I am conducting research, which focuses on English language learners’ (ELLs) use of online chat for educational purposes. My study will investigate how ELLs and their native speaking peers communicate in the online environment, as well as their perceptions of this discussion tool. This information will be useful to schools in understanding ELLs’ communication patterns online, which may assist in the design of strategies to promote their participation and ultimately their desire to interact.

The teacher from the participating class will be asked to develop topics of discussion in conjunction with the researcher. These topics will be related to a unit of study that is being taught. Volunteers (ELLs and native speakers) will be sought to discuss the topic online, while the rest of the class converses about the same topic orally. Thus, participation in the online component will be strictly voluntary. The participating class will converse about the subject matter for 20-25 minutes once or twice a week for two to four weeks. A total of four sessions will be needed. In addition, two training sessions will take place during lunch for the volunteers involved in my research. At the end of each session, students will be asked to self-assess their participation online via a small self-evaluation form. In addition, focus group interviews with consenting participants will be conducted at the conclusion of the study. These interviews will be audio taped and transcribed.

This program will be integrated into the regular, ongoing curriculum, and will constitute purposeful, educational activity, causing no interference to instruction, nor adding any additional workload for the students.

Students and teachers will not be identified in this study. Students’ names will be removed from the transcripts and replaced with pseudonyms. In addition, students will be asked not to write their names on the self-evaluation. Participants will also not be identified in the interview transcripts. The information obtained from this study will be used solely for research purposes. While the research is being conducted, data will be stored on the researcher’s personal computer, and a memory stick at the researcher’s personal residence. All data pertaining to the study will be deleted and destroyed once the results of the research are written.

Participation in this research study is strictly voluntary and no one is under any obligation participate. Participants have the right to refuse to answer any interview questions or withdraw from the study at any time. The refusal to participate will not result in any adverse consequences. Questions related to the study should be directed to the researcher and student participation may be withdrawn at any time without consequence. Should a participant choose to withdraw from the study, all data pertaining to him/her will be destroyed at the time of his/her withdrawal.

A summary or a complete report will be available for review once the final report is written.

In order for each child to partake in this study, a consent form must be signed and returned to the school. If you or any of your parents have any questions or concerns, please contact me at by e-mail or telephone (XXX-XXX-XXXX).
You may also contact the Office of Research Ethics at ethics.review@utoronto.ca or 416-946-3273 about your rights as a participant.

Please retain a copy of this information letter for your records. Thank you for your consideration and assistance in making my research possible.

Mei Lan Ma
U of T/IOSE MA Student

Thesis Supervisor
Antoinette Gagné
Department of Curriculum, Teaching and Learning
OISE/UT, 252 Bloor Street West, Toronto, ON, M5S 1V6
Phone: XXX-XXX-XXXX

Please complete the following consent document, retaining one copy for your records and returning a copy to Mei Lan Ma.

My signature indicates that I have carefully read the information provided above. I also understand that my participation is voluntary and that I have willingly consented to allow the teachers and students in my school to participate in this project. I also understand that I may withdraw my consent at any time without consequence.

Name (please print): ________________________________
Position: _________________________________________
Signature: _________________________________________
Date: ____________________________________________
Appendix B

Letter of information and consent form to the teacher

Dear Teacher,

I am a Masters of Arts student at the University of Toronto/OISE. The purpose of this letter is to request your participation in my research project. I am conducting research, which focuses on English language learners’ (ELLs) use of online chat for educational purposes. My study will investigate how ELLs and their native speaking peers communicate in the online environment, as well as their perceptions of this discussion tool. This information will be useful to schools in understanding ELLs’ communication patterns online, which may assist in the design of strategies to promote their participation and ultimately their desire to interact.

If you agree to participate, I will work closely with you to develop topics of discussion, which will be related to a unit of study that is being taught. Volunteers (ELLs and native speakers) from your class will be sought to discuss the topic online, while the rest of the class converses about the same topic orally. Thus, participation in the online component will be strictly voluntary. The participating class will converse about the subject matter for 20-25 minutes once or twice a week for two to four weeks. A total of four sessions will be needed. In addition, two training sessions will take place during lunch for the volunteers involved in my research. At the end of each session, students will be asked to self-assess their participation online via a small self-evaluation form. In addition, focus group interviews with consenting participants will be conducted at the conclusion of the study. These interviews will be audio taped and transcribed.

This program will be integrated into the regular, ongoing curriculum, and will constitute purposeful, educational activity, causing no interference to your instruction, nor adding any additional workload for the students.

Students and teachers will not be identified in this study. Students’ names will be removed from the transcripts and replaced with pseudonyms. In addition, students will be asked not to write their names on the self-evaluation. Participants will also not be identified in the interview transcripts. The information obtained from this study will be used solely for research purposes. While the research is being conducted, data will be stored on the researcher’s personal computer, and a memory stick at the researcher’s personal residence. All data pertaining to the study will be deleted and destroyed once the results of the research are written.

Participation in this research study is strictly voluntary and no one is under any obligation participate. Participants have the right to refuse to answer any interview questions or withdraw from the study at any time. The refusal to participate will not result in any adverse consequences. Questions related to the study should be directed to the researcher and student participation may be withdrawn at any time without consequence. Should a participant choose to withdraw from the study, all data pertaining to him/her will be destroyed at the time of his/her withdrawal.

A summary or a complete report will be available for review once the final report is written.

In order for each child to partake in this study, a consent form must be signed and returned to the school. If you or any of your parents have any questions or concerns, please contact me at by e-mail or telephone (XXX-XXX-XXXX).
You may also contact the Office of Research Ethics at ethics.review@utoronto.ca or 416-946-3273 about your rights as a participant.

Please retain a copy of this information letter for your records. Thank you for your consideration and assistance in making my research possible.

Mei Lan Ma  
U of T/OISE MA Student

Thesis Supervisor  
Antoinette Gagné

Department of Curriculum, Teaching and Learning
OISE/UT, 252 Bloor Street West, Toronto, ON, M5S 1V6
Phone: XXX-XXX-XXXX

Please complete the following consent document, retaining one copy for your records and returning a copy to Mei Lan Ma.

My signature indicates that I have carefully read the information provided above. I also understand that my participation is voluntary and that I have willingly consented to allow the students in my class to participate in this project. I also understand that I may withdraw my consent at any time without consequence.

Name (please print): ________________________________
Position: ________________________________
Signature: ________________________________
Date: ________________________________
Appendix C

Parent and student information letter and consent form

Dear Students and Parents,

I am currently undertaking a research study at the University of Toronto/OISE for my Master of Arts thesis. My research is about how English language learners and their peers interact and communicate in the online environment. This information will be beneficial for schools in understanding ESL students’ communication patterns online, which may assist in the design and implementation of strategies to support their participation and enhance their language learning experience. The External Research Review Committee of the TDSB has granted approval of this study. In addition, the principal has given her permission for this study to be conducted at your child’s school.

Participants in this research project will be asked to participate in 6 online discussions with their peers via the chat function on the TEL network. Two training sessions will take place during lunch, while the remaining four will occur during class time. These discussions will be educational and curriculum related. In addition, I will monitor them. Participants will then be asked to complete self-evaluation forms about their participation after each session. At the end of the study, a focus group interview will be conducted in order to ascertain how students perceived the suitability of this mode of discussion. These interviews will be audiotaped and transcribed. Participation in these focus group interviews is voluntary.

Students will not be identified in this research. On the chat transcripts, names will be removed and replaced with codes and all identifying markers will be deleted as well. In addition, names will be taken off self-evaluation forms and replaced with a code. During the transcription phase of the focus group interviews, students will not be identified in any manner.

The information obtained from this study will be used solely for research purposes. While the research is being conducted, data will be stored on my personal computer and a memory stick at my personal residence. All data pertaining to the study will be deleted and destroyed once the results of the research are written.

Your child does not have to participate in this research study. During the course of the research, you and your child may ask questions pertaining to the study at any time. Also, participation may be withdrawn at any time without consequence.

The activities in this research study constitute purposeful, educational activity, causing no interference to instruction, nor adding any additional workload for the students. Thus, should your child decide not to participate, there will be no negative consequences to him/her. However, if your child participates, he/she may develop a better understanding in terms of how to use online discussions for meaningful and educational purposes. Online discussions are becoming increasingly popular in educational settings. The completed study, including relevant data will be available to parents once the final report is written.

Please indicate on the attached consent form whether you give permission for your son/daughter to take part in this research and return it to the school. If you have any further questions, please contact me at XXX-XXX-XXXX.

You may also contact the Office of Research Ethics at ethics.review@utoronto.ca or 416-946-3273 about your son’s/daughter’s rights as a participant.
Please retain a copy of this information letter for your records. Thank you for your support in making my research possible.

Sincerely,

Mei Lan Ma
U of T/OISE M.A. student

I give permission for my son/daughter ____________________ to participate in this research study. I understand that my son/daughter will remain anonymous and will be able to withdraw from this research project at any time without consequence.

I __________________________ volunteer to take part in this research project.

Student’s Name

______________________________  ____________________________  ____________________________
Date                       Student Signature                  Parent/Guardian Signature
Appendix D

Student Self-evaluation Form

Please read the following statements and indicate whether you agree or disagree by circling the number.

1 = strongly disagree
2 = disagree
3 = neutral
4 = agree
5 = strongly agree

1. I felt comfortable participating in today’s online discussion.
   1  2  3  4  5

2. Online chat helped me contributed equally during the discussion.
   1  2  3  4  5

3. Online chat helped me communicate better with native speakers/ESL students.
   1  2  3  4  5

Comments:

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
Appendix E

Complete Transcript for Group 1, Session 1

Elliott – ELL has joined the chat.
-------------
Sam has joined the chat.
-------------
Elliott - ELL: hi
-------------
Sam: ?
-------------
Elliott - ELL: yo hi
-------------
Sam: ?
-------------
Elliott - ELL: ?
-------------
Sam: hi
-------------
Tim has joined the chat.
-------------
Sam: i like poe
-------------
Elliott - ELL: hi
-------------
Millie has joined the chat.
-------------
Researcher: What 10 rights do you feel you should have as Canadians and why?
-------------
Sam: Uhhh... The right to.... food and shelter
-------------
Sam: ?
-------------
Elliott - ELL: yo tim
-------------
Millie: education.
-------------
Millie: for free
-------------
Sam: okay then.
-------------
Sam: this is very hard
-------------
Millie: join any organization without being discriminated.
-------------
Sam: umm... the right to a secure land and or place to live
-------------
Sam: ... true millie
-------------
Millie: lol .
-------------
Elliott - ELL: ?
-------------
Elliott - ELL: ?
Sam: you shouldn't be discriminated because of race or color, and you should have the right to live in a place where ppl will treat you like an equal

Sam: color**
Elliott - ELL: ha ha ha ha ha ha!!!

Millie: :D

Sam: LOLL

Sam: do u're work

Researcher: Ask each other follow up questions please.

Mandy - ELL: okay

Tim: ok

Sam: what do you mean by "follow up questions "? an example please

Researcher: Ok for example, Millie said education, why has Millie ranked that as being the most important?

Elliott - ELL: I don't have question

Sam: ohhh.

Tim: ok

Millie: Education should be the most important because if kids don't get educated, there's a really low chance they'll get anywhere in life, and even if they do, they'll have difficulties.

Elliott - ELL: tim

Sam: millie, why do you think that education is more important taht a safe place to live...

Researcher: Imagine you're discussing face-to-face, if someone said something, you wouldn't just ignore that comment, you would respond or ask them something in return.

Sam: and food is wayyyyy more important than eductaion

Millie: Well, shelter and food is important too.

Sam: so i think taht food and shelter should be the first one

Millie: But none of them would really serve a purpose without education.
Millie: You'd have a safe place to live, and food to fill your stomachs, but it's not like it's going to last forever.

Millie: Your going to have to earn the money to buy the food when you grow older.

Sam: But it is commonly known that people need food to survive, and without food, then how are you supposed to be able to learn anything?

Sam: anything **

Millie: And you'll have problems finding a job without completing school.

Sam: okay, hats true

Sam: thats **

Mandy - ELL: ya~

Sam: wat about the right to have a job and money ?

Tim: ok

Elliott - ELL: what!!!

Sam: that should be a law

Elliott - ELL: what law

Millie: Yeah, some people force the workers to go into retirement.

Sam: that way ppl won't live on the streets and the poverty level would go down

Millie: They should be able to retire whenever they want, and get enough money to support their lives.

Millie: Also, everyone should be able to have food to fill their stomachs.

Sam: True, also they should be able to have a safe place to live and eat food during their lives and even when they're retired

Researcher: But Millie, some people think that those who retire late take away jobs from younger people? What do you think about this?

Mandy - ELL: then can i get a job now ??

Millie: There's enough food in the world to feed everyone, but a lot of people die everyday because of hunger.

Elliott - ELL:

Researcher: Elliott - have you posted your right?
Researcher: Tim - have you posted your right?
---------------
Mandy - ELL: that's because they don't have sth to eat~~
---------------
Sam: that would still not affect the job rate, there is more places being build; thus making jobs easier to find, only if you have the proper training
---------------
Millie: Well, I think there's enough jobs in the world, that everyone would have something to do.
---------------
Elliott - ELL: I do not think so
---------------
Millie: Not everyone would want to retire late, so I just think that the people being forced to retire, should have his/her right to stay working.
---------------
Tim: I don't think so
---------------
Sam: and y not ?
---------------
Millie: What do you think then ?
---------------
Millie: what do you mean why not ?
---------------
Sam: i say that they do hav enough jobs...
---------------
Millie: they do.
---------------
Mandy - ELL: but there are a lot of people alive in the world~~
---------------
Elliott - ELL: do not
---------------
Millie: if there isn't, you can always travel to another place and look for jobs.
---------------
Sam: i'm sayin that to Tim: I don't think so
---------------
Elliott - ELL: me to
---------------
Mandy - ELL: but if they don't have enough money~~
---------------
Millie: There's no dead end, you can always do other jobs temporarily until you get enough money.
---------------
Millie: Or you can loan.
---------------
Elliott - ELL: on
---------------
Sam: but in an essence, people should hav a subsidy, this way they will always have enough money that they need for their common uses and they will never run out of money as long as there use their money wisely
Elliott - ELL: no

Sam: why not elliott ?

Millie: isn't subsidy for the government ?

Sam: yeaa

Sam: but it can also be applied here

Researcher: That's an interesting idea sam

Millie: And, some people have more than enough money to support their family, I don't think everyone would need it.

Mandy - ELL: lol..

Elliott - ELL: no

Mandy - ELL: ******.

Millie: I think everyone should have an even sum of money, so that there'd be no more hungry people in the world.

Millie: Why don't you think so, Elliott ?

Elliott - ELL: I don't think so

Sam: tahst wat a subsity would do, for every family member, they get a certian amount of money

Millie: Yeah, but some people are already really wealthy, so they wouldn't need the subsidy.

Sam: so then it doesn't apply to them, they can from their own way of saving their money, hence a bank

Millie: Well yeah, I guess only the really poor people should get money from the government.

Researcher: How would you decide who is "poor" enough to get this subsidy?

Elliott - ELL: yes

Sam: yepp, either that or a loan

Millie: If people don't have enough money to support their whole family.

Sam: umm.. you would balnance their yearly encome ?

Millie: Or have complications, like a relative needs hospital fare.
Mandy - ELL: i think they need subsidy~~because they don't have enough money to support their families~

Elliott - ELL: who care

Millie: What do you mean who cares?

Tim: ???

Sam: people do Elliott. would you like to not hav any money?

Millie: If people don't have enough money to support they're family, they'll die.

Elliott - ELL: no body care about poor people

Sam: and if they die, then jobs are lost, if jobs are lost

Mandy - ELL: in this world have a lot of very poor famlies~~then we don't know...

Millie: Money is a big deal you know, without it, people wouldn't be able to get food, shelter, clothing, etc.

Sam: hen it will eventually come back to you

Sam: then*

Millie: Obviously a lot of people care about poor people

Millie: Why do you think theres a Me to We?

Sam: exactly, have you ever heard about charity?

Elliott - ELL: well I don't

Sam: okay

Millie: That's your own opinion.

Sam: thats jus means that u don't, but other people do.

Elliott - ELL: who then

Millie: Charitis, Organizations

Sam: "Meto WE"

Millie: We had a hunger banquet.

Millie: what do you think that was for?
Sam: sick kids hospital

Millie: people less fortunate.

Millie: I’m pretty sure you’ve seen someone that cares about people less fortunate.

Sam: elliott, did you noe that over 30% of ppl in toronto alone do not have enough money to get food for dinner ?

Millie: We did that free rice thing a few days ago.

Millie: That's because people cared.

Sam: why do u think that we did all of that for ?

Millie: You probably did it too.

Elliott - ELL: some

Millie: what do you mean ?

Sam: okay then

Sam: so u cared and u donated rice

Millie: This is just your opinion though, Elliott.

Sam: so why shouldn't other ppl care about the less fourtanate ?

Mandy - ELL: i thnk that game can help people..

Millie: If you were in their position, wouldn't you want someone to care ?

Elliott - ELL: what are you saying Sam

Mandy - ELL: what're u doing ??elliott~~

Sam: i'm sayin that people care about the "poor" and you do to, thats y there should be a law taht gives all familes, wealthy or poor, an amopunt of money to use per month or year.

Sam: amount **

Millie: I don't get why you wouldn't care, Elliott.

Sam: make sense elliott, or not to u ?

Millie: It's just their luck, that they were born in a less fortunate family than you.
Millie: It's really selfish of you, to say that nobody else cares about poor people.

Sam: because to most people in the world, i'm sure that they would care about you if you didn't hav money or food.

Mandy - ELL: agree!!

Elliot - ELL: why you care about it

Millie: ...

Millie: You don't make sense Elliott.

Sam: i already explained taht like 20 times ...

Millie: We just told you all the reasons why we care.

Tim: yeah

Sam: do u really no understant why we're explaining his to yo u?

Sam: this **

Mandy - ELL: i know u live in a very rich family

Mandy - ELL: ..

Millie: who ?

Sam: theres a reason, to help the otehr familes and people taht have less money tahn you.

Sam: this way canada and all places will hopefully be a bette rplace with no poverty

Sam: better **

Millie: We're all living on this planet, so might as well help each other out.

Sam: I agree with that.

Mandy - ELL: sure...me too

Tim: yeah

Elliot - ELL: I don't

Mandy - ELL: maybe u don't care~~

Tim: why?
Mandy - ELL: then i don't care what are saying either~~~

----------

Sam: well explain why you don't then, because it doesn't make sense to me why you wouldn't care about where you live or who u live wit.

----------

Tim: yeah

----------

Millie: If people don't have a proper childhood, they could go corrupt.

----------

Sam: ... explain

----------

Millie: And if they go corrupt, they'd turn into a mad serial killer or something.

----------

Millie: It'll eventually impact you somehow.

----------

Sam: did yu ever think about what kind of effect it has on scociety ?

----------

Researcher: I'm giong to ask you to log off

----------

Tim: ok

----------

Sam: kayy

----------

Mandy - ELL: okay

----------

Millie has left the chat.

----------

Sam has left the chat.

----------

Tim: ok

----------

Elliott - ELL: ha ha ha ha!!

----------

Tim: ok

----------

Tim: ok

----------

Tim: ok

----------

Elliott - ELL has left the chat.

----------

Tim has left the chat.

----------

Mandy - ELL has left the chat.
Appendix F

**Discourse Function Categories**

The following categories were used to classify the discourse from the chat transcripts. These categories were adapted from Sotillo’s article. They were selected because it is believed that they will shed light on group dynamics between ESL students and their peers, as they interact in the online environment.

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Greetings</td>
<td>an opening move in an electronic discussion</td>
<td>Hi.</td>
</tr>
<tr>
<td>2 Topic initiation</td>
<td>introducing a topic of conversation</td>
<td>Let’s talk about poverty.</td>
</tr>
<tr>
<td>3 Questions/Requests</td>
<td>a question statement that makes a request or asks for a response</td>
<td>What do you mean?</td>
</tr>
<tr>
<td>4 Responses</td>
<td>a) elaboration</td>
<td>a) But none of them would really serve a purpose without education. You'd have a safe place to live, and food to fill your stomachs, but it's not like it's going to last forever.</td>
</tr>
<tr>
<td></td>
<td>b) explanation</td>
<td>b) That’s what a subsidy would do, for every family member, they get a certain amount of money.</td>
</tr>
<tr>
<td></td>
<td>c) clarification</td>
<td>c) I’m saying that to Tim: I don’t think so.</td>
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<tr>
<td></td>
<td>d) agreement</td>
<td>d) OK, that’s true.</td>
</tr>
<tr>
<td>5 Adversarial moves/challenges</td>
<td>a speech act where participants challenge one another</td>
<td>I doubt he’d do something like that. Highly doubt it.</td>
</tr>
<tr>
<td>6 Off topic</td>
<td>a speech act that is unrelated to the topic of discussion</td>
<td>I like this font.</td>
</tr>
<tr>
<td>7 Topic shift moves</td>
<td>a speech act that steers the discussion in a different direction, however, it still focuses on the task at hand</td>
<td>I think we should move on to the next discussion question.</td>
</tr>
<tr>
<td>Page</td>
<td>Term</td>
<td>Definition</td>
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<td>-----------------------------------------------------------------------------</td>
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<tr>
<td>8</td>
<td>Humor</td>
<td>a speech act that is intended to promote amusement or laughter</td>
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<tr>
<td>9</td>
<td>Floor holding moves</td>
<td>speech acts where one participant tries to take control of the conversation and refuses to give up his/her turn</td>
</tr>
<tr>
<td>10</td>
<td>Closing moves</td>
<td>Closing move in an electronic discussion</td>
</tr>
</tbody>
</table>

Appendix G

Focus Group Interview Questions

1. Do you believe that these online discussions were useful for your learning? Please explain.

2. Did you feel more comfortable participating in an online discussion than in a face-to-face discussion? Explain.

3. Please compare your participation during online discussions and face-to-face. Were you able to contribute more freely online?

4. Do you believe that you contributed equally during online discussions? Were you able to say everything that you wanted?

5. Do you believe that the chat tool helped you communicate more effectively with English speakers/ESL students?

6. Would you like to see this tool used more regularly in school?
### Appendix H

**Participant Self-ratings Organized by Chat Session**

<table>
<thead>
<tr>
<th>Student</th>
<th>Millie</th>
<th>Sam</th>
<th>Tim</th>
<th>Sarah</th>
<th>Raymond</th>
<th>Amy – ELL</th>
<th>Yasmine – ELL</th>
<th>Jason – ELL</th>
<th>Mandy – ELL</th>
<th>Elliott – ELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chat 1</td>
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<tr>
<td>I felt comfortable participating in today’s online discussion.</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>Absent</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Online chat helped me to contribute equally during the discussion.</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>3</td>
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</tr>
<tr>
<td>Online chat helped me communicate better with native speakers/ESL students.</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>5</td>
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<tr>
<td>Comments</td>
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<tr>
<td>I thought that today’s discussion was really interesting, and it opened up my perspective to people less fortunate than me, and what kind of rights they should have.</td>
<td>I thought working online, it is easier to communicate, Less waste of paper and plus it’s more helpful. You could talk to 50 people online, but only 10 in class.</td>
<td>None.</td>
<td>I think that I should chat a bit more and ask more questions.</td>
<td>I’ve never been talk with native speakers so long time. Because I don’t have that kind of skill to read and type, English so fast. I never talk about a thing this way. It’s fun and helpful. It helped me to know more about how to talk to them.</td>
<td>I think online chat can help me communicate better and learn more English words. Then we can discuss more things to practice more English.</td>
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<tr>
<td>Student</td>
<td>Millie</td>
<td>Sam</td>
<td>Tim</td>
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<td>Chat 2</td>
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<tr>
<td>I felt comfortable participating in today’s online discussion.</td>
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<td>5</td>
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<td>Online chat helped me communicate better with native speakers/ESL students.</td>
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</tr>
<tr>
<td>Comments</td>
<td>Not a lot of the ESL students expressed why their right should be added to the charters instead of ours. It was harder to debate when you were only debating with one right.</td>
<td>The others need to participate more in the conversation and share their ideas.</td>
<td>I need more time to type.</td>
<td>No comment</td>
<td>I have a lot of opinions and comments of every thing (almost). The researcher asked, but I’m too slow on typing, so I can’t talk about every thing I thought. It’s good that I don’t have pressures on talking to native speakers online.☺</td>
<td>I think I do it better than last time. I well try my best!!</td>
<td>I think this time is worse than before.</td>
<td>I think to day go very well.</td>
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<tr>
<td>Student</td>
<td>Millie</td>
<td>Sam</td>
<td>Tim</td>
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<td>Chat 3</td>
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<td>I felt comfortable participating in today’s online discussion.</td>
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<tr>
<td>Comments</td>
<td>I think today’s topic was fun because we debated a lot, and the ESLs contributed.</td>
<td>I need more time to type.</td>
<td>I think that it is great to communicate online and a pro is that when you communicate online everyone is not talking at the same time.</td>
<td>It’s really fun to chatting online and discuss about a theme. It helped me to think more and talk more with native speakers.</td>
<td>I think online chat can help me learn more words. Then can practice my communication too! So I like it.</td>
<td>More time</td>
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<tr>
<td>Student</td>
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</table>

**Comments**

I think it was harder today because one of the people that contribute a lot wasn’t here.

More time.

I though that it was great communicating with my peers online but I thin sometimes people will fool around.

Tired today… Today is too tired… can’t pay attention… Not really understand …. Tired…

I think is a good idea for E.S.L student online.

Sure! Online chat helped me communicate better. Then can learn more words. But I think the words is so hard. Then sometime I can’t understand.

To I don’t know what to say and more time.