



Using Synchronous Online Discussion to Develop EFL Learners' Productive Skills: A Case Study

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This study aims to investigate the effects of synchronous online discussions in foreign language classrooms, using a control group (face-to-face oral role play) and an experimental group (synchronous online discussion), on the development of English productive skills, such as speaking and writing. The case study employed a pretest-posttest quasi-experimental design. Thirty students from Danang University of Medical Technology and Pharmacy participated in the research project. Data were collected includes pre- and post- treatment tests at the beginning and at the end of the semester, pre- and post-questionnaires; and semi-structured interviews. Results derived from a t-test analysis revealed that there were no statistically significant differences between the two groups in either speaking or writing proficiency at the end of the semester. However, both groups showed a significant gain in speaking and writing proficiency between the beginning and the end of the semester. Statistics indicated significant levels between pre- and post-treatment scores reached by the non-synchronous computer mediated communication role play and the synchronous computer mediated communication chat groups.

Keywords: synchronous computer-mediated communication, productive skills, role play, learning awareness, learning performance

Background

Synchronous computer-mediated communication (SCMC) represents real-time interactions. Usually, this means that the instructor and students or students and students meet in a chat room, simultaneously, at a particular location in cyberspace or from any location that has Internet access and interact through typed statements or questions (Lavooy & Newlin, 2003). SCMC is defined in this article as synchronous written chat, which excludes audio and voice chats. In the synchronous interaction, students are logged on to the same network at the same time, they read and respond to each other's postings immediately and they are engaged in real-time conversations. As a technology and communication tool, SCMC has been said to have a strong potential for encouraging the negotiation of meaning in interaction (Blake, 2009; Kern, 1995). Using SCMC in the current study gives students the chance to expand on the provided topics, ask questions which encourage scaffolding and advancing of the Zone of Proximal Development. The tasks using SCMC in the study promote the use of the target language and encourage communicative interaction among students. The lab setting in the study also takes into account the increasing use and importance of technology in EFL learning.



EFL teaching and learning in Vietnam has been of low quality because of a large number of constraints (Mai, 2017; Nguyen, 2002; Peerarer & Van Petegem, 2010; Pham, 2004). According to these researchers, the challenges in EFL teaching in Vietnam include difficulties in implementing practices that address student needs, motivation, class size, communicative teaching strategies, student-centered lessons, and student autonomy. Besides these challenges, Vietnamese EFL teachers' qualifications and the current reading and grammar-focused tests have made EFL teaching less effective. Vietnamese learners of English were often better at writing and reading skills than other ones as they received a stronger emphasis on these skills in the classroom based on the traditional teaching methodology in Vietnam. Moreover, the study by Nguyen, Warren, and Fehring (2014) found that the exclusion of speaking component in the tests is the primary reason hindering the teaching of students' English speaking and communication, limiting implementation of communicative language teaching (CLT) in EFL classes. Obviously, learners' speaking skill has not been appropriately developed in language classes in Vietnam.

Although several research studies (Kern, 1995; Sotillo, 2000; Warschauer, 1996) compared discourse features and language complexity between synchronous online discussions and face-to-face conversations, a few studies have further explored the relationship and possible transferability of specific aspects gained in written online discussions to oral communication.

In Payne and Whitney's (2002) study, they reported that SCMC could indirectly improve oral proficiency in a foreign language by developing the same cognitive mechanisms that underlay conversational speech. In their semester-long experiment, two sections of the third semester Spanish learners engaged in synchronous online discussions for two out of four contact hours per week, while two other sections spent all four contact hours in the regular classroom. In the post-test, both groups demonstrated significant gains in oral proficiency, with the mean gain score of the experimental group being higher than the mean gain score of the control group.

Abrams (2003) approached the issue of possible effects of CMC on oral proficiency from a different angle than Payne and Whitney. In her study, she investigated whether CMC could serve as good preparation for face-to-face discussions. She differentiated between synchronous and asynchronous CMC, and also added a control group to her research design. Better oral performance (as a possible result of CMC) was operationally defined as increased language output and higher levels of syntactic and lexical complexity. In order to prepare for three oral discussions during one semester, the participants of six third-semester German courses were exposed to the following treatments: two sections participated in one hour of SCMC the day before the oral discussion, two sections participated in a week-long asynchronous CMC session starting exactly one week prior to the oral discussion day, and the control group (two sections) did not engage in any chat but only did the regular class activities. Based on transcripts from the three oral discussions, Abrams found that both the SCMC chat group and the control group outperformed the asynchronous CMC chat group in terms of language output in the oral discussions. Although the asynchronous CMC chat group used syntactically more complex language during their online discussions, this did not transfer to the oral discussions.

The research studies discussed here indicate that there might be a great potential for the transferability of language features practiced and gained in synchronous online discussions to oral and/or written language skills. Although the previous research studies have covered numerous aspects of synchronous computer-mediated communication on language development, the number of such studies in Vietnamese context is quite limited. Most of these studies have not investigated the development of oral and written proficiency based on the learners' exposure to and practice with SCMC. Moreover, a few studies have further explored the relationship and possible transferability of specific aspects gained in written online discussions to oral communication. Therefore, the present study is designed to remedy some of these problems. The goal of this study is to investigate the effects of synchronous online discussions in foreign language classrooms, using a control group (face-to-face oral role play) and an experimental group (synchronous online discussion), on the development of speaking and writing skills. The overarching question leading this case study is: *What are the effects of synchronous online discussions on the development of Vietnamese EFL students' speaking and writing proficiency?*

Case Study

Participants

Participants in this study were the first-year General Practitioner students enrolled in Danang University of Medical Technology and Pharmacy (DUMTP) in the academic year 2017-2018. In order to get a General Practitioner degree, students have to pass around 230 credits divided into 90 subjects, excluding Practicum and Field Placement. ESP is a compulsory discipline in General Practitioner major's official training curriculum. The students have to obtain 9 credits of ESP during their six-year full study to fulfill the graduation requirements. One of the authors in this study has nineteen-year experience of teaching English in higher education and is the tutor of the B1-CEFR level English intensive course for this study.

In order to implement this research project at DUMTP, the researchers reached written approval from the Rector of DUMTP. In the first step, the researchers provided participants with detailed information about the researchers, the purpose of the study, the voluntariness of participants and answered all participants' questions about other necessary information. Then, the participants signed in a consent form after clearly understanding all information. The participants were fully informed that data of tests, questionnaires, audio-recordings, and interviews were collected on a voluntary basis. Additionally, they were confirmed that no names or any information about them would be disclosed.

Among 30 participants involving in this study, 20 are female; 19 come from rural areas; 16 started learning English when they were in grade 3 at 8 years old while the other 14 started at 11 when they were in grade 6. They were 18-19 years old when they entered DUMTP. The following table provides a useful overview of participants based on their answers in the pre-treatment questionnaire.

TABLE 1
Demographic Statistics

		Total (n = 30)		Non-SCMC Role play group (n = 15)		SCMC chat group (n = 15)		p
		n	%	n	%	n	%	
Gender	Female	20	66.7	11	73.3	9	60.0	.700
	Male	10	33.3	4	26.7	6	40.0	
Demographic background	Urban	11	36.7	7	46.7	4	26.7	.601
	Rural	19	63.3	8	53.3	11	73.3	
Starting point of learning English at school	Grade 3	16	53.3	11	73.3	5	33.3	.072
	Grade 6	12	40.0	3	20.0	9	60.0	
	Other	2	6.7	1	6.7	1	6.7	

The participants' self-rating English language ability reflected relatively traditional teaching and learning methodology. The students were asked to rate their English language ability based on their 10-point-scale English scores that they gained in high schools. Accordingly, the students evaluated their English language proficiency as strongest, strong, moderate, weak and weakest level equivalent to 9-10, 7-8, 5-6, 3-4, and below 3 respectively. In the pre-treatment survey, the students expressed more confidence in reading comprehension and grammar with the mean score of 2.87 than in listening and speaking with the mean score of 2.23, and 2.33 respectively in the 5-point scale with 5 indicating the strongest. Most participants self-rated their English language proficiency at moderate level or lower in all language skills and areas, in specific: listening: 96.7%, speaking: 100%, reading: 96.7%, writing: 96.7%, grammar: 86.7%, vocabulary: 96.7% and pronunciation: 93.3%. Please refer to Appendix A for data and detailed analysis. The intensive course aims to increase their English proficiency to B1-CEFR level.

Project Description

It was reported that Vietnamese EFL students used computers mainly for personal pleasure and

entertainment such as chatting, and exchanging emails with friends, writing blogs and wikis, having diaries on Twitter, or posting photos and statuses and commenting on the more popular social network Facebook (Dang, 2011). While the uses of multimedia computers and the Internet have grown rapidly in ESL/EFL teaching and learning settings worldwide, the scenario of technology applications in education in Vietnam is just at the beginning stages (Peeraer & Van Petegem, 2010, 2015). Along with the aforementioned reasons, the current teaching and learning contexts in Vietnam as well as the Vietnamese government's call for applying technological tools in education to improve the quality of EFL education makes technology highly desirable as one of the main tasks of National Foreign Language Project 2020 of Vietnamese Government is: "to intensify the application of information technology to foreign language training" (Vietnamese Government, 2008). The computer lab setting applied in this study demonstrated the increasing use and importance of technology in foreign language learning, and it addressed different learning styles than could be addressed in the regular classroom.

The research project was implemented at Danang University of Medical Technology and Pharmacy (DUMTP) under Vietnam Ministry of Health. According to the National Foreign Language Project 2020 by Prime Ministry of Vietnam, students must possess their English proficiency at level 3 of the Vietnamese six-level framework of reference for foreign languages (B1-CEFR). Therefore, the English intensive course conducted for the DUMTP's university students was at level 3 as preparation for their graduation. The two selected classes, major in General Practitioner, were pioneers for this English intensive program. There were 120 contact hours during the semester, of which 40 hours in 10 weeks in the computer lab of the DUMTP. There were a total of 10 chat sessions during the fifteen-week semester. Students worked in the computer lab once a week for 4 hours per each session. Students had to attend all the lab sessions, do pre- and post-oral and written tests, complete pre- and post-questionnaires as well as involve in the interviews at the end of the semester (SCMC chat group only). Please see the following table for the detailed schedule of the 15-week fieldwork study.

TABLE 2
Schedule for the Fieldwork Study (15 weeks)

Timeline	Teacher/Researcher	Students
Week 1	Prepare pilot pre-treatment questionnaires Prepare pre- oral and written tests Discuss mark schemes for speaking and writing with selected examiners so as for thorough understanding Pilot marking a piece of speaking and a piece of writing with examiners	
Week 2	Introduce the intensive course based on Project 2020, the course content, the research objectives Collect voluntary participants' list with telephone numbers and emails	Decide whether or not to participate in the course and the research study Provide telephone numbers and emails
Week 3	Deliver pilot pre-treatment questionnaires Conduct pre-treatment oral and written tests (by selected examiners) Mark the tests (by selected examiners) Collect the results of speaking and written tests Discuss the results with the examiners for final agreement Finalize participants' list and send it to participants	Fill out the pilot questionnaires Do oral and written tests Get participants' list from researcher
Week 4	In the computer room: Check and confirm participants' list with students Get consent forms Deliver pre-questionnaires Start Lab session 1 Provide participants with guidelines for	Confirm participation in the course and the research Read and sign consent forms Fill out pre-treatment questionnaires Discuss topic 1

Timeline	Teacher/Researcher	Students	
Week 5	discussion Collect pre-questionnaires Data entry		
Week 6 & 7	Conduct Lab session 2 Transcribe pre- oral test interviews Send to participants for check	Discuss topic 2 Check pre- oral test interviews transcriptions	
Week 8, 9 & 10	Conduct Lab sessions 3 & 4 Conduct Lab sessions 5, 6 & 7	Discuss topics 3 & 4 Discuss topics 5, 6 & 7	
Week 11, 12 & 13	Prepare post-treatment questionnaires and interviews Conduct Lab sessions 8, 9 & 10	Discuss topics 8, 9 & 10	
Week 14 & 15	Deliver post-treatment speaking and written tests Course summary Deliver post-questionnaires	Do speaking and written tests Fill out post-treatment questionnaires	Do speaking and written tests Fill out post-treatment questionnaires
	Interview SCMC chat group		Involve in interviews

During the course, the two groups went to the computer lab once a week to engage in a variety of activities (e.g., searching the Internet for specific information, doing online activities, written chatting, etc.). Each group had three English sessions a week: two sessions took place in the regular classroom and one session, named as lab session in this study, in the computer-assisted classroom. One class was assigned to non-SCMC role play group and the other to SCMC chat group. The activities usually consisted of a guided internet-based information search, followed by a face-to-face oral role play or written chat depending on the group. The activity was preceded by an online vocabulary-reviewing exercise from the previous session to help the student revise and expand their vocabulary.

An example of a web activity is presented below:

City Break!

A brother and sister are going to spend a weekend visiting a big city with their parents. Discuss the different things they could do there and say which would be most enjoyable.

Make a list:

1. What kinds of activities do you want to do?

Look for these activities on the provided links and write down:

1. When and how do you want to do those activities?
2. Choose the most enjoyable thing you want to do and develop strong arguments to support your choice.

The most popular activities to do in a big city are: Go on a free walking tour, Explore the Markets, Visit free museums and galleries, Hang out with the locals, Stroll around the Park, Check out Libraries, Churches and Cathedrals, Do window shopping, Go on a hop on hop off bus tour.

Now do oral role play/written chat and discuss with your partner which activities you can do together in the city. What is the most enjoyable for you? You should both be happy with the decision!

The researchers adapted Kost's (2004) web activities' structure to develop the activities for the current study according to the same principles: two or three students worked together as a group whereby each had access to their own computer. The tutor assigned group members at their discretion; sometimes students were paired up according to their language levels; sometimes students paired themselves. Students read the assignment, which gave them step-by-step instructions of how to proceed and which topics to cover in their Internet search, and then clicked on one of the provided links. Approximately 50 minutes before the end of the lesson, the tutor asked students to engage in the assigned role plays based on the information they had found through their web search. While the SCMC chat group used the hangout program of Gmail to do their online discussion in the time given, the non-SCMC role play group

engaged in oral pair or group work and finally, they performed 2-3 role plays in front of the class at the very end of the lesson. The topics discussed in the computer lab were taken from Preliminary English Tests by Cambridge University Press equivalent to level 3 (B1-CEFR).

Data Collection and Analysis

This study was a mixed-method research, the researchers collected data from multiple sources of data, both of quantitative and qualitative. The research employed a pretest-posttest quasi-experimental design. Thirty students from DUMTP participated in the research project. Data were collected from pre- and post-treatment tests at the beginning and at the end of the semester. The research participants also filled out the pre- and post- questionnaires to prevail their attitudes towards and perceptions of the use of synchronous computer-mediated communication in language skills classes. Additionally, semi-structured interviews were conducted with participants from the SCMC chat group to verify the effects that synchronous online discussions might have on language development for Vietnamese EFL university students.

The research instruments include: (1) Oral proficiency tests: In order to establish the participants' level of oral proficiency at the beginning and at the end of the semester, the researcher used oral tests. Each participant took part in two oral interviews, one at the beginning and one at the end of the semester. The interviews covered topics taken from a practice test book at level 3 (B1-CEFR). All oral tests were audio-recorded for double-check marking and for later analysis. (2) Written proficiency tests: In order to establish the participants' level of written proficiency at the beginning and at the end of the semester, the participants also did a writing test. The writing topic was similar – but not identical – in both cases, in order to allow comparability but prevent a practice effect. (3) Post-treatment questionnaire: At the end of the semester, participants were asked to fill out two sets of questionnaire distributed to the two different treatment groups. These sets of questionnaire were piloted on ten students for any ambiguous questions. However, there were no unclear items based on the observation of the pilot questionnaire's result that all question items were fully filled out. (4) Post-treatment interview: Whereas the post-treatment questionnaire was useful for collecting factual, quantitative information, an interview for SCMC chat group helped the researcher collect more detailed, qualitative information by for example giving the reasons why participants have such evaluations, reflections and perceptions. The interview design of the current study was semi-structured to invite more profound thoughts about SCMC language class.

To control the validity and reliability, all the items of the pre- and post- treatment questionnaires were calculated and compared with the standard of Cronbach's Alpha using SPSS system. The reliability of the pre-treatment questionnaires, the post-treatment questionnaires for non-SCMC role play and SCMC chat group was 0.62, 0.74 and 0.92 respectively. The concepts in this study were considered quite new for participants when filling out the pre-treatment questionnaires so this could be explained why the reliability were used for the current research even though it was not so high for the pre-questionnaires (Nunnally, 1978). In addition, these sets of questionnaires were piloted on ten students for any ambiguous questions. However, there were no unclear items based on the observation of the pilot questionnaire's result that all question items were fully filled out. Regarding examiners of the speaking tests, there were two including an assessor and an interlocutor. The interlocutor talked to the candidates, and the assessor listened to them. The candidates got marks from both examiners. In this study, the tests were rated by the two experienced English teachers, using the marking scheme. They both have earned master's degree major in English language and been teaching English at the university for over ten years. The two examiners were neither the instructor nor the researcher. The adopted scale was tested by rating oral samples by the researcher and these two English teachers before the oral tests to make sure they could understand and get familiar with the scale. Furthermore, using the different examiners for oral and written proficiency tests as well as from the instructor/researcher added the validity to the research as we all know that rating your own students' performance was less objective. The results of the tests in this research project were not presented in the students' academic transcripts, the ratings would not be done in favor of any student over another. These contributed to the validity of the current research findings.

The mean pre- and post-treatment scores for each group (non-SCMC role play, SCMC chat) were analyzed using an analysis of t-test. The quantitative data collected from the questionnaires were grouped into categories and calculated into percentages, means and standard deviations through SPSS software while qualitative information from semi-structured interviews were classified, grouped, coded and interpreted and analyzed through triangulation and content analysis of the interview data based on the themes of the research.

Results and Discussion

The study examined the extent to which participants' levels of speaking and writing proficiency were different between the two groups after one semester of instruction. The extent of difference was determined by the pre- and post-treatment scores on the speaking and writing tests.

The following table shows the means and standard deviations for the pre- and post-treatment scores in the oral and written proficiency tests according to treatment (non-SCMC role play, SCMC chat).

TABLE 3
Mean and Standard Deviation for Oral and Written Proficiency Tests

			<i>Mean</i>	<i>SD.</i>	<i>Diff.</i>
Non-SCMC Role play	Oral test	Pre	5.10	1.137	1.10
		Post	6.20	1.099	
SCMC Chat		Pre	4.97	1.329	1.60
		Post	6.57	1.100	
Non-SCMC Role play	Written test	Pre	5.07	1.624	0.86
		Pos-	5.93	1.321	
SCMC Chat		Pre	5.37	2.117	1.03
		Post	6.40	1.242	

(*cf. Appendix B*)

As can be seen in the above table, both groups received higher means in the post-treatment tests at the end of the semester, which indicated that they increased their oral and written proficiency after treatment. The results demonstrated that the participants using online discussion had better performance in the oral test than those using face-to-face discussion. The difference between oral pre- and post- tests in SCMC chat group was 1.60 and that in non-SCMC role play group was 1.10. Furthermore, the SCMC chat group was reported to achieve better results in the oral test than in the written test although the SCMC chat group used chat messages as treatment during the semester. The difference between pre- and post-oral tests was 1.60 compared with 1.03 in pre- and post-written tests. Remarkably, the oral test of the SCMC chat group achieved the highest scores among the four oral and written tests at the beginning and at the end of the semester. The table shows that the SCMC chat group started out with the lowest mean score of 4.97 in the oral pre-test and received the highest mean score of 6.57 in the post-test. These findings explained that SCMC might have positive effect on speaking skills.

TABLE 4
Mean and Standard Deviation for Post Oral and Written Proficiency Tests

<i>Group</i>		<i>Mean</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Non-SCMC Role play	Oral test	1.1333	.91548	-1.826	.078
SCMC Chat		1.7333	.88372		
Non-SCMC Role play	Written test	.8000	1.56753	-.445	.660
SCMC Chat		1.06667	1.70992		

(*cf. Appendix B*)

As can be seen in Table 4, there was no statistically significant difference regarding the mean scores of post-treatment oral and written tests between the two groups with $p = .078$ and $.660 (> .05)$. The reasons

might be: firstly, the participants were not well-prepared for the tests and they did not properly concentrate during the tests because they assumed the tests were just an experiment for a new learning method and the results were not recorded in their academic transcripts; secondly, the experimental time was not much and scattered only once a week.

The following table indicates that the two groups regardless of treatment had a significant gain in oral and written proficiency between the beginning and the end of the semester. Significance levels of $p < .001$ and $p < .05$ were reached by the non-SCMC role play and the SCMC chat groups for both oral and written proficiency gain.

TABLE 5
T-test: Paired Samples Test

Group	Pair	Mean Gain Score	SD	df	t	p*
Non-SCMC Role play	Pre-oral	1.1333	.842	29	-8.779	.000
	Post-oral					
	Pre-write	.8000				
	Post-write					
SCMC Chat	Pre-oral	1.7333	1.694	29	-3.072	.005
	Post-oral					
	Pre-write	1.0667				
	Post-write					

*Significant $p < .001$ and $p < .05$
(cf. Appendix C)

As can be seen in Table 5, the instruction using either oral role play or written chat during the semester resulted in a substantial increase in the students' oral and written proficiency levels although each specific instruction, either oral role play or written chat, did not indicate different effects on the development of students' language proficiency. Statistics indicated significant levels between pre- and post-treatment scores reached by the non-SCMC role play and the SCMC chat groups with $p < .001$ and $p < .05$. Beauvois's (1998) study shared the same result with the current study. She found that after one semester the experimental groups showed a mean score which was 5 points higher than the control groups' score. She suggested a link between synchronous networked communication and the enhancement of oral skills. However, Beauvois only conducted a pilot study with a restricted number of participants based on the computer lab capacity and the oral proficiency testing instrument she used was not reliable. This current study remedied the limitations exposed in Beauvois' research so the results were more conclusive.

In terms of mean scores of the speaking tests, the treatment using synchronous online discussions (6.57) might have a more positive effect on students' performance in the speaking tests than the group using face-to-face discussions (6.20) as the language which practiced during chat sessions was more similar to oral speech than to written language. In addition, the SCMC chat group had better scores in the speaking tests (6.57) than in the writing tests (6.40) in spite of writing chat messages as treatment during the semester. As observed by the tutor/researchers, participants in online chat sessions were always busy with typing messages, and they used short messages to communicate meaningfully with their partners. Usually, they started with greeting and asking and answering personal questions not related to the given topics, but then they could increase their vocabulary and generated plenty of ideas. Because the language they used in chatting was more similar to oral speech, they achieved better score in the speaking test at the end of the semester. This confirmed other previous studies' findings that SCMC might have positive effect on speaking skills (Kost, 2004; Payne & Whitney, 2002). It was important to note that the data also showed that having students engage in synchronous online discussions was not counter-productive to the development of their oral language skills, as SCMC developed the same cognitive mechanisms that underlied oral speech (Payne & Whitney, 2002). Furthermore, in the study on using computer networking to facilitate the acquisition of interactive competence, Chun (1994) corroborated the other researchers' finding that the utterances used to communicate in synchronous online discussions resembled spoken discourse and she posited in her later study in 1998 that SCMC might hold some advantages over face-to-face communication. She suggested that due to the impersonal nature and anonymity provided when

communicating via text chat, interlocutors might feel less pressure than they would if communicating face to face (Chun, 1998). The amalgamation of these evidences leads to the positive result in speaking proficiency gained at the end of the semester.

Regarding mean scores of the writing tests, it was also noted that the writing test at the end of the semester of the SCMC chat group achieved the highest mean scores among the four tests. This showed that electronic discussions might contribute to the improvement of not only speaking and but also writing language competence. An explanation might be that the types of sentences the students used in online discussions required not only comprehension of the preceding discourse but also coherent thought and use of cohesive linguistic expressions. One more explication is that they might feel less embarrassed about making mistakes and more open to participating in honest dialogue. Furthermore, because they were typing rather than speaking, learners were able to look back at what they and their partners had typed, thus affording them more opportunity to focus on form than would have been possible in face-to-face communication (Chun, 1998). These skills were practiced in online discussions and constituted important elements of proficiency in writing.

Results from the post-questionnaires and semi-structured interviews indicated that all students enjoyed having one of their lessons per week in the computer lab and doing Internet searches, followed by oral role plays or chat sessions. Please refer to Appendix D and Appendix E for more information about the post-questionnaires and the interviews.

The findings in the post-questionnaires showed that the two groups seemed to have had positive perceptions using either oral role plays or synchronous online discussions on their language development. Participants in both groups corroborated that this course helped them improve their language development. The mean score of the cluster was 3.97, in which the mean score of the first item is 4.00 and 3.87 and of the later item is 4.07 and 3.93 gained by the non-SCMC role play and SCMC chat group respectively. When interviewed, most participants answered that the course helped them recall vocabulary, grammar structure as well as learn new words, new ideas from the website links provided at the beginning of each session and they learned through their friends' mistakes when the instructor copied all the mistakes students made during the online discussions to the group chat window at the end of the session. "I had chance to speak to my friends using my own words so it was more natural and I was more confident. That's why this course helped me improve my language" (Participant 3).

With reference to the participants' perceptions of the effects of the English intensive course over a fifteen-week semester, the mean score of the cluster was 3.97, assigning the score of 1 as "strongly disagree" and the score of 5 as "strongly agree", this score indicated the participants' agreement on the statement related to the effect of the treatment on language development. Along with the questionnaire survey, an interview question was raised to ask the participants' feelings about the course. The participants confirmed that they could benefit a lot from this English intensive course. The participants further explained that they did not have enough time to study English during their high school time because they had to invest their time and energy into their three main subjects in order to be admitted to the current medical university. Therefore, this course helped them review vocabulary, structure, grammar as well as language skills necessary to follow up ESP course in their formal curriculum. A participant in the SCMC chat group reported:

I find it useful and interesting to take this course. When chatting with my friends, I have opportunities to review lots of words that I haven't used for a long time as well as learn new words about different topics from my friends. It is easy for me to notice my friends' grammar mistakes when I see them on the screen. I really like the section of correcting mistakes. The teacher helps us identify and correct a variety of grammar mistakes that we ourselves cannot. I realize that my language skills improve a lot at the end of the course. (Participant 10)

Several items of the questionnaire asked students to rate the effect of the treatment on their language skills and areas. Most participants of SCMC chat group stated that online discussions provided them with

opportunities to improve writing and reading skills in English with the mean score of 3.73. What is far more interesting, however, was that many students of the SCMC chat group agreed that the online discussions improved their ability to speak with the mean score of 3.40. Please see Appendix D for details. The interviewees re-confirmed their gaining better scores at the end of the semester in the post-treatment interview. Two thirds of the interviewees answered that they improved their speaking skills most. Participant 14 replied:

I improved speaking skill most during the course. It was easy for me to discuss the topic with my friends by sending messages during chat session. I had time to think and write the answers. Writing chat messages were the same as I was speaking to my friends, not as I was writing an assignment in which I had to pay much attention to grammar and writing style. My friend asked and I answered or vice versa, like in a conversation.

Another interviewee said:

The big change I perceive after the course is the confidence in speaking English. I used to be shy because my pronunciation was not good and I could not understand my partners, resulting in inability to speak back or failure in the conversation. But during chats, I could share my ideas, could understand and replied to all the messages on the screen. (Participant 2)

This perception was supported by the quantitative data, i.e., the SCMC chat group received slightly better scores in the speaking tests at the end of the semester than the non-SCMC role play group. The SCMC chat group improved their speaking skills similarly to the group that had more speaking practice. This tendency was supported by other research studies (Chun, 1994; Payne & Whitney, 2002) that synchronous online discussions combined aspects of both oral and written language and that they developed similar mechanisms as oral speech. The finding of this research was in another line with the result found in Nguyen's (2011a) study which showed that the participants remained skeptical about improvements to their English language skills.

Many participants in the SCMC chat group agreed that the online discussions improved their ability to speak. It seemed to show that the hybrid nature of synchronous online communication, which combined the speed and informality of oral speech with written output, addressed language skills on either side of the spectrum. As Chun (1994) stated that language skills learned and practiced in electronic discussions could be transferred to oral skills. Different from traditional oral discussion in which only learners with higher language abilities were able to contribute to the discussion, more equal participation was evident in SCMC chat group (Warschauer, 1996). This implied students in electronic discussions had more opportunities to practice the language and then improve their language. In Warschauer's (1996) study, she investigated whether CMC could serve as good preparation for face-to-face discussions. She differentiated between synchronous and asynchronous CMC, and also added a control group to her research design. Her findings were in the same line with the current study that SCMC chat group had better oral performance as a possible result of participating in one hour of SCMC the day before the oral discussion.

In terms of students' experience on SCMC class, referring back to the pre-treatment questionnaire, the question about whether the students would enjoy using a computer to practice their language skills elicited a predominantly favorable attitude towards computer with mean scores from 3.43 to 4.20. This emphasized agreement with the positive statement. Because it was the first time for most participants to learn English in the computer lab and to chat English via computer, they felt curious and excited participating in the course.

One of the interviewees said:

SCMC gave me an experience I have not had before. At the beginning, it was stressful and

frustrating but I could get used to it soon. SCMC boost my confidence in using the language. In addition, it increases my computer literacy and communicative skills. It is more motivated for speaking. It is a fun, I can share my knowledge and actively collaborate in online activities. SCMC is a real communication. I have a conversation with my friend and find out specific information to solve the given problems. As a result, using SCMC chat improved my language skills.

This experience was supported by Lee (1998) and St. John and Cash (1995), they suggested that during online collaborative communication, learners have opportunities to observe and study information projected on the screen. They may copy useful vocabulary, expressions, and linguistic aspects from each other. Majority students stated that they would prefer online written chat to oral role play in the post-treatment questionnaire and interview.

The mean scores showed that students enjoyed a good comfort level and little anxiety for both groups during the course with cluster mean scores of 3.34, especially for SCMC chat group (3.63). The reason for that might be that SCMC allowed students sufficient time to process input, and monitor and edit output through a self-paced learning environment. The students could read and type comments at their own pace (Kelm, 1992). This result corroborated findings from other research studies where participants commented on the benefits of online discussions in which pronunciation was not an issue, thus freeing up cognitive energy for other aspects of the conversation. Besides the findings indicated in the questionnaire, the interviewees from SCMC chat group in the current study stated doing online chat could help them “overcome shyness or fear of making mistakes in speaking.” (Participant 8). Giving explanation to the interview question, a respondent said: “Having a screen while doing online chat can help me overcome the fear when I talk to an audience. In SCMC context, I am not actually face to face with the rest of the class and it brings me some comfort.” (Participant 10). In addition, the students might now and then spoke Vietnamese language during oral role plays or used “google translate” tool to translate the unknown words during chats as some participants in the current study confessed in the interview. This might be the reason for not feeling too much constrained during their discussions in the lab. As could be observed, the students opened “google translate” window during online discussions although the tutor reminded them not doing so. Future tutors/researchers should take it into consideration to have better controlling solutions when applying SCMC.

In terms of students’ perceptions of online discussion treatment, all SCMC chat group participants had positive comments on the English intensive course using synchronous online discussions. They stated that they enjoyed learning English more and felt more confident sharing their ideas in English (3.53) as well they would look for friends to chat English in future (3.40). These questionnaire findings coincided closely with the interview data. When explaining to a question in the interview, a respondent (Participant 7) replied:

After two weeks getting acquaintance with SCMC chat, I felt more confident to exchange the ideas with my friends. Writing down was easier than speaking out so I used the words, sentence structures I learned in the past to express my thought, I sent numerous messages while chatting. This was the best way to consolidate my vocabulary. Therefore, I can use and produce the language at the end of the course. I can now write and speaking English much easier than before.

In a word, using computers and the internet in today's classes in general and in language classes in particular is very common. Information overloading, rapid changes in communication technology, globalization, and new knowledge-acquisition modalities make a computer-based learning environment more radical than ever. Understandably, rapid evolution of communication technologies has changed the instruction and use of a target language, enabling new forms of interaction, authorship, and ways to participate in academic communities (Kern, 2006). According to Warschauer (2000), globalization and the increasing advent of new information technology in general and CMC in specific further the spread of English and change the way English is used. It contributes to transforming or at least changing the

teaching and learning methodology and allows teachers and students to have flexibility in the teaching and learning of English.

The limitation of this study lies in the procedures that were used to establish the participants' pre-treatment oral and written proficiency levels. Although the oral and written tests were good procedures to assess the participants' skills levels, they only captured a brief moment in which the participants had to perform an oral or a written task. These measurements did not take into account that the learners might, for example, have had a bad day, were unmotivated or otherwise distracted. A future study should be aware of this problem and seek out other ways to assess learners' proficiency levels with a variety of measurements.

Based on the data collected from the questionnaire, it seems obvious that students enjoyed the chat sessions. For future research purposes, it would be important to follow up on these issues, for example by designing a more qualitatively oriented survey to investigate students' motivation and their attitudes towards the use of technology in a language class. Furthermore, it would also be interesting to explore these aspects in a larger context and to see how their attitudes and motivation levels would influence their learning of the foreign language.

Finally, future studies could also examine the transcripts that were generated in the SCMC sessions. These transcripts could be used to work more intensively on the correction of mistakes, i.e., students could use the transcripts to find and correct their own mistakes, which often motivates students to do better work because they have a personal interest in the text they wrote. The present study made no use of the option to print out and correct mistakes on the transcripts. However, a study with a different design and goal could easily integrate this idea and possibly see some significant results.

Conclusion

Synchronous online discussions allow learners to make meaning connections instead of translating the words, thus contributing to vocabulary acquisition. Using role plays based on the gathered information gives learners appropriate communicative tasks to engage in and provides them with opportunities to practice their language skills in a useful context. Open-ended and meaningful activities are considered conducive to the enhancement of oral and because they provide opportunities for creative use of the target language in a range of contexts and a variety of functions.

In addition, transposing the role plays to a written mode by using synchronous online discussions offers many additional benefits. First of all, it slows down the overall conversation rate among the learners in a group, giving everyone time to think about and edit a message before they send it out, thus affording slower or more reserved students the opportunity to contribute just as much as the faster or more outgoing students. Second, all learners are engaged in a conversation at the same moment and practice their language skills, without having to wait until they are called upon by the teacher, disappear into the background, or fight for the floor all of which are typical for the more traditional classroom. Third, based on the fact that the SCMC chat group achieved comparable results in their oral and written performances, it seems that using written online discussions aids in the practice and development of both written and oral skills, and that they are accepted by the students as a viable alternative to oral classroom practice.

The Vietnamese government is formulating national supporting policies on the application of technology in education to improve the quality of EFL teaching and learning (Vietnamese Government, Government's decision on "Foreign Languages Teaching and Learning for Vietnamese Citizens 2008-2020" program., 2008). In order to effectively use technology in EFL teaching and learning in Vietnam, technological selection is advised to take into serious consideration. According to Levy and Stockwell (2006), the criteria of technological selection consisted of pedagogically sound principles, institutional factors, personal users' curiosity, future trends, TESOL technology standards, as well as other standards such as user-friendliness, cost-effectiveness, and appropriateness for the Vietnamese context.

After all, the goal of this study was to provide more insight into the development of EFL learners'

language with regards to the effects of synchronous online discussions. Engaging students in meaningful activities that promote open-ended exchange of information has been considered facilitative for students' learning (Hall, 1999). At the same time, the tasks in the study allowed students to make creative use of the target language in a range of contexts, another characteristic that is considered facilitative for language learning (Omaggio, 2001).

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Appendix A

Descriptive Statistics: Self-rating of English Language Proficiency

N = 30

	N	Minimum	Maximum	Mean	Std. Deviation
listening	30	1	4	2.23	.858
speaking	30	1	3	2.33	.606
reading	30	2	4	2.87	.434
writing	30	1	4	2.63	.615
grammar	30	2	4	2.87	.629
vocabulary	30	1	4	2.60	.621
pronunciation	30	1	4	2.53	.776
Valid N (listwise)	30				

T-Test

Group Statistics

	group	n	Mean	Std. Deviation	Std. Error Mean
listening	role	15	2.07	.961	.248
	chat	15	2.40	.737	.190
speaking	role	15	2.47	.640	.165
	chat	15	2.20	.561	.145
reading	role	15	2.87	.516	.133
	chat	15	2.87	.352	.091
writing	role	15	2.53	.743	.192
	chat	15	2.73	.458	.118
grammar	role	15	2.93	.594	.153
	chat	15	2.80	.676	.175
vocabulary	role	15	2.67	.617	.159
	chat	15	2.53	.640	.165
pronunciation	role	15	2.53	.834	.215
	chat	15	2.53	.743	.192

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower		Upper
listening	Equal variances assumed	.481	.494	-1.066	28	.296	-.33	.313	-.974	.307
	Equal variances not assumed			-1.066	26.230	.296	-.33	.313	-.976	.309
speaking	Equal variances assumed	1.667	.207	1.214	28	.235	.27	.220	-.183	.717
	Equal variances not assumed			1.214	27.523	.235	.27	.220	-.184	.717

reading	Equal variances assumed	.980	.331	.000	28	1.000	.00	.161	-.330	.330
	Equal variances not assumed			.000	24.695	1.000	.00	.161	-.333	.333
writing	Equal variances assumed	5.045	.033	-.887	28	.382	-.20	.225	-.662	.262
	Equal variances not assumed			-.887	23.285	.384	-.20	.225	-.666	.266
grammar	Equal variances assumed	1.080	.308	.574	28	.571	.13	.232	-.343	.609
	Equal variances not assumed			.574	27.539	.571	.13	.232	-.343	.610
vocabulary	Equal variances assumed	.071	.791	.581	28	.566	.13	.230	-.337	.604
	Equal variances not assumed			.581	27.963	.566	.13	.230	-.337	.604
pronunciation	Equal variances assumed	.190	.666	.000	28	1.000	.00	.288	-.591	.591
	Equal variances not assumed			.000	27.638	1.000	.00	.288	-.591	.591

listening * group Crosstabulation

		group		Total	
		role	chat	role	
listening	very weak	Count	5	2	7
		% within group	33.3%	13.3%	23.3%
	weak	Count	5	5	10
		% within group	33.3%	33.3%	33.3%
	moderate	Count	4	8	12
		% within group	26.7%	53.3%	40.0%
	strong	Count	1	0	1
		% within group	6.7%	.0%	3.3%
Total		Count	15	15	30
		% within group	100.0%	100.0%	100.0%

speaking * group Crosstabulation

		group		Total	
		role	chat	role	
speaking	very weak	Count	1	1	2
		% within group	6.7%	6.7%	6.7%
	weak	Count	6	10	16
		% within group	40.0%	66.7%	53.3%
	moderate	Count	8	4	12
		% within group	53.3%	26.7%	40.0%
Total		Count	15	15	30
		% within group	100.0%	100.0%	100.0%

reading * group Crosstabulation

		group		Total	
		role	chat	role	
reading	weak	Count	3	2	5
		% within group	20.0%	13.3%	16.7%
	moderate	Count	11	13	24
		% within group	73.3%	86.7%	80.0%
	strong	Count	1	0	1
		% within group	6.7%	.0%	3.3%
Total		Count	15	15	30
		% within group	100.0%	100.0%	100.0%

writing * group Crosstabulation

		group		Total	
		role	chat	role	
writing	very weak	Count	1	0	1
		% within group	6.7%	.0%	3.3%
	weak	Count	6	4	10
		% within group	40.0%	26.7%	33.3%
	moderate	Count	7	11	18
		% within group	46.7%	73.3%	60.0%
	strong	Count	1	0	1
		% within group	6.7%	.0%	3.3%
Total		Count	15	15	30
		% within group	100.0%	100.0%	100.0%

grammar * group Crosstabulation

		group		Total	
		role	chat	role	
grammar	weak	Count	3	5	8
		% within group	20.0%	33.3%	26.7%
	moderate	Count	10	8	18
		% within group	66.7%	53.3%	60.0%
	strong	Count	2	2	4
		% within group	13.3%	13.3%	13.3%
Total		Count	15	15	30
		% within group	100.0%	100.0%	100.0%

vocabulary * group Crosstabulation

		group		Total	
		role	chat	role	
vocabulary	very weak	Count	0	1	1
		% within group	.0%	6.7%	3.3%
	weak	Count	6	5	11
		% within group	40.0%	33.3%	36.7%
	moderate	Count	8	9	17
		% within group	53.3%	60.0%	56.7%
	strong	Count	1	0	1
		% within group	6.7%	.0%	3.3%
Total		Count	15	15	30
		% within group	100.0%	100.0%	100.0%

pronunciation * group Crosstabulation

		group		Total	
		role	chat	role	
pronunciation	very weak	Count	2	1	3
		% within group	13.3%	6.7%	10.0%
	weak	Count	4	6	10
		% within group	26.7%	40.0%	33.3%
	moderate	Count	8	7	15
		% within group	53.3%	46.7%	50.0%
	strong	Count	1	1	2
		% within group	6.7%	6.7%	6.7%
Total		Count	15	15	30
		% within group	100.0%	100.0%	100.0%

Appendix B

Analysis of Difference in Score between the Two Groups

ONE WAY

		Descriptives							
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
writing score	role	15	5.067	1.6242	.4194	4.167	5.966	1.5	8.0
	chat	15	5.367	2.1168	.5466	4.194	6.539	2.5	9.0
	Total	30	5.217	1.8601	.3396	4.522	5.911	1.5	9.0
speaking score	role	15	5.100	1.1370	.2936	4.470	5.730	3.0	7.0
	chat	15	4.967	1.3292	.3432	4.231	5.703	3.0	7.5
	Total	30	5.033	1.2172	.2222	4.579	5.488	3.0	7.5

ANOVA

		Sum of Squares						df	Mean Square	F	Sig.
writing score	Between Groups	.675						1	.675	.190	.667
	Within Groups	99.667						28	3.560		
	Total	100.342						29			
speaking score	Between Groups	.133						1	.133	.087	.770
	Within Groups	42.833						28	1.530		
	Total	42.967						29			

ONE WAY

		Descriptives							
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
speaking difference	role	15	1.1333	.91548	.23637	.6264	1.6403	.00	3.00
	chat	15	1.7333	.88372	.22817	1.2439	2.2227	.00	3.00
	Total	30	1.4333	.93526	.17075	1.0841	1.7826	.00	3.00
writing difference	role	15	.8000	1.56753	.40473	-.0681	1.6681	-1.00	5.00
	chat	15	1.0667	1.70992	.44150	.1197	2.0136	-2.00	4.00
	Total	30	.9333	1.61743	.29530	.3294	1.5373	-2.00	5.00

ANOVA

		Sum of Squares						df	Mean Square	F	Sig.
speaking difference	Between Groups	2.700						1	2.700	3.335	.078
	Within Groups	22.667						28	.810		
	Total	25.367						29			
writing difference	Between Groups	.533						1	.533	.198	.660
	Within Groups	75.333						28	2.690		
	Total	75.867						29			

Appendix C

Paired Samples Test

T-Test

Group Statistics					
	group	N	Mean	Std. Deviation	Std. Error Mean
writing score	role	15	5.067	1.6242	.4194
	chat	15	5.367	2.1168	.5466
speaking score	role	15	5.100	1.1370	.2936
	chat	15	4.967	1.3292	.3432

Independent Samples Test										
		Levene's Test for Equality of Variances			t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
writing score	Equal variances assumed	1.400	.247	-.435	28	.667	-.300	.6889	-1.7112	1.1112
	Equal variances not assumed			-.435	26.242	.667	-.300	.6889	-1.7154	1.1154
speaking score	Equal variances assumed	.217	.645	.295	28	.770	.133	.4516	-.7918	1.0585
	Equal variances not assumed			.295	27.344	.770	.133	.4516	-.7928	1.0595

Group Statistics

	group	N	Mean	Std. Deviation	Std. Error Mean
speaking score before treatment	role	15	5.10	1.137	.294
	chat	15	4.97	1.329	.343
writing score before treatment	role	15	5.07	1.624	.419
	chat	15	5.37	2.117	.547

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
speaking score before treatment	Equal variances assumed	.217	.645	.295	28	.770	.13	.452	-.792	1.058	
	Equal variances not assumed			.295	27.344	.770	.13	.452	-.793	1.059	
writing score before treatment	Equal variances assumed	1.400	.247	-.435	28	.667	-.30	.689	-1.711	1.111	
	Equal variances not assumed			-.435	26.242	.667	-.30	.689	-1.715	1.115	

Group Statistics

		group	N	Mean	Std. Deviation	Std. Error Mean
speaking score after treatment	role		15	6.20	1.099	.284
	chat		15	6.57	1.100	.284
writing score after treatment	role		15	5.93	1.321	.341
	chat		15	6.40	1.242	.321

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Upper	Lower
speaking score after treatment	Equal variances assumed	.357	.555	-.914	28	.369	-.37	.401	-1.189	.456	
	Equal variances not assumed			-.914	28.000	.369	-.37	.401	-1.189	.456	
writing score after treatment	Equal variances assumed	.315	.579	-.997	28	.327	-.47	.468	-1.426	.492	
	Equal variances not assumed			-.997	27.894	.327	-.47	.468	-1.426	.493	

Group Statistics

	group	N	Mean	Std. Deviation	Std. Error Mean
speaking difference	role	15	1.1333	.91548	.23637
	chat	15	1.7333	.88372	.22817
writing difference	role	15	.8000	1.56753	.40473
	chat	15	1.0667	1.70992	.44150

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Upper	Lower
speaking difference	Equal variances assumed	.258	.615	1.826	28	.078	-.6000	.32854	1.27298	-.07298
	Equal variances not assumed			1.826	27.965	.079	-.6000	.32854	1.27302	-.07302
writing difference	Equal variances assumed	.190	.667	-.445	28	.660	-.2667	.59894	1.49354	-.96021
	Equal variances not assumed			-.445	27.791	.660	-.2667	.59894	1.49396	-.96062

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	speaking score before treatment	5.03	30	1.217	.222
	speaking score after treatment	6.38	30	1.096	.200
Pair 2	writing score before treatment	5.22	30	1.860	.340
	writing score after treatment	6.17	30	1.282	.234

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	speaking score before treatment & speaking score after treatment	30	.740	.000
Pair 2	writing score before treatment & writing score after treatment	30	.469	.009

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	speaking score before treatment - speaking score after treatment	-1.35	.842	.154	-1.66	-1.04	-8.779	29	.000
Pair 2	writing score before treatment - writing score after treatment	-.95	1.694	.309	-1.58	-.32	-3.072	29	.005

Appendix D

Mean and Standard Deviation: Post-treatment Questionnaire

T-Test

	group	Group Statistics			
		N	Mean	Std. Deviation	Std. Error Mean
language development	role	15	4.00	.378	.098
	chat	15	3.87	.915	.236
improve writing	role	15	3.73	.961	.248
	chat	15	3.73	.884	.228
improve reading	role	15	3.87	.640	.165
	chat	15	3.73	.704	.182
improve speaking	role	15	4.07	.799	.206
	chat	15	3.40	.507	.131
improve listening	role	15	3.80	.775	.200
	chat	15	2.67	.976	.252
improve grammar	role	15	3.20	.676	.175
	chat	15	3.33	1.113	.287
improve vocabulary	role	15	4.13	.640	.165
	chat	15	3.73	.961	.248
improve pronunciation	role	15	3.93	.884	.228
	chat	15	2.53	.834	.215
monitor using grammar and vocabulary	role	15	3.27	.704	.182
	chat	15	3.33	1.113	.287
no worried about pronunciation	role	15	3.53	1.060	.274
	chat	15	3.53	.990	.256
notice student's mistakes	role	15	3.27	.884	.228
	chat	15	3.53	1.125	.291
improve language proficiency	role	15	4.07	.594	.153
	chat	15	3.93	.594	.153
like learning English with computer	role	0(a)	.	.	.
	chat	15	3.67	.976	.252
like chatting with partner	role	0(a)	.	.	.
	chat	15	3.47	.915	.236
chat generated plenty of ideas	role	0(a)	.	.	.
	chat	15	3.53	1.187	.307
more confident in sharing ideas	role	0(a)	.	.	.
	chat	15	3.53	.990	.256
members' contributions are equal	role	0(a)	.	.	.
	chat	15	3.47	.990	.256
positive addition to English class	role	15	3.87	.516	.133
	chat	15	3.53	1.125	.291
too short	role	15	3.07	.704	.182
	chat	15	2.67	.816	.211
more confident participation	role	15	3.13	.915	.236
	chat	15	3.60	.737	.190
prefer role play to chat	role	15	3.13	1.125	.291
	chat	15	2.60	.986	.254
time could have been used more productively	role	15	3.33	.900	.232
	chat	15	3.20	.775	.200
chat in small group	role	15	3.20	.775	.200
	chat	15	3.13	.915	.236
good typing skill is important	role	15	4.13	.834	.215
	chat	15	3.40	1.183	.306
feel "put on the spot"	role	15	3.07	1.033	.267
	chat	15	3.40	1.242	.321
prefer Non-SCMC role play to writing assignment	role	15	2.53	.915	.236

	chat	15	2.93	.704	.182
feel more compelled to use E exclusively	role	15	2.73	.884	.228
	chat	15	2.93	.799	.206
feel stressed	role	15	3.33	.976	.252
	chat	15	3.07	.884	.228
think quickly and respond spontaneously	role	15	4.13	.516	.133
	chat	15	3.47	.990	.256
positive contribution to language learning	role	15	4.20	.676	.175
	chat	15	3.87	1.125	.291
improve computer skill	role	0(a)	.	.	.
	chat	15	3.33	.724	.187
recommend this way of learning	role	0(a)	.	.	.
	chat	15	3.40	.910	.235
enjoy chatting English after class	role	15	2.87	.834	.215
	chat	15	3.00	.845	.218
enjoy learning English more after class	role	15	3.67	.617	.159
	chat	15	3.40	.632	.163
start chatting in English when possible	role	15	3.27	.704	.182
	chat	15	3.47	.743	.192
integrate English words in daily messages	role	15	3.20	.862	.223
	chat	15	3.33	.900	.232

a. t cannot be computed because at least one of the groups is empty.

Crosstab

			group		Total
			role	chat	role
no worried about pronunciation	strongly disagree	Count	1	0	1
		% within no worried about pronunciation	100.0%	.0%	100.0%
	disagree	Count	2	3	5
		% within no worried about pronunciation	40.0%	60.0%	100.0%
	neutral	Count	1	3	4
		% within no worried about pronunciation	25.0%	75.0%	100.0%
	agree	Count	10	7	17
		% within no worried about pronunciation	58.8%	41.2%	100.0%
	strongly agree	Count	1	2	3
		% within no worried about pronunciation	33.3%	66.7%	100.0%
Total	Count	15	15	30	
	% within no worried about pronunciation	50.0%	50.0%	100.0%	

Crosstab

			group		Total
			role	chat	role
monitor using grammar and vocabulary	disagree	Count	2	5	7
		% within monitor using grammar and vocabulary	28.6%	71.4%	100.0%
	neutral	Count	7	2	9
		% within monitor using grammar and vocabulary	77.8%	22.2%	100.0%
	agree	Count	6	6	12
		% within monitor using grammar and vocabulary	50.0%	50.0%	100.0%
	strongly agree	Count	0	2	2
		% within monitor using grammar and vocabulary	.0%	100.0%	100.0%
Total	Count	15	15	30	
	% within monitor using grammar and vocabulary	50.0%	50.0%	100.0%	

Crosstab

			group		Total
			role	chat	role
notice student's mistakes	disagree	Count	2	4	6
		% within notice student's mistakes	33.3%	66.7%	100.0%
	neutral	Count	9	2	11
		% within notice student's mistakes	81.8%	18.2%	100.0%
	agree	Count	2	6	8
		% within notice student's mistakes	25.0%	75.0%	100.0%
	strongly agree	Count	2	3	5
		% within notice student's mistakes	40.0%	60.0%	100.0%
Total	Count	15	15	30	
	% within notice student's mistakes	50.0%	50.0%	100.0%	

Crosstab

			group		Total
			role	chat	role
improve speaking	neutral	Count	4	9	13
		% within improve speaking	30.8%	69.2%	100.0%
	agree	Count	6	6	12
		% within improve speaking	50.0%	50.0%	100.0%
	strongly agree	Count	5	0	5
		% within improve speaking	100.0%	.0%	100.0%
Total	Count	15	15	30	
	% within improve speaking	50.0%	50.0%	100.0%	

Crosstab

		group		Total	
		role	chat	role	
improve grammar	strongly disagree	Count	0	2	
		% within improve grammar	.0%	100.0%	
	disagree	Count	2	1	3
		% within improve grammar	66.7%	33.3%	100.0%
	neutral	Count	8	2	10
		% within improve grammar	80.0%	20.0%	100.0%
agree	Count	5	10	15	
	% within improve grammar	33.3%	66.7%	100.0%	
Total	Count	15	15	30	
	% within improve grammar	50.0%	50.0%	100.0%	

Appendix E

Post-treatment Interview – SCMC Chat Group

1. How would you describe the course? What are your feelings about the course?
2. Which language skills (speaking, writing, reading, listening) do you think you improved most during the course? How and Why?
3. What do you think about the effects of SCMC on language learning?
4. What major changes do you perceive after the course?
5. What do you think you will do to improve your English after this course?
6. Could you tell me what positive / negative impact of the course?

Thank you for your cooperation!