

Using Online Discussion Groups in a CALL Teacher Training Course

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ABSTRACT

This paper reports the results of a study that examined an online discussion group established for a computer-assisted language learning (CALL) course and investigated patterns of interactions generated through the online discussion and participants' attitudes toward the computer-mediated communication (CMC) activity. The participants in the study were 24 English as a second/foreign language (ESL/EFL), 1 French and 1 Japanese in-service teachers. The findings indicate that individual postings consisted of a large number of fully task-focused messages with a small number of partially task-focused contributions and very few off-task contributions. From the content of the postings, six message types were identified. Among these types, interactive messages were exchanged between the teachers, mainly for the purposes of giving opinions/ideas and expressing support. The teachers' overall reactions to the online discussion group activities were positive. Most teachers considered the activities to be constructive, enjoyable and valuable. They agreed that online discussions were a good way of learning CALL and CMC could facilitate collaborative learning. This study confirms that CMC can provide teachers with communication channels for sharing ideas and resources and collaborating with their fellow teachers.

Introduction

Computer-mediated communication (CMC) refers to interpersonal communication via networked computers. It includes e-mail, text chatting, voice chatting, video conferencing, electronic discussion groups and Web-based bulletin boards. With these various forms of interaction, CMC can be synchronously or asynchronously utilized in a wide range of educational settings (Son 2002). In general, e-mail, electronic discussion groups, text and voice bulletin boards allow users to have asynchronous interaction while text and voice chats and video conferencing generate synchronous interaction. This paper explores the use of CMC tools in language teacher education programs and reports the results of a study that looked at aspects of teacher-teacher interactions in an asynchronous CMC activity for a computer-assisted language learning (CALL) course.

CMC in Language Teacher Education Programs

While a number of researchers and practitioners (e.g., Barson 1991; Davis and Thiede 2000; González-Bueno 1998; Gray and Stockwell 1998; Kern 1996; Lamy and Goodfellow 1999; Lunde 1990; Meagher and Castañón 1996; Sanaoui and Lapkin 1992; Smith 2003; Soh and Soon 1991; Son and O'Neill 1999; Warschauer 1996; Zähler, Fauverge and Wong 2000) have attempted to evaluate the effectiveness of CMC in

general, or of more specific features within CMC which may contribute to learning, CMC activities are increasingly being integrated into language teacher training programs. Several studies have recognised the potential of CMC for language teacher education. For example, Nunan (1999) investigated synchronous Web-based chats provided for a Web-based Master of Science program in TESOL and found that his students made connections between the context of their work and the context of their learning in Web-based chatting; the discourse of the synchronous interactions was similar to face-to-face interactions; student-centred discussions occurred as the course developed; and the interactive classes facilitated the evolution of a shared culture between participants. In a TESOL MA course entitled Methods of Teaching Second Languages, Kamhi-Stein (2000) examined Web-based bulletin board discussions and found an increase in student contribution and a decrease in the instructor's participation; no difference in the level of participation of non-native English speakers versus native English speakers; and peer support and collaboration.

Johnson (2002) also used CMC in a distance/block mode CALL course in a Postgraduate Diploma in Second Language Teaching program. She used a Web-based discussion software package called *Discus* and gave her students a required task (i.e., reading content-based articles on CALL - developing focus questions - answering their own questions - posting peer evaluation comments) and optional activities. She concluded that the Web-based discussion was a useful tool for supporting and continuing the classroom group dynamic that had been established during the five-day face-to-face on-campus teaching block. On the other hand, Son (2002) evaluated distance students' participation in an online discussion group established for a CALL course in a Master of Applied Linguistics program. His students made contributions to the online discussion group by posting their answers and responses to course questions/tasks given in their study book and participating in online interactions with their fellow students. They contributed primarily in the form of fully and partially task-focused messages while the messages mainly consisted of task-based answers and interactive contributions. They also showed positive attitudes toward online discussions.

Study

Design

The study reported in this paper was originally proposed and conducted to find out whether the results of the author's previous study (Son 2002) were supported by the results of a subsequent study with a different group of students in a different academic year. As a follow-up investigation of student use and perceptions of online discussion on CALL, it responds to the questions of how communication and exchange of ideas are achieved through online discussion, what patterns of interaction online discussion generates, and how students judge the value of their experience in electronic discussion. It has therefore three main aims: (1) to evaluate students' use of an online discussion group; (2) to evaluate students' perceptions of the usefulness of the online discussion group; and (3) to analyse patterns of interaction generated among students in the online discussion group.

Subjects

A total of 26 students (21 distance students and 5 on-campus students; 12 male and 14 female; mean age 37, ranging from 27 to 56 years), who enrolled in a CALL course as part of their Masters programs offered at an Australian university, were involved in the study. They consisted of 24 ESL, 1 French and 1 Japanese in-service teachers (17 native speakers of English, 3 native speakers of Chinese, 3 native speakers of Japanese, 2 native speakers of Korean and 1 native speaker of Turkish). Half of the teachers were residing in Australia during the term of their studies. Other countries of residence included Japan, Korea, Singapore, Taiwan, Thailand, and Turkey.

The Course

The CALL course was offered by distance education and on-campus over a fifteen-week period. The course was designed to introduce language teachers to the field of CALL by providing them with insights into key aspects of CALL and a basic knowledge of the practical uses of computer technology in language instruction. The assessment for the course comprised three assignments: two essays and a CALL design/evaluation project. In addition, there was a requirement to participate in an online discussion group.

Materials

A study package for the course containing an introductory book, a study book and selected readings was sent to the students before the beginning of the course. The study book (Son 2000) was their guide to studying the course and provided a framework of the concepts in the course. It contained various exercises and questions that they were advised to complete and post their responses to a course discussion group.

Throughout the semester, the students could join an electronic discussion group through a university-based computer system. The discussion group was created to hold discussions using text messages as a medium for communication. The online structure of the discussion group allowed participants to post messages, primarily focused on issues arising from the course content, for everyone to read and for other readers to post replies, and for these messages to be accessed at the convenience of the participant. As part of the course assessment (weighting of 10%), their contributions to the discussion group were marked by the lecturer in terms of the quality and quantity of the contributions.

A Web-based questionnaire was used at the end of the course to document the students' use and perceptions of the online discussions on CALL. The questionnaire was composed of two parts: the first containing ten statements requiring numerical responses and the second section asking for written responses to five open questions.

Results

Postings to the Online Discussion Group

1. Participation

A total of 624 messages were posted to the online discussion group over the term. These messages were categorized into fully task-focused messages, which were a compulsory

component of the online discussions, partially task-focused messages, and off-task messages. While fully task-focused messages answered pre-selected questions in the CALL course, partially task-focused messages were those that did not directly answer the questions, but contained subject matter relating to any aspect of CALL. Off-task messages were those that did not relate to CALL.

Most contributions were made in the form of fully task-focussed messages. Fully task-focussed messages accounted for 70 percent of all the messages posted, while 24 percent consisted of partially task-focussed messages. The remaining 6 percent were messages not relating to CALL (see Table 1).

Table 1. *Categories and Frequencies of Postings to the Online Discussion Group**

Fully task-focused	438 (70%)
Partially task-focused	149 (24%)
Off-task	37 (6%)

Note. * There were 624 messages in total.

In terms of the average number of postings to the online discussion group by language status, native English speakers posted 23.53 messages while non-native English speakers posted 23.44 messages on average. This indicates that there was no difference in the level of participation of non-native English speakers versus native English speakers.

2. Message Type

Fully task-focussed, partially task-focussed and off-task messages were further categorized into six types: (1) task-based messages; (2) interactive messages; (3) self-introductory messages from the students; (4) informative messages from the lecturer; (5) erroneous/repeated messages; and (6) messages related to administrative matters. Task-based messages were fully task-focussed answers. Messages that were categorized as interactive, on the other hand, were those which replied or responded to another's postings in the online discussion group. The students were requested to introduce themselves to the discussion group, and so messages of this nature were categorized as self-introductory messages. The lecturer submitted comments to the discussion group, informing students of upcoming events or posting explanatory messages when necessary. These were grouped as informative messages from the lecturer. Erroneous/repeated messages covered all messages that were either small posting errors from the students or messages that were accidentally submitted more than once to the discussion group. Administrative messages covered issues such as course materials, extra activities, and technical difficulties.

Task-based messages were the most common message type posted to the discussion group (totalling approximately 70 percent) while interactive messages accounted for 18 percent of all messages posted. Erroneous/repeated messages were posted mostly by eight students and accounted for approximately 5 percent of all the messages. The remaining postings were self-introductory messages (4.3%), informative messages from the lecturer (2.1%) and messages related to administrative matters (0.5%) (see Table 2).

Table 2. *Postings Categorised according to Message Types**

Task-based messages	438 (70.1%)
Interactive messages	112 (18%)
Self-introductory messages from the students	27 (4.3%)
Informative messages from the lecturer	13 (2.1%)
Erroneous/repeated messages	31 (5%)
Administrative matters	3 (0.5%)

Note. * There were 624 messages in total.

3. Interactions

The online discussions were used as a means for communication among the students and occasionally between the students and the lecturer. The majority of interactions were between the students (88 percent of all interactive messages), while only thirteen postings were directed to the lecturer (see Table 3). Communication with the lecturer using the online discussion group was minimal since the students were encouraged to use e-mail as a main channel for communication with the lecturer, particularly for questions or queries of a private nature. The lecturer received 188 personal e-mail messages from the students during the semester (15 weeks).

Table 3. *Categories and Frequencies of Interactions within the Online Discussion Group*

<i>Interactions*</i>	
Student-Lecturer interactions	13 (12%)
Student-Student interactions	99 (88%)

Note. * A total of 112 messages were categorised into the interactions.

Content of the Interactive Postings

There were six types of student-student interaction, which were categorized according to the main purpose or theme of postings. Approximately 76 percent of all interactive messages were for the purposes of giving opinions/ideas and expressing support. The remaining 24 percent of interactive messages included question posing, providing information, offering thanks and personal greetings. In order from highest frequency to lowest frequency, the main purposes were: giving opinions/ideas (46 postings); expressing support (29 postings); asking questions (10 postings); providing information (6 postings); offering thanks (5 postings); and greeting others (3 postings) (see Figure 1).

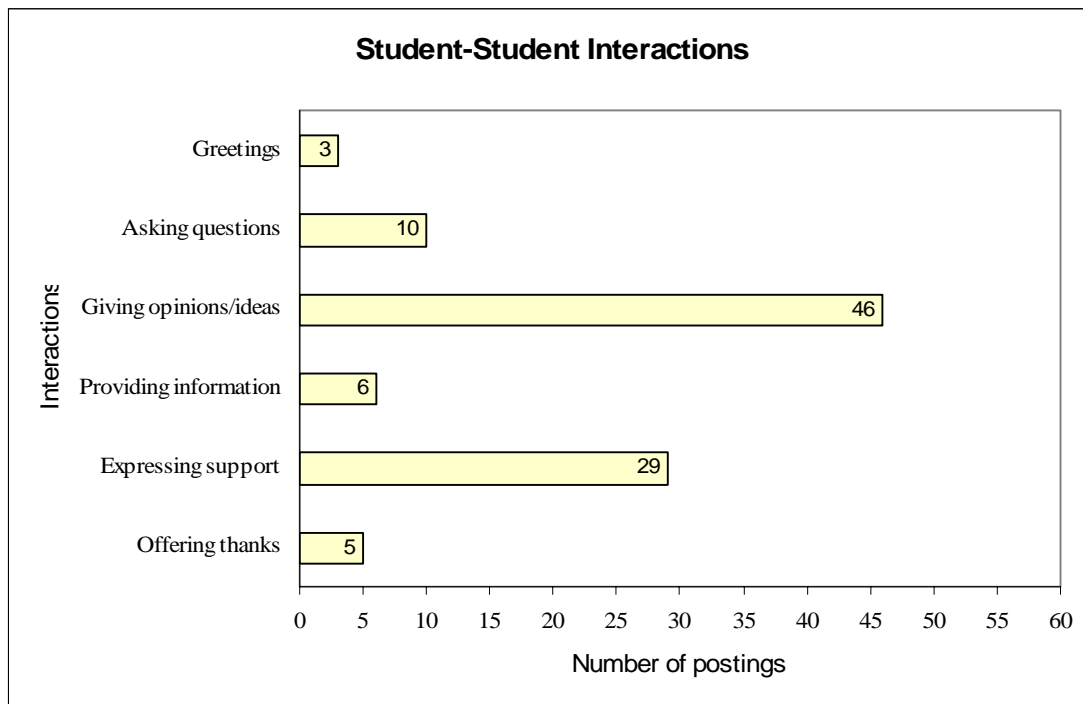


Figure 1. *Categories and Frequencies of Student-Student Interactions in the Online Discussion Group*

Questionnaire

A total of thirteen students responded to the questionnaire. The results of the students' responses to Section 1 of the questionnaire are given in Table 4. The first statement commented on whether the online discussion activities were enjoyable. The mean rating of 3.7 indicated that there was a tendency to agree with the statement. Most students also found the discussions constructive, with ten students agreeing. Only two students feared peer evaluations on their personal answers and comments posted to the discussion group. Despite the intention that students would use the online discussions for collaboration, seven students (54%) indicated that they would have welcomed more online lecturer participation. However, five of the thirteen responses disagreed with the statement, showing that some students would not have appreciated greater lecturer engagement.

The question of their satisfaction with others' contributions to the discussion group generated somehow positive responses, showing that eight students were content with the discussions and three students were not satisfied (a mean score of 3.6). Most students (77%) agreed that the online discussion group participation was a valuable experience to them. The average rating of 3.0 in response to the statement, communication and exchange of ideas were achieved effectively through the online discussions, indicates that the group as a whole were uncertain of its communicative effectiveness. While four respondents were uncertain about the need for online discussions, nine respondents agreed that online discussions are essential for teacher training for CALL (a mean score of 4.0). Of the thirteen respondents, more positively, eleven respondents (85%) considered online discussion as a good way of learning

CALL (a mean score of 4.3) and agreed that collaborative learning could be facilitated by CMC (a mean score of 4.2).

Table 4. *Average Ratings on the Questionnaire Items*

1. The online discussion activities were enjoyable.	3.7
2. I found that the interaction in the discussion group was constructive.	4.0
3. I feared peer evaluations on my answers and comments posted to the discussion group.	2.1
4. I would have welcomed greater lecturer engagement in the online discussions.	3.5
5. I was satisfied with others' contributions to the discussion group.	3.6
6. The online discussion group participation was a valuable experience to me.	4.0
7. Communication and exchange of ideas were achieved effectively through the online discussions.	3.0
8. I think that online discussions are essential for teacher training for CALL.	4.0
9. I think that online discussions are a good way of learning CALL.	4.3
10. I think that CMC can facilitate collaborative learning.	4.2

Note. N=13. 5 strong agreement; 4 agreement; 3 uncertainty; 2 disagreement; 1 strong disagreement.

The students also provided one or more answers to the five open-ended questions. The question asking students how they dealt with reading and responding to others' postings to the online discussion group generated various answers. Responses included taking notes on others' postings; reading postings and then formulating one's own ideas before reading the designated texts; forming one's own opinions before reading and responding to others' postings; and only reading postings from those students "who over time I recognized as having valuable comments". Five students mentioned that they did not respond to others' postings for various reasons. These reasons were expanded through the following question in the questionnaire.

There were various factors that affected the students' degree of participation. Four responses included lack of time as a main reason for low degree of participation. Interest level, lack of working knowledge of newsgroups or computers, and lack of direct feedback or response from others, had three responses each. Other factors that the students mentioned included negative issues such as lost time due to reading repetitive messages, and there was no serious discussion as it was only a requirement. A positive factor affecting degree of participation was the feeling of learning through reading others' postings.

The students were also asked to comment on the strengths of the online discussions of CALL-related topics and issues. Opinion sharing, including information exchange, was a strength of the online discussions mentioned by almost half of the respondents. Three students wrote that communication without meeting the individuals was an advantage, while 'learning by doing' was a strength mentioned twice. The convenience of online discussions was a strength also mentioned twice. The students listed other strengths of

online discussions of CALL-related topics including immediate feedback, the ease of use of online discussions, and the potential for constant L2 learning via computer-assisted discussion groups.

There were also suggestions for improving the online discussion group for the CALL course. Three students indicated a need for more student discussion, and two responses suggested reorganizing the discussion group to promote the student-student interaction. Other suggestions included more lecturer involvement; more inquiry-based collaboration; and more immediate responses from students. Two students recommended no improvements.

The students were finally asked if they would like to submit any other comments concerning any aspect of group-based CMC discussion. Nine students added further comments, with four of these describing their positive experiences in using this group-based CMC discussion. These comments included, "I found it a very effective way of communicating and learning. Thank you for creating the structure which supported the learning, and provided endless links to useful language learning Websites," and "just reading what other people write in about, I find out what I don't know but probably need to know. I have found them [CMC discussion groups] to be very useful for obtaining information and seeking help." Four other students used this opportunity to reiterate their suggestions, or to provide further recommendations, such as having smaller groups involved in discussion.

Discussion

This study investigated postgraduate students' perceptions of the usefulness of an online discussion group for a CALL course and analysed patterns of student-student interaction in the discussion group. The results of the study indicate that the students posted fully task-focused messages (70%) most, followed by partially task-focused messages (24%) with noticeably fewer off-task messages (6%). This particular group of students produced task-related postings a lot more than other types of postings. Only 18% of all the postings to the discussion group were categorised as interactive messages. These percentages suggest that there was comparatively less interaction than in the author's previous study (Son 2002) where 40% of messages were interactive. This means that the students' responses to the pre-selected questions/tasks did not fully initiate their subsequent discussions on the responses and open discussions on other issues of CALL although there was a moderate degree of peer support and collaboration. Possible reasons for this low degree of interaction would be the larger size of the discussion group and lack of direct feedback or response from others. While most students appreciated the opportunities of opinion sharing and learning by doing, some students pointed out a need for more student-student interaction and smaller groups for discussion.

Through the task-based messages, the students were able to give their own answers to a total of seventeen open-ended questions/tasks given in the Study Book for the CALL course and made comments on others' answers to those questions/tasks. Since there were no correct answers to the selected questions/tasks, the CMC activity allowed the students to share their ideas with their fellow students in a comfortable and constructive way. In a question concerning the future of CALL, for example, the students expressed

their own perspectives and provided the reasons for their views. Interestingly, the students stated that CALL would be more effective, interactive, and would undergo rapid development with more technological innovations.

Most students considered the online discussion activities to be constructive, enjoyable and valuable. The findings also indicate that few students feared peer evaluations on their answers and comments whereas most either experienced no fear or were uncertain. A majority of the students were satisfied with the contributions made by others. However, a similar degree of agreement and disagreement was found in the issue of greater lecturer engagement in the online discussions. With regard to this uncertainty, it might be necessary to conduct a formative evaluation of the online discussion throughout the course. Most students, nonetheless, strongly agreed that the use of online discussions was a good idea to learn CALL and facilitate collaborative learning.

Conclusion

CMC is considered as a means of offering opportunities for teachers to facilitate collaboration and encouraging them to develop knowledge through experience. Although its findings may demonstrate the extent to which variability can exist between different experiments due to changes in conditions and population, this study confirms that CMC can provide teachers with communication and learning channels for sharing ideas, comments, questions and resources with their fellow teachers. Language teachers can improve their knowledge of CALL through the use of CMC. In relation to the use of CMC in language teacher education, future research needs to focus on specific factors that affect the degree of interaction and control of the communication process. It also needs to examine the impact of lecturers' involvement in online discussions on teacher-teacher interactions and the level of achievement of small group-based online discussions. In a way of improving practice, these issues should be continuously investigated with many different groups of teachers and the findings of the investigation should be taken into account in the redevelopment of teacher training programs in CMC environments.

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