

Perspectives

Raising the Quality of Discourse Using Local Area Networks in Returnee Classes

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A well-designed computer local area network (LAN) can act as a valuable tool in the second language classroom. This paper looks at the ways in which one such LAN has been put to use in a returnee class in a Japanese university. The paper asserts that the quality of discourse is raised in the computer-assisted classroom discussion for several reasons. These reasons include: (a) Students can work at their own pace; (b) many students can take part in a synchronous discussion; and (c) students are more willing to self-disclose in a computer-assisted discussion than might be expected in a traditional oral setting. The results of a series of LAN discussions conducted in a returnee class, along with feedback from students, are used to provide analysis of this technique.

洗練されたコンピュータ・ローカル・エリア・ネットワーク(以後LAN)の利用は、外国語教育にとって有効な手段となり得る。本研究では、日本の大学の帰国子女クラスにおけるLAN利用について報告する。コンピュータを利用することにより、学習者の談話に質的な向上が認められることが本研究の論旨であるが、このような質的向上の理由には、a) 学習者が各自のペースで学習できること、b) 多人数の学習者が同時にディスカッションに参加できること、c) 従来型の授業形態と比較して、コンピュータを利用した授業では、学習者はより自己表現を行う、の三つの理由が挙げられる。LAN上で実際に行われたディスカッションや学習者からのフィードバックをもとに、この教授法の有効性を検証する。

The teaching of English as a second language has been affected by the computer industry and it is common for English programs in many educational institutions to make use of the computer as a resource for second language learning. Before the 1990s most of the software involved fairly simple reading, grammar or word processing programs but since the turn of the decade, computer networks have been utilized in the classroom. As opposed to the international networks that make use of the Internet to allow people to interact through electronic mail and MOOs (Multiple-user-domain Object Oriented) (see Davies, Shield, & Weininger, 1998), local area networks (LANs) can be confined to one classroom and

do not require access to the World Wide Web. Utilizing a well-designed LAN enables large numbers of students to take part concurrently in a real-time discussion in a computer classroom setting without the practical complications associated with accessing the Internet.

Computer-Assisted Classroom Discussions

Computer-assisted classroom discussions (CACDs) have several well-documented advantages over traditional oral classroom discussions. Ortega (1997) identifies the following positive results emerging from research on CACDs: (a) an equalizing effect on learner participation in discussions (Beauvois, 1992; Kelm, 1992; Kern, 1995; Sullivan & Pratt, 1996; Warschauer, 1996); (b) increased learner productivity, with implications for second-language (L2) acquisition considering that practice in production of the L2 promotes transformation from L2 learning to L2 acquisition (Stevick, 1986, as cited in Larsen-Freeman & Long, 1994); and (c) the tendency for the quality of language produced in CACD to be more complex than that produced in face-to-face discussions (Warschauer, 1996).

Following this last finding, this exploratory report will discuss discourse quality and participation in a CACD forum. Since quality of discourse is very difficult to define, this paper will not address the topic in terms of a quantitative study of linguistic accuracy, but rather will look at the nature of the English output produced by students in the electronic format through quotations and interpretation. It will be argued that, in holistic terms, the quality of discourse produced in CACD is raised for the following reasons: (a) students work at their own pace; (b) they can swap opinions in a discussion forum in large numbers; and, (c) as Ma (1996) has noted, they are more willing to self-disclose in the computer-mediated discussion format than they are in face-to-face discussions.

Working at Their Own Pace

The use of LANs for computer-mediated discussion allows students to work at their own pace. In an oral situation a student is under pressure to answer questions within a certain time, whereas in CACD a student has time to formulate ideas and can read the opinions of others before composing and sending a message. This lack of time pressure acts in several positive ways to produce a higher quality of discourse.

First, those students who may be reticent in oral discussions due to time-pressure anxiety tend to play a greater role in class discussions. Equalizing participation produces a wider based discussion that allows students to access the views of all their peers, not just the more dominant students.

Second, without the necessity to reply immediately, students in a CACD can spend time formulating their ideas before communicating them to the class. Self-monitoring of their written messages, stressed as a key component in thinking and communicating (Slatin, 1991, cited in Markley, 1992), can also take place, allowing students to make changes to their work in the editing window of the computer screen before sending their comments to their peers.

Facilitating Interaction

In a traditional oral discussion class, the teacher is faced with a logistical dilemma. Whole-class discussion is often time-inefficient since students must listen to the opinions of the student who is speaking and wait for their opportunity to give their views. The solution is to divide the class up into small groups. (For a comparison of small-group oral discussions with networked computer discussions see Freiermuth, 1998). However, group work has several negative effects on the quality of the discussion.

First, the wide-based aspect of the discussion is lost since the audience is limited to only a few students. In CACDs, however, students can consider a wide range of views and find a strand of discussion or sub-issue that interests them. They can then develop this topic with others who have the same interests, forming a small group based on interest.

Second, a teacher may have difficulty in monitoring all students' output in a small group discussion, whereas in CACD the teacher is in contact with all students through the computer screen. This allows the teacher to guide the discussion in order to help the students delve deeper into the issues.

Third, since all comments made by students appear on the upper half of the computer screen, students have the option of using the scroll bar to review the messages sent during the class. This is an advantage over the small-group format in that students may refer to arguments or opinions given previously. This is only possible in the oral format by interrupting the flow of discussion and checking on opinions or comments made several minutes earlier.

Greater Willingness to Self-Disclose

Based on a study of synchronous "relay" sessions conducted between US students and East Asian students (60% of whom were studying in US universities), Ma (1996) claims that both East Asians and North Americans have a tendency to show greater self-disclosure in CACDs than in face-to-face oral discussions. Ma (1996) uses Berger and Calabrese's (1975) uncertainty reduction theory to describe self-disclosure as being "willing to proffer information about themselves without specifically

being asked for it" (Ma, 1996, p. 178), including personal opinions or feelings. Ma's findings show that whereas both sets of students perceived themselves as showing greater self-disclosure, almost half of the US students did not feel that the East Asians self-disclosed more in the computer-mediated mode than in face-to-face conversations.

Research Focus

In this exploratory investigation, self-disclosure is defined as willingness to disclose information about oneself and to give personal opinions that further reveal information about oneself. The research focus of this study was to determine whether Japanese university "returnee" students would participate and self-disclose using CACD. This paper does not present a quantitative analysis of data, but rather shows extracts which suggest the degree of self-disclosure and discourse quality, and presents selected results of a questionnaire on participation in the online discussions.

Method

Participants

The participants were thirty-five students, aged 18-20, taking a Reading and Writing class at a Japanese university. Eighteen were female and 17 were male, with TOEFL scores ranging from 480 to 640. All had spent time in educational systems outside of Japan, with an average length abroad of three years. Such students are usually referred to as "returnees" in Japan.

Materials

The Interchange application of the *Daedalus Integrated Writing Environment* (DIWE) (1994) was used in the returnee class. DIWE runs on Macintoshes or PC-compatibles, and the software enables the linking of computers to form a network. The Interchange application can be found within this software package and is easily accessed by students from the "message" menu once they have logged onto DIWE. After completing this step, students are presented with a screen that is split horizontally into two windows. In the lower window, students type their contributions to the discussion and click on the "send" button. All messages appear in the top window in the order they were sent, with the sender's name above each message. Students can view the full contents of the top window at their own pace using the scroll bar.

For the first CACD presented here, the students read an article on bullying from a website newspaper (*The Times*, 1997) prior to the session. The second session used teacher-generated material dealing with

prejudice and discrimination. At the end of the course, students were given a questionnaire to complete relating to the CACD classes. Nineteen responses to the questionnaire were returned.

Procedure

The participants spent the second semester of the Reading and Writing course discussing various issues using the Interchange function of DIWE. Before each class the students were assigned the material to read. This material provided the basis for CACD in the following class. Students were encouraged to give their opinions on the issues raised and were told that participation was expected from all. Students had between fifty minutes and one hour to contribute to the discussion. Discussion questions based on the readings were assigned at the beginning of CACD and were worded in such a way as to encourage self-disclosure, but also to allow students to avoid self-disclosing if they felt inhibited by the subject matter. These questions appeared at the top of the students' computer screens. Students were told that their CACD participation would make up part of their grade for the semester. Extracts from two of the classes are presented and discussed below.

Results and Discussion

The following are short extracts taken from the Interchange CACD conducted on two different class days during the semester. For reasons of anonymity, students' names have been abbreviated. The extracts have not been corrected for mistakes.

The First Discussion

In Week Three of the semester, the students were assigned an article on bullying in British schools (*The Times*, 1997) in which two adults, one of whom had been a bully and the other the victim of bullying, shared their experiences of school life. The teacher posed the following question: "Tell us about your experiences and stories of bullying. This may be a case that involved you or it may have been a case that you saw or heard about. Why do you think the person in that case was bullied?" This appeared at the top of the students' computer screens. Below are two messages from the discussion.

K.S.: When I was 2nd grade, my class was 31 student. The boys were 21 and the girls were only 10 student. In my class, one girl was bullied. She was always alone from one day. I really didn't know why she was bullied, but I didn't play with her. The other 9 girls includ-

ing myself were always together, and we ignored her like she was not in there. At that time, I couldn't feel and think how she was got a shock and sad. I believed that she wasn't nice to me and she had been mean so she was bullied. At that time, we were too young to think and care all of things. I think difference was a biggest problem for us.

R.Y.: I bullied the girl in my class, because everyone in my class did the same thing, so I didn't feel sorry about her at that time. But when I think back about that time, I think I was doing really stupid thing. Fortunately, the girl who was bullied was strong, so she came to school everyday and acted she was fine, but if she was mentally weak, it was possible that she killed herself because we bullied her. People need to be mature enough to understand how bullied feel.

The discussion involved more than thirty students and the two extracts give a flavor of the form that the discussion took. The students were able to formulate what they wanted to write before sending their comments to their peers. One student wrote on her questionnaire, "When you speak, especially [in a] foreign country, your thinking is sometimes not pretty much composed. On the other hand, when you use CACD you can check out what you are going to say, so it is [a] very good device for discussion."

The Second Discussion

In Week Six of the semester, students were assigned teacher-generated material dealing with prejudice and discrimination. Due to the large volume of written material produced in previous CACDs, students were given a choice of three separate CACD forums. The most popular choice dealt with the topic of gay rights. The discussion question was, "Should gays be allowed to be officially married and enjoy the rights that heterosexual couples receive?" The question itself did not call for self-disclosure as had been the case in the CACD on bullying, although the opinions of the students were sought. The first two messages appeared early in the discussion and are good examples of opinion-swapping at a localized level within the whole-class environment. The last message appeared towards the end of the discussion.

J. K. to M. S.: do you really agree with gay marriage? don't you have any prejudice? i do have prejudice to all homosexual. it's not the original way, isn't it?

M. S. to J. K.: I don't have prejudice to any homosexuals. I have so me gay friends and they are nothing different. Why do you have prejudice to them?

M.Y.: I think we are free to love the others, so it has to be O.K. that gays get married (sic). I had friends who were gays when I was in the US. it was my first time to meet or get friends with gays. When I found out that they were gays I was shocked and scared, because we were friends and living together in the girls dorm. She liked one girl who was also my friend and she was a gay also and they had been together about a year or so. It really surprised me, but she talked with me about all this. I realized that it seemed different way of love, but it is same and we do not have right to stop them loving.

Universal Participation and Self-Disclosure

Every student took part in the discussion on bullying, and with only one exception, all made at least two messages. One student observed, "the people who usually didn't participate in class discussions were more active in CACD class. CACD allowed us to think and conclude our thoughts without any time limits, so it gave everybody an equal chance to participate."

CACDs allowed a flow of opinions and expression of a variety of views. One student commented, "[I got] the opportunities to know opinions of other students which I otherwise would never have known, by virtue of CACD's effect of enabling people to have a time to calm down and to take into considerations as much variety of opinions as possible on their display at a time before giving a response." In both discussions, all students participated, with four to five messages being the norm. That breadth of discussion may not have been possible in a small-group oral discussion and would only have been possible in a time-inefficient manner in a full-class oral discussion. It should be noted, however, that time on task is longer in CACD format than in small group discussions. That may be seen as an advantage by some, a disadvantage by others (e.g., Freiermuth, 1998).

When asked to compare self-disclosure in CACD classes with self-disclosure in a spoken classroom discussion, 79% of the respondents agreed that they found it easy to self-disclose in the CACD, with only 10% disagreeing. When students were asked whether they felt that the other students self-disclosed more in CACD than they would have verbally, 74% agreed that their peers showed more self-disclosure in CACD format, and not one student disagreed.

Implications

It is important to state that this paper does not advocate the replacement of oral discussion classes with LAN computer discussion classes. Rather, the computer-mediated discussion format is suggested to be an additional pedagogic resource that will help to enhance an English program.

The discussion classes held in CACD format are suggested to have produced discourse of greater quality than that produced by the same group of students in an oral class, and also to have enabled even the shyest students to participate. However, to achieve this positive result, it was necessary to inform students that they were required to participate and to encourage them to give their opinions and explain their reasons for holding those opinions. When these instructions were given, a wide-ranging flow of opinions ensued. Students who were usually dominant were less so in the CACD, and those who tended to be reticent contributed far more in the electronic domain. It was commonplace for students to personalize the issues they were considering, and self-disclosure took place even when the question that had been posed did not directly require it.

Conclusion

There are many factors that influence the quality of discourse that have not been examined in this exploratory study. The choice of topic will, as Reid (1991) shows, have great bearing on a student's performance. Furthermore this holistic interpretation makes no attempt to provide a quantitative analysis of CACD discussions or to contrast them with the results of small-group oral work. However, having observed the performances of students in both CACD and small group format, this researcher suggests that greater self-disclosure took place in CACD format. Not only were students able to become more aware of the issues being discussed when those issues were personalized, but their willingness to self-disclose also showed an uninhibited spirit, which in turn, allowed a freer flow of opinions among students. This free flow of opinions, coupled with large numbers of students working at their own pace in a concurrent CACD, helped to create a higher quality of discourse. Clearly, future empirical studies of CACDs are necessary to examine both quality and quantity of discourse.

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