Using Real-Time Computer Conferencing as a Means of Continuous Assessment to Enhance Student Learning

Sub-theme: Promoting Education for All

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Abstract

Modern open and distance education is characterized by web-based instruction, web-based assessment and research. So far there is not much research on web-based continuous assessment for the distance learners in China. This paper is intended to explore the feasibility of using real-time computer conferencing as a means of continuous assessment to facilitate distance learning. The subjects in this empirical study were 61 distance learners following a B.A. English programme at Beijing Radio and Television University in China. The course involved was an English writing course. The study lasted for one semester of 6 months. At the end of the study, questionnaires and in-depth group interviews were employed to collect the participants’ feedback. The study found that real-time computer conferencing, when carefully designed, organized and managed, is a very useful way of stimulating student learning. It suits the need of adult learners and it can help achieve the course aims. The study indicates that computer conferencing
may well be applied to different courses in different subject areas and that it is well worth being integrated into the continuous assessment procedures.

Introduction

Computer conferencing provides communication and discussion between people at different geographic locations by means of text, graphic and even audio messages. Types of computer conferencing include bulletin board, message board, online forum and Web forum. They are used to distribute information or to have an online discussion on topics (threads). Messages are arranged by the thread and remain available as long as desired. Users need to log on to see messages and make responses (http://www.unn.ac.uk/central/isd/confguid.htm, retrieved on March 18, 2004).

There are a great number of advantages of computer conferencing reported in the literature (e.g., Andrusyszyn, 2004; Nichols, 2004; Shell, 2004). The advantages can be broadly summarized into three aspects: First, computer conferencing is time and space independent. It offers users a sense of flexibility. Users can take part in a conference anytime and anywhere only if they can get access to a networked computer. Second, computer conferencing improves communication. It features many-to-many communication, which offers a huge advantage over one-to-one or one-to-many communication. It provides a community for peer learning and team working and promotes understanding among online participants. Third, computer conferencing maintains a record of discussions so can help with reflective activity. Due to these three remarkable features, computer conferencing is regarded in the literature as being particularly useful for distance learning.

At China Radio and Television Universities (China RTVUs), the Open University of China, computer conferencing has been widely used for teaching and learning purposes. For example, at China Central Radio and Television University (CCRTVU), which is the academic headquarters of China RTVUs, asynchronous computer conferences are held all the year round for all compulsory courses in different subject areas. In each semester, synchronous or real-time computer conferences are also organized for each of the compulsory courses. During the computer conferences students from across the country can step in to ask questions, exchange information and share experiences. The course coordinator from CCRTVU moderates the conferences.

However, computer conferencing has never been extended to be used as a means of continuous assessment, but as an option for teaching and learning at China RTVUs. This paper is intended to explore the feasibility of incorporating computer conferencing into the procedure of continuous assessment so as to better facilitate distance learning. As is widely acknowledged (e.g., Thorpe, 1998; Morgan and O’Reilly, 1999; Niu, 2003), continuous assessment aims to enhance and improve student learning. If computer conferencing is integrated with continuous
assessment and if it becomes a necessary part of the learning process and students are rewarded with certain marks, it is assumed that computer conferencing will play a greater role in stimulating and facilitating student learning.

In this study, the researchers tried out real-time computer conferencing as a means of continuous assessment. The experimental course was “English for Studying”, an English writing course in the B.A. English programme offered by CCRTVU. The objective of the course is to develop and improve students’ English writing competence. It is assumed that real-time computer conferencing can create an authentic communication environment, where students are motivated to use English to communicate with their peers. In this way students will develop their impromptu written communication ability and might hence improve their English writing.

Therefore, this study aims to answer two questions:

Is it feasible to use real-time computer conferencing as a means of continuous assessment? What are the strengths and limitations of using the medium in practice?

In what ways will real-time computer conferencing influence students’ English writing as a means of continuous assessment?

Methodology

1. Subjects

The subjects in this study were 61 distance learners following a B.A. English programme at Beijing Radio and Television University, among whom 46 were from Chaoyang Branch School and 15 from Xicheng Branch School in Beijing. The subjects were selected because the second author of this paper is the course tutor in the two branch schools.

2. Assessment Design

According to the syllabus of “English for Studying”, the course assessment consists of continuous assessment and end-of-course assessment. Continuous assessment takes 20 marks, covering 20% of the total course score. The end-of-course assessment takes 80 marks, covering 80% of the total course score. Traditionally, continuous assessment takes the form of tutor-marked assignments, namely, guided compositions. The end-of-course assessment takes the form of a written exam.

In this study, continuous assessment was divided into three real-time computer conferences and two written compositions. Each part takes 4 marks, covering 4% of the total score of continuous assessment. Each computer conference had one topic, set by students themselves. The topics of the written compositions were decided by students as well. They were encouraged to make use of the topics and discussions in the computer conferences to write compositions.
The real-time computer conferences were organized in the following way:

a. The conferences were held in groups. Each group had 6-8 students. They formed a group at their will. The best student in a group acted as group leader. The group leader was responsible for organizing and chairing conferences and helping peer members. At the end of each conference, the group leader would save the discussions and submit them electronically to the tutor for marking.

b. The conferences were held in the online conference rooms assigned specifically to different groups. The time was agreed on by group members at their own convenience. Students could use the university computers, home computers, office computers or even café bar computers to attend the conferences. Each conference was required to last at least for one hour and each group member should make contributions of no less than 150 words. A cut-off date was set by the course tutor to finish each conference.

c. Marking was primarily based on how active a student was in taking part in the conference discussions and how meaningful and relevant the contributions were in relation to the topics discussed. Grammar and spelling mistakes were generally ignored. It should be pointed out that the marking criteria were subjective and largely depended on the course tutor’s personal judgment.

3. Assessment Implementation

The study was carried out in the autumn semester of 2003, lasting from September 2003 to January 2004. The 46 students in Chaoyang Branch School were divided into 6 groups and the 15 students in Xicheng Branch School were divided into two groups. For the first computer conference, all the participants were called to the university computer centre for training. The researchers and the university technicians provided a thorough training to them. They were informed of the purpose of the pilot study and the continuous assessment procedures and requirements. They were also shown step by step how to use the computer conferencing system. After training, the students held their first real-time computer conference in the university computer centre. Then, the second and third computer conference was organized by the participants themselves in groups at a time and a place convenient to them. Throughout the process the course tutor played a role of observer and did not intervene in the participants’ discussions.

Data Collection and Analysis

At the end of the course of “English for Studying” in January 2004, the researchers used questionnaires and group interviews to collect the participants’ opinions and feedback on the new approach. The focus was on the two research questions explored in this study as stated before. All the 61 students completed a questionnaire designed by the researchers. Then, a total
of 20 respondents respectively from Chaoyang Branch School and Xicheng Branch School were interviewed in two separate groups. These data were then analyzed. In addition, the researchers also analyzed the extracts of online discussions downloaded from the three computer conferences.

**Results**

From the very beginning of the study, the researchers had noticed that the participants showed great interest and enthusiasm for the new approach. Some students reported excitedly that they had never expected that English writing could be learned and practiced through text chat in the computer conference. Most of the students were active in the online discussions. They made far more contributions than required. Their topics covered nearly every aspect of life, such as health and diet, environment protection, advantages and disadvantages of Beijing’s holding the 2008 Olympic Games, solutions to the traffic jams in Beijing, etc. Some of the topics were even very sensitive, like pre-marriage cohabitation, extramarital love and so on. These topics were chosen by the students and they were motivated to communicate their ideas in English. In this way the computer conferences created opportunities for the students to practice English writing, brainstorm ideas and learn from each other. When the course tutor (the second author of this paper) marked the students’ written compositions, she was impressed by the rich content, clear arguments and interesting examples in them.

What is reported below are the results of questionnaire and interview investigations.

1. **Participants’ Profile**

Table 1 and Table 2 below provide a profile of the participants in Chaoyang Branch School and Xicheng Branch School in Beijing.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Male</th>
<th>7 (15%)</th>
<th>Female</th>
<th>39 (85%)</th>
<th>Age</th>
<th>Under 30</th>
<th>22 (48%)</th>
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</thead>
<tbody>
<tr>
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<td>Under 30</td>
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<td>Between 30 to 40</td>
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<td>Above 40</td>
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<td>Employment</td>
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<tr>
<td>Full-Time</td>
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<td>40 (87%)</td>
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<tr>
<td>Part-time</td>
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<td>4 (9%)</td>
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<tr>
<td>Other</td>
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<td></td>
<td></td>
<td>2 (4%)</td>
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<tr>
<td>Personal Access to Internet</td>
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<tr>
<td>Good¹</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>32 (70%)</td>
<td></td>
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<tr>
<td>OK²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8 (17%)</td>
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<tr>
<td>Bad³</td>
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<td></td>
<td>6 (13%)</td>
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The 19th AAOU Annual Conference
Jakarta, September 15-17, 2005

FULL PAPERS

Table 2: Participants in Xicheng Branch School (15 in total)

<table>
<thead>
<tr>
<th>Sex</th>
<th>Male</th>
<th>3 (20%)</th>
<th>Female</th>
<th>12 (80%)</th>
<th>Age</th>
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<tbody>
<tr>
<td></td>
<td>Under 30</td>
<td>10 (67%)</td>
<td>Between 30 to 40</td>
<td>4 (27%)</td>
<td>Above 40</td>
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<td>Full-Time</td>
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<td>Part-time</td>
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<td></td>
<td>Other</td>
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<td></td>
<td></td>
<td></td>
<td>Good(^1)</td>
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<td></td>
<td></td>
<td></td>
<td>OK(^2)</td>
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<td></td>
<td></td>
<td></td>
<td>Bad(^3)</td>
</tr>
</tbody>
</table>

Notes:
“Good” means personal access to high-speed Internet is available at home, workplace or other places.
“OK” means personal access to the Internet is available either at home or at the workplace, but the speed is relatively slow.
“Bad” means personal access to the Internet is not available either at home or at the workplace, but the student can get access to the university computer.

The data above show that the participants of this study are mostly female students, which is common to a language programme in most universities in China. The majority of them are young working adults, aging under 40 years old. Generally they have no problem with personal access to the Internet, which means that web-based instruction and web-based assessment is technically feasible and can be implemented in the large and medium-sized cities in China.

2. Strengths of Computer Conferencing as a Means of Continuous Assessment

The participants made a long list of the advantages of computer conferencing in their questionnaire and interview responses. The advantages can be categorized into two types. One type is related to computer conferencing as a medium for communication. The other type is concerned with the positive influence of computer conferencing on the participants’ English writing.

As a communication medium, the participants reported that computer conferencing had demonstrated four significant advantages. First, distance learning was mediated and realized in a true sense with the help of computer conferencing. A lot of time the participants had to spend previously on the way to campus was saved. They could participate in the online discussions at any time and any place as they preferred. The learning efficiency was remarkably improved.
Second, computer conferencing created an authentic but relaxing interaction setting, where students could feel free to express themselves on the topics of their interests. This approach promotes the mutual understanding, increases intimacy and develops the team spirit among the participants. Third, computer conferencing transformed the participants from being a passive learner to becoming an active participant. In the process of the pilot study, the students had to organize the conferences by themselves. They had to set appropriate conference time, select topics of common interest and help themselves during the discussions. This has developed their ability of independent learning and self-management. Fourth, computer conferencing improved the participants’ information literacy, the skill of using information and telecommunications technology to communicate and to interact for learning purposes. For some of the participants, computer conferencing has improved their keyboarding skills. Now they can type faster than before. These four points strongly support the statements about the strengths of computer conferencing made in the relevant literature as described before.

The positive impacts of computer conferencing on the participants’ English writing were described by the subjects in three aspects. First, the real-time setting developed the participants' capability to respond immediately to one another in the online discussions without any preparation in advance. As a result, they were stimulated to write in English. As the proverb goes, “Practice makes perfect”. The participants believed that the practice in the online conferences could help them improve their English writing. Second, the online discussions served as brainstorming sessions. For one topic, the participants could bring about different points of view, which broadened their thinking. The brainstorming activity also laid a good foundation for the participants to prepare their compositions. They could take advantage of the ideas and arguments in the conferences. Third, as a means of continuous assessment, computer conferencing could better measure the participants’ true English writing level, because the participants had to make impromptu contributions in the conferences.

Due to the above mentioned benefits, most of the participants spoke highly of computer conferencing as a new means of continuous assessment. They stated that computer conferencing is an innovative assessment method. It is good for their learning. It has enhanced their English writing. What is more, it is easy to use. It did not produce much technical trouble for them or increase their workloads. So, they claimed that computer conferencing is a feasible choice. It is practicable and can be well incorporated into the continuous assessment procedures at China RTVUs.

3. **Constraints of Computer Conferencing as a Means of Continuous Assessment**

While acknowledging the benefits computer conferencing has brought to them, the participants also pointed out some constraints of using the medium in practice. First, computer conferencing requires basic computer skills. For those who were slow in typing and editing, they
could not fully enjoy the freedom and pleasure of communicating with others in the conferences. Second, for those participants who were at a low level of English writing, they were left in an unbalanced position of participating in the real-time online discussions. They could not make as many contributions as those good students in limited time. The other students were also reluctant to communicate with them. In other words, the poor students tended to be marginalized and they were easily neglected by the peer group members. Third, some participants reported that computer conferencing did not help them much in improving their English writing. One reason was that the language used in the conferences was very colloquial and informal, which was different from formal English writing required in normal compositions or essays. Another reason was that the topics in the computer conferences were usually easy to the participants. They were about everyday life. The topics were not closely linked to the course content, which created little challenges to the participants. Lastly, some participants mentioned the possibility of student cheating. The person who attended a computer conference might not be the one who should be there.

4. Suggestions

To solve the problems described above, the participants put forward a number of constructive suggestions. First, adequate training should be provided to the participants who are poor at using a computer before computer conferences are introduced. Second, to increase the effectiveness of computer conferences, the course tutor should play a bigger role, not only as an observer. The tutor should participate in the online discussions. More ideally, the tutor should be the moderator of computer conferences. In this way, students will be able to benefit from talking to the tutor in addition to talking to the peers. Third, the topics discussed in the computer conferences should be closely related to the course objectives and the course content. For example, students’ sample writing might be a topic for discussion in a conference. By analyzing and evaluating students’ authentic samples, the group members will benefit by drawing lessons from them. Fourth, the number of computer conferences should be increased. Real-time computer conferencing should be integrated with asynchronous conferencing. The latter can allow adequate time for the slow and poor students to communicate with their peer members.

5. Extract Analysis

Below are two extracts of the participants’ online discussions. In some way they demonstrate the strengths and limitations of computer conferencing that have been respectively described above.
Extract 1:
Participants: Group One, Chaoyang Branch School, Beijing
Topic: Money and Happiness

A: love, friendship, family and so on, they are wonderful things everyone want have. But I think they basic on your economic.
B: there are one sentence in China: every family has their trouble.
C: I think someone will be have many money. But he or she is not happy. Money will change his or her life.
D: but there are so many girls just think money is most important things. right?
...

Extract 2:
Time: 10:45pm -11:30pm, December 3, 2003
Participants: Group Two, Xicheng Branch School, Beijing
Topic: Reading Novels

A: topic?
B: working relationship
C: I LIKE READING SHORT NOVELS
A: second one?
B: English or Chinese?
B: do u know a hongkong author named Yishu?
D: we are doing now?
B: are u guty still on the line?
E: yes, I live her books.
E: I read several novels of her
...

An analysis of Extract 1 and Extract 2 will find that there are quite a few grammatical and spelling errors in them, particularly in Extract 1. However, the errors did not prevent the participants from successfully communicating with each other. The participants focused on the set topics and made smooth interactions and exchanges. In Extract 1, the discussions were centred on money and happiness. Each participant expressed their own views. It could be felt from the last sentence that the conference would be an interesting and thought-provoking one.
Through the discussions the participants would understand each other better. Meanwhile, they would develop their ability of using English to express their ideas instantly.

Extract 2 represents a typical style of computer conferences. The topics are loosely connected. The language is colloquial with short expressions and abbreviations. It appears the discussions are more for the purpose of communication than for improving English writing, although the latter will be enhanced during the interaction process.

**Discussion**

Using real-time computer conferencing as a means of continuous assessment is an innovation at China RTVUs. It has never been tried before. This study shows that computer conferencing is a feasible option in China, both technically and pedagogically. It can be used for assessment as well as for learning and teaching. It can integrate assessment with learning and teaching.

The study reveals that the Chinese participants welcome computer conferencing mediated assessment. Technically, the students in big and medium-sized cities can get easy access to the Internet service. Like paper-and-pen-based testing, computer conferencing mediated assessment also needs careful design, preparation and administration. During the process, the course tutor plays an important role. The tutor is expected to play not only a role of observer, but also a role of moderator and participant. The content of computer conferences should be closely linked to the objectives and the content of a course. Before introducing computer conferencing, it is necessary to provide training to all participants.

In this study the experimental course is an English writing course, but it sounds reasonable to infer from the results of the current study that computer conferencing can well be applied to other courses as a means of continuous assessment. Of course, this needs to be verified through further empirical research.

**Conclusion**

This study has aimed to explore the feasibility of using real-time computer conferencing as a means of continuous assessment at China RTVUs. The results indicate that real-time computer conferencing, when carefully designed, organized and managed, is a very useful way of stimulating student learning. It suits the need of adult learners and it can help achieve the aims of a course. However, it should be cautioned that this study is only a preliminary one, because the study is confined to two branch schools attached to Beijing Radio and Television University with only 61 students involved. The synchronous computer conferences were organized only three times. Therefore, this research study needs to be extended to a larger scale so that generalizations can be more safely made.
References


Thorpe, M. 1998. Assessment and ‘Third Generation’ Distance Education, Distance Education, 19(2), 265-286.

Computer Conferencing for Distance Learning.

Twenty Five Reasons To Consider Teaching in a Computer Conferencing Environment.

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