Examining the Effectiveness of the Technology Component in a Japanese Language Course

Guohua Pan
Instructional Technology
University of Alberta
Canada
gpan@ualberta.ca
Grace Wiebe
Arts Resource Centre
University of Alberta
grace.wiebe@ualberta.ca

Japan401 was an advanced Japanese (undergraduate) course that consisted of face-to-face component and a technology component. The technology component was incorporated into the course to cultivate students’ knowledge and skills of language and culture, through their direct communication with native Japanese speakers. Three surveys and two focus groups were administered to investigate the effects of the technology component of the course. Initial findings indicate that overall, technology had a positive impact on student learning. Specifically, the impact of technology on student learning/understanding, student perception of technology, and student satisfaction with technology are reported. Some suggestions put forward from faculty and student participants for further improvement of the (technology component of the) course are also reported and analyzed.

Introduction

As has been witnessed, technologies, information communication technology (ICT) in particular, have been increasingly used in schools and are “dramatically transforming” our ways of knowledge acquisition and “automating the component processes of thinking and problem solving” (Pea and Brown, 1991, p. 12). Technology has been increasingly used for learning and instruction (Khan, 1997, Romiszowski, 1997). As a relatively new medium for information storage and transmission with “innovative technology tools and features” (Bonk and Reynolds, 1997, p. 117), ICT is not only redefining the meaning of learning and understanding, but to an increasing extent, how learning takes place as well. Brown (2000) argues that the World Wide Web, one of most widely used ICTs today, is potentially a transformative medium that may bring a change as important as that of electricity to our lives.

When discussing the relation between technology and learning, Bransford (1999) believes that new technologies “extend the possibilities of ‘old’ – but still useful – technologies – books; blackboards; and linear, one-way communication media, such as radio and television shows – as well as offering new possibilities”. Yet, technology is not a panacea to address all the issues in education (U.S. Web-based Communication Commission, 2000). The highly heralded, individualized instruction provided by computer-based instruction, notes Kearsley (1999), has had trivial success.

This paper investigates, through three surveys and two focus groups, the effectiveness of technology in helping students learn in Japan401, an advanced Japanese (undergraduate) course offered at the Department of Eastern Asian Studies, Faculty of Arts, at the University of Alberta. The course consisted of a face-to-face component and a technology component. Particularly, four research questions were formulated: 1) How does technology affect students’ understanding; 2) What is their perception of technology? 3) What is the overall satisfaction? 4) What needs to be further improved? In other words, the investigation focused on the impact of technology on student understanding,
student perception of technology, student satisfaction with technology, and student and faculty suggestions for improving the use of technology.

Japan401 and Data Collection

Four class modules were prepared by faculty at Meiji University in Tokyo, Japan and delivered to the students enrolled in this 4th year Japanese language class offered in the fall semester of 2002. The modules were designed to use various current innovative technologies (Web-based and computer-based), part of which involved two-way synchronous or asynchronous communication with the Meiji University instructors delivering together with Meiji students participating at the far end in Japan, and the University of Alberta students, enrolled in Japan401, participating along with their instructor at the near end in Edmonton.

Among the four modules, two were email sessions in which students at the near end and the instructors and students at the far end communicated over email with each other on the session topics. Two were live video-conferencing sessions using Microsoft Netmeeting for live communication on session topics. All communication – oral and written – was in Japanese.

Three surveys (i.e., Survey I, Survey II, and Survey III) were administered before the end of the course. Ten of the students participated in Survey I and all 11 students registered in the course participated in Surveys II and III. Survey I focused on students’ impression of email and was administered after the technology-delivered session I (email session). Survey II focused on the students’ impression of the live video-conference and was administered after the technology-delivered session II (live video-conference session). The final survey (Survey III) was administered after session IV and served as an exit survey and, as such, it investigated the students’ impression of both the email interactions and the live video-conferences in the course as a whole. As the live video-conferences were recorded on CDs and distributed to the students for them to review after related sessions, there were also questions in the survey asking their impression of the video.

A student focus group was administered after the exit survey (Survey III), before the end of the semester. Questions in the focus group covered topics related to the technology component of the course. Student participants were also invited to give suggestions for further improvement of the technology component of the course. Seven students participated in the focus group.

In addition, a faculty focus group was also administered in which three faculty members from Meiji University in Tokyo, Japan and one from the University of Alberta in Edmonton, Canada participated. The focus groups were audio-recorded and transcribed. The following section analyzes the data collected from the surveys and focus groups.

Data Analysis and Discussion

The students’ understanding of the sessions (research question 1) appeared better in the email sessions than they did in the live video-conference sessions. In Survey I, for example, all 10 (100%) participants responded that they understood the session topic ‘fairly well’ while in Survey III, 10 (91%) participants responded ‘fairly well’ when asked to rate their overall understanding in the email session. On the other hand, 8 (73%) and 9 (82%) participants in Survey II and Survey III respectively felt that overall they understood the live video-conference session ‘well’ to ‘fairly well’. To further investigate students’ understanding, we asked them in Survey III whether they encountered any major communication problems in the two sessions. Ten (91%) participants agreed that they had not encountered major communication problems during the email sessions while eight (73%) of them agreed that they did not encounter major communication problems during the live video sessions.

In order to find out the participants’ perception of technology (research question 2), we asked the participants a number of questions, including whether they thought the video-conferencing/email technology used for each session was suitable, their idea of the desirable amount of interaction, and their priority of individual technology components. Their perception of technology was quite positive: All (91%) but one in three surveys responded that the technology was at least somewhat suitable for the session/topic in question. All participants (100%) preferred to keep the frequency of interaction similar to that in the live video-conference session, while one participant in each of the two email
sessions hoped that the interaction could be somewhat reduced. Of the eleven participants, eight (73%) of them listed the live video-conferencing as the most favorable component, with the remaining three (27%) cited email as their favorite.

Research question three dealt with the participants' overall satisfaction with the technology. Specifically, we wanted to know whether the participants liked the technology component of the course or not, and whether they thought the technology component was too much, and therefore should be reduced, or not enough, and therefore, increased. It turned out that majority (91%) of the participants enjoyed the technology component. At the same time, all 11 (100%) of them either thought the technology component should be increased (56%) or kept unchanged (44%). To further investigate their satisfaction with the technology component of the course, and the course as a whole, we asked them in all three surveys whether they would attend a similar session in the future if such a session were to be offered. For the email session, only three participants in Survey I and one participant in Survey III responded that they would not attend it. At the same time, no participant rejected the idea of attending a similar live video-conference session in the future. In fact, all 11 (100%) participants in Survey III (the exit survey) expressed their interest in attending another live video-conference session in the future.

Finally, we asked the participants for suggestions on improving the course, the technology component of the course in particular. One thing we wanted to know was whether more print materials should be provided before each session. Three participants in Survey I and three in Survey III respectively agreed that there should be more print materials before each email session while eight in Survey II and nine participants in Survey III respectively agreed that more print materials should be provided before each live video-conference session. More suggestions were put forward in the focus groups, which are discussed in the following sections.

While being generally positive about the technology component of the course, the participants in the student focus group appeared to be especially impressed by the ‘live’ feature of video-conferencing and thought it “an excellent opportunity” to practice their listening and speaking ability (student focus group transcript). “The (live) video presentation,” one participant said, “was an excellent experience at interacting …. even though we did not understand everything they were saying, and they probably didn’t understand everything we were saying.” (student focus group transcript) One of the factors that made live video-conferencing impressive was that the participants felt things were real and they could see “more facial expressions and how they represent themselves.” The participants, who could see both individuals and “a group of the Japanese students talking”, indicated that the “real life interactions, the usage of the Japanese that perhaps we’re not exposed to in a very structured class” was “beneficial.” (student focus group transcript)

One of the drawbacks of the live video-conference, some focus group participants pointed out, was that the pace was beyond their competency level. Many times, they would feel it difficult to follow all that was going on in the video-conference because the Meiji professors and students all spoke at their normal speed, and often with some terms that were new to the participants. As such, it was sometimes rather frustrating, as in many cases the Japan401 students “could only get 10%-20% of what the Japanese professor said” and that they “really felt that [they] lost out” (student focus group transcript).

Email was another technology course component discussed in the student focus group. Participants mentioned that email communication between the Alberta and Meiji students was “a good way of exchanging ideas and information.” As well, “it let us practice the written form.” They felt that email could potentially allow the participants to engage in more in-depth communication with Meiji students than a live video-conference could.

On the other hand, the participants felt that they could not engage in such in-depth communication with their Meiji counterparts because they were not given enough time to “get a chance to think of good questions” so that email “could be more useful” as “the last five to 10 minutes of the class” provided for (email) question writing was not sufficient (student focus group transcript). Besides, they felt that their email exchange with the Meiji students could be more targeted, with both sides being more prepared, so that the communication would focus on what they wanted to know/learn.

The focus group participants proposed that more preparation was needed to enhance participation in the technology enhanced exchanges. Specifically, they pointed out that more print materials could be provided before the live video-conference. With the print materials, they would have a better idea of what would happen in the video-conference, grasp some background information and new terms, and
thus, be better prepared. Similarly, with preparation, their email communication with Meiji students could be more effective, more geared to their needs.

In the faculty focus group, it was also suggested that the students be given more print materials and preparation time before each live video session. It would appear, then, that as both groups felt there was a definite need for more and different types of preparation, these should be provided before live events. Faculty also felt that Meiji students and Alberta student could work in pairs on a similar project, thus fostering the students’ collaborative work.

With ICT increasingly used for instruction it is crucial to examine the success of each new way of obtaining knowledge. This study has given us an indication of how the use of new technologies such as email and live video-conferences, while offering new possibilities, must be carefully monitored so that the success of the use of each type of new technology is not trivial or limited to the novelty of the tool. Further, that each new use of technology for educational purposes be evaluated, and that this evaluation should include both instructors and students.

References


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