

EFL College Students' Perceptions of Videoconferencing-Assisted English Learning

Chih-cheng Lin

National Taiwan Normal University

cclin@ntnu.edu.tw

Abstract

The aim of this study is to investigate the learners' perceptions of a videoconferencing activity, namely, their preparations before and their feedback after the videoconferencing sessions. In spring 2005, thirty-seven college freshmen non-English majors in northern Taiwan participated in a six-week group-to-group, room-based videoconferencing activity, including preparations and rehearsals in the first four weeks, video conferences in the fifth, and in-class discussions in the sixth. The data were collected from the attitudinal questionnaires administered before and after the videoconferencing sessions, the students' written feedback, and the semi-structured interviews of a focus group after the videoconferencing sessions. The results showed that, after the conferences with their partners, the students changed their attitudes towards the videoconferencing technology, improved their language skills, and increased their cultural understanding. In their preparations, rehearsals, and presentations, the students confirmed the positive effects of the videoconferencing activity because of their linguistic improvements as well as cultural acquisition, with learning their home cultures being the most fruitful. Although positive stereotypes of the partners were not confirmed, the students became appreciative of their partners' presentations and tolerant of the varieties of spoken and written English. The students also felt satisfied with their own solutions to language problems in preparations and gained confidence in presenting their home cultures.

Key Words: videoconferencing, EFL culture learning, EFL collaborative learning

INTRODUCTION

Meskill and Ranglova (2000), in their report on the technological impact of redesigning EFL curriculum in Bulgaria, pointed out “two interdependent considerations: first, current, best instructional theory and practice; second, careful consideration of the situational variables that pertain to contexts of technology use” (p. 20). Both theoretical and practical considerations are crucial to success for language teachers and classroom practitioners to infuse language classes with innovative technology. The issues related to using the videoconferencing technology in a language class fall into this category.

The incorporation of the videoconferencing technology into language classes is two-fold. Based on the theories of communicative language teaching, the nature of video conferences creates an environment for two groups of students to communicate, negotiate, and interact (e.g., Wang, 2004, for an evaluation of desktop videoconferencing). On the practical side, one of the major problems that language teachers have in non-native speaking countries is to find chances for their students to practice their language skills and to exercise their intercultural communicative competence (e.g., Belz, 2003, for a linguistic analysis of participants’ email correspondence). Online communication provided by the Internet, such as videoconferencing, has become a useful service for language researchers and teachers to explore issues related to learners’ communicative competence, in general (Butler & Fawks, 1999, verbal skills; Chun & Plass, 2000, negotiation of meaning; McAndrew, Foubister, & Mayes, 1996, conversation; O’Dowd, 2003, intercultural

competence; Zähler, Fauverge, & Wong, 2000, negotiation of meaning).

Few cases (Lee, 2004; Stepp-Greany, 2002), however, are dedicated to exploring how learners perceive the technology they are using in accomplishing a class activity. The significance of knowing how effective the incorporation of videoconferencing is, therefore, has urged the author's research to investigating EFL learners' perceptions of a videoconferencing activity. Specifically, the study intends to answer questions regarding EFL learners' feedback towards videoconferencing technology and their learning of the language and the cultures as a result of the videoconferencing activity.

VIDEOCONFERENCING IN LANGUAGE CLASSES

In this section, advantages and disadvantages of integrating videoconferencing activities into classroom contexts are first discussed, followed by two interrelated theoretical threads, collaboration and intercultural communication; then, studies on employing the videoconferencing technology in language classes are reviewed. The last part explains the rationale underlying the present study.

Videoconferencing for Language Learning

The most frequently mentioned strength that a video conference offers to classroom language learners is face-to-face interaction. The conferring not only requires immediate responses but also involves

interpretations of the interlocutors' verbal as well as non-verbal expressions. The advantages of video conferences, therefore, include the creation of social presence and an environment for learning, the reduction in travel time, effort and expense, and finally collaborations and partnerships (Mason, 1994). However, to use videoconferencing technology in an educational institute also creates problems for the school administration and classroom teachers and students. Most institutes find the installation or the purchase of videoconferencing equipment and hardware expensive; furthermore, the nature of teaching and learning based on videoconferencing technology is either changed or challenged. Its disadvantages are, then, the cost of the equipment, more preparation time for teachers, more attention for students, and the lack of interactivity (Mason, 1994).

Similarly, using videoconferencing technology in language learning creates problems for both teachers and students. O'Dowd (2003) enumerates five problems that language teachers, when engaging their students in videoconferencing activities, are likely to face: sound delay, differences in face-to-face communication, the effects of distance, passive viewing, and practicalities. Before a videoconferencing session occurs, the practicalities need to be taken care of, such as the cost of the hardware and software, the installation-related technical problems, the arrangements for two potential classes to meet, and the schedules for the sessions. Caused by the Internet-based transmission, differences in face-to-face communication can easily be detected, for example, sound delay, blurred images, or distorted body language, which in turn creates the effects of distance and renders students unwilling to participate; thus,

passive viewing results. In short, the incorporation of a videoconferencing activity into a language learning syllabus requires a classroom practitioner to solve problems related to the equipment and the preparations (before sessions) and those concerning students' learning (during sessions) so as to ensure the success of the conferences online.

Collaborating for Intercultural Understanding

Internet-based videoconferencing service delivers images and sound to and for learners, forming the two basic elements, audio and visual, of face-to-face interaction. This medium of communication, categorized as a tool in Levy's CALL (computer-assisted language learning) framework (1997), is often used to study issues related to learners' communication, such as interaction and negotiation (Peyton, 1999). Moreover, the strength of the CALL tool is designed in various studies to carry cultural information. The collaboration among learners on two or more sides to achieve a goal of exchanging cultural information and appreciating cultural differences is therefore common for language teachers and classroom practitioners.

In his descriptive account of collaboration at the computer, Beatty (2003) first defines the concept of collaboration as "... a process in which two or more learners need to work together to achieve a common goal, usually the completion of a task or the answering of a question" (p. 102). In the same paragraph, the author continues to explain how to observe the collaborative behaviour among learners: "Collaboration is manifested in the actions a learner takes when working with others and can be evidenced, for example,

as a willingness to listen to others' ideas, suggestions and opinions so that they can be discussed and integrated into further actions, such as decisions about how to complete a task" (Beatty, 2003, p. 102).

Bringing students together before computers, no matter what form it is, gives students chances to learn from others and to learn for themselves. The benefit "of collaborative learning at the computer is in the way in which it serves to reveal information and ideas, not just to the learners' collaborative partners, but to the learners themselves" (Beatty, 2003, p. 112).

Based on Beatty's definition and elaboration, learners' collaborative behaviours can be observed before and during computer-related activities. Videoconferencing technology, for example, is a typical tool to facilitate learners' collaboration: working together on their presentations before video conferences, working together to answer questions during video conferences, and working together to reflect after video conferences. To better explain learners' collaboration, equal attention must be paid to learners' collaboration before and after the activity, instead of during the activity—thus, a focus of the present study.

In addition to collaboration among learners, communication between participants of video conferences has attracted the attention of teachers and researchers. Incorporating a video conference in a language class often places its importance on making connections between non-native speakers (NNSs) and native speakers (NSs) of a target language. For the NNSs, the video conferences give them chances to exercise their language and communication skills, or to test their language hypotheses, and for their counterpart (NSs), the

chance to understand another culture. Because of its communicative nature, videoconferencing technology is designed in an activity to promote intercultural communication.

Intercultural communicative competence is defined as the ability to interact with people from different cultures. The purpose of engaging language learners in intercultural communication activities is, first, to practice and exercise their language forms and communication skills on the language level, and, second, on the cultural level, to understand the other's culture, including the values, customs, arts, literature, and the like. O'Dowd (2003) succinctly summarizes the key points of intercultural communication:

... intercultural perspectives have highlighted the interconnectedness of language learning and culture learning, the need for learners to be able to achieve a critical distance from their own cultures and the deconstruction of stereotypes and reduction of intolerance as being central goals of language/culture learning. ... (p. 32)

It is equally important for two different NNS's groups of a target language to understand each other well. Using a common target language to communicate, the two different NNS's groups enhance their language abilities and, more importantly, develop their mutual understanding. As a result, values, customs, and behaviours in both different NNS's cultures are treasured and respected. To study learners' reflections on culture learning in an NNS-NNS videoconferencing activity is therefore another focus of the present study.

Language Learning in Videoconferencing

Immediately after videoconferencing technology became available, language teachers attempted to incorporate it into their syllabi both to enhance their teaching and to improve their students' learning. Four empirical studies addressing issues of language and culture learning are discussed below.

Testing their videoconferencing system HIPERNET in an international French learning project, McAndrew et al. (1996) reported that "...the system (videoconferencing) is effective and acceptable as an alternative to face-to-face communication in the learning of a language ..." (p. 207). Their aim in the project was not to outperform face-to-face communication but to demonstrate an alternative for learning conversational skills. After the HIPERNET trials, the authors concluded that their system allows a productive combination of working alone and working collaboratively; the interaction between students is focused because the connection is not always there; videoconferencing is perceived as motivating; and, videoconferencing eliminates physical barriers. Their participants also reported some problems, including having no eye contact, feeling uncomfortable with wearing headsets, dealing with the cognitive load in real-time conversation, finding it hard to share material, and feeling uncertainty about partners' thinking.

Butler and Fawkes (1999) set up an international student-to-student videoconferencing study by engaging their students (a French class in England and an English class in France) in practicing the target language with their partners. On a one-to-one basis, participating students took turns in French and English to ask prepared questions

about the target culture. Because students felt less intimidated when being corrected by their peers, verbal presentation skills, including pronunciation, accuracy and fluency, were improved.

Zähner et al. (2000), testing the audio-/video-conferencing LEVERAGE system, which is based on the metaconscious view of language learning, engaged the participating students across the Channel in completing two simulated tasks: one for the university French learners in Cambridge to bid for a business contract, and the other for engineering students from Cambridge and Paris to make a 20-minute presentation. The analyses of students' behaviour showed that the system effectively offered an environment for collaboration among learners; such collaborative features as the negotiation of meaning, consensus building and maintenance, and repair were present. The authors finally suggested three points for broadband telecommunication activities: appropriate and engaging tasks, written communications coexistent with sound and images, and timely assistance during the activities.

O'Dowd (2003), in an attempt to develop learners' intercultural communicative competence, explored the possibilities of using videoconferencing (synchronous communication) and email (asynchronous communication) between two classes across the Atlantic Ocean, an EFL class of 25 in Essen, Germany and 21 students enrolled in Communication Studies, 2003 at the University of Columbus, Ohio, U.S.A. In the eight-week period, both classes were required to use English to write at least one email message per week and to conduct four videoconferencing sessions with two-week intervals. The study asserted the Internet services of synchronous

videoconferencing together with asynchronous email as effective tools for helping students develop their intercultural communicative competence. However, it reported that the German students were reluctant to act the role of interviewers and kept some distance due to the inferior beliefs and behaviours.

In sum, videoconferencing technology is best used to carry out a communication task designed for two dedicated groups of learners with the hope that not only will they improve their language skills but also increase their understanding of each other's culture.

The Present Study

The focus of the present study is on the participants' learning before and after the NNS group-to-group, room-based video conferences, specifically, the learners' perceptions of the preparations and presentations in the videoconferencing sessions. Introducing learners' home cultures to those who have little knowledge about them requires appropriate lexicon, interesting content, and effective presentations. Likewise, posing relevant questions to the other group's presentations requires some understanding of the other group's culture. Their learning to communicate well with the other group, therefore, plays an important role before the videoconferencing sessions. Equally important is the learners' reflection on their learning after the videoconferencing sessions. The learners' reflections on both language and culture learning process help not only the learners but also the classroom teacher to evaluate the videoconferencing activity. All these lead to the focus of the present study on the preparations for and the feedback of the videoconferencing sessions.

METHOD

Participants

The participants were 37 freshmen students (5 males and 32 females) from the colleges of Education and Fine Arts in a public university in northern Taiwan. Their English proficiency level was intermediate. When the videoconferencing activity took place in May 2005, they were in the second semester of the two-semester Freshman English course. The objectives of the course were to apply their existing knowledge and competencies across a wide spectrum of situations and to improve their listening, speaking, reading and writing skills for more efficient communication. The English class met two hours from ten to twelve every Friday morning and, to pass the course, the students needed to fulfil requirements set by the instructor at the beginning of the semester. All students were invited to participate in the videoconferencing activity.

The other class participating in the videoconferencing activity was from a private university in Tokyo, Japan. The two classes were paired because the two universities had sister ties and the two instructors had worked on a similar project one year earlier. Similarly, the students in the Japanese university were non-English majors, enrolled in a Freshman English course of similar objectives to the other class. Their proficiency level was comparable to that of their partners. They also needed to fulfil several course requirements, one of which was the videoconferencing activity. Because the academic year in Japan begins in April, they were only in the second month of their course when they participated in the video conferences.

Instruments

The instrument designed to collect the data included *an attitude questionnaire, their post-session written feedback, and a semi-structured interview.*

Videoconferencing attitude questionnaire. A questionnaire of fifteen items divided into five categories was developed to ascertain participants' attitudes towards incorporating video conferences in language classes before and after the videoconferencing sessions. The five categories were *cultural knowledge in general, preparation/presentations and language skills, preparation/presentations and home cultures, videoconferencing activity and the course, and videoconferencing in general.* The questionnaire was first administered four weeks before the students' videoconferencing sessions and once again after the videoconferencing sessions, the timetable of which is presented in Table 1 below. The wording in the two questionnaires was slightly different to reflect the time differences, namely, the tenses and the activity in which participants were involved. The simple future tense was used in the pre-session questionnaire and the simple past tense in the other. The activity of preparation was used in the pre-session questionnaire and that of presentation in the other. The participants were asked to rate the fifteen items on a four-point Likert scale ranging from "strongly agree" (4) to "strongly disagree" (1). Based on which, the mean and the standard deviation of each item were calculated; likewise, the mean and the standard deviation of each category were calculated based upon the scores of all the items listed under each category. Thirty of the thirty-seven participants (81.08%) finished both

pre-/post-session questionnaires. The Videoconferencing Attitude *Questionnaire* is included in Appendix A.

Post-session written feedback. The participants were asked to write down their opinions of the video conferences in the first class meeting after the videoconferencing sessions. To help them reflect on their experiences, some guided questions were given: *What did you think of the videoconferencing activity, in general? What did you like or dislike most in the videoconferencing activity? What have you learned and/or benefited? What could be improved for the videoconferencing session that you attended?* Not all questions needed to be answered. The participants could use the language of their preference, either Chinese or English, and could write as much as they wanted without time limit. In total, thirty-three of the thirty-seven participants (89.19%) turned in their written feedback. Each point found in the students' written feedback was marked, categorized, and added up to calculate the frequency and percentage of each category in all participants' feedback.

Semi-structured interview. The interview with the participants was conducted after the videoconferencing sessions. Three questions were prepared before the interview: *What in general did you learn from the videoconferencing activity? What do you think about the six-week activity as a whole?* and *What did you benefit from most in the activity?* The interviewees included the presenter and another member, randomly selected, from each group, making twelve interviewees, in total. Their interviews were first recorded and then transcribed so that the related statements could be highlighted in the discussions.

Procedures

The participants joining the six-week activity were first asked to fill out the attitude questionnaire after the videoconferencing activity was announced in the first week. The questionnaire was again administered after their participation in the videoconferencing sessions in the fifth week. In week six, their written feedback was first collected and the interviews with the presenters and group members were conducted. The timetable of the videoconferencing activity and data collection is shown below in Table 1. The details of the activity are described in Appendix B.

Table 1
Timetable of the videoconferencing activity and data collection

Week	Date	Assignments	Data collection
1	April 29	Groups and topics	Pre-session questionnaire
2	May 6	Drafts of scripts and visual aids	
3	May 13	Revisions of scripts and visual aids	
4	May 20	In-class rehearsals	
5	May 25	Videoconference I	Post-session questionnaire I
	June 1	Videoconference II	Post-session questionnaire II
6	June 3	In-class discussion	Feedback & interview

In the first week, after the activity syllabus and explanations were given (Appendix B), the pre-session questionnaire was administered. Then, the thirty-seven students were evenly divided into six groups, that is, six students in the first five groups and seven students in the sixth group. The assignments for each group were as follows: Two students wrote the group's scripts, one presented the scripts, one prepared the visual aids for the presentation, and two asked questions to the Japanese class in the videoconferencing session. Each group also needed to discuss and decide on their topic to present in their videoconferencing session. Six different topics were determined (Appendix B). In the second and third weeks, each group worked on their presentation scripts and the presentation slides. Comments on their scripts and slides were given by the instructor to each group in terms of linguistic accuracy and listeners' interest. In the fourth week, each group presented what they had prepared to the whole class and the other five groups scored and commented on the presentation. The videoconferences were divided into two 100-minute sessions, three groups each, because of the availability of the equipment and the times that each class could meet. The meetings were not in the regular class hours, so the participants on both sides had to make an effort to participate in the sessions. Each session took place in a conference room equipped with the videoconferencing machine¹. Each of the three groups in each session presented their topic with slides (an example is included in Appendix C) and listened

¹ The videoconferencing machine used in both sessions was a Polycom ViewStation SP128, inbuilt with the telecommunication standard of H.323 (www.itu.int/rec/T-REC-H.323/en, for details). The specifications on video and audio can be found on the company's website (www.polycom.com).

to the presentations from the other side. Immediately after each videoconferencing session, the instructor discussed briefly with the participants, and then the post-session questionnaire was administered to the participants. In the sixth week, a brief review of the videoconferencing sessions was done before the whole class began to write their feedback to the activity. Before the class was over, the presenter in each group, together with another member, randomly selected, were group-interviewed.

Data Analyses

The participants' responses to the pre-/post-session *attitude questionnaires* were calculated (mean scores and standard deviations) and further analysed (*t*-test) by using SPSS 11.5. The data collected in both *the written feedback* and *the interviews* were used for triangulation.

RESULTS AND DISCUSSION

Three major findings of the study, *changed attitudes*, *improved language skills*, and *increased cultural understanding*, are discussed below.

Changed Attitudes

The participants, after the videoconferencing activity, changed their attitudes towards the incorporation of the videoconferencing technology in their language classes (Table 2). Except for the

Table 2
Results of Pre-/Post-Session Videoconferencing Attitude Questionnaires

Questions	Pre		Post		<i>t</i> -values
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
I. Cultural knowledge in general	4.70	0.88	5.67	1.16	-3.99**
I have knowledge about our own common cultures.	2.40	0.56	2.73	0.74	-1.98**
I have knowledge about Japanese common cultures.	2.30	0.65	2.93	0.64	-4.08**
II. Preparation/presentations and language skills	11.37	1.27	12.03	1.71	-1.96**
The preparation improves my listening skills.	2.87	0.51	3.07	0.45	-1.65**
The preparation improves my speaking skills.	2.93	0.58	2.67	0.61	1.86**
The preparation improves my reading skills.	2.87	0.51	3.23	0.63	-2.80**
The preparation improves my writing skills.	2.70	0.54	3.07	0.69	-2.63**
III. Preparation/presentations and home cultures	11.40	2.40	12.47	1.33	-2.74**
The preparation helps me learn our campus festivals.	2.73	0.83	3.23	0.57	-3.18**
The preparation helps me learn our student activities.	2.77	0.82	3.10	0.66	-1.98**
The preparation helps me learn our local cuisines.	2.90	0.66	3.10	0.48	-1.53**
The preparation helps me learn our campus heritage.	3.00	0.64	3.03	0.49	-0.23**
IV. Videoconferencing activity and the course	12.53	1.66	11.67	1.86	2.32**
The session appeals to language learning.	3.23	0.63	2.87	0.78	2.16**
The session enhances cultural exchanges.	3.27	0.58	2.70	0.75	4.26**
Including the activity makes our course meaningful.	3.07	0.74	3.20	0.48	-0.89**
Joining the activity increases my motivation in learning.	2.97	0.56	2.90	0.66	0.44**
V. Videoconferencing in general	2.37	0.67	3.20	0.48	-5.22**
Videoconferencing is premature for language learning.	2.37	0.67	3.20	0.48	-5.22**

Note. *N* = 30; **p* < .05, ***p* < .01

category of language skills, the mean scores in the other categories in the pre-session questionnaire are different from those in the post-session questionnaire.

After the videoconferencing activity, the participants perceived that they had gained more knowledge about the two cultures in general ($M = 4.70$ and 5.67 for pre and post session questionnaires respectively) and more about Japanese culture in particular ($M = 2.30$ and 2.93 for pre and post session questionnaires respectively). In terms of language skills, after having prepared for the presentations in the videoconferencing sessions, the participants noticed improvements in their reading skills ($M = 2.87$ and 3.23 for pre and post session questionnaires respectively) and writing skills ($M = 2.70$ and 3.07 for pre and post session questionnaires respectively) though no difference was found in improving language skills as a whole. In terms of culture learning, after having prepared for the presentations and after having attended the sessions, the participants noticed that they learned more about their home cultures in general ($M = 11.40$ and 12.47 for pre and post session questionnaires respectively) and their campus festivals in particular ($M = 2.73$ and 3.23 for pre and post session questionnaires respectively). Towards the idea of incorporating videoconferences into the course, the participants showed a decline in degree ($M = 12.53$ and 11.67 for pre and post session questionnaires respectively) after having attended the videoconferencing sessions. To be specific, the participants found their interest in learning language via videoconferencing sessions had decreased ($M = 3.23$ and 2.87 for pre and post session questionnaires respectively), as did their expectations of cultural exchanges via the

videoconferencing sessions ($M = 3.27$ and 2.70 for pre and post session questionnaires respectively). With these decreases in mean scores, it was not surprising to find the participants' perception of agreeing on prematurely incorporating the videoconferencing technology into English classes ($M = 2.37$ and 3.20 for pre and post session questionnaires respectively).

To find support for the differences between the two questionnaires, a careful study of the participants' written feedback, summarized in Table 3 below, helps. The six-week videoconferencing activity received approval from half of the participants (51.52%). Because of the activity's communicative nature and because of their preparing for the presentations, the participants perceived an improvement in their linguistic ability (45.45%). The next two points are related to their culture learning: one is learning more about Japanese cultures (42.43%) and the other home cultures (30.30%), which become the largest proportion if the two are combined. Finally, collaboration among group members was appreciated (24.24%).

On the negative side, many participants mentioned the other class' performances in the videoconferencing activity, such as their preparations (51.52%), their enthusiasm level (24.24%), their punctuality (12.12%), and their English speaking abilities (12.12%). The quality of their machines, causing constant breaks during the videoconferencing sessions, became the participants' concern, too (27.27%). Some participants complained about the schedules for (12.12%) and the time limits in (12.12%) the videoconferencing sessions. Commenting on the learning, two participants (6.16%) seemed dissatisfied with their workload and were eager to take on

more challenges, and one (3.03%) suggested that more non-campus topics be included for the home-culture presentations.

In correspondence with the previous studies (Butler and Fawkes, 1999; McAndrew et al., 1996; O'Dowd, 2003; Zähler et al., 2000), the incorporation of the videoconferencing activity into the language class received the participants' positive feedback for being a novel experience and for developing the skills, increasing knowledge, and providing satisfying collaboration. Although the mean score of the motivation statement in the questionnaire (Q. 14 in Table 2) drops from 2.97 to 2.90 for pre and post session questionnaires), the difference does not reach a significant level. An increase of the mean score, from 3.07 (pre-session) to 3.20 (post-session), is seen in their perception of the meaningfulness of including the videoconferencing activity in the course (Q. 13 in Table 2). A strong support of this inclusion can be found in the most often mentioned positive point: the videoconferencing experience was new and interesting (17, 51.52% in Table 3). In addition to the positive points of language and culture learning mentioned in the participants' written feedback, the idea of collaboration (or teamwork in the statement) received some attention as well (8, 24.24% in Table 3). In a task-oriented activity, as Beatty (2003) classifies it and elaborates, the participants' collaborative spirit exists not only at the computer but also where the learning takes place.

On the negative side, the participants' major concerns were the other class' performance observed in the videoconferencing sessions, which in turn explains the attitudinal changes found in Table 2. According to the results of the two questionnaires in Table 2 and the

written feedback in Table 3, the participants' negative attitudes towards the videoconferencing sessions come from their observations of the other class' performance, such as their preparation, enthusiasm, punctuality, and speaking. Before the videoconferencing sessions, the participants showed high expectations of cultural exchanges and great interest in language learning by having video conferences with the other class. The mean score of cultural exchanges (Q. 12, 3.27 in Table 2) and that of language learning (Q.11, 3.23 in Table 2) top the other mean scores in the pre-activity questionnaire; furthermore, their attitudes towards using the videoconferencing technology for language learning are on the positive side with a mean score of 2.37 for the premature statement (Q. 15 in Table 2). The participants' pre-session attitudes towards video conferences or their expectations of what the technology would bring forth in their learning correspond to the findings of some previous studies (motivation in McAndrew et al., 1996; intercultural understanding in O'Dowd, 2003); in other words, a sense of novelty is evidenced.

As O'Dowd (2003) points out, classroom teachers need to take care of the problems before and during the videoconferencing sessions, namely, sound delay, differences in face-to-face communication, the effects of distance, passive viewing, and practicalities. However, the problems encountered in the present study were uncontrollable on the participants' side. The other class' not being well prepared, their unenthusiastic presentations, and their not being able to show up on time for their presentations contradicted the participants' expectations and dampened their spirits. The situation was further worsened by the constant image/sound signal break-ups

Table 3
Results of Post-Activity Written Feedback

Positive	<i>f</i>	%
The videoconferencing experience was new and interesting.	17	51.52%
The preparations for the videoconference improved my speaking skills, in particular, presentation skills, and my writing skills from peers' and the teacher's feedback.	15	45.45%
The videoconference was rich in cultural exchanges, which broadened my horizon and helped me understand others' English.	14	42.43%
Because of the preparations for the videoconference, I know and learn more about my university.	10	30.30%
Teamwork was the key. Every member had his or her contributions to our presentation. We had a sense of achievement.	8	24.24%
Negative	<i>f</i>	%
The other class was not well prepared.	17	51.52%
Their machines caused many problems.	9	27.27%
The other class was not enthusiastic about their presentations.	8	24.24%
The other class was not on time for their presentations.	4	12.12%
The other class' English was not easy to comprehend.	4	12.12%
The videoconferencing sessions should have taken place earlier than scheduled.	4	12.12%
Time was not long enough for further interaction.	4	12.12%
It was a pity that I couldn't learn other members' lessons because of the job assignments.	2	6.06%
The topics should not have been limited to our campus. More topics related to our cultures could be included.	1	3.03%

Note. $N = 33$.

during the videoconferencing sessions. All these add up to the sharp drops in the mean scores of the top two items in the pre-activity questionnaire, cultural exchanges (Q. 12, 3.23 and 2.70 for pre and post session questionnaires respectively), and language learning (Q. 11, 3.27 and 2.87 for pre and post session questionnaires respectively), which in turn contribute a significant difference to the categorical comparison of part IV, videoconferencing and the course. The participants' agreement with the prematurely of using the technology in language classes is understandably strengthened (Q. 15, 2.37 and 3.20 for pre and post session questionnaires respectively), resulting from the participants' disappointment with the sessions and frustration with the technology.

The disappointment and the frustration are also exemplified in the following two interview transcripts: first, the partners' lack of punctuality; second, the technical problems. Student C (3)² stated: *"I thought Japanese people were punctual, but when the videoconferencing began, I saw there were only one teacher and one technician on the other side. I was surprised."* And, Student E (5) said: *"I thought Japanese people were efficient but their machine seemed to fail to transmit their voice and their images most of the time. That was not Japanese style to me."*

The participants not only had expectations of the videoconferencing activity but also exhibited some stereotypes of their partners, for example, being punctual for meetings and being efficient in using technology. The deconstruction of such stereotypes as punctuality and efficiency causes their sense of disappointment and

² The transcriptions are all followed by the student identifications with the group numbers in parentheses. In this case, Student C belongs to the third group in the videoconferencing activity.

frustration after the videoconferencing sessions. The deconstruction of Japanese stereotypes among the participants in the present study gives a counterexample.

On the whole, the analyses of the results of the attitude questionnaire, the written feedback, and the interviews show that the participants developed positive attitudes towards the videoconferencing activity. The participants' novel experiences in collaboratively preparing and presenting their university lives to their Japanese partners enhanced their oral skills and increased their knowledge about both Japanese cultures and home cultures. It is their partners' imbalanced efforts made in the videoconferencing activity that disappointed the participants and formed their negative feedback.

Improved Language Skills

Other issues may be crucial; language improvements remain the participants' major concern. As shown in Tables 2 and 3, the participants' perceptions of linguistic improvements are found in their speaking, reading, and writing. In each stage of preparing for the video conferences, the participants gained some knowledge about the English language, during the preparation as a whole and the rehearsal in particular. Collaboration occurred in the class and the help came from the group members and the teacher:

I made great efforts to present the material as fluently as possible to my Japanese audience on the other side. In the preparation, the feedback from my group members and our teacher helped me learn the presentation skills and I felt confident with looking into the camera. (Student F [6])

Moreover, they learned not only the answers to their questions but also ways to solve their language problems.

The preparation for the videoconferencing session helped us very much in terms of how to solve the problems that we had in learning English. With the strategy learned, I think I can keep learning the language without a language course. (Student K [5])

In the process of preparing for the presentations in the video conferences, the collaborative atmosphere and the experiences in problem-solving appear to be the two major sources of the participants' linguistic development.

Other than their appreciation of the preparation, in general, the participants found the in-class rehearsal helpful in several aspects. Linguistic improvements, again, become obvious in their perceptions. Both Student H (2) and Student L (6) agreed: we have improved our presentations in terms of word choice from the rehearsal; if we hadn't done that, we would have lost face in the videoconferencing session.

Their anxiety in the face-to-face online conference was reduced because of their linguistic confidence. The confidence with the presentations, gained directly from the rehearsal, allowed the participants to focus their efforts on the messages delivered by the other class and to make the comparisons between the two class' performance.

The rehearsal helped our class deliver the content with confidence. With that, I could appreciate the presentations delivered from the other side. I wouldn't have been able to pay attention to the other class' presentations if the videoconferencing session was the first time for our presentations. I would have paid all attention to my own presentation. (Student I [3])

Because we had rehearsed the presentations once in class, we felt confident with our presentations in the videoconferencing session. Comparatively the other class was not prepared for their presentations. ... It could be much improved after the two classes had met once online. (Student G [1])

The rehearsal before the videoconferencing sessions facilitated the participants' linguistic development; with the linguistic improvements, they gained confidence in their presentations, which in turn enabled them to appreciate the others' presentations in the videoconferencing sessions.

Also, during the videoconferencing session, I had to adjust myself to understand their English, which is good for me. When we travel around the world, we will meet people from different parts of the world and they speak different Englishes. (Student E [5])

The linguistic improvements are perceived in the preparation, rehearsal, and videoconferences. Reading for specific information of their home cultures, writing with their partners in mind, and delivering the prepared materials to the other class helped the participants in choosing the right words and in presenting the proper contents. The gains in accuracy and fluency for themselves and the class win them confidence in the presentations. The videoconferencing activity offers ample opportunities to improve the participants' language skills, both productive and perceptive.

Increased Cultural Understanding

Joining the videoconferencing activity, the participants were expected to learn more about the other class' cultures (Q. 2 in Table 2).

However, from the results of the questionnaire as well as their written feedback, the unexpected achievements were the participants' learning of their home cultures; specifically, the home cultures refer to their university lives (in Table 3) and the campus festivals receive the most attention from the participants (Q. 7 in Table 2).

The majority of the participants thought they knew much about their own university before the videoconferencing preparations began. The lack of factual knowledge about their university, together with that of their linguistic skills, encouraged them to dig out related information for the presentations in the video conferences.

I learned much about our campus in English in preparing the presentations and in our classmates' presentations. There were many things that I took for granted but when it comes to introducing to people off-campus, it is a different story. I simply had to study and learn. (Student A [1] & Student B [2])

In terms of cultural exchange, it is a great experience for our university students because we can use English to introduce our own cultures to other people in the world. To be honest, I learned quite a lot about our home culture when preparing for the presentation in the videoconferencing session. (Student I [3])

The specific topics that the participants learned, such as the history of the university and the local and exotic cuisines in the night market, increased their factual knowledge as well as opportunities to apply this knowledge to their real social lives.

Not only did I pick up the translation of what we were assigned to present in the videoconferencing session, but I also learned more about the history of our university, the history of the Japanese Colonial Rule in Taiwan, the Nationalist Retreat to Taiwan, and the diverse nature in our culture. (Student D [4])

Besides learning the part that we were assigned to present, I was surprised to find out that there is much that I am unaware of in our campus. Even though the topics that our class presented were kind of trivial, they were surely eye-catching and would make a good impression on others. I learned much about local cuisines from our class and I now know how to introduce them to my international friends. I feel proud of our class' presentations. (Student E [5])

I learned quite a lot about the exotic cuisines that can be found in the night market near our university. That was really exciting. Not only did I learn how to introduce them in English, but also had a better understanding of the night lives on campus, which encourages me to enjoy them. (Student F [6])

As for learning about their Japanese counterparts, the participants noticed cultural differences from what they perceived before.

I also had a different idea about the Japanese people before the videoconferencing session. But, I think they're quite relaxed in the videoconferencing session. Their appearances and facial expressions are not as reserved as what I thought they should be. (Student A [1])

The deconstruction of Japanese stereotypes broadened their minds to accept what was presented in the video conferences. To learn anything new, for one modest student, was of value both before and during the video conferences:

Even though their machine kept malfunctioning and their Internet facilities kept breaking our communication during the videoconferencing session, I would think the whole learning process is worthwhile as long as I have learned something new either in the rehearsal or in the videoconferencing session. (Student J [4])

In the cultural aspect of the videoconferencing activity, little of the partners' cultures was mentioned due to the problems discussed before. The participants, however, have increased their knowledge about their home cultures when asked to introduce their lives as students to their partners in the video conferences. Their explorative study of the thought-to-be-familiar subjects turned out to be meaningful and productive. The learning and re-learning of the home cultures gave the participants another perspective of looking at the people, architectures, and objects that surround them.

CONCLUSIONS AND IMPLICATIONS

Videoconferencing technology has brought face-to-face communications into language classrooms; its implementation, however, requires that much attention be paid to in many areas. In the present study, the participants have given positive feedback for the videoconferencing activity, from which they have perceived their improvements in learning the English language and in knowing the home cultures. In the process of the preparations, the participants have benefited much from the in-class rehearsal because, with their peers' and the instructor's collaborations, it reduced their anxiety and helped them gain confidence in the later presentations online. It was their partners' performances and the mechanical break-up's in the video conferences that changed their attitudes towards the technology, including major disappointments with and decreased interest in cultural exchanges, not to mention intercultural understanding.

The collaborations were not perceived between the participants and their partners but among the participants in class (Beatty, 2003). With the common goal of introducing their home cultures, the participants worked together to find the solutions to their linguistic problems and to present their contents with visual aids. Furthermore, no evidence of intercultural understanding was shown in the video conferences but the understanding of the participants' own home cultures was deepened in the process of preparation. For most participants, gaining some factual knowledge about their home cultures is far from enough to introduce an aspect of these cultures to their partners. It requires examination of the related literature (historical heritage), confirmation with the school authority (university history), interviews with the vendors (restaurants and food stalls in the night market), and the like. The videoconferencing activity is, in fact, a collaborative work of the participants and the community.

To blunt negative feedback from the participants, several steps need to be ensured. A more elementary problem than those mentioned by O'Dowd (2003) is the fluency of the video conferences. Any failure of the image and sound transmission will greatly influence the quality of the video conferences. In most cases, a language teacher works with a technician in a video conference, and so did the two instructors in the present study. It was a pity that the fluency of the video conferences in the present study was not achieved even though a pre-session video conference was held.

The other major flaw in the present study, the partners' lukewarm participation, can only be rectified by constant checks between the

two instructors and between the two classes. A simple, report-like email message, as done in the present study between the two instructors, can not guarantee the success of the online presentations. Furthermore, once a similar outcome occurs, the instructor needs to lead a discussion immediately after the videoconferencing session so that the participants are able to still reflect on the positive side of the activity.

Finally, more videoconferencing sessions are suggested so that intercultural understanding can be observed. Because of the popularity of the videoconferencing facility on both campuses, the two classes were not able to reserve more sessions than two, which allowed each participant to attend only once in the whole activity. For the participants in the present study to appreciate cultural exchanges and to increase intercultural understanding, three videoconferencing sessions are essential. To research into the area of intercultural communicative competence between two NNS groups of EFL students, more data need to be collected.

ACKNOWLEDGEMENTS

I would like to thank the anonymous reviewers for their insightful comments and the copy editor for the suggestions. The students, participating in the video-conferencing activities, and Ms. Lily Wang, the then-assistant, deserve special thanks.

REFERENCES

- Beatty, K. (2003). *Teaching and researching computer-assisted language learning*. London: Longman.
- Belz, J. A. (2003). Linguistic perspectives on the development of intercultural competence in telecollaboration. *Language Learning & Technology*, 7 (2), 68-117. Retrieved July 30, 2005, from <http://llt.msu.edu/vol7num2/belz/>
- Butler, M., & Fawkes, S. (1999). Videoconferencing for language learners. *Language Learning Journal. Journal of the Association for Language Learning*, 19, 46-49.
- Chun, D., & Plass, J. (2000). Networked multimedia environments for second language acquisition. In M. Warschauer & R. Kern (Eds.), *Network-based language teaching: Concepts and practice* (pp. 151-170). Cambridge, U.K.: Cambridge University Press.
- Lee, L. (2004). Learners' perspectives on networked collaborative interaction with native speakers of Spanish in the U.S. *Language Learning & Technology*, 8 (1), 83-100. Retrieved July 30, 2005, from <http://llt.msu.edu/vol8num1/lee/>
- Levy, M. (1997). *CALL: Context and conceptualization*. Oxford, U.K.: Oxford University Press.
- Mason, R. (1994). *Using communications media in open and flexible learning*. London: Kogan Page Limited.
- McAndrew, P., Foubister, S. P., & Mayes T. (1996). Videoconferencing in a language learning application. *Interacting With Computers*, 8 (2), 207-217. Retrieved July 30, 2005, from <http://apu.gcal.ac.uk/clti/papers/iwc.html>
- Meskill, C., & Ranglova, K. (2000). Sociocollaborative language

- learning in Bulgaria. In M. Warschauer & R. Kern (Eds.), *Network-based language teaching: Concepts and practice* (pp. 20-40). New York: Cambridge University Press.
- O'Dowd, R. (2004). *Network-based language teaching and the development of intercultural communicative competence*. Unpublished doctoral dissertation, Universität Duisburg-Essen, Standort Essen, Dublin, Ireland.
- Peyton, J. K. (1999). Theory and research: Interaction via computers. In J. Egberg & E. Hanson-Smith (Eds.), *Call environments: Research, practice, and critical issues* (pp. 17-26). Alexandria, Virginia: TESOL.
- Stepp-Greany, J. (2002). Student perceptions on language learning in a technological environment: Implications for the new millennium. *Language Learning & Technology*, 6 (1), 165-180. Retrieved July 30, 2005, from http://llt.msu.edu/vol6num1/STEP_PGREANY/
- Wang, Y. (2004). Supporting synchronous distance language learning with desktop videoconferencing. *Language Learning & Technology*, 8 (3), 90-121. Retrieved July 30, 2005, from <http://llt.msu.edu/vol8num3/wang/>
- Zähner, C., Fauverge, A., & Wong, J. (2000). Task-based language learning via audiovisual networks: The LEVERAGE project. In M. Warschauer & R. Kern (Eds.), *Network-based language teaching: Concepts and practice* (pp. 186-203). Cambridge, U.K.: Cambridge University Press.

ABOUT THE AUTHOR

Chih-cheng Lin, Ph.D. from the University of Illinois, Urbana-Champaign, is an associate professor in the English Department at National Taiwan Normal University, where he has been teaching English language courses, multimedia and language teaching, and academic writing. His current research interests include computer-assisted language learning and EFL reading and writing.

APPENDIX A

Videoconferencing Attitude Questionnaire

	Strongly Agree	Agree	Disagree	Strongly Disagree
I. Cultural knowledge in general				
1. I have knowledge about our own common cultures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I have knowledge about Japanese common cultures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
II. Preparation/presentations and language skills				
3. The preparation improves my listening skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The preparation improves my speaking skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The preparation improves my reading skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The preparation improves my writing skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
III. Preparation/presentations and home cultures				
7. The preparation helps me learn our campus festivals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. The preparation helps me learn our student activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. The preparation helps me learn our local cuisines.

10. The preparation helps me learn our campus heritage.

IV. Videoconferencing activity and the course

11. The session appeals to language learning.

12. The session enhances cultural exchanges.

13. Including the activity makes our course meaningful.

14. Joining the activity increases my motivation in learning.

V. Videoconferencing in general

15. Videoconferencing is premature for language learning.

APPENDIX B

Syllabus of the Videoconferencing Activity

2005 Freshman English Videoconferencing

Objectives:

- To improve students' communicative skills in English in a videoconference.
- To help students learn how to introduce their culture and to appreciate Japanese culture in English.

Syllabus:

Week 1

Groups and topics

(April 29)

- The class will be divided into six groups, each of which consists of six to seven students.
- Each group will discuss what they will present in the video conference, for example, *campus festivals*, *cheerleading & dance competitions*, *historical heritage*, *our campus*, *domestic* and *exotic cuisines* in the night market.

Week 2

Drafts of scripts and visual aids

(May 6)

- Each group will finish the first draft of its script, which will last five to eight minutes in delivery.
- Each group will prepare its visual aids, for example, a PowerPoint file with photos or movies.

- Week 3 Revisions of scripts and visual aids
(May 13) ● Each group will revise its script according to the instructor's suggestions.
 ● Each group will rehearse its oral presentation with visual aids and will revise according to the members' suggestions.
- Week 4 In-class rehearsals
(May 20) ● Each group will present its speech in class.
 ● Each group will take questions from the class as in the video conference.
 ● The instructor and other groups will comment on the presentation.
- Week 5 Videoconference
(May 25 & ● Before presentation: Each group will show up fifteen
June 1) minutes before the scheduled time and ensure that the visual aids run well.
 ● During presentation: Each presenter will deliver his or her speech clearly with visual aids.
 ● After presentation: Each presenter will answer questions.
 ● Participants will ask questions related to the other class' presentations.
- Week 6 In-class discussion
(June 3) ● Each group will share their opinions of and/or what they have learned from the video conferences.
-

APPENDIX C

Excerpt of the Presentation of Historical Heritage

Hello, I am a freshman in our university. Because our university is famous for its long history, today, I want to introduce you some buildings in our university. First of all, I would like to introduce the Auditorium to you. Auditorium is one of the landmarks in our university and it is near the gymnasium and the building of the Music Department. Compared with other schools' auditoriums, ours is very small and the seating capacity is not very much—500 people will be the maximum. The auditorium was built in 1928, in a Modern-Gothic style, as the Lecture Hall of Taipei High School. In 1993, it underwent renovation in order to meet the needs of various activities. (*See slide below.*) At the backstage of the auditorium hides a strongbox, where the hand-written version of the education beliefs was locked. It had quite an effect on the history of Taiwan education. It was bestowed with the status of antiquity in 1994, meaning any renovation must be approved by our country.

Secondly, I would like to tell about another important building in our university. ...



Auditorium in sunshine

大專生對視訊會議與英語學習的觀感

摘要

本文探討北台灣某大學大一學生對視訊會議的觀感，包括活動前的準備及活動後的回饋。學生們在九三學年下學期參加為期六週的視訊會議活動，含第一到第四週的準備、第五週的會議、以及第六週的討論。資料收集有學生對視訊會議態度量表的前、後測、回饋、及訪談。結果發現學生們在參與視訊會議後，改變了對視訊科技的態度，增進了英語語言的技巧及對文化的理解。語言及文化的學習心得中顯示，學生們對整個活動的準備持正面態度，並認為以英文介紹本國文化最有學習成效。學生們雖然對對方的表現頗感失望，可是也透過這次活動學會欣賞對方的內容、瞭解對方的英文；同時，他們對自己解決語言問題的能力感到滿意，也從介紹本國文化當中增加了信心。

關鍵詞：視訊會議 文化學習 協同學習