the jaltcalljournal

ISSN 1832-4215
Vol. 14, No.1 Pages 61–74

Native English-speaking teachers' perspectives on using videoconferencing in learning English by Taiwanese elementary-school students

Li-Tang Yu
Fu Jen Catholic University, Taiwan (ROC)
cdpsttarng@gmail.co

With the rapid development of computer technology, videoconferencing has been widely applied for social and educational purposes. Issues relevant to the use of videoconferencing in second-language instruction have been raised and researched. However, little attention has been paid to videoconferencing projects implemented outside class for elementary school students, particularly in the EFL context. To fill the gap, the current study aims to contribute to our understanding of the out-of-class videoconferencing language-learning activities for young learners by exploring how 40 native English-speaking teachers perceived out-of-class videoconferencing in learning English by elementary school students in Taiwan. Data consisted of teacher responses to a post-videoconference survey with open-ended questions. Through qualitative, inductive, and interpretive analysis of the data, the study identified three emerging themes: uneven student performance, technical issues, and suggestions for the videoconferencing activity. The study contributes to our understanding of the videoconferencing experience of language teachers and broadens our understanding of implementing videoconference activities. Further research could explore teacher metacompetence (Guichon, 2009) by analyzing videotaped videoconferencing sessions.

Keywords: videoconferencing; teacher perspective; elementary school

Introduction

With the great advancement in technology and Internet bandwidth, synchronous computer-mediated communication (SCMC) has proven to be promising for language

Forum

teaching and learning (Lin, Huang, & Liou, 2013; Sauro, 2011). Videoconferencing, an SCMC application, affords the interaction among learners and/or between learners as well as expert/native speakers from different locations, and to exchange audio, video, and text messages. Interlocutors can achieve authentic communication and have motivating as well as authentic interactions (Guichon, 2010). Language educators and researchers have been interested in incorporating videoconferencing into language education practices.

Applying videoconferencing to second-language learning and teaching

The affordance of videoconferencing in second-language learning and teaching has been acknowledged, where during videoconferencing, second-language learners have opportunities to receive authentic linguistic input, produce output, and receive prompt feedback (Lee, 2007). Additionally, second-language learners can employ a variety of discourse strategies to maintain conversation flow during the videoconference (Wang, 2006). Consequently, what pedagogical benefits second-language learners could gain through videoconferencing tasks have been drawn to the attention of teachers and researchers. A growing number of studies have, particularly, examined to what extent videoconferencing activities affect language learners' linguistic development.

Previous studies identified several benefits of videoconferencing for second-language learning. Firstly, second-language learners can gain more intercultural awareness. Jauregi and Bañados (2008) launched a cross-continent project in which videoconferencing sessions were arranged between university students in Chile and Netherlands. Based on student feedback, Jauregi and Bañados concluded that students in the two institutions developed a pleasant relationship, thus enabling them to further understand each other's cultures. Yang and Chen (2014), 15 Taiwanese seventh graders, who videoconferenced with Pakistani students for storytelling and cross-cultural discussion as one of the learning tasks, reported on gaining more intercultural communicative competence. In addition, videoconferencing tasks could promote collaborative learning and second-language oral communication skills. For example, Lee (2007) used videoconferencing to create a supportive environment for second-language learners. She paired 18 Spanish learners with expert speakers to undertake interactive, information-exchanging tasks, and found that learners actively engaged in language learning and successfully developed their oral skills. Yen, Hou, and Chang (2015) examined the interaction among Taiwanese second-language learners of English by means of asynchronous written discussion and synchronous oral videoconferencing. They demonstrated that learners improved their English speaking and writing skills. Lim and Pyun (2016) established telecollaboration between Korean learners at a university in the United States and their partners at a South Korean college, and reported that the Korean learners positively perceived their progress in speaking and listening skills via videoconferencing. Finally, learners can become more motivated and confident in speaking the target language. Jauregi, De Graaff, Bergh, and Kriz (2012) examined the effect of videoconference interaction between native and non-native speakers on target-language learning motivation. Based on the pre-, during- and post-videoconference survey responses from 36 Czech university students of Dutch, researchers found that the students considered themselves more willing to interact with native speakers, agreeing on the positive impact of videoconferencing on their motivation. Phillips (2010) also supported the value of videoconferencing in promoting learners' affective experience. Phillips kept research journals, and conducted interviews, questionnaires and informal conversations, concluding that British pupils in

the study perceived videoconferencing as helpful for learning French. Specifically, the pupils with lower proficiency levels became more confident in speaking French, and those with higher proficiency levels were highly motivated to engage in videoconferencing sessions with counterparts in French.

The scope of videoconference research goes further to explore various aspects related to second-language instruction. For example, regarding technology issues, researchers undertook the evaluation of videoconferencing-tool functionalities (Guichon & Cohen, 2014; Wang, 2004) and the collaboration with technicians to develop appropriate videoconferencing tools for online language instruction (Guichon, 2010). In addition, the process of videoconferencing activities has been called for more investigations (Codreanu & Celik, 2013; Hampel & Stickler, 2012). Acar (2007) underscored that the design of videoconferencing activities needs to be interaction-oriented. Kozar (2016) analyzed language teachers' behaviors during audioconferencing and videoconferencing lessons qualitatively, and found distinctive differences between the two modes. When videoconferencing, participant teachers waited longer before taking the conversation floor, and their speech overlapped less with their students'. Guichon (2009) further identified three types of skills relevant to online language teaching: socio-affective, pedagogical, and multimedia skills. Therefore, to cope with demanding tasks in real-time online teaching, both language teacher's and learner's training to prepare for such instructional context are essential (Develotte, Guichon, & Vincent, 2010; Guichon, 2010; Heiser, Stickler, & Furnborough, 2013; Levy, Wang, & Chen, 2009; Satar, 2013).

Exploring language teachers' perspectives on videoconferencing projects is crucial in that it offers an opportunity for teachers to reflect on their teaching efforts and preparedness, so that they can adapt their instruction strategies and approaches to meet their learners' needs and interests. Studies analyzing teachers' feedback about videoconferencing for the purpose of language teaching found that it is an incremental process in which language teachers gain pedagogical and technological skills as well as confidence in teaching in the videoconferencing environment. More hands-on practices are needed (Levy et al., 2009).

Several difficulties were recorded. Unexpected technical failures and difficulties in measuring students' comprehension might happen in the videoconferencing process (Guichon, 2009). Furthermore, due to the nature of distant interaction via videoconferencing, limited access to students' actual activity brought a sense of uncertainty that learners were on the same page as the teachers (Guichon, 2010). Finally, according to Pritchard, Hunt, and Barnes (2010), teachers who were involved in the videoconferencing project in a UK primary school acknowledged that videoconferencing activities resulted in an improvement in their students' foreign-language learning. Minor technical difficulties sometimes occurred, but could be solved by technically adept teachers. However, the project design was occasionally considered time-consuming by the teachers.

In reviewing relevant literature on videoconferencing in second-language learning, it is found that videoconferencing in most of the studies was administered in higher-education contexts as a major class activity, as showed in Table 1. Little attention has been paid to videoconferencing projects implemented outside class for elementary school students, particularly in the EFL context. To fill the gap, the current study aims to contribute to our understanding of the out-of-class videoconferencing language-learning activities for young learners by exploring the teachers' experience in online synchronous videoconferencing with EFL elementary-school students in Taiwan.

Table 1. Information about empirical research on videoconferencing in second-language learning

Research	Participants	Major findings
Develotte, Guichon, & Vincent (2010)	Language teachers	Different degrees of using webcams during videoconferencing were identified.
Guichon (2009)	Future language teachers	Types of skills relevant to online language teaching and difficulties during videoconferencing were identified
Guichon (2010)	Future language teachers	Participants' difficulties in videoconferencing and strategies to cope with them were identified.
Heiser, Stickler, & Furnborough (2013)	Trainers to use a conferencing tool	Training sessions and the conferencing tool were considered useful by participants.
Jauregi & Bañados (2008)	University students	Participants developed more cross-cultural awareness.
Jauregi, De Graaff, Bergh, & Kriz (2012)	University students	Participants considered themselves more willing to interact with native speakers, agreeing on the positive impact of videoconferencing on their motivation.
Kozar (2016)	Language teachers and adult learners	Teachers' pedagogical behaviors in audioconferencing and videoconferencing were different.
Lee (2007)	University students	Participants actively engaged in language learning and successfully sharpened their oral skills.
Levy, Wang, & Chen (2009)	Language teachers	An incremental process in which language teachers gain pedagogical and technological skills as well as confidence in teaching in the videoconferencing environment was identified.
Lim & Pyun (2016)	University students	Participants positively perceived their progress in speaking and listening skills via videoconferencing.
Phillips (2010)	Elementary school students	Participants were confident in speaking the target language and motivated to attend videoconferencing sessions.
Pritchard, Hunt, & Barnes (2010)	Language teachers	Participants observed that videoconferencing activities resulted in an improvement in their students' foreign-language learning.
Satar (2013)	Future language teachers	Different types of eye contact during videoconferencing were identified.
Yang & Chen (2014)	Junior high school students	Participants gained more intercultural communicative competence.
Yen, Hou, & Chang (2015)	University students	Participants improved their English speaking and writing skills

The present study

This research explores the viewpoints of native English-speaking teachers on using videoconferencing in teaching English to Taiwanese EFL elementary school students. Rather

than the conventional face-to-face instructional context, teachers would face computer screens to communicate through the internet with students in different places. The one-on-one interaction between teachers and students would be intense and focused. It is interesting and essential to investigate how teachers would view the adoption of videoconferencing in English instruction. This study offered teachers an opportunity to examine their own experiences with using videoconferencing for language teaching, thus helping them to reflect on their own practices. Moreover, teachers' feedback could enable education authorities to improve videoconferencing activities and develop appropriate training programs for teachers.

This study was guided by a key research question: What is the experience of native English-speaking teachers of videoconferencing as a supplementary teaching activity for EFL elementary school students?

Methodology

Overview of the videoconferencing project

The city-wide videoconferencing project was implemented in the spring semester of 2014 by government education authorities in northern Taiwan. The project was rooted in the sociocultural sphere. It views language as a tool that individuals use to socialize with others. Individuals share a task and help each other to perform it in the process of socialization (Vygotsky, 1978). The social interaction boosts learner performance based on the concept of the zone of proximal development that "interaction between an expert and a novice in which the expert eventually transmits an ability to the novice through social interaction" (Donato, 2000, p. 17). Previous second-language studies have demonstrated that group or pair interaction could lead to the emergence of the zone of proximal development (Lee, 2004; Ohta, 1995; Swain & Lapkin, 1998). Through social interaction, L2 learners' active engagement in meaning-making tasks contributes to their L2 competence development.

Aiming to provide elementary school students with more opportunities for interacting with capable target language speakers, the project was administered on Wednesday afternoons because there was no formal class for the students at that time. Students at public elementary schools were welcome to participate in the project. Each student could register once for a 15-minute videoconference. After completing registration, a student would be allocated an account and password for the videoconferencing program, Skype, which is a free and widely used Internet software program with a user-friendly interface, and would log on at an assigned time.

Native English-speaking contractual teachers who were hired by the government served as conversation interlocutors. They were assigned to join a videoconference session on one Wednesday afternoon during the semester. A maximum of eight teachers was assigned to one Wednesday afternoon. They came to the public school responsible for planning English learning affairs for the public schools in the city. During the videoconference, they interacted with students by asking questions relevant to student life. They had full autonomy to decide which topic to discuss with students, depending on the students' English proficiency levels. The primary goal was to create a natural, interactive conversation between teachers and students.

Participants

Forty native English-speaking teachers (21 males and 19 females) teaching at public elementary schools in a city in northern Taiwan were involved as conversation consultants. Among them, fifty percent of the teachers (n = 20) had taught for less than four years in the local English program, 22.5% (n = 9) for less than eight years, and 22.5% (n = 9) for equal to or more than eight years. Two did not provide their years of teaching (5%). All held teaching certificates and were qualified teachers in their home countries. As required by city education policy, each of the native English-speaking teachers taught one 40-minute face-to-face lesson per week to classes in Grades 1 to 6. They co-taught with local teachers in grades one to four, but taught alone in the classes in Grades 5 and 6.

Procedure for videoconferencing sessions

There were seven videoconferencing sessions throughout the semester on Wednesday afternoons. (Elementary-school students do not have formal courses at that time.) Each videoconferencing session was three-hour long. In the first 30 minutes of the session, the teachers were given orientation on videoconferencing. They received guidance on how to use the videoconferencing software program, Skype, and tested its function. They were informed about the purpose of the videoconference and possible conversation topics that they could use. In the following two hours, they contacted registered students at assigned times. They interacted with individual students, for 15 minutes each, by means of questions that were appropriate to the interests and proficiency levels of the students. Each teacher had a maximum of eight students from different elementary schools in one session. On finishing the conversations with the registered students, the teachers filled out a survey of their perspectives on the videoconferencing session. An outline of individual videoconferencing sessions is shown in Table 2.

Table 2. Session stages

Stage	**Task**
Orientation	To learn the purpose of the activity; To familiarize themselves with the videoconferencing tool as well as possible conversation questions.
Videoconferencing	Videoconferencing with individual students.
Wrap-up	To reflect on the activity by completing a survey.

Data collection and analysis

Data collection took place during the 2014 spring semester. The English-speaking teachers completed surveys (see Appendix) on their viewpoints about the videoconferencing activity. Five open-ended questions relating to teacher reflection on and evaluation of the activity, were asked in the survey. Teachers also gave the number of years they had served in the city's public schools.

A qualitative grounded theory (Corbin & Strauss, 2008) was adopted to understand the teachers' experience of the videoconferencing. As asserted by Young (2012), grounded

theory underscores "the meaning of experience for participants" (p.537), allowing researchers to identify, compare, and code patterns and themes from collected data. "Open coding" and "constant comparison" were adopted in data analysis. The procedure of data analysis is shown in Figure 1. The first step was that the researcher and his colleague (who was experienced in teaching English to Taiwanese students) independently read the survey responses. From them, they highlighted key ideas that transformed into draft categories. Then, they reiteratively read the survey responses in order to get a systematic, comprehensive understanding of the teachers' experience. Recurring categories that emerged from the survey responses were identified and classified. Any differences in interpretation of the responses were resolved by discussion. The categories themselves were further analyzed and organized to form main themes of the teachers' videoconferencing experiences. In the interests of data validity, interpretations were submitted to a participating teacher for verification.

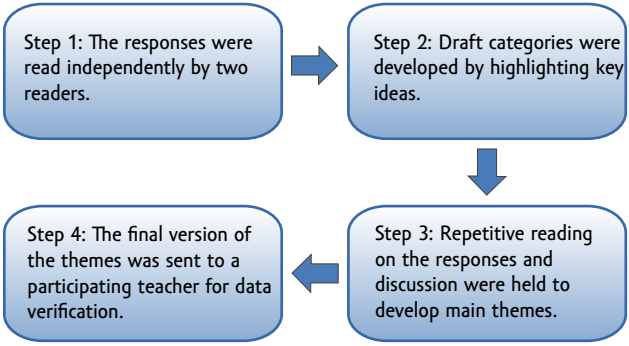

Figure 1. Data-analysis flowchart

Results

The experience of native English-speaking teachers of videoconferencing as a supplementary teaching activity for EFL elementary-school students. The qualitative analysis of data shows that the native English-speaking teachers' videoconferencing experience was the result of the interaction of three themes: student performance, technical aspects, and the videoconferencing activity itself. They are described in turn:

Uneven student performance in the videoconferencing activity due to varying learning commitment, learning attitude, personalities, and the English proficiency levels of students. Teachers encountered four major difficulties with a few students who signed in to participate in the videoconferencing activity. First of all, teachers took the initiative to contact students at the assigned times. Some students, however, did not log on to the videoconferencing software program on time, with the result that the teachers could not reach them. The teachers pointed out:

"The students were not all online when I wanted to contact them."
"Some students were not on schedule."
"Students didn't answer the call."

Secondly, some students were not serious. They participated in the videoconference with little motivation and engagement. A couple of teachers mentioned:

"Students sounded forced to participate in the activity."

"It was difficult to keep student engaged."

Next, student participation in the videoconference was affected by their personalities. Teachers had a difficult time eliciting responses from shy students in the synchronous videoconferencing communication. Two teachers stated:

"Shy students will not want to interact with the speaker, resulting in a somewhat awkward social experience."

"Some students were painfully shy and kept quiet. So hard to make them converse."

Finally, some students' low English abilities posed a big challenge for teachers involved in the videoconferencing. They noted:

"It's difficult for students to express themselves without any help."

"Many students' levels were not good enough to answer simple questions."

"It's hard to have a conversation with student with low proficiency levels."

"Students' low or varied English abilities."

"One of the students is not so good in English. He just kept saying 'I don't know' to all my questions."

"Students with very low proficiency are extremely challenging to talk to."

"Not all students can understand conversation questions! Defeating the purpose, no conversation."

"Some students are unable to sustain a conversation in English."

In summary, teachers reported four factors that led to students' uneven performance in the videoconference. Some of students lacked learning commitment, resulting in their absence from the videoconference. Some were not motivated in the activity, showing casual attitudes during videoconferencing. Some were even too shy to speak up or had low proficiency levels, which impeded their performances.

Technology, a major concern affecting the efficacy of the videoconferencing activity. Although technology facilities at elementary schools in Taiwan have been greatly improved with support from the Ministry of Education since the late 1990s (Ministry of Education Republic of China, 2014; Wen & Shih, 2008), technical issues were still considered a concern in the videoconferencing activity. The limited internet bandwidth that led to slow exchange of video and audio was the subject of complaints from several teachers. They said:

"Computer connection issues (No video, no audio)."

"Difficult to hear the students."

"Some students couldn't hear me clearly! I needed to get close to the computer and the students couldn't see my face. We needed to shout into the computer."

"My internet connection had some difficulties. Also, one of my sessions had audio so low that I had difficulty hearing the student."

In addition, some teachers and students suffered a lack of adequate equipment, such as microphones or cameras, which limited their multimodal communication. Some teachers and students received only audio messages or only video messages. This undermined

the activity. On one hand, the interaction between teachers and students was cut short by the lack of audio messages. On the other, without video information from teachers or students, non-verbal cues were lost. Learners might need to rely more on verbal messages (Kitade, 2000), which might require too much effort from young learners at only beginner-proficiency level.

"It's difficult not being able to see the student I was speaking with. I think not being able to see the students was a weakness. Communication became more difficult. So try to have computers with cameras for the students to use."

"No microphones for students."

"Make sure both parties have working cameras."

"No camera, no non-verbal cues as a support."

Moreover, although the teachers used a videoconferencing software program known for its popularity and user-friendly features, and had received orientation in using this technology, a cry for help was heard from teachers. They stated:

"I need guidance to be able to send visuals (icons, or links to pictures) via the program to facilitate student understanding."

"Not knowing how to use the equipment."

Finally, not all teachers favored the use of the computer. Their concerns were related to the stability of technology. They pointed out:

"Technology is not always reliable."

"Technology is always unreliable and there are many things that can go wrong."

In conclusion, the technical aspect comprised four concerns. Firstly, the internet bandwidth was limited and failed to submit and receive audio and video messages, leading to interaction difficulties. Secondly, the lack of technology facilities, like camera or microphone, turned multimodal communication into mono-modal information exchange. This particularly disadvantaged students with low proficiency levels because body-language clues were unavailable to them. Thirdly, the inadequate digital literacy of teachers prevented them from taking full advantage of videoconferencing affordances. Fourthly, due to its instability, computer technology failed to convince some teachers of its efficacy in language instruction.

More considerations of the different aspects of videoconference-activity design. Native English-speaking teachers as conversation interlocutors in the activity gave a wide range of suggestions. Firstly, the teachers were accommodated in a large, Wifi-equipped conference room, their seating at some distance from each other. As the individual conversations progressed, however, some teachers were disturbed by the sometimes loud conversations taking place on either side of them. They mentioned:

"Too many people in close proximity making the chat noisy."

"With six teachers in a room, it's very difficult to concentrate on your student."

The noise sometimes came from the other end of the conversations. Although the activity required one-on-one conversation, some students did not follow the rule because they and their classmates were too excited about videoconferencing, or they needed support from their peers due to their low proficiency level. When one teacher videoconferenced a student,

there were always more students behind the student, or a local teacher or parent. Some native English-speaking teachers commented:

"Adults in the background coach the students."

"Let only one student speak to teacher at a time!"

"Many of students sat very close to each other talking so it's difficult to hear them."

Furthermore, teachers commented on the length of conversations. The original plan was 15 minutes for each one-on-one conversation. However, some teachers thought 15 minutes was excessive for students who could not understand the teacher. They stated:

"The time limit should be shorter."

"Fifteen minutes can get long if the students don't understand you!"

Another issue raised by teachers was the proficiency level of students. Students had volunteered for the activity. Some of them, however, were not of an adequate proficiency level, as reported by some teachers. Those teachers recommended a proficiency requirement for students. They said:

"Possibly select students with care."

"Make sure the students have a basic level of English."

"Perhaps the level of students' English should be a more intermediate/advanced level."

Finally, from several teachers' viewpoint, instead of passively answering questions, students could be encouraged to ask questions, reaching a mutual, authentic communication. The teachers' comments were:

"Maybe the students can write some questions to ask us, sometimes it felt that the conversation was a bit one-sided."

"Have students tell about themselves instead of just answering questions."

"The students could prepare questions for the teachers also."

In conclusion, teachers pointed out a few problems with the activity itself; for instance, the distracting level of sound from adjacent conversations, or the excessive noise from participating students. The duration of the individual videoconferencing sessions was considered too long for low-proficiency students. Finally, teachers proposed more prior consideration of activity requirements, such as selecting more proficient students for the activity and encouraging them to pose questions, so that the videoconference could be more genuinely an interactive communication between interlocutors.

Discussion and conclusion

This study primarily gave us more understanding about the experience of native English-speaking teachers in videoconferencing outside class with elementary school students in Taiwan. Through the qualitative analysis of teacher feedback on videoconferencing with Taiwanese elementary school students, three themes were identified as follows: student performance, technical aspects, and suggestions for the videoconferencing activity. The results help advance our understanding of language teachers' perceptions on videoconferencing with young EFL learners outside regular English classes. Nevertheless, several limitations should be considered, including the small sample size of teachers and the adoption of surveys as the only data source. Further research should involve a larger population of

participants and use more methods to collect data in order to enhance the generalizability and validity of the results.

This project took the initiative of using videoconferencing for EFL young learners outside of their regular English classes. Its efficacy was acknowledged by the participating teachers, which was consistent with Pritchard et al.'s study (2010).

Several aspects contributed to its success, as demonstrated by previous research. In the current study, based on the responses of participating teachers, their computer literacy and adaption for teaching in such a videoconferencing context affected the efficacy of using technology for language teaching and learning purposes. This is in agreement with Levy and colleagues' study (2009), emphasizing the importance of technical and pedagogical skills in the videoconferencing teaching. The other factor, such as the limited or inadequate access to technology facilities, is often seen in relevant research in the field of computer-assisted language learning (Guichon, 2009). Furthermore, students have an important impact on the teachers' experiences. Although students volunteered to participate in the activity, not all of them were committed to, motivated about, or ready for this learning opportunity. This problem is not foreign to English teachers in Taiwan. As scholars suggested, Taiwanese young learners' low motivation for or little interest in learning English might involve a variety of issues, such as irrelevance to students' life (Ho, 1998), their failure to meet parental expectations and insufficient proficiency levels (Su, 2006), rigid form-focused instruction in class (Wang, 2002), and language education policy (Chen, 2013). It is worthy of more attention from education authorities, teachers and parents, in order to examine the situation and guide young learners to develop appropriate learning attitudes. When videoconferencing with young learners, teachers may expect to encounter students' passive performance and need to develop approaches to inspire students in English learning. Finally, echoing with Acar (2007), the participating teachers emphasized the importance of teaching design and provided suggestions about the videoconference planning that could elicit more discussion about the goal of the activity, the target student population, and ampler preparation of the activity. Thus, teachers would be more motivated to continue supporting the activity and students could benefit more from the activity.

These findings convey the videoconference experience of the participating teachers to other language teachers and administrators who are interested in implementing such activities in second-language learning outside class (particularly in the EFL context). To take maximum advantage of videoconferencing affordances, it is important to design a well-rounded activity and training program so that teachers as conversation consultants can develop their technical and pedagogical skills and exploit teaching potential fully, in order to support students' learning of English. Student preparedness for such a learning opportunity is also crucial (Heiser et al., 2013). In future studies, researchers could videotape the videoconference and conduct content-analysis of it. Teachers could critically review their videoconferencing teaching and develop metacompetence, which is defined as "the conscious knowledge of and about teaching practice" (Guichon, 2009, p. 171). By doing so, more detailed information could shed light on teacher behavior in videoconferencing and teacher reflection on it.

References

Acar, A. (2007). Teaching languages from a distance through multipoint videoconferencing. *Foreign Language Annals*, *40*(2), 311–319.

Chen, A. H. (2013). An evaluation on primary English education in Taiwan: From the perspective of language policy. *English Language Teaching*, *6*(10), 158–165.
Codreanu, T., & Celik, C. C. (2013). Effects of webcams on multimodal interactive learning. *ReCALL*, *25*(1), 30–47.
Corbin, J., & Strauss, A. (2008). Basics of qualitative research: Techniques to developing grounded theory (3rd Ed.). Los Angeles, CA: Sage.
Develotte, C., Guichon, N., & Vincent, C. (2010). The use of the webcam for teaching a foreign language in a desktop videoconferencing environment. *ReCALL*, *22*(3), 293–312.
Donato, R. (2000). Sociocultural contributions to understanding the foreign and second language classroom. In J. P. Lantolf (Ed.). *Sociocultural theory and second language learning* (pp. 27–50). Oxford: Oxford University Press.
Guichon, N. (2009). Training future language teachers to develop online tutors' competence through reflective analysis. *ReCALL*, *21*(2), 166–185.
Guichon, N. (2010). Preparatory study for the design of a desktop videoconferencing platform for synchronous language teaching. *Computer Assisted Language Learning*, *23*(2), 169–182.
Guichon, N., & Cohen, C. (2014). The impact of the webcam on an online L2 interaction. *Canadian Modern Language Review*, *70*(3), 331–354.
Hampel, R., & Stickler, U. (2012). The use of videoconferencing to support multimodal interaction in an online language classroom. *ReCALL*, *24*(2), 116–137.
Heiser, S. L., Stickler, U., & Furnborough, C. (2013). Ready, steady, speak-online: Student training in the use of an online synchronous conferencing tool. *CALICO Journal*, *30*(2), 226–251.
Ho, M. C. (1998). Culture studies and motivation in foreign and second language learning in Taiwan. *Language Culture and Curriculum*, *11*(2), 165–182.
Jauregi, K., & Bañados, E. (2008). Virtual interaction through video-web communication: A step towards enriching and internationalizing language learning programs. *ReCALL*, *20*(2), 183–207.
Jauregi, K., de Graaff, R., van den Bergh, H., & Kriz, M. (2012). Native/non-native speaker interactions through video-web communication: A clue for enhancing motivation?. *Computer Assisted Language Learning*, *25*(1), 1–19.
Kitade, K. (2000). L2 Learners' discourse and SLA theories in CMC: Collaborative interaction in Internet chat. *Computer Assisted Language Learning, 13*(2), 143–166.
Kozar, O. (2016). Teachers' reaction to silence and teachers' wait time in video and audioconferencing English lessons: Do webcams make a difference?. *System*, *62*, 53–62.
Lee, L. (2004). Learners' perspectives on networked collaborative interaction with native speakers of Spanish in the US. *Language Learning & Technology*, *8*(1), 83–100. Retrieved from http://llt.msu.edu/vol8num1/pdf/lee.pdf
Lee, L. (2007). Fostering second language oral communication through constructivist interaction in desktop videoconferencing. *Foreign Language Annals*, *40*(4), 635–649.
Levy, M., Wang, Y., & Chen, N. S. (2009). Developing the skills and techniques for online language teaching: a focus on the process. *International Journal of Innovation in Language Learning and Teaching*, *3*(1), 17–34.
Lim, B. J., & Pyun, D. O. (2016). Korean foreign language learning: Videoconferencing with native speakers. In **C. Wang & L. Winstead** (Eds.) *Handbook of Research on Foreign Language Education in the Digital Age* (pp. 253–276). Hershey, PA: IGI Global.

Lin, W.-C., Huang, H. -T., & Liou, H.-C. (2013). The effects of text-based SCMC on SLA: A meta-analysis. *Language Learning & Technology, 17*(2), 123–142. Retrieved from http://llt.msu.edu/issues/june2013/linetal.pdf

Ministry of Education Republic of China (2014). *Educational administration vision and policies*. Retrieved from http://www.edu.tw/userfiles/url/20140401165005/%E6%95%99%E8%82%B2%E6%96%BD%E6%94%BF%E7%90%86%E5%BF%B5%E8%88%87%E6%94%BF%E7%AD%96.pdf

Ohta, A. S. (1995). Applying sociocultural theory to an analysis of learner discourse: Learner-learner collaborative interaction in the zone of proximal development. *Issues in Applied Linguistics*, *6*(2), 93–121.

Phillips, M. (2010). The perceived value of videoconferencing with primary pupils learning to speak a modern language. *Language Learning Journal*, *38*(2), 221–238.

Pritchard, A., Hunt, M., & Barnes, A. (2010). Case study investigation of a videoconferencing experiment in primary schools, teaching modern foreign languages. *Language Learning Journal*, *38*(2), 209–220.

Satar, H. M. (2013). Multimodal language learner interactions via desktop videoconferencing within a framework of social presence: Gaze. *ReCALL*, *25*(1), 122–142.

Sauro, S. (2011). SCMC for SLA: A research synthesis. *CALICO Journal, 28*(2), 369–391.

Su, Y. C. (2006). EFL teachers' perceptions of English language policy at the elementary level in Taiwan. *Educational Studies*, *32*(3), 265–283.

Swain, M., & Lapkin, S. (1998). Interaction and second language learning: Two adolescent French immersion students working together. *Modern Language Journal, 82*(3), 320–337

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Wang, C. (2002) Innovating teaching in foreign language contexts: The case of Taiwan, in S. J. Savignon (Ed.) *Interpreting communicative language teaching* (pp. 41–81). New Haven, CT: Yale University Press.

Wang, Y. (2004). Supporting synchronous distance language learning with desktop videoconferencing. *Language Learning & Technology*, *8*(3), 90–121. Retrieved from http://llt.msu.edu/vol8num3/pdf/wang.pdf

Wang, Y. (2006). Negotiation of meaning in desktop videoconferencing-supported distance language learning. *ReCALL*, *18*(1), 122–146.

Wen, J. R., & Shih, W. L. (2008). Exploring the information literacy competence standards for elementary and high school teachers. *Computers & Education*, *50*(3), 787–806.

Yang, S., & Chen, J. (2014). Fostering foreign language learning through technology enhanced intercultural projects. *Language Learning and Technology*, *18*(1), 57–75. Retrieved from http://llt.msu.edu/issues/february2014/yangchen.pdf

Yen, Y. C., Hou, H. T., & Chang, K. E. (2015). Applying role-playing strategy to enhance learners' writing and speaking skills in EFL courses using Facebook and Skype as learning tools: A case study in Taiwan. *Computer Assisted Language Learning, 28*(5), 383–406.

Young, R. (2012). Qualitative research. In P. Robinson (Ed.), *The Routledge encyclopedia of second language acquisition* (pp. 536–539). New York, NY: Routledge.

Author biodata

Li-Tang Yu is Assistant Professor at the English Department of the Fu-Jen Catholic University in Taiwan. His research interests include teaching English to speakers of other languages (TESOL), computer-assisted language learning, and language teacher education.

Appendix

Viewpoints on the videoconferencing activity

Dear Teacher,

Thank you very much for joining the videoconferencing activity and giving our students more learning opportunities on Wednesday afternoon. Please share your opinion of the activity by answering the following questions. Your feedback will make the activity better in the future.

Name: _____

How many years have you served in the teaching program: _____

1. What difficulties did you encounter in the activity?
2. How do you feel about the activity?
3. What is the advantage/strength of the activity?
4. What is the disadvantage/weakness of the activity?
5. What are your suggestions for the activity?