The effects of video SCMC on English proficiency, speaking performance and willingness to communicate

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Abstract. This paper introduces a case course with videoconferencing as a way of Synchronous Computer Mediated Communication (SCMC) for foreign language education in Japan. Research questions were to see the effects of videoconferencing on the learners' speaking ability and general English language proficiency, and also to see how the learners' international posture changed over time. Eight pairs of Japanese university English as a Foreign Language (EFL) learners experienced two semesters of 9-10 videoconferencing sessions per semester with an English teacher living in the Philippines. The task for the pairs was to discuss a social issue together with the teacher once a week. Their goal was to exchange mutual ideas on the designated topic. To lower the anxiety of speaking English as well as to practice discussion with fellow Japanese students, there was a 90-minute preparation period prior to each videoconferencing session. Pre-tests and post-tests results showed significant improvement in fluency, particularly in the amount of speech, and complexity of their speaking abilities. The learners also demonstrated progress in English proficiency. Their international posture stayed at a high level, but did not change much. However, their increased interest in working or participating in volunteer activities overseas was observed. The results indicated that the instruction based on videoconferencing helped improve learners' language and their global mind as a part of international posture.

Keywords: EFL learners, videoconferencing, speaking, international posture.

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1. Introduction

Videoconferencing, an oral and visual mode of SCMC, seems to provide one of the solutions to EFL learners who have less opportunities to use L2 orally for communication. It has been found that such opportunities that include eye-contact, gestures, and taking turns in L2 enhances positive attitudes and motivation to learn L2 (Jauregi, de Graaff, van den Bergh, & Kriz, 2012; Yanguas, 2012). Negotiation of meaning, including clarification requests, modified output and corrective feedback for example, is expected to occur during videoconferencing, which leads to the learners' focus on form and eventually brings about their interlanguage development. Yet, these effects have been mainly based on the modes of text chat and oral SCMC.

It is rare to find research on the effects of audio/video CMC on the development of speaking skills (Wang, 2006) and Willingness To Communication (WTC, Yanguas & Flores, 2014). Thus, we decided to provide the learners videoconferencing experience through Skype with native English speakers regularly during a semester in order to see how their output skill in speaking, input skill proficiency and international posture changed. We particularly focused on international posture in this study, which is claimed to be strongly related to WTC (Yashima, 2002). This psychological concept is defined as the learner's attitude of openness to different cultures, which is indicated, for example, by the willingness to go abroad, readiness to communicate with native speakers, and this in turn is claimed to affect the learner's communication behavior. In order to find the effects of the videoconferencing, we set the following questions:

- What are the effects of videoconferencing on the learners' output in speaking?
- What are the effects of videoconferencing on the learners' input skill proficiency?
- How does the learners' international posture change over time through videoconferencing?

2. Method

2.1. Participants

Sixteen sophomore and junior students at a university in Japan received instruction including videoconferencing for one year. They consisted of 10 males and 6

females. These students had learned English for six years at the secondary level and one year at the university level. The proficiency level of English measured by TOEIC test with listening and reading sections was 539.1 points (*SD*=165.1), which is a little beyond all the test takers' average in Japan (*M*=512 points, *SD*=181), according to the Educational Testing Service (2014).

All the participants agreed to the use of their data for this research.

2.2. Instruction: task-based videoconferencing

The goal of the course was to enhance the ability of using English and to practice cross cultural communication. The classes were held every Tuesday, and the videoconferencing was held at the designated time on the following days in the same week. Eight pairs of learners interacted with an English teacher in the Philippines through Skype once a week and did a role play. The goal for the students in the role play was to persuade the teacher to support their position on a particular issue. For example, one learner took the role of promoting casinos in a small town, the other took the role of stopping it, and the teacher played the role of the mayor of the town. At the end of the task, the teacher, as mayor, judged which side won. Such sessions were held 9 times in the spring semester, and 10 times in the fall semester.

For the task-based videoconferencing to be successful, reading material featuring pros and cons of social issues were assigned to comprehend beforehand. The preparation class on Tuesdays was constructed with the following activities as pre-tasks:

- Step 1. Discussion between learners on an issue.
- Step 2. Sharing expressions that they wanted to say but could not say in the previous step. The learners used L1 and the Japanese teacher of English helped find the proper expressions in English.
- Step3. Presentations on the issue of the week given by three designated pairs and other learners take notes of key concepts.
- Step 4. Practice a role play task in a group of three in which each learner takes one of the three roles: an advantage or positive side, a disadvantage or negative side, and a decision maker.
- Step 5. Role play through videoconferencing with an English teacher in the Philippines who plays the role of a decision maker.

- Step 6. Consolidating essay writing about the videoconferencing discussion with 150 words as an assignment for the next week's class.

2.3. Measurement

To measure speaking skill, a picture narration task was adopted. The learners were required to tell a story from three serial pictures. They took the test at the beginning and at the end of the academic year. The spoken data was recorded and analyzed from the perspectives of complexity, accuracy, and fluency.

To measure overall English proficiency, a TOEIC mock test was conducted at the beginning and the end of the year. The test consisted of 50 points for listening comprehension, and 50 points for vocabulary, grammar, and reading comprehension.

To measure WTC and international posture, a questionnaire based on Yashima (2002) was conducted at the beginning, the middle, and the end of the academic year. Six componential concepts were branched into 32 questions.

3. Results and discussion

Table 1 shows the descriptive statistics of the spoken data analyses. Wilcoxon's sign rank test was adopted for nonparametric statistical analyses due to the limited number of participants.

Regarding fluency, progress was observed in most of the criteria (picture description point, duration of speech, number of words, holistic evaluation) except for Words Per Minute (WPM). In the results of complexity, the number of words per sentence showed positive and statistically significant differences. The repetition of the same task could explain this progress.

Regarding accuracy, no significant difference was found. This could have resulted from a 'trade off effect' between fluency and accuracy (Skehan, 1996). Another factor could be the absence of explicit focus on form instructions.

Regarding the differences in English proficiency, significant positive increase of the mean scores were observed (see Table 2).

Regarding the change in WTC and international posture, the positive change was observed in the group's interest in international vocation or activities. More learners seemed interested in working in a global workplace compared to the pre survey. It

could be said that a long-term instruction targeted for videoconferencing fosters a global mind. In other componential concepts, no significant difference was found among the three times of data collection (the beginning, the middle, and the end of the academic year). One possible reason is the fact that the learners demonstrated a fairly positive attitude from the beginning of the year and the videoconferencing might have helped maintain their positive attitude.

Table 1. Descriptive statistics of spoken data and the results of Wilcoxon signed-rank test

		M	SD	*Z-value*	*p*-value	Effect Size *r*
Fluency	Pre: Points to describe	2.87	1.3			
	Post: Points to describe	4.07	0.7	-2.88	.004*	.53
	Pre: Number of words	47.53	17.86			
	Post: Number of words	71.2	12.62	-3.30	.001*	.60
	Pre: Duration of speech	51.33	10.22			
	Post: Duration of speech	67.73	10	-2.79	.005*	.51
	Pre: Holistic Evaluation	2.93	0.96			
	Post: Holistic Evaluation	3.67	0.49	-2.60	.009*	.47
	Pre: WPM	57.18	22.88			
	Post: WPM	64.81	17	-1.59	.112	.29
Complexity	Pre: Number of clauses	4.73	2.46			
	Post: Number of clauses	7.2	1.86	-2.29	.022*	.42
	Pre: Number of words/clause	9.83	1.68			
	Post: Number of words/clause	11.12	0.93	-2.44	.015*	.45
Accuracy	Pre: Number of correct verbs	2.27	2.02			
	Post: Number of correct verbs	3.4	1.59	-1.92	.055	.35
	Pre: % of correct verbs	46%	36%			
	Post: % of correct verbs	45%	21%	-0.18	.861	.03

* $p < .05$

Significant differences were found in all items in English proficiency measured by the mock version of the TOEIC test. The scores in pre- and post-tests in listening

and total score were statistically significant at the 1 percent level and showed medium effect size. Those scores in reading were statistically significant at the 5 percent level and showed large effect size.

Table 2. Descriptive statistics of TOEIC mock tests

	M	SD	*Z-value*	*p*-value	Effect Size *r*
Pre: TOEIC LISTENING	33.43	7.97			
Post: TOEIC LISTENING	38.79	5.74	-2.7	.007**	0.49
Pre: TOEIC READING	37.57	7.19			
Post: TOEIC READING	41.14	5.07	-2.58	.010*	0.47
Pre: TOEIC Total	71	14.19			
Post: TOEIC Total	79.93	10.19	-2.9	.004**	0.53

* $p < .05$, ** $p < .01$

4. Conclusion

This research revealed that the effectiveness of videoconferencing was quite evident on speaking skill, overall proficiency, and international posture. The results seem to come from the repetitive and longitudinal involvement with authentic communication through videoconferencing and the impact from the preceding activities. Through the learning cycle, the learners increased their English proficiency and international posture. It was not only the experience of videoconferences, but also the before and after activities that seemed important for the learners' development.

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