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Monitoring Japanese students' anxiety and WTC during two COIL exchanges

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Within Collaborative Online International Learning (COIL) projects, program goals for developing foreign language proficiency and intercultural competence are shaped by logistical constraints and the partner institution. This paper focuses on the experiences of 20 Japanese university students during two exchanges. While the topics and tasks were similar, three distinguishing features between the programs were duration, L2 language proficiency, and languages utilized. Student impressions were examined through quantitative survey data concerning *communication anxiety* and *willingness to communicate in a second language* (L2 WTC) (Yashima, 2002, 2009), as well as a qualitative survey informed by Deardorff's Intercultural Learning Outcomes (2022). The analysis shows that students were satisfied with the program. However, the participants' positive impressions did not translate into significantly less communication anxiety, and furthermore their L2 WTC dropped. In this paper, these rather negative results are discussed in relation to the three above-mentioned program features. Due to the short duration (12 90-minute sessions), it might be unrealistic to expect significant, positive changes. Limited L2 proficiency and the fact that English served as the only shared language in the second program meant that students encountered numerous communication breakdowns. The paper concludes with a discussion of future program revisions to address these shortcomings.

Keywords: Collaborative Online International Learning, communication anxiety, willingness to communicate in a second language

Introduction

Designing and implementing a Collaborative Online International Learning (COIL) project effectively requires a significant investment of time and energy. Within foreign language education, this effort is justified, as COIL exchanges provide students from different countries with unique learning opportunities to develop foreign language proficiency and intercultural competence. Hopefully, this experience positively affects the students' *willingness to communicate in their second language* (L2 WTC). Some students experience anxiety as they interact extensively with people from different cultures and varying levels of foreign language proficiency.

This paper focuses on the experiences of 20 second-year Japanese university students in two COIL projects with students in Canada and Taiwan. Each program was shaped by participant needs as well as logistical constraints. In 2023, the Canadian exchange included both online and in-person sessions (Yabuta et al., 2024). In 2024, the COIL programs were 100% online and shared similar goals. However, they varied in terms of program duration, target language use, and the students' foreign language proficiency. To understand the Japanese students' experiences, quantitative survey data concerning satisfaction, communication anxiety, and L2 WTC (Yashima, 2002; 2009) were analyzed. Quantitative data were interpreted in relation to a qualitative survey based around Deardorff's Intercultural Learning Outcomes (2022). It is beyond the scope of this paper to discuss the qualitative data. Instead, after a brief analysis of the quantitative findings, the Japanese students' scores for anxiety and L2 WTC are discussed in terms of the three factors that distinguish between the two programs.

COIL projects' objectives, participants, and activities

Next, the program objectives, participants, and activities are described.

Program objectives

The objectives were to:

- ▶ develop foreign language communicative competence;
- ▶ develop a willingness to communicate in a foreign language;
- ▶ learn about the culture(s) that students bring to the classroom;
- ▶ raise cultural awareness.

The first two goals are discussed in this paper. The cultural aspects were explored in Yabuta et al. (2025).

Participants and language proficiency

The 20 Japanese university students attended a private university, and the English proficiency of most students was CEFR A2, confirmed through proficiency tests. The 20 Canadian university students studied Japanese at a public university and possessed an intermediate to advanced level of Japanese according to the instructor in Canada. The group included native speakers of English and international students

who were highly proficient in English. Finally, the 20 Taiwanese university students attended a national university and their English proficiency (CEFR A2 - B1) was higher than the Japanese students according to TOEIC scores. They were native speakers of Mandarin Chinese.

Regardless of country, most participants were new to online exchanges.

Group project: Themes and activities

Japan/Canada COIL. Over four online sessions, students discussed the similarities and differences between university life in Japan and Canada. After preparing questions, students interviewed other participants, analyzed the data, and shared their findings. Japanese students conducted the interviews and presentations in English, and the Canadian students in Japanese. Students prepared and presented separately due to the 16-hour time difference.

Japan/Taiwan COIL. The first four sessions of the Japan/Taiwan COIL project were similar to the Japan/Canada COIL project. It was hoped that task and topic repetition would lower the cognitive burden placed on students. Students needed time to become accustomed to English as spoken by native speakers of Mandarin Chinese and Japanese. In the second half, students discussed and gave a presentation about how technology affected their lives. The groups consisted of two Japanese and two Taiwanese students. The program was conducted in English.

Research methodology

To investigate this program, three research questions (RQs) were set:

1. How satisfied were the students with the COIL programs?
2. How did the students' communication anxiety change during the programs?
3. How did the students' willingness to communicate change during the programs?

To answer these questions, students completed three surveys. A program-specific survey to measure satisfaction was administered after both programs. Surveys concerning communication anxiety and L2 WTC were administered one week prior to a program's start and one week after its completion.

The first survey asked about program satisfaction. Likert-scale items were used to illicit student impressions of the topics, tasks, their difficulty as well as confidence levels. This survey also included open-ended reflection questions concerning Intercultural Learning Outcomes (Deardorff, 2022) to better appreciate what students noticed about interacting with non-native speakers of English and Japanese. Deardorff's questions focused primarily on the intercultural aspect. Therefore, we added one question to explicitly focus our students' attention on the linguistic aspect. In this paper, we can only briefly allude to these findings in the discussion section.

With respect to communication anxiety (RQ2), we used Yashima's (2002) questionnaire. This is a Japanese version of MacIntyre and Charos's (1996) questionnaire, which asks participants to rate their anxiety in relation to 12 items across four

situations (one-on-one, small group, meeting or other gatherings, public speaking) and three types of people (friends, acquaintances, strangers). Respondents were asked to indicate their level of anxiety in relation to 12 items, ranging from 0 (not at all anxious) to 100 (very anxious).

For L2 WTC, we used Yashima's (2009) questionnaire, which measures someone's willingness to engage in communication when given the opportunity. Respondents were asked to indicate their WTC in relation to nine situations on a 5-point Likert scale, ranging from "I really want to speak English" (in this situation) to "I never think I will speak English" (in this situation).

It is important to note that the questionnaires concerning communication anxiety and L2 WTC are general measures that were not specifically designed with COIL projects or online interactions in mind. The WTC survey has been used by Yashima and Zenuk-Nishide (2008, as cited in Yashima, 2009) to compare different cohorts of students, and they found that studying abroad and studying content-based courses in Japan had a positive effect on WTC in a two-and-half-year study. So, while we did hope to see positive changes after 12 online sessions over the course of the year, we recognized that our COIL project might have less of an impact on our students' WTC than those reported in Yashima (2009).

Findings

Here, the quantitative data for each research question is examined.

Research question 1: Program satisfaction

Most students were satisfied or very satisfied with the Canada (95%) and Taiwan (90%) programs, with an average score of 4.3 and 4.1 respectively on a 5-point Likert scale. With respect to the Taiwan program, most students found the topics interesting (Q6: $M = 3.95$), as well as manageable (Q7: $M = 4.14$). While students felt they could successfully complete the tasks (Q9: $M = 4.29$), they did not report having confidence (or a lack thereof) in their speaking ability (Q9: $M = 3.0$). Fortunately, a majority of students (71%) said they would like to participate in future COIL programs (Q10: $M = 4.0$).

Research question 2: Communication anxiety

We hypothesized that anxiety would decrease within individual programs and over the year. We anticipated that students would not experience much anxiety during the Canada- Japan program. Even though this was the students' first COIL experience, they could interact in Japanese and English. With respect to the Taiwan program, students would experience more anxiety as English was the only medium of interaction, but we hoped this would be mitigated by the fact that the same topic and tasks were utilized in the first four sessions.

While anxiety did decrease, the results were not statistically significant (see Table 1). Paired-samples t -tests indicated that the reduction in communication anxiety during the Canada COIL program was not statistically significant, $t(17) = 1.86$, $p = .081$;

however, the effect size was small to moderate (Cohen's $d = 0.44$). Similarly, no significant change in anxiety was observed during the Taiwan program, $t(19) = 0.29$, $p = .773$, with a small effect size (Cohen's $d = 0.07$). Interestingly, at the start of the Taiwan program, students reported being less anxious, a score similar to those reported at the end of the Canada program. However, their reported anxiety did not decrease further.

Table 1. Japanese students' anxiety scores

	Pre average	SD	Post average	SD	Difference
Canada ($n = 18$)	48.80	23.21	41.28	16.28	-7.52
Taiwan ($n = 20$)	39.20	21.08	38.06	17.70	-1.14

Research question 3: L2 Willingness to communicate

Before the COIL project, most students had not been overseas and had not interacted extensively in English with people from other countries. We hoped that our students would find these COIL programs engaging, which in turn would result in higher WTC scores. We hypothesized that the students' willingness to communicate would increase during individual programs and over the year. However, paired-samples t -tests revealed a statistically significant decrease in L2 willingness to communicate during both COIL programs. For the Canada program, WTC scores decreased significantly from pre- to post-test, $t(17) = 2.48$, $p = .024$, with a moderate effect size (Cohen's $d = 0.59$). Similarly, a significant decrease in WTC was observed during the Taiwan program, $t(19) = 2.35$, $p = .030$, with a moderate effect size (Cohen's $d = 0.53$) (see Table 2).

Table 2. Japanese students' WTC scores

	Pre average	SD	Post average	SD	Difference
Canada ($n = 18$)	3.36	0.90	2.91	0.70	-0.45
Taiwan ($n = 20$)	3.45	0.83	2.94	0.83	-0.51

Discussion & conclusion

While a majority of the students were satisfied with both programs, the students' communication anxiety did not decrease as much as expected. More surprisingly, the students' L2 WTC dropped. The results for anxiety and WTC must be interpreted with caution, however. The instruments measured general tendencies that did not directly reflect the students' COIL experiences. Students reported being satisfied and interested in participating in future COIL projects, but this did not carry over to the situations presented in the surveys.

The factors that distinguished between the programs (i.e., duration, languages utilized, and language proficiency) can help us understand the results. With respect to

duration, perhaps it is unrealistic to expect significant, positive changes after only 12 90-minute sessions. With more time, scores for anxiety and WTC might have changed more favorably. Second, having the option to use Japanese with the Canadian university students may account for the decrease in the Japanese students' anxiety during the first COIL program. The Canadian students spoke Japanese well and were ideal partners for the first COIL project. Limited L2 language proficiency was also a significant factor affecting both communication anxiety and willingness to communicate. Many students struggled to communicate successfully. It was unsurprising that there would be communication breakdowns, particularly with Taiwanese students whose pronunciation was difficult to understand initially. Such breakdowns are, however, inevitable (and necessary) when learning a foreign language. They do cause stress, which in turn causes anxiety. The struggles may also be demotivating. Most students reported that this was their first time to communicate extensively in English. They may have felt that they need to improve their L2 proficiency before they are willing to tackle another challenging online project in the future.

Other factors to consider are the contents of the program itself. Reflecting on the 2024 results, the instructors made minor changes to the 2025 Taiwan program. A rather academic topic (i.e., technology in our lives) was replaced with a more social one (e.g., the Japanese students researched and presented about sightseeing destinations in Taiwan), and the tasks were modified to require more interaction (i.e., students were encouraged to obtain as much information as possible through their partner and not the internet). We hope interacting about one's hometown or a shared interest will lessen the anxiety students experience, positively contributing to increased confidence and L2 WTC. The same research instruments were used in 2025 so we will have more to say about the appropriacy of these instruments in future papers as well as the importance of task and topic selection. This study's shortcomings should not detract from a teacher's decision to implement COIL. It is our belief that students benefit greatly from such projects.

References

- Deardorff, D. K. (2022). Assessing intercultural learning outcomes in COIL courses. In J. Rubin & S. Guth (Eds.), *The guide to COIL virtual exchanges: Implementing, growing, and sustaining collaborative online international learning* (pp. 287–297). Routledge.
- Yabuta, Y., Tominaga, Y., Birch, G., & Sharp, A. (2024). Online Exchange Program ni yoru tabunka rikai kyouiku to gakusha no henyo - onrain to taimen no haibriddo-kei purojekuto no kokoromi (Building multicultural understanding through an online exchange program: Piloting a hybrid face-to-face and online project). *Seisen Jogakuin College Bulletin*, 42, 73–82.
https://seisen-jc.repo.nii.ac.jp/record/2000034/files/seisen-kiyo_42-07.pdf

- Yabuta, Y., Tominaga, Y., Birch, G., & Sharp, A. (2025). Collaborative online international learning (COIL) wo katsuyo shita ibunka comyunike-shon nouryoku ikusei puroguramu no kouchiku (Developing intercultural communication skills through collaborative online international learning). *Seisen Jogakuin College Bulletin*, 43, 73–82.
https://seisen-jc.repo.nii.ac.jp/record/2000126/files/seisen-kiyo_43-5.pdf
- Yashima, T. (2002). Willingness to communicate in a second language: The Japanese EFL context. *Modern Language Journal*, 86, 55–66.
<https://doi.org/10.1111/1540-4781.00136>
- Yashima, T. (2009). International posture and ideal L2 self in the Japanese EFL context. In Z. Dornyei & E. Ushioda. (Eds.), *Motivation, language identity and the L2 self* (pp. 144–163). Multilingual Matters.
<http://doi.org/10.21832/9781847691293-008>

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