



Virtual Bridges to Global Competence: Cultivating Undergraduates' English Communication and Intercultural Skills Through Online Exchange

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ABSTRACT

With increasing global interconnectivity, effective cross-cultural interaction has become crucial for global citizens. However, learners in non-English speaking countries often lack practical English communicative skills and opportunities for authentic language practice. This study explores the effectiveness of a virtual exchange programme in enhancing English proficiency and intercultural communication among learners in non-English speaking countries. Through a mixed-methods approach, the research evaluated pre-and post-engagement competencies of participants over an eight-week period. Results indicated significant improvements in intercultural communication and English language skills, despite challenges such as technological limitations and time zone differences. In summary, the study highlights the potential of virtual exchange programmes for fostering cultural understanding and language development in tertiary education, advocating for further exploration in diverse intercultural settings.

Keywords: collaborative tasks, cross-cultural collaboration, English communicative skills, intercultural communication competence, virtual exchange.

As people around the globe have become more interconnected, the ability to effectively interact across cultural and linguistic diversity has played a significant role for being a global citizen in the modern world. However, learners in many countries where English is considered a foreign language such as Thailand, often encounter limited opportunities to utilise their knowledge of English in practice

beyond the classroom. Consequently, learners should actively engage in activities that enhance language proficiency and intercultural communication competence in diverse linguistic and cultural environments.

The Common European Framework of References for Languages (Council of Europe, 2020) affirms that the main objective of language education is to promote the positive development of learner's overall personality and sense of identity through an intercultural approach. This approach emphasises the importance of embracing and appreciating the diversity of languages and cultures. Accordingly, educators play a crucial role in assisting learners in expanding their comprehension of not only the language itself, but also the cultural aspects, as language acquisition inherently entails the acquisition of associated cultural nuances.

Teaching and learning English language, especially in non-English speaking countries like Thailand presents significant challenges. Inkaew (2020) pointed out that Thai students frequently lack practical English communicative skills, underscoring the need for improved circumstances for English usage and a deeper understanding of the underlying problems. Additionally, Tahe (2021) highlighted that speaking skills pose a significant obstacle with specific linguistic difficulties as well as psychological factors like anxiety, which further complicates the learning process for Thai students.

Opportunities for authentic English practice outside the classroom are also scarce, depriving students of chances to engage and explore authentic language encounters in their daily lives. Consequently, for those with the financial means, studying abroad emerges as a solution to this problem. By immersing themselves in a foreign country where English serves as the primary means of communication, students can acquire a hands-on experience that fosters a deeper appreciation for diverse cultures and enhances their confidence in using English. Such experience cultivates cultural literacy and fosters self-awareness in terms of intercultural competence.

According to UNESCO (2022), global higher education enrolments increased significantly from 19% to 40% between 2000 and 2020. International student mobility not only enhances academic knowledge, but also develops important skills such as foreign language proficiency and adaptability to new environments. However, between 2019 and 2022, the COVID-19 pandemic posed considerable challenges to student mobility, impeding physical practicalities of being able to travel to foreign countries. This health crisis has had an enormous effect on the educational system at all levels globally. However, the pandemic has also motivated and propelled virtual modes of teaching and learning worldwide. Given the limitations on international travel during this period, virtual technologies have proven to be successful in enabling students to explore other cultures from the comfort of their own country. Consequently, virtual exchange, an influential pedagogical tool, can be utilised to offer students global learning opportunities and facilitate collaborations with international partners representing diverse cultures.

Virtual exchange programmes are increasingly recognised as an affordable mechanism for language learners to interact with individuals from different

countries, using the target language as leverage to develop their language communicative skills and foster intercultural awareness. Machwate et al. (2021) noted that virtual exchanges facilitate online collaboration among students from different countries, especially in enhancing awareness of cultural diversity, improving language skills and developing digital competencies. With advanced technology, a wide range of opportunities to enhance language proficiency and intercultural knowledge can be performed easily since virtual exchange serves as a particularly valuable resource. This can benefit those hindered by financial circumstances or lockdown situations resulting from the global pandemic, thus enabling them to engage in intercultural experiences despite physical limitations. Similarly, Bassini and Buchem (2019), Hrebackova (2019) and Hagley and Cotter (2019) emphasised that virtual exchanges play a crucial and valuable tool in preparing students for multicultural work environments. These exchanges not only enhance intercultural communicative competence, but also develop other transferable skills like communicative skills, teamwork and collaboration.

Virtual exchanges stand out as an inclusive educational practice enabling learners from various cultural backgrounds to access international learning experiences (O'Dowd, 2021). Hence, the objective of this research was to utilise a virtual exchange programme, employing English as the primary mode of communication to enhance English language proficiency and intercultural communication competence. The study aimed to address the following research questions:

1. How could the virtual exchange programme be designed to enhance students' intercultural communication competence and English communicative skills?
2. To what extent could the virtual exchange programme enhance students' intercultural communication competence and English communicative abilities for Thai and Japanese undergraduate students?

LITERATURE REVIEW

Virtual Exchange

Virtual Exchange (VE), also known as virtual mobility, telecollaboration, Collaborative Online International Learning (COIL), global networked learning, Online Intercultural Exchange (OIE), and Online Collaborative Learning (OCL), has gradually grown in popularity in the field of education for the past two decades. These digital pedagogies allow students to gain opportunities and to enhance experiences in cultural diversity and language proficiency skills through virtual initiatives. In other words, virtual exchange refers to a pedagogical approach in foreign language education that involves online communication tools to connect geographically distant locations, with the goal of developing foreign language skills and intercultural communication competence among international partners. Key features of virtual exchange include the utilisation of online tools

across distant locations and a focus on developing foreign language skills and intercultural communication competence.

Notable advancements in virtual exchange's application have been documented across various disciplines (O'Dowd, 2017; Çiftçi and Savaş, 2018; O'Dowd, 2018; O'Dowd et al., 2020; Salomao and Viana da Silva, 2020; Hauck et al., 2020; Avgousti, 2018; Ismailov, 2021; Durko and Martens, 2021; Lenkaitis, 2021; Lee et al., 2022). Several educators and scholars have conducted research and implemented virtual exchanges or telecollaboration projects to address the challenges associated with student engagement in cultural diversity, particularly in contexts where English serves as the medium of communication among people from different countries. Not only have there been many studies focusing on cultural aspects and foreign languages (Dooly and Vinagre, 2022; O'Dowd and Lewis, 2016; O'Dowd, 2021), but there have also been studies in other fields of education such as STEM: science, technology, engineering and mathematics (Abrahamse et al., 2015), business and economics (Lindner, 2016), and health care (Bowen et al. 2021).

Most studies have focused on virtual exchanges where English facilitates communication between English native speakers and learners. Research within English as a Lingua Franca (EFL) settings among non-native speakers from different backgrounds remains sparse. Exploring VE in an EFL context is significant because it reflects a more global use of English, beyond native-speaker norms and provides insight into language use in real world interactions.

Intercultural Communication Competence

Intercultural communication competence (ICC) has been the subject of extensive scholarly inquiry, attracting the attention of several researchers. Intercultural communication competence refers to the ability to interact and communicate effectively and appropriately with individuals from diverse cultural backgrounds (Byram, 2020). Furthermore, intercultural competence is regarded as the ability to comprehend and engage with others belonging to different cultural backgrounds (Deardorff, 2020). In other words, it involves perceiving other cultures from an insider's perspective whilst simultaneously viewing one's culture through the lens of others.

Intercultural communication competence is considered as an essential skill set for global interaction, embraced within education and corporate training. ICC enables effective and appropriate engagement with diverse cultures, considered a component of attitudes, skills, knowledge and behaviours that facilitate cross-cultural understanding. Thus, there have been studies in intercultural competence which integrated into more dynamic and interaction-based competences to reflect the interconnection of modern societies, especially at the tertiary level. For instance, Tosuncuoglu (2019) highlighted the importance of understanding both first and second language cultures. Dang (2020) suggested integrating intercultural competence into foreign language teaching for tertiary education is essential. This aligns with what Su's (2023) pointed out that there is a need for further empirical studies to deepen the understanding of the

relationship among different cultures. Liddicoat and Scarino (2013) proposed a framework for developing intercultural competence by incorporating noticing, comparing, reflecting and interacting, especially in language teaching. Similarly, Casoli-Uvsløkk and Brevik (2023) suggested that intercultural competence can be taught through reflective techniques. Having opportunities to present and discuss different perspectives can enhance learners' development of intercultural competencies as noted by Mu and Yu (2023).

To assess intercultural communication competence, Barrett et al. (2013) proposed a comprehensive framework for intercultural competence comprising of four key aspects: attitudes, knowledge and understanding, skills and actions. It is crucial these four domains are required to be put into practice to demonstrate their intercultural communication competence when engaging in communication within culturally diverse backgrounds. If any individuals lack intercultural communication competence, misunderstandings may arise, especially when interacting with others from different cultural backgrounds.

Attitudes encompass the elements of responding individuals from diverse cultures and appreciating cultural diversity. Knowledge and understanding involve gaining a deeper comprehension of cultural variety. Skills refer to the capacity to adapt one's own viewpoint and consider the perspectives of others. Lastly, actions involve the ability to actively engage, interact, and communicate appropriately, effectively, and respectfully with individuals from different cultural backgrounds.

However, Namsaeng and Ambele (2023) stated that intercultural competence instruction has not received significant attention in Thai tertiary education. Luong et al. (2023) also mentioned that intercultural competence received insufficient attention from policy makers and training institutions which contrasts with the great demand for promoting and developing learners' intercultural adaptability, awareness and competencies. Therefore, this study aims to contribute to the field of English language teaching and learning by exploring the intercultural development of Thai and Japanese undergraduates who participated in a virtual exchange. This programme offered a new perspective on intercultural competence, particularly in the increasingly common settings where English serves as a *lingua franca*.

METHOD

Research Design

This study employs a mixed-methods design, integrating both a quantitative and qualitative research approach to examine intercultural communication competence among participants from Thailand and Japan. Based on this study, intercultural communication competence is defined as not only the ability to effectively and appropriately interact and communicate across cultural boundaries, but also the proficiency in understanding, expressing ideas and creating collaborative efforts in diverse cultural settings. The current study utilises a quasi-experimental approach, comparing participants' pre-and post-

engagement with a virtual exchange programme.

Over a period of eight weeks, the participants took part in the virtual exchange, engaging in specific activities aimed at fostering cross-cultural collaboration. Data collection for the quantitative phase consisted of pre-test and post-test to assess changes in participants' intercultural communication competence and English language proficiency. The pre-test measured baseline competencies before the virtual exchange implementation, whereas the post-test evaluated the progress made after its completion. Regarding the qualitative approach, data was gathered from reflective essays. These helped capture the ways in which participants navigated intercultural communication and provided deeper insights into their learning experiences.

Table 1: Participant Demographic Information

Participants Characteristics	No.	Percentage (%)
Gender		
<i>Male</i>	4	40
<i>Female</i>	6	60
Origin		
<i>Thailand</i>	5	50
<i>Japan</i>	5	50
Age		
18-20	7	70
21-23	3	30
University Status		
<i>Freshmen</i>	0	0
<i>Sophomore</i>	5	50
<i>Junior</i>	3	30
<i>Senior</i>	2	20
Academic Majors		
<i>Social Science</i>	3	30
<i>Political Science</i>	4	40
<i>Business and Finance</i>	2	20
<i>Humanities</i>	1	10

Participants

The participants in this research consisted of ten undergraduate students in reputable universities from Thailand (n=5) and Japan (n=5) as shown in Table 1. Ethical approval for this study was granted by the respective Institutional Review

Boards (IRBs) of the universities involved, ensuring compliance with ethical standards and regulations. These individuals voluntarily took part in the eight-week virtual exchange programme facilitated by a collaboration between the top-tier Thai and Japanese universities. They studied in different disciplines such as political science, social sciences, and business. An essential criterion for this programme was that they had not studied abroad previously, ensuring that the virtual exchange was their primary exposure to intercultural academic interaction.

In addition, their English language proficiency spanned B1 to B2 levels on the Common European Framework of Reference for Languages (CEFR) scale. Prior to their participation, all participants were provided with consent forms outlining the research objectives and assuring the privacy of the participants. This ensured that they fully understood the nature of the study and voluntarily consented to participate.

Data collection and analysis

In this study, data collection was aimed at obtaining a comprehensive view of the impact of the virtual exchange programme on intercultural communication competence. To analyse the data collected from this study, a mixed-methods approach was employed. Quantitative data was obtained from self-assessment questionnaires which included Likert-scale items assessing students' self-rated in intercultural communication aspects before and after the programme. Descriptive statistics were used to summarise the data, while a paired t-test examined the differences in pre- and post-programme responses, providing insights into any changes in participants perceived competencies.

In addition, qualitative data emerged from written reflective essays, where students articulated their experiences and learning outcomes. These reflections provided rich, descriptive data about how participants perceived the virtual exchange's impact on their intercultural skills. Content analysis was used to code data into themes related to intercultural communication competence. Thematic analysis helped identify patterns within the reflections, enabling a deeper understanding of participants' development in intercultural competence. To ensure the validity and reliability of findings, triangulation was employed by comparing outcomes across both data sets. Additionally, multiple rounds of coding were conducted with independent reviewers to minimise researcher bias and ensure consistent interpretation of qualitative data.

Instruments

The study employed several instruments to facilitate and measure intercultural communication competence and English skills among participants. The following instruments were employed:

- Zoom: A video conferencing application used for hosting real-time discussions and interaction sessions during the virtual exchange.

- LINE: A social networking communication service that provided a platform for continuous and asynchronous communication among participants outside the scheduled Zoom sessions.
- Self-assessment Questionnaire: A questionnaire administered both before and after the virtual exchange to measure changes in participants perceived intercultural competence. It was structured on a five-point Likert scale with items reflecting the underpinnings of intercultural communication competence. Items were designed to probe students' attitudes, knowledge and understanding, skills and actions in intercultural interactions.
- Reflective Essays: Reflections allowed participants to articulate their personal growth, challenges and learning outcomes as a result of their engagement with the virtual exchange programme.

To validate the self-assessment questionnaire, a panel of experts was arranged. These experts specialised in relevant fields, including intercultural communication, curriculum design, and English language teaching. A total of three experts reviewed the questionnaire items for clarity, relevance and alignment with the learning objectives of intercultural communication and English communicative abilities. Each questionnaire item was evaluated for Item Objective Congruence (IOC) to determine the acceptance level for inclusion in the instrument. An average IOC score of 0.5 was required for an item to remain on the questionnaire. The reliability coefficient was determined using Cronbach's alpha, aiming for a score above 0.7 to indicate acceptable internal consistency. Upon establishing reliability, the same questionnaire served as both the pre- and post-instrument for the main study. The comparison would indicate any shifts in self-perceived intercultural competence due to the virtual exchange experience.

Furthermore, reflective essays were examined to provide qualitative insights into the participants' experiences and perceived growth in intercultural competence. The analysis of these essays complemented the quantitative data by adding depth to the understanding of participants' development and the virtual exchange programme impact. By employing these validation and reliable checks, the current study ensured that its instruments were both credible and effective in measuring the outcomes.

RESULTS

Research question 1: "How could the virtual exchange programme be designed to enhance students' intercultural communication competence and English communicative abilities?" The design and implementation of the virtual exchange programme aimed to foster students' intercultural communication competence and English communicative skills through structured guided interactions over an eight-week period. Participants from Thailand and Japan as representatives from

their cultures, met online every Monday evening, enabling them to discuss, collaborate and reflect upon various cultural topics. This study answered the research questions for how such a programme can be designed to enhance students' competencies by analysing the virtual content, engagement methods and outcome measurements.

Participants engaged in synchronous discussions on the Zoom platform, complemented by asynchronous communication on the LINE application. The integration of formal sessions with informal interactions allowed for continuous exposure and practice in English, facilitating an immersive language experience. The programme content was developed to encompass a wide spectrum of intercultural discussion topics as outlined in Table 2. The sessions were sequenced from basic cultural introductions to more complex discussions on the impact of global events such as the COVID-19 pandemic. This progression reflected a pedagogical strategy designed to build on the complexity of cultural comprehension and communicative proficiency in English progressively.

Table 2: Virtual Exchange Content

Session	Content & Activity
1	Orientation & Introduction of VE
2	Discussion: Thai & Japanese Cultures
3	Discussion: Food / Culinary Practices
4	Discussion: Travel Destinations
5	Discussion: Popular Cultures
6	Discussion: Educational Systems
7	Discussion: Effects of COVID-19 Pandemic
8	Collaborative Work Presentation on Selected Topics & Closing Ceremony

For instance, during the session on Thai and Japanese cultures, it was observed that people from both countries had distinctive approaches to greeting others. In Thailand, it is customary to bring both palms together and say the phrase "*Sawasdee*", which means "Hello", whereas in Japan, people bow and express "*Konnichiwa*". The participants were educated on these divergent practices and engaged in practical exercises to master the art of greetings in a culturally appropriate manner.

Moreover, innovative digital tools like Padlet, Quizizz, Google Docs and Kahoot were strategically employed to foster interaction and sustain engagement. These tools served different educational purposes: Padlet facilitated the sharing of cultural insights, Google Docs was used for collaborative writing tasks whereas Kahoot and Quizizz introduced gamified learning to maintain motivation and participation. The design of the final session's presentations evaluated the participants' ability to synthesise cultural knowledge and effectively communicate this in English. The choice of presenting a common theme such as culinary arts not only allowed for cultural expression but also provided a relevant

and engaging context for language use. Through these presentations, participants demonstrated their understanding of cultural nuances and the ability to convey these insights in English effectively. These presentation projects served as a significant highlight, showcasing the participants' collaborative work and dedication. The video presentations lasted between seven to ten minutes, with the aim to demonstrate various cultural aspects on different topics from the participants' views. It was noticeable that the topic about food or culinary arts was the most commonly popular theme for the final collaborative project. This highlights that food is a universal topic which allows individuals from different cultures to connect and appreciate the richness of their differences.

All in all, it was observed that participants showed an increase in both intercultural understanding and language proficiency. The virtual exchange design which carefully blended the discussion of cultural content with language use proved to be effective. The programme provided concrete evidence of successful strategies in virtual exchange for developing intercultural and linguistic competency such as the utilisation of cross-cultural partnerships and the integration of interactive digital tools.

Research question 2: "To what extent could the virtual exchange programme enhance students' intercultural communication competence and English communicative abilities for Thai and Japanese undergraduate students?"

Results from self-assessment questionnaires

To answer the second research question regarding the effectiveness of the virtual exchange programme, the self-assessment questionnaires about the virtual exchange experience were distributed to all participants. The results yielded highly positive outcomes, indicating the participants' satisfaction with the virtual exchange programme as presented in Table 3.

Table 3: T-Test Scores of Students' Self-evaluation

	n	Min	Max	<i>X</i>	<i>SD</i>	<i>t</i>	<i>Df</i>	<i>Sig</i>
Pre-	10	2	3	3.30	0.60	-4.58	998	0.00**
Post-	10	4	5	4.44	0.48			

** $p < .01$

The comparison between the pre-test and post-test results indicates a significant enhancement in the scores. The increase in both the minimum and maximum scores, along with a higher mean score in the post-test, reflects a clear improvement in terms of intercultural communication competence in all 4 aspects: attitudes, knowledge and understanding, skills and actions. The decrease in standard deviation in the post-test further underscores the effectiveness of the programme implemented. The average score improved from 3.30 to 4.44, showing a substantial shift. Also, the t-statistic of -4.58 is notable and the significance level of 0.00** indicates the differences observed in the pre-test and

post-test. It suggests that the participants experienced significant positive changes in the aspects measured by the survey, affirming the efficiency of the methodologies applied in the project.

To illustrate, when considering question item number 11 on the questionnaire, “*I realise the importance of differences and similarities across my own and other languages and cultures.*”, the mean score of pre-test survey was 2.7, compared to the post-test mean score of 4.4. It indicates that all participants consistently expressed a significant high level of more openness and understanding about the diversity of cultures.

Results from reflective essays

The results from the reflective essays showed a parallel pattern to that of the self-assessment questionnaires. The participants reflected that their experiences in joining this virtual exchange programme proved to be highly advantageous in enhancing their competence. Thematic analysis of these reflections yielded four significant areas of development: intercultural competence, English language proficiency, global community building and appreciation of English varieties.

- **Intercultural competence**

With regards to intercultural proficiency, the participants acknowledged acquiring a wealth of new information regarding Thai and Japanese cultures. Sharing and discussing ideas on various topics regarding cultures allowed participants to learn, compare, analyse and acquire a deeper comprehension which led to appreciation and acceptance in cultural differences between these two cultures. Participants reported a broadened understanding of cultural practices and norms, indicating successful enhancement of intercultural competence.

For instance, reflections on learning about Japanese Onsen etiquette provided noticeable evidence of how specific cultural practices shape social interactions. The virtual exchange exposure to these diverse cultural elements allowed participants to develop a respect for different cultural protocols such as the unique stances of tattoo visibility. This specific aspect of manners was significantly different from those observed in Thailand. In Japan, individuals with tattoos encountered restrictions when accessing public hot spring bathing or Onsen which was not an issue in Thailand. Here is an example of feedback from the reflection essay:

“...The thing that has surprised me that is the rule of the Onsen in Japan. If you have a tattoo, even if it is a small one. Some Onsen does not allow you to access it, but it will enable people with small tattoos to access it in a few places. I never know this rule before because I have been to the Onsen in Thailand a few times, and I have seen that people with a tattoo have access to the Onsen. The Onsen in Japan denies people with tattoo access because of Yakuza. They are members of an international criminal organization. They are using tattoos as a symbol of their

organization; therefore, tattoo people deny access to mostly Onsen in Japan...”

All in all, this element of cultural learning is crucial as it not only pertains to knowledge acquisition, but also in the development of attitudes towards cultural diversity that support effective intercultural engagement.

- **English Language Proficiency**

The virtual exchange programme played a significant role in advancing participants’ English proficiency. Participants noted a growth in linguistic confidence and competence by engaging in regular discussions and presentations in English. Notably, the reflective essays captured participants’ transitions from hesitation to fluency and highlighted the virtual exchange as a powerful tool for language practice. Such engagement affirms the programme’s effectiveness in creating an environment where English skills can be practiced and improved in a relevant and supportive context. For example, one of the participants experienced an increased sense of confidence when communicating in English, both in written and spoken form, reflected in the essay as follows.

“... It’s such an amazing experience. I’ve experienced so many things and met nice people. I’m more confident to speak up than I was before. I couldn’t be more thankful for this opportunity. There are two things that I learned from this activity. First, it enhanced self-confidence and self-esteem. I was scared to talk with foreigners recently, but this opportunity gave me the chance to break the wall and try to speak up than I was before...”

- **Global Community Building**

Beyond intercultural communication skill development, the virtual exchange facilitated the formation of international connections. Participants emphasised the personal value found in forming new friendships and maintaining them beyond the program’s duration as stated in the following example of reflective essay:

“...It developed of life-long friendships. My exchange partner and me, we get along well together. We met each other on Zoom every Monday. We talked a lot about our interests and we shared the idea on the topic we’d discussed. He’s good, kind, talkative, and make me feel comfortable to talk with. Although this year we don’t have a chance to go to Japan because of the pandemic, but next year if the ongoing situation is getting better, I hope that we can meet each other in person.”

This outcome underscores the capacity of the virtual exchange to create

meaningful global networks and promote long-term cultural exchange interactions.

- **Appreciation of English Varieties**

The virtual exchange highlighted the diversity within English communication itself and demonstrated an enhanced level of comprehension of different English varieties. Through continuous interaction with peers from different linguistic backgrounds, participants became accustomed to and appreciative of different accents and dialects of English which furthered their linguistic adaptability. Here is an example of participant's feedback showing a greater understanding and positive attitude among diversity:

“...This is the first time that I have used English with non-native English speakers or Thai people. It prompted me to use more English to communicate with others. Furthermore, I learned that every country has their own English accent. So I knew the Japanese accent; the first time I joined Zoom with them. I accepted their pronunciation is hard to understand. I am sure that they think the Thai accent is hard to understand too. We talked with each other for a while, so I am used to their pronunciation. After that I had fun and a great time talking to them...”

DISCUSSION

Advantages of Virtual Exchange

The virtual exchange programme implemented in this study proved to be effective in enhancing both intercultural communication competence and English communicative abilities of Thai and Japanese undergraduate students. Several key advantages contributed to its success.

- **Meaningful Cross-Cultural Learning**

The programme's success can be attributed to its well-designed structure and engaging activities. The combination of synchronous and asynchronous communication facilitated continuous exposure to English and intercultural interactions. The progression of content from basic introduction to complex discussions on global issues like COVID-19 mirrored a pedagogical approach to building cultural understanding and language proficiency gradually. This aligns with the findings of Liddicoat and Scarino's (2013) who emphasised the importance of structured content and diverse activities on noticing, comparing, reflecting and interacting for building intercultural competence. Participants engaged in sharing, comparing and analysing cultural practices, gaining valuable knowledge about both domestic and international cultures through reflecting techniques, as emphasised by Casoli-Uvsløkk and Brevik (2023).

Besides, the integration of interactive digital tools also enhanced engagement and provided opportunities for intercultural learning as supported by Shadiev and Sintawati (2020). The final collaborative presentations on cultural topics allowed participants to synthesise their knowledge and showcase their communication skills effectively. This highlights the significance of project-based learning in virtual exchange programmes. The positive outcomes in intercultural competence are evident in both the quantitative and qualitative data. The significant increase in self-awareness scores across all aspects (attitudes, knowledge and understanding, skills and actions) indicates a clear improvement. This finding resonates with Syahrin et al. (2023) who reported similar advancements in intercultural competence facilitated by virtual exchanges, enhancing students' language skills and cultural understanding. Participants' reflective essays revealed an openness to cultural diversity and a readiness to reevaluate prior assumptions, aligning with Dearsdorff's (2006) model of intercultural competence which positions attitudes as the foundation.

- **Enhanced Language Skills and Autonomous Learning**

In addition, this virtual exchange significantly improved participants' English language skills. The evidence highlighted increased confidence and fluency. These findings are consistent with Wang et al. (2021) who reported enhanced English proficiency through virtual exchange programmes allowed learners to communicate with others in real-time daily life conversations and enhanced the language learning experience. Similarly, Lenkaitis et al. (2020) found that participants improved their ability to identify errors and apply feedback strategies in developing English language skills through a virtual exchange programme. Improved English fluency suggests that language proficiency benefits significantly from the dynamic use of language in social interactions rather than isolated instruction. Hence, this present study effectively integrated the development of language competencies with intercultural learning, which is supported by the Common European Framework of Reference for Language as it recognises pluricultural competence as part of language proficiency (Council of Europe, 2020).

Furthermore, students developed autonomous learning skills by managing tasks, conducting research and contributing to collaborative projects which fostered crucial skills required in the 21st century. The interactive collaboration enhanced technological literacy which is a valuable skill in the digital age. This observation aligns with what Bowen et al. (2021) mentioned that technology can effectively enhance teaching and learning activities at a minimal cost, not only during the COVID-19 pandemic, but also in the post-pandemic era.

- **Global Perspectives and Preparation for Future Opportunities**

Based on the findings of this study, it is recommended to establish a virtual exchange programme to foster global international perspectives within the language classroom. The programme promoted the formation of meaningful friendships and global connections which extended beyond the programme's duration. This initiative would serve as a valuable preparatory or training platform for individuals intending to pursue further education abroad, enabling them to effectively navigate and embrace cultural diversity. This confirms what Siergiejczyk (2020) and Giralt et al. (2022) mentioned that teachers should be prepared to guide learners by employing virtual exchanges to enhance language-technocultural competence, the combination of linguistic and cultural competences mediated through technology and digital platforms. This can help students feel more prepared and confident before studying abroad.

The potential of virtual exchange in building international networks and promoting long-term cultural exchange could develop a greater appreciation for diverse English varieties and demonstrate increased linguistic adaptability. Ultimately, this present research contributes to the discourse on the recognition and acceptance of English as a lingua franca, showcasing the practical understanding and adaptation to various English accents as well as underscoring the need for language teaching to embrace these variations and prepare learners for real-world communication as noted by Bassini and Buchem (2019) that it is also important for developing intercultural skills in a globalised world.

Challenges of Virtual Exchange

Virtual exchange has the potential to facilitate cross-cultural leaning and collaboration among individuals from different cultural backgrounds. However, it is important to acknowledge potential challenges associated with this interaction.

- **Technological Limitation**

Technological limitations can pose obstacles to effective communication and collaboration. Technical issues such as unstable internet connections and incompatible software can interrupt the flow of communication and hinder collaboration. Participants may encounter difficulties in accessing tools or delays and disruptions and these may impact the overall experience (O'Dowd, 2018). Therefore, proactive planning, reliable technical infrastructure and technical support are crucial to mitigate these issues as suggested by the current study.

- **Time Zone Differences**

Time zone differences could present a challenge in virtual exchange. With participants located in different time zones, scheduling and coordination becomes more complex and challenging. Finding mutually convenient meeting times can be a daunting task, and it may lead to limited interaction and reduce opportunities for real-time collaboration as Lee (2018) observed. Flexibility and creative scheduling strategies are essential to address this challenge and maximise interaction opportunities.

- **Language Barriers**

Differences in communication styles and linguistic proficiency can hinder understanding and lead to misunderstandings or communication breakdowns as Lockwood (2015) mentioned. It is essential to address these issues by promoting clear communication strategies and providing an inclusive and supportive environment which can help overcome these barriers.

CONCLUSION AND RECOMMENDATIONS

This study investigated the effectiveness of a virtual exchange program in enhancing intercultural communication competence and English language proficiency among Thai and Japanese undergraduate students. The findings demonstrated significant positive outcomes across both quantitative and qualitative data. Participants showed improvements in all aspects of intercultural competence, including attitudes, knowledge, skills, and actions. Their self-assessments and reflective essays revealed increased confidence and fluency in English communication alongside a deeper understanding and appreciation of Thai and Japanese cultures. This study also reinforced the significance of digital technology in facilitating intercultural connections and enriching the educational experiences of second language learners. The role of virtual exchange in providing immersive language practice and fostering intercultural communicative competence is more crucial than ever in the context of global interconnectivity. Its integration into language learning curricula supports learners to bridge cultural divides and gain the communication skills necessary for effective interaction in a diverse world.

For stakeholders, especially in educational and linguistic domains, the implementation of virtual exchange programmes underscores the need to craft dynamic learning environments that transcend traditional geographical and institutional boundaries to enhance global competencies among learners. Subsequent research could focus on longitudinal studies that assess the impact of virtual exchange over time, compare outcomes across different cultural pairings or explore the integration of newer technologies such as augmented or virtual reality into virtual exchange programmes.

Teachers play a pivotal role in the success of virtual exchanges. Professional development should include training on how to design, implement and assess virtual exchange projects. Also, teachers should be prepared to address technological issues, time zones and linguistic challenges that may arise during the virtual exchanges. By developing these competencies, educators can more effectively facilitate cross-cultural understanding and language proficiency among their students.

Nonetheless, the scope of this study focused exclusively on the interaction between Thai and Japanese undergraduate students. It may not be representative of interactions with wider international populations. The nuances and experiences of engaging with cultures outside of the Asia-Pacific region could differ significantly, which suggests that the findings may not be universally generalizable to all contexts of intercultural virtual exchange. Thus, it is suggested that further research in varied intercultural settings with more diverse participant groups to strengthen the validity and applicability of the findings. Challenges regarding technology, time zone differences, and language barriers need to be addressed. By taking proactive planning and employing appropriate strategies, these challenges can be overcome and enable meaningful cross-cultural learning and collaboration.

It is highly recommended that more research be carried out on virtual exchange as it can be beneficial particularly in various educational settings such as elementary or high schools. Moreover, it is essential to broaden the scope of the study by having collaborations between partners from diverse cultural backgrounds such as the Americas, Western and Eastern Europe, the Middle East, Africa and other countries in Asia. Further study would facilitate a deeper understanding of cultures, exchange of ideas and enhance the learning experience among participants which ultimately can only result in developing learners' intercultural communication competence. Further research exploring the long-term impact of virtual exchange programs on diverse student populations and investigating the effectiveness of different program designs can offer valuable insights for continued development and optimization of this innovative approach to international education.

In addition, future research might include investigating the impact of virtual exchange on students' motivation and self-efficacy in language learning, examining the effectiveness of virtual exchange for specific academic disciplines or professional contexts and exploring the potential of virtual exchange to promote global citizenship education. By building upon the positive outcomes of this study and actively addressing existing challenges, virtual exchange programs hold immense potential to revolutionize educational approaches and cultivate interculturally competent, globally connected learners for the 21st century.

Overall, this virtual exchange program proved to be a valuable tool for promoting intercultural communication competence and English language proficiency among Thai and Japanese undergraduate students. The findings align with and extend existing research on virtual exchange programs, highlighting their

potential as a dynamic and effective approach to cultural understanding, language development, and global connection building in higher education.

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