

# Collaborative Online International Learning Among Peers as a Means to Improve English Proficiency: A Perception Study of Hong Kong Students

XIA Li<sup>[a]</sup>; Grace Lim<sup>[b]</sup>; Stefan Sonntag<sup>[c],\*</sup>

**Supported by** Shenzhen Polytechnic University Early Bird Research Fund: 6022312003S, and The Hong Kong Polytechnic University Teaching Development Grant: Overcoming language barriers in intercultural and cross-disciplinary communications via a virtual classroom setting and real-life application.

Received 4 October 2024; accepted 21 November 2024 Published online 26 December 2024

#### **Abstract**

Peer collaborative learning has been proven effective in improving learners' English language proficiency when English is the medium of communication between peers. This paper reports a cross-institutional project between Hong Kong (HK) and the United Kingdom (UK) during the pandemic in which peer collaborations between students from these two places occurred completely online. Using learners' perceptions as the research methodology, this study collected data from three channels: questionnaire surveys, interviews, and students' written feedback. The initial findings of this study suggested that overall, the students perceive an increase in their English language proficiency after the peer collaboration.

**Key words:** Peer Collaboration; Online Learning; Perception; English Proficiency

Xia, L., Lim, G., & Sonntag, S. (2024). Collaborative Online International Learning Among Peers as a Means to Improve English Proficiency: A Perception Study of Hong Kong Students. *Canadian Social Science*, 20(6), 8-16. Available from: http://www.cscanada.net/index.php/css/article/view/13612 DOI: http://dx.doi.org/10.3968/13612

### INTRODUCTION

Competence in English has become a highly rated ability, in some cases a necessary skill, for citizens actively participating in the globalised economy of the twenty-first century. In the design industry, English is the lingua franca. English is the preferred language in the major global design awards, the global media and commerce, the tools and technology designers use and the predominate language the global design industry communicates in. However, most designers participating in the global design industry are not native English speakers. As verbal and non-verbal communication is a major part of the design practice and processes, language and cultural barriers pose an obstacle to overcome.

Linguistic knowledge, as well as cultural integration into professional and academic contexts, has become a necessary condition leading to successful international pathways.

Thus, the primary objective of this multi-cultural, cross-disciplinary project with an international partner school, as well as industry partner, is to overcome language barriers in intercultural communication between students from Hong Kong (HK) and the United Kingdom (UK) by addressing not only essential language skills but also the skill area of cultural awareness and collaborative learning.

65 students from the School of Design, Hong Kong Polytechnic University were virtually joined by 60 students from the University of the Arts London (LCC), two globally leading design schools, to collaboratively work in multicultural teams on a real-world design brief. The entire 10-week process occurred from February to April 2021 exclusively in a virtual environment, including regular international guest lectures, workshops, tutorials, critiques, breakout sessions and presentations—all in a multinational, multicultural, and multidisciplinary environment. This project addresses language proficiency,

<sup>&</sup>lt;sup>[a]</sup> School of Foreign Languages and Business, Shenzhen Polytechnic University, Guangdong, Shenzhen, China.

<sup>[</sup>b] English Language Centre, The Hong Kong Polytechnic University, Hong Kong SAR, China.

<sup>&</sup>lt;sup>[e]</sup> School of Design, The Hong Kong Polytechnic University, Hong Kong SAR, China.

<sup>\*</sup>Corresponding author.

especially the listening and speaking skills, as well as cultural awareness and collaborative learning.

Informed by this teaching-oriented initiative, the project team conducted a series of language- and culture-oriented studies with HK participants by collecting their opinions on how they perceive their English language proficiency and cultural awareness both before and after the online collaboration.

#### LITERATURE REVIEW

It is well-documented that an increasing number of schools, from primary to tertiary education, have chosen English as the language for teaching and learning in places where English is treated as a second or foreign language for that community (Evans, 2009). English in these places is no longer solely treated as a subject but more as a medium through which subject knowledge can be communicated. Owing to this phenomenon, research is being conducted for understanding how English has been used for academic purposes enlightened by the trinocular perspective, as Halliday (2004) suggested: 'Learning language, learning about language and learning through language' (p.308). Learning subject knowledge through English takes place not only in teacher-student interactions but also in student-student interactions. Recent research on English in the content subject has focused on how English has been used to construe subject knowledge in teachers' instruction (i.e. O'Halloran, 2005 for Mathematics; Coffin & Derewianka, 2008a, 2008b for history; Halliday and Martin, 1993; Martin & Veel, 1998 for science, to name a few), to model teacher-student interactions (i.e. Gibbons, 2003, 2006; Mortimer and Scott, 2003) and to compile written pedagogical discourses (i.e. O'Halloran, 1999a, 1999b, 2003, 2007; Liu & Owyang, 2011; Xia, 2018). Being a crucial pedagogical activity, student-student interactions or peer collaboration in the research has received relatively less attention compared to others.

From a sociological perspective, education, in essence, is a social process (Dewey, 1897; Vygotsky, 1986) through which our thoughts and ideas are constructed through communication with others (Dewey, 1897; Vygotsky, 1986). Studies on peer collaboration within schools have all inferred that collaboration helps individuals integrate many perspectives on a problem. The collaboration focuses on creating an environment of active, involved and exploratory learning and creativity (Slavin, 1990). When students collaborate in small groups, they can express themselves and explore ideas in a nonthreatening environment (Sandberg, 1995). In languagerelated research, peer collaboration has been proved to effectively help students develop their English language proficiency in face-to-face communication. For example, Nelson (1996) suggested that peer collaboration between students in the form of conversation is 'less-demanding' (p.149) but is the step 'along the road toward the later

achievements' (p.149) of their language proficiency. May (2007) found that peer collaboration can be both positive and negative for classroom language learners. If their peers are supportive, language learners will be motivated, and their language proficiency will increase. Otherwise, if they are tough, classroom language learners will be 'discouraged by peers' (May, 2007, p.198), and their language proficiency will not increase. Estes and Mintz (2016) suggested that peer collaboration in the form of critique, evaluation and assessment can help language learners develop their vocabulary acquisition, presentation and communication skills.

Several empirical studies have proven that peer collaboration effectively improves learners' English language proficiency even in non-language subjects. For example, Hafner and Yu (2020) demonstrated the benefits of peer feedback in helping law students in Hong Kong improve their writing skills through digitally mediated collaborative writing. Wu and Miller (2020) described how mobile devices promote English learners' language performance in the specific field of English speaking through peer feedback among HK business students. As an essential pedagogy in helping language learners develop their English language proficiency in non-language subjects, peer collaboration can be theorised within the emerging research on the content-and language-integrated learning (CLIL) approach (i.e. Baker, 2001; Beardsmore, 2008; Coyle, 2007; Lin, 2015; Lo & Lin, 2015, 2017). The underlying principle shared by CLIL programmes is to 'integrate content and language learning so that students are likely to be exposed to more language input and output opportunities within the authentic contexts of content subjects' (Lo & Lin, 2015, p. 261). Therefore, pedagogies such as the peer collaboration adopted in CLIL programmes play another key role to 'facilitate language learning' (Lo & Lin, 2015, p. 261), in line with an increase in content knowledge.

# RESEARCH OBJECTIVES AND RESEARCH GAP

The primary objective of this research is to understand whether the oral and written English proficiency, as well as the intercultural awareness and communication skills of HK students, has been improved through peer collaboration with UK students in a virtual environment. Based on this objective, the below-mentioned research gaps are identified, followed by a preliminary literature review of relevant research in the field. First, many researchers have chosen teacher-student interactions as the research content (i.e., Gibbons, 2003, 2006); however, little research has talked about the effectiveness of student-student interactions in helping develop language proficiency and improving intercultural communication skills for English as a foreign language

speaker (Halliday and Martin, 1993). Second, with the outbreak of Covid-19, the mode of education has shifted from traditional face-to-face education to an online virtual environment. Previous research in the field of understanding the language of schooling from English for academic purposes preferred the exploration of language use in face-to-face classrooms (i.e. O'Halloran, 2005 for Mathematics; Coffin & Derewianka, 2008a, 2008b for history; Halliday & Martin, 1993; Martin & Veel, 1998 for science). As each teaching and learning activity in this study has entirely occurred in a virtual environment, it will be interesting to investigate whether students' language proficiency and intercultural communication skills have been affected by the online teaching and learning method. Third, CLIL programmes have proven effective in improving learners' English language proficiency in some subjects (i.e. science, Mathematics and History) both theoretically and practically (i.e. Lin & Lo, 2017). However, only a few studies have discussed how peer collaboration as a pedagogy helps to improve second language learners' English language proficiency in the subject content of design in a virtual environment (Reference is needed here). This study aims to fill the above research gaps.

#### RESEARCH METHODOLOGY

As a valuable method in qualitative research, perception is a mode of apprehending reality and experience through the senses (Munhall, 2008). In language-related research, learners' perception helps researchers (i.e., Inozu & Lin, 2007); Damnet & Borland, 2007; Er & Mirici, 2015) identify their subjective reflection on their improved or declined language proficiency. Compared to structured oral language assessment, in which time, location and language resources are the normal restrictions, the method of perception puts these various restrictions aside. For example, if we want to rely on the language assessment results to claim that peer collaboration has a direct effect on improvement in HK students' English language proficiency, we should ensure that they have not been exposed to language resources other than through peer collaboration. However, as the peer collaboration was run for 10 weeks, we cannot guarantee that the HK students were not exposed to English resources, such as English reading, English TV series and movie watching, and other courses taught in English. Through learners' perception, researchers can collect trustworthy data based on capable adults' responses while making a professional judgement (Er & Mirici, 2015).

Budd (2008) suggested that 'the meaning of perceptions can be comprehended by researchers only by inquiring of the individuals (p.177)'. In this study, three types of instruments were used to collect learners' perceptions: pre-and post-questionnaire surveys, semi-structured interviews and students' written reflections.

65 students participated in the online collaboration project. They were of Chinese ethnicity, with Chinese as their mother tongue but did use dialects such as Cantonese or Putonghua as the daily spoken format in speaking. English was the teaching medium at the university. However, most of their classroom interactions were in Chinese. These participants had already completed two university English subjects on academic English in their first year of study. As for the research purpose, we conducted two rounds of questionnaire surveys, for which 39 and 34 responses were received from the pre-survey and post-survey, respectively. As for the written reflection, 41 replies were received and eight students joined the one-to-one in-depth online interviews.

# PRE-SURVEY QUESTIONNAIRE: FINDINGS AND DISCUSSION

The pre-survey questionnaire was sent to the students on January 29, 2021, during the normal teaching period through an electronic questionnaire link created by Tencent Questionnaire. Thirty-nine students responded to the survey. The pre-survey questionnaire comprised 12 questions, which aimed to examine students' confidence level in using English in lectures in face-to-face situations and in virtual contexts, as well as their own English proficiency in communication before the peer collaboration.

The first area we look at is students' subjective perception of their English language proficiency. Regarding students' English proficiency and fluency, slightly more than half of the students (53.8%) thought they could speak fluent English, as shown in Figure 1. However, nearly half of the respondents did not perceive themselves to be able to speak fluent English.

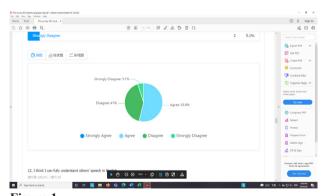


Figure 1 Perception of speaking fluent English

In terms of their confidence level when talking to people who cannot understand their first language, more than 80% of the respondents felt comfortable speaking English to people who cannot understand their mother tongue, and they thought that they could understand others in English to a very high level (76.9%). Although

the results, as demonstrated before, showed that most respondents believed they had a fluent level of English and could understand others talking in English, they still preferred to switch to Chinese (Cantonese or Putonghua). Code switch was a commonly used strategy by the respondents, as more than 70% of them preferred to use Chinese if given a choice. Moreover, when the respondents were asked questions related to how they use English in a classroom setting, the replies varied from their original perception. For example, according to the results shown in Figure 2, most of the students were reluctant to voice their opinions in English in the classroom or in group discussions, with approximately 80% of them opting not to express their views in English.

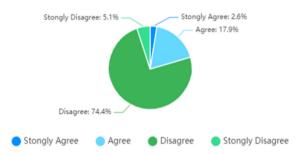


Figure 2
Willingness of students to voice opinions in English in the classroom or in group discussions

In brief, students are confident in talking about their content knowledge in English but regard this as the most challenging during communication. If given a choice, they would switch the language to Cantonese when presenting their ideas to their peers. While they have confidence in their ability to understand the native speakers, they are worried that they might not be understood by them. Therefore, they expect to receive some support from their subject teachers and the university on improving their English.

With respect to their view on the difference between face-to-face education and online education, more than 60% of the respondents regarded virtual learning and teaching as vastly different from face-to-face learning and teaching before they actually participated in an online collaboration, such as the one we conducted in the project. In detail, for example, during face-to-face teaching, over 75% of students were confident in using English to talk about design-related content with their peers for academic purposes. However, this number declined to less than 40%, as most respondents held the stereotype that relying on a virtual environment to talk about subject-based content is not as comfortable as the traditional face-toface communication. This stereotype is attributable to the lack of confidence to communicate in English in a virtual environment.

When expressing difficulties in virtual learning, the students found it most difficult to talk about design knowledge in English, followed by being unable to be understood by native speakers.

To enable the project team to provide relevant resources to them, the students were asked the type of resources that would benefit them in virtual learning. Most of them welcomed the opportunities to communicate with native speakers in their collaboration, appropriate interference by the course teachers and appropriate resources.

However, the respondents did not appreciate the opportunities of giving presentations in front of their peers. May (2007) found that peer learning can have both positive and negative effects. The students' negative response to deliver oral presentation in front of their peers would be interesting to further unravel the reasons behind this.

# POST-SURVEY QUESTIONNAIRE: FINDINGS AND DISCUSSION

The post-survey questionnaire was administered on April 23, 2021, and was filled by 34 students at roughly the same time during their online lecture. The questionnaire was divided into two parts: part one comprised four questions on the general demographic information of the students, such as their names, numbers and email addresses, and part two comprised 22 questions on opinions directly related to the project. The purpose of the post-survey questionnaire was to provide an overview of the entire picture regarding this collaboration project.

Regarding the general impression on the collaboration project, more than 70% of the respondents held a positive attitude, as they either 'agreed' or 'strongly agreed' that the collaboration with LCC helped them improve their English. This positive attitude is attributable to the help offered by their LCC groupmates, as 22 respondents (64%) agreed that their LCC groupmates helped improve their English. In terms of the self-initiatives in voicing their opinions during a group discussion, 30 respondents (~90%) either 'strongly agreed' or 'agreed' that they always 'voice their opinions in English frequently' and they always 'feel confident' when speaking in English in the group discussions towards the end of the semester. This self-perception is rather different from that observed in the pre-survey. As all collaborations between the HK and UK sides were conducted in a virtual environment, 20 respondents agreed or strongly agreed that the virtual environment is the same as the face-to-face teaching environment, and 25 of them felt confident when speaking English in the virtual environment. Both numbers are higher than those obtained in the pre-survey.

Regarding the outcome of the collaboration project, dominant positive achievements were observed in the following two categories, which is in line with the improvement in English language proficiency discussed before. The first is overcoming cultural barriers; 23 respondents (60%) indicated that this collaboration project helped them overcome the cultural barriers in general, and 29 respondents (85%) felt that the collaboration raised their awareness of cultural differences. The second is related to their future careers in design. Approximately 30 respondents (86%) thought that such collaboration would be beneficial for their future design subjects and projects as it helped them establish useful design networks (26 respondents) and increase their motivation and enthusiasm towards a design-related career (24 respondents). Overall, more than 60% of the respondents would recommend this type of collaboration to their friends and classmates in the future.

# WRITTEN REFLECTION: FINDINGS AND DISCUSSION

As a landmark of the collaborative project, the research team required the participants to write down a selfreflection of their feelings, understanding and anticipation about the collaborative project. The team did not specify the content requirements of the reflection but wanted the participants to express their thoughts freely. For the selfreflection data, we collected 41 examples. Among the responses, ten examples clearly stated the improvement in language proficiency as one of the most important benefits they perceived and seven described the language barriers they faced, how they made improvements and their final perceptions of their English proficiency. From an analytical perspective, each reflection can be segmented into the following three stages: existing barrier, undergoing process and final perception. The existing barrier category lists the shortage, challenge and barrier they subjectively thought of. The undergoing process suggests the strategies through which students improved their language proficiency. The last category is final perception, which includes information on students' judgement of their language proficiency level after the collaboration project. Appendix 1 provides the data obtained from the self-reflection

In particular, we can sub-categorise the reasons for the existing barriers into two types. The first type is participants' existing English level, which was named as basic by participant 2.

This basic level of English language proficiency resulted in the incompetence in expressing their ideas completely in English to their UK counterparts. The other type of barrier, as mentioned by participant 4, was the lack of opportunity to use English in Hong Kong, as the HK students barely had experience communicating in English with people whose first language is not Chinese.

As for the undergoing process, five features which are closely linked with the improvement of HK students' English language proficiency are identified. The first feature is the patient and timely support offered by their UK counterparts. Both participant 1 and participant 2 highlighted the positive encouragement from their groupmates in the UK, indicating that their encouragement and support made the HK students not afraid of talking in a group discussion. The second feature is the spontaneous reaction by the participants. Participant 7 mentioned that she had tried her best to 'express in words' to ensure everyone participated in the group discussion. This strategy was also adopted by participant 4, as she made herself particularly conscious of both the lectures and the group discussion and spoke out as clearly as she could to her UK counterparts. This strategy forced the HK students to leave their comfort zones and dominate the group discussion using English. The third feature identified in the self-reflection is peer collaboration from the HK students' side. Participant 5 shared her experience of inviting her two HK groupmates to join the online discussion with her UK counterparts. By doing this, the three HK students helped each other, making all three of them comprehend their UK counterparts. The fourth feature, termed as 'Get To By' (a specific advertising strategic tool), was adopted by participant 6. In her case, although her HK groupmates did encounter language barriers when communicating with the UK side, they preferred to keep talking and preventing the group discussion from getting stuck. This strategy ensured that the HK students were confident enough in talking in English even though they perceived their English as not good enough. The fifth feature is the inclusion of visualised assistants. Participant 3 suggested that the HK students tried to visualise their ideas during the group discussion. Visualised examples can help students make implicit meanings more explicit and accessible to other groupmates. This strategy will be beneficial for those who are not confident enough in expressing their ideas entirely in English.

All of the above features improved their English language proficiency, especially their communication skills, with people from different language backgrounds. Overall, as seen from the self-reflections, the collaboration project helped the HK students improve their English language proficiency.

# IN-DEPTH INTERVIEWS: FINDINGS AND DISCUSSION

Immediately after the collaboration project, the research team invited the participants to join a self-initiated one-to-one interview. Eight students joined the interview from May 2021 to July 2021. The interviews were held virtually

on an online platform and were semi-structured. The list of questions was closely related to their perception of language proficiency, online collaboration, language and cultural barriers during the collaboration and their recommendations on this type of collaboration. The interviewees were free to talk about each topic without interruption. Through the adoption of 'semi-structured' interviews, the research team could collect more in-depth answers supplementing the data collected in the post-survey questionnaire and in the written reflection.

In general, all interviewees held a positive opinion towards online collaboration with UK students and perceived an increase in their English language proficiency. In particular, interviewees 1, 2 and 3 made it clear that this collaboration significantly improved their English listening skills and speech fluency. There are some reasons for the improvement in listening, such as the immersion in the entire English environment for collaboration (interviewees 1 and 2). Students' listening skills benefited from the consistent help offered by the UK students, as they helped them understand what they are talking about (interviewee 6). In particular, the HK students could understand British slang and accent better with UK students' support.

As for the improvement in speaking proficiency, all students mentioned that the much frequent use of English significantly improved their English-speaking skills and their confidence in talking in English. This improvement was triggered by the nature of collaboration, as the UK students cannot understand Chinese. The HK students 'were forced to use English' (interviewee 6) to keep the collaboration moving. 'Code switch', a common language habit among most HK students, as revealed in the presurvey questionnaire, was replaced by the entire use of English. In general, this collaboration significantly improved the HK students' English proficiency, especially in listening and speaking.

The cultural barrier encountered by the HK students is more oriented towards the different working styles and attitudes between these two groups. For example, interviewees 2 and 3 mentioned that that HK students preferred to work together as a team following one strategy, whereas the UK students preferred to work individually and had no plan until the last minute before their presentation.

Regarding the overall appraisal of this type of online collaboration, all interviewees clearly stated that they welcome and will recommend it to their colleagues and friends when they are faced with a similar situation.

### CONCLUDING REMARKS

This paper reports the research findings generated from a teaching-oriented project. The research team incorporated two rounds of a questionnaire survey, written reflections and selected interviews. This paper examines students'

perception of their English proficiency level before and after the collaboration, their viewpoints towards the cultural barriers they faced when communicating with their UK counterparts, and the strategies they adopted to overcome both the language and cultural barriers.

The research team obtained the following findings. The pre-survey results suggested that the HK students held the following three viewpoints. First, approximately half the students perceived their English at a relatively good level. Most of them said that they could understand others' speech in English regardless of whether they were native English speakers. The second viewpoint, somewhat contradictory to the students' perception of their English language proficiency, was that most of them would switch to using Chinese in communication when given a choice. The third viewpoint was related to students' stereotypes towards online education. In the presurvey, approximately 80% of the students showed their reluctance to speak out their opinions in group discussions and online teaching when the education mode was completely shifted to virtual mode. These three viewpoints held by the students indicate a multifaceted nature of HK students: although most of them perceived their English as good, they preferred to adopt the code-switch strategy in communication and felt reluctant to talk in English in front of others in a virtual environment.

To enable the project team to provide relevant resources to them, the students were asked what resources would benefit them in virtual learning. Most of them welcomed opportunities to communicate with native speakers in their collaboration. This suggests that the students viewed the genuine need to communicate in English when interactants have different language backgrounds, and they would be more comfortable and engaging in such situations. In other words, collaboration with the UK students would motivate them to use English for communication, as it creates a real gap in their interaction. One finding in the post-survey questionnaire which was different from that in the pre-survey was the students' active participation during the online collaboration. In the pre-survey, most students opted not to voice their opinions in English in online teaching and learning scenarios. However, as revealed in the postquestionnaire survey, most students were actively engaged in the group discussions, even leading them. This postsurvey finding helped the research team rectify a longstanding stereotype that HK students whose native language is not English are always unwilling to speak out in a virtual environment. This finding also verifies one of the initial objectives of this project: active engagement in online collaboration can help increase HK students' English language proficiency. From a general perspective, the post-survey findings confirmed that the HK students perceived their English to be at a relatively good level. In particular, as outlined in the Discussion section, most

students believed their English was substantially increased based on the online collaboration with the UK side.

The findings obtained from the written reflection not only confirm those obtained from the post-survey questionnaire but also show five skilful strategies used by the HK students in their collaboration with UK students. These strategies are valuable methods that students whose native language is not English can use to increase their engagement level in online collaboration. Findings from the interview data highlight the significance of online collaboration in the field of improving students' English language proficiency, as well as the increased awareness of cultural difference. In particular, the cultural awareness that this project tackled is more concerned with the cultural differences in the field of work collaboration. The more engaging and participating both HK and UK sides, the more learning outcomes will be generated, and the more harmonious the remote working environment shared with both sides, the fewer cultural barriers will be met with.

Overall, the project results demonstrated that collaboration is a valuable and applicable method in improving students' English language proficiency and their cultural awareness in an online environment. The method and results can be of great use to both teachers and linguists who would like to infuse language improvement into content knowledge learning in virtual environments and to motivate students to engage more in their subject learning.

#### REFERENCES

- Beardsmore, B. H. (2008). Multilingualism, cognition and creativity. *International CLIL Research Journal*, *1*, 4-19.
- Baker, C. (2001). Foundations of bilingual education and bilingualism. Multilingual Matters.
- Budd, J. (2008). Critical theory and method. In L. M. Given (Ed.), *The SAGE encyclopedia of qualitative research methods* (Vols. 1-0, pp. 174-179). SAGE Publications, Inc.
- Coffin, C. (2006). *Historical discourse: The language of time, cause and evaluation.* Continuum Discourse.
- Coffin, C., & Derewianka, B. (2008). Multimodal layout in school history books: The texturing of historical interpretation. In G. Thompson & G. Forey (Eds.), *Text type and texture: Functional linguistics* (pp. 174-179). Equinox.
- Coffin, C., & Derewianka, B. (2008). Time visuals in history textbooks: Some pedagogic issues. In L. Unsworth (Ed.), Multimodal semiotics: Functional analysis in contexts of education (pp. 174-179). Continuum.
- Coyle, D. (2007). Content and language integrated research: Towards a connected research agenda for CLIL pedagogies. *The International Journal of Bilingual Education and Bilingualism*, 10(5), 543-562. https://doi.org/10.1080/13670050701741997

- Damnet, A., & Borland, H. (2007). Acquiring nonverbal competence in English language contexts: The case of Thai learners of English viewing American and Australian films. *Journal of Asian Pacific Communication*, 17(1), 127-148. https://doi.org/10.1075/japc.17.1.07dam
- Er, S., & Mirici, H. (2015). Classroom teachers' viewpoints about the effects of immersion programs on native language development in a Turkish context. *Procedia Social and Behavioral Sciences*, 199, 363-367. https://doi.org/10.1016/j.sbspro.2015.07.537
- Estes, T. H., & Mintz, S. L. (2016). *Instruction: A model's approach*. Pearson.
- Evans, S. (2009). The medium of instruction in Hong Kong revisited: Policy and practice in the reformed Chinese and English streams. *Research Papers in Education*, 24(3), 287-309. https://doi.org/10.1080/02671520902842324
- Gibbons, P. (1998). Classroom talk and the learning of new registers in a second language. *Language and Education*, 12(2), 99-118. https://doi.org/10.1080/09500789808666779
- Gibbons, P. (2002). Scaffolding language, scaffolding learning: Teaching second language learners in the mainstream classroom. Heinemann.
- Gibbons, P. (2003). Mediating language learning: Teacher interactions with ESL students in a content-based classroom. *TESOL Quarterly*, *37*(2), 247-273. https://doi.org/10.2307/3588512
- Gibbons, P. (2006). *Bridging discourses in the ESL classroom*. Continuum.
- Hafner, C. A., & Yu, C. (2020). Language socialization in digitally mediated collaborative writing: Evidence from disciplinary peer and teacher feedback. *RELC Journal*, 51(1), 14-32. https://doi.org/10.1177/0033688219885186
- Halliday, M. A. K. (1980). Three aspects of children's language development: Learning language, learning through language, learning about language. In *Oral and written language* development research (pp. 308-326). Cambridge University Press.
- Inozu, J., & Ilin, G. (2007). How do learners perceive e-language learning programs in their local context. *Asian EFL Journal*, 9(4), 278-286. https://doi.org/10.1016/j.jrurstud.2016.01.004
- Lin, A. M. Y., & Lo, Y. Y. (2017). Trans/languaging and the triadic dialogue in content and language integrated learning (CLIL) classrooms. *Language and Education*, *31*(1), 26-45. https://doi.org/10.1080/09500782.2016.1185217
- Lin, A. M. Y. (2015). Conceptualizing the potential role of L1 in CLIL. *Language, Culture and Curriculum*, 28(1), 74-89. https://doi.org/10.1080/07908318.2014.1000925
- Liu, Y., & Owyong, Y. S. M. (2011). Metaphor, multiplicative meaning and the semiotic construction of scientific knowledge. *Language Sciences*, 33, 822-834. https://doi. org/10.1016/j.langsci.2011.07.001
- Lo, Y. Y., Angel, M. Y., & Lin, A. M. Y. (2015). Special issue: Designing multilingual and multimodal CLIL frameworks for EFL students. *International Journal of Bilingual*

- Education and Bilingualism, 18(3), 261-269. https://doi.org/10.1080/13670050.2013.868748
- May, T. (2007). Fractional language learning. *Asian EFL Journal*, *9*(4), 189-205. https://doi.org/10.1080/09500789808666779
- Munhall, P. (2008). Perception. In L. M. Given (Ed.), *The SAGE encyclopedia of qualitative research methods* (Vols. 1-0, pp. 606-607). SAGE Publications, Inc.
- Nelson, K. (1996). The emergence of mediating language. In Language in cognitive development: The emergence of the mediated mind (pp. 35-58). Cambridge University Press.
- O'Halloran, K. L. (1999a). Towards a systemic functional analysis of multi-semiotic mathematic texts. *Semiotica*, *124*, 1-29. https://doi.org/10.1515/semi.1999.124.1.1
- O'Halloran, K. L. (1999b). Interdependence, interaction and metaphor in multi-semiotic texts. *Social Semiotics*, *9*(3), 317-354. https://doi.org/10.1080/10350339909360481
- O'Halloran, K. L. (2003). Intersemiosis in mathematics and science: Grammatical metaphor and semiotic metaphor. In

- A.-M. Simon-Vandenbergen, M. Taverniers, & L. Ravelli (Eds.), *Grammatical metaphor: Views from systemic functional linguistics* (pp. 337-366). John Benjamins.
- O'Halloran, K. L. (2005). *Mathematical discourse: Language, symbolism and visual images.* Continuum.
- Scarcella, R. (2002). Some key factors affecting English learners' development of advanced literacy. In M. Schleppegrell, M. Colombi, & J. Baugh (Eds.), *Developing advanced literacy in first and second languages* (pp. 209-226). Erlbaum.
- Stacey, R. D. (1996). *Complexity and creativity in organizations*. Berrett-Koehler Publishers.
- Wu, J. G., & Miller, L. (2020). Improving English learners' speaking through mobile-assisted peer feedback. *RELC Journal*, 51(1), 168-178. https://doi.org/10.1177/0033688219890217
- Xia, L. (2018). Knowledge and representations: The meaningmaking process in the curriculum of mathematics (Unpublished doctoral dissertation). The Hong Kong Polytechnic University.

# APPENDIX 1: DATA OBTAINED FROM THE SELF-REFLECTION

## Participant 1

"I was very scared to speak in English to native speakers and found it very difficult to express my opinions in English"

I was lucky to have open-minded and talkative groupmates from LCC; they were always encouraging and supporting, and I started to voice my opinions in the group discussions.

Overall, I think the collaboration with LCC students has helped me improve my English, and I feel more confident when speaking English.

### Participant 2

The biggest challenge for me in this project was that my level of English is basic.

My teammates were very kind to jot down the notes for us to review the meeting. These were useful for us to catch up on the progress of the project and work effectively together. Also, I tried to overcome this challenge by asking more questions to ensure I did not have a misunderstanding of the project and did not slow down the work.

This collaboration project was much beneficial to me in the field of knowledge of advertising strategies and improved my English skills on communicating in an international collaborative project.

## Participant 3

Since I was not familiar with my groupmates first and our mother languages were different, some misunderstanding and issues emerged.

Be brave to speak up was one of the most significant things I learnt through this project.

Now, I can definitely understand why tutors usually want us to visualise our ideas. Due to my groupmates' verbal description of ideas, it is difficult to imagine and understand the actual outcomes of their creative ideas.

### Participant 4

In Hong Kong, we barely get the opportunity to communicate with foreigners and, thus, to develop our English listening skills.

Listening: Therefore, when we had a discussion with the lecturers from London or got an opportunity to listen to them, we had to pay more attention to hearing the content and tried to reform the message from it.

Speaking: Having conversation with the LCC students forced me to use English as clearly as possible to voice my opinion.

This project has definitely boosted my English listening skills. Moreover, it has enhanced my speaking, too.

#### Participant 5

The language was an obstacle because sometimes our LCC friends spoke too fast, which made it difficult to follow them. In addition, the annoying connection problem made it even harder to listen to what they said.

Therefore, I gathered Jamie and Cathy at the studio and joined the meeting with them, so that we could help each other out and catch up on what our LCC friends were saying.

Overall, I think this experience is worth.

#### Participant 6

There is no doubt that it is hard to communicate with people who don't speak the same mother language and have a diverse culture.

It is important to have good communication and use the 'Get To By' strategy, which can lead us back on the right track

It was a unique experience for me to work with different people around the world!

#### Participant 7

In this project, language and jetlag were the challenges, as we required smooth and suitable communication every week. As I needed to make sure everyone participated and gave out their ideas to discuss, I tried my best to express in words and speak to my groupmates politely.

I think this group project is a unique and worthwhile experience.