

Interactive methods used in collaborative writing in the online ESL classroom

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The last few years have amplified the use of digital technology in the second language (L2) classroom due to the emergence of COVID-19. Students were forced to study online, and, as a result, changing the interaction among students became crucial. While most English Language Intensive Courses for Overseas Students (ELICOS) classrooms have since returned to face-to-face delivery, many providers are now considering the potential benefits of online learning and the strategies that make the platform and classroom interaction effective. One method of facilitating online interaction is collaborative writing (i.e., co-writing). Co-writing refers to two or more individuals producing work and contributing to a task together. While not a new phenomenon in face-to-face settings, this research project closely investigates the methods that students use to interact while completing co-writing tasks in an online environment and the impact these may have on L2 learning. The data, taken over five weeks, was collected from 15 adult English for Academic Purposes students in an online ELICOS classroom. Results showed areas of improvement in co-writing and a perception among students that co-writing was helpful. The paper aims to contribute to greater understanding and improved co-writing delivery and practice for ESL students and practitioners.

Key words: Collaborative writing; interactive language learning methods; L2; ESL; online learning

Introduction

The shift to online learning has meant learners are now expected to have increased competence in a variety of interactive tools in their respective learning management systems (LMS). In addition to web-based tools, learners now have experience in

using video conferencing technologies with embedded collaborative devices such as shared writing documents to complete coursework tasks. The increasing use of these technologies has meant there are now more opportunities to involve learners in digitally supported collaborative learning. Collaborative learning remains an important practice in education through its focus on social mediation and learner-centredness (Zhou et al., 2019). However, how collaborative learning practices and digital technology improve learning for second language (L2) students requires further research. This study investigates some of the interactive methods students used in collaborative writing (hereafter co-writing) tasks in coursework settings in an online ELICOS course, and the extent to which these may affect L2 learning. Uniquely, it focuses on co-writing in a solely online learning environment and some of the methods students use to collaborate. It hopes to offer an increased understanding of how co-writing may be beneficial for students if scaffolded appropriately.

Collaborative learning

Psychology theorists, including Piaget and Vygotsky, have studied learners' interactions with their peers and have shown the significance of collaboration regarding the development of learning. Particularly noteworthy are theories relating to interaction and scaffolding. Learners interacting with others has been shown to assist individual cognition (Piaget, 1959), while interaction, scaffolding, and support enable learners to achieve mastery beyond their ability (Vygotsky, 1978).

Situated learning, as a tool for encouraging supportive social processes, has expanded on Piaget and Vygotsky's theories. For example, Lave and Wenger (1991) focused on traineeship as a prototype of learning where learners can take part in the process of engaging legitimately through peripheral participation. In this process, learners may participate timidly as they build acceptance, knowledge, and trust from members of their group while incrementally bolstering their engagement (Sleeman, 2015). As learners increase their engagement in a group, the possibility of mastering skills becomes more likely. Knowledge-based social structures, such as communities of practice (Wenger, 1998) and using social participation (Lave & Wenger, 1991), provide domains where learner members collaboratively produce materials and resources, share information, and develop knowledge.

Co-writing methods: Online tools

Past studies have focused on co-writing in in-person classrooms (Suwantarathip & Wichadee, 2014), while others (e.g., Sleeman, 2015) have focused on wikis and discussion forums as methods for developing collaborative learning, and computer-led interactions (Storch, 2013). While a variety of online communication platforms such as Microsoft Teams, Google Meet, and Zoom have gained popularity since the

emergence of COVID-19, there is a lack of research focusing on Microsoft Teams as a platform in collaborative learning and co-writing in L2 settings. Thus, the purpose of the present study is to observe the interactive methods used in collaborative writing in the online ESL classroom where Microsoft Teams is the employed videoconferencing platform.

Adapting coursework into co-writing activities

Working collaboratively is a common feature of society – it means work can be completed at various times, in separate locations, and synchronously (Sundgren & Jaldemark, 2020). Additionally, collaborative activities have the potential benefits of increased student engagement, creating a spirit of community, and improved virtual teamwork skills (Faja, 2013). Since much of English for Academic Purposes (EAP) curricula is focused on developing writing skills (Bruce, 2005; Klimova, 2015), several studies have explored the effect co-writing has on improving writing skills in EAP contexts (Bhowmik et al., 2018; Li, 2014; Storch, 2009). Other collaborative learning studies have focused on learner perceptions and the processes of learning. Chao and Lo (2011) showed that students perceive wikis as an important collaborative tool, especially in collaborative narrative writing. Sleeman's (2015) study of Web 2.0 tools showed that when students engaged actively in collaboratively online activities, their writing skills – notably those of the weaker students – may improve.

Prior to the COVID-19 pandemic, different technologies had emerged to facilitate communication among people and to enable collaboration. Some of these include computer-based video conferencing technologies, such as Microsoft Teams and Zoom, and other cloud-based technologies, such as wikis (Sundgren & Jaldemark, 2020). Of note is one study that showed using Google Docs resulted in positive learning outcomes in co-writing when compared to face-to-face collaboration in a traditional classroom (Suwantarathip & Wichadee, 2014). Others (e.g., Zheng et al., 2021) have highlighted the importance of effective scaffolding in the delivery of co-writing tasks. Lastly, a study by Miyazoe and Anderson (2010) indicated that learners' writing may become more complex because of engaging with online co-writing tasks.

These studies have made valuable contributions to co-writing discourse, although a research gap focusing specifically on effective collaborative methods in online L2 settings exists. Faja (2013) noted the difficulty of adapting learning materials and teaching methods to online environments. Less is known about effective collaborative methods in online L2 settings in remote learning and teaching environments where Microsoft Teams is used as the sole computer-based video conferencing technology. It is also prudent to note that using collaborative-friendly activities and technologies does not guarantee a positive learning experience. For example, some students might

attribute improvements in their writing ability to using a particular digital learning platform, while others may lament unequal distribution of labour in tasks and poor communication (Arnold et al., 2009; Sleeman, 2015). Another potentially difficult experience pertains to editing, where students feel uncomfortable editing their peers' work. This might be because editing the work of others could be perceived as a contravention to common classroom authorship practices.

Before this study, we acknowledged that these writing tasks were difficult for our students when completed individually. Diagnostic evaluation of our students indicated that their writing level was relatively weak. More writing practice is always welcome in EAP courses, so we were curious to see the writing results co-writing would produce. This present study focused on how learners interact in collaborative online spaces during ELICOS EAP course writing activities. Attention was paid to how learners exhibit communicative skills and competency in both verbal and written forms. To guide our research, we developed the following research questions:

1. What collaborative methods do students use to interact with each other during co-writing?
2. How do these collaborative methods enhance L2 learning?

Methodology

Research setting

The study was conducted at Swinburne College, a private college that administers and delivers ELICOS courses in a relationship with Swinburne University. The relevant ethics clearance for the study was obtained in December 2021. The participants were also made aware of when each lesson would be used for this study. We chose to conduct this research project with an upper-intermediate English for Academic Purposes (EAP 4B) class as it is often necessary for learners in these courses to increase their writing opportunities and develop collaborative skills that might assist them in their future university studies. While this course was the final course for some of the participants, students generally take an additional 10 weeks of EAP courses before they enter university in Australia. Subsequently, the tasks in this course, and those observed in the context of this research project, cover a variety of academic writing styles. Each week, learners study a particular writing function and are then given a particular activity to complete. For this research project, these activities were re-designed as co-writing activities. Students had three co-writing tasks to complete, including writing an email for a job application, an introduction to an essay, and writing a complete effects and solutions essay.

The technology

Swinburne College began using Canvas as its LMS in late 2018 and it is a popular learning management platform in Australian universities. It has intergrated collaborative devices with enabled video conferencing technologies, such as its Conferences and CollaborateUltra functions. The emergence of COVID-19 meant our centre embraced a virtual learning environment. As a result, Microsoft Teams became the centre's preferred communication platform. We preferred using Microsoft Teams as our video conferencing technology for this research project owing to its ease and familiarity among ELICOS students and teachers. In addition, Microsoft Teams has communicative functions that supported the research design of this project, namely the ability to make video calls, send instant messages into a chat, share screens, and work concurrently on shared files. It can also record meetings and video calls and has a transcription function which became useful when we were reviewing our data.

The decision to embrace Microsoft Teams came with the unexpected benefits of using it for collaborative tasks. The platform's chat functions, ability to make phone calls as if it were a telephone, form groups where learners can send instant messages, and make video calls were particularly useful. Teachers and learners can also distribute and share documents with enabled concurrent synchronous writing and embedded commenting functions. These features support using language to develop learning and thus form a fertile platform for research into learners' use of collaborative methods and the processes of language learning. However, in the broader context of Swinburne College and University, when compared to other video conferencing technologies offering the potential for effective collaborative activities, Microsoft Teams remains somewhat underused.

The study

The study was conducted over four weeks beginning in the first week of the 5-week ELICOS term in November and December 2021. As a result of COVID-19, all students were studying online and offshore. A total of 15 EAP 4B students were involved in the study. All participants provided written consent, and the participating students included six males and nine females. Of the students' cultural backgrounds, there were 10 Japanese (four male and six female), one Cambodian female, one Vietnamese female, two males from mainland China, and one female from Taiwan. The participants are summarised in Table 1 below:

Table 1
Participants

Participant information	
Number of students	15
Age range	19-25
Gender	6 males, 9 females
Countries of origin	Japan, The People's Republic of China, Cambodia, The Republic of China (Taiwan), Vietnam

The foundation of this research project was to give students opportunities to use co-writing to complete writing activities that would normally be completed individually. These activities preceded the main academic writing assessments. In this study, students were allocated into pairs or groups of three. They were asked to complete a co-writing task each week related to a certain academic writing feature. These activities were completed during class hours on Thursdays, online, and using the breakout room function in Microsoft Teams. Students used input material from Canvas, the College's LMS, and were given a blank Microsoft Word document to compile their co-writing responses. The students uploaded their co-writing responses into their breakout rooms so teachers could easily deliver feedback to each group.

Each task was captured using the recording function on Microsoft Teams. Students were encouraged to turn their cameras on and share their screens while working on the tasks with their partners or in small groups. Next, we provided verbal and written instructions for each task. The process of providing detailed scaffolding was important since each task was connected to the cumulative result for the project or writing exam. These include a problems and solutions research essay, and an effects and solutions writing exam essay, respectively.

Data analysis

In addition to examining the interactive methods used by each group, the co-writing tasks each group completed were also analysed. We were curious to see any improvements in writing standards in co-writing activities compared to our expectations of learners' writing ability at an individual level. We also wanted to know if there would be any improvement in writing ability throughout the study. To analyse this section of the data, we marked these co-writing tasks against adapted band descriptors from Swinburne College's EAP 4 (upper-intermediate) writing criteria. It is important to note these descriptors have been adapted from those used in the International English Language Testing System (IELTS) Academic Writing Task 2 band descriptors (public version). These offer wide-ranging criteria for assessing

academic writing, with linguistic, mechanical, and structural ratings which could be applied to the co-writing tasks we analysed.

We acknowledge that IELTS Academic writing tasks, and the writing tasks used in EAP courses, do not necessarily prepare students for the rigours of essay writing in universities in Australia (Moore & Moreton, 2005; Parris-Kidd & Barnett, 2011). That said, the sample questions seen in IELTS Academic Writing task 2 are comparable with the final co-writing task participants in this study had to complete, which was a 250-word response justifying an opinion through discussion, outlining problems, summarising details, providing possible solutions supported with evidence, including relevant arguments and examples from learners' own experience or knowledge (Pearson, 2020). Lastly, in the week immediately after the study, students are required to complete an effects and solutions writing exam individually. Owing to these similarities, assessing the co-writing tasks by applying these band descriptors was a useful way of gauging second language learning.

Along with analysing the interactive methods learners used in co-writing tasks and assessing their final written products, we also asked participants to complete a reflection detailing their experiences in our research project. We used narrative frames, an approach seeking qualitative data to explore commonalities and consistencies among the participants (Barkhuizen & Wette, 2008). Specifically, the frames can be an effective tool in language education research as they aim to understand the experiences of individuals in the learning contexts in which they learn (Barkhuizen & Wette, 2008; Barkhuizen, 2014). These questions were created to analyse, compare, and understand the recordings more easily. We created a guided form of composition to elicit the experiences participants had in the co-writing tasks used in this project (see Appendix A). Thematic coding (Green, 2002) was then used to designate different experiences participants had. In this research project, thematic coding refers to the analysis of narrative, or 'categorising' of narratives via the organisation of themes, content analysis, and coding. When we closely examined the participants' experiences, we sought patterns for analysis. We then applied specific data analysis approaches to extrapolate themes. There was a particular focus on participants' experiences with interactive methods used in co-writing activities, and whether learners believed their language and writing skills had improved because of co-writing.

Results

Participation

As shown in Table 2, the data analysis revealed that various methods of participation played a key role in each of the co-writing tasks. We chose these methods as they

were commonly cited methods of interaction in collaborative writing research largely based on interactional hypotheses (Long 1983, 1985) and input and output hypothesis related to cognitive theories of second language acquisition (SLA) (Swain 1985, 1995). More specifically, these hypotheses helped researchers better understand the interactive methods used to acquire language, namely through input, negotiation, and scaffolding (Storch, 2013). They also informed notions of collaborative dialogue in language learning settings (Storch, 2013; Swain, 2010). It has also been acknowledged that interactional modifications should be made to deepen our understanding of verbal communication in collaborative settings (Long, 1985). Aside from 'Written communication in chat' and 'Using L1', which were derived from our intuition and observations, such interactional modifications formed the interaction methods used in Table 2.

We identified the particular interactive methods in Table 2 by undertaking a careful initial observation of all pairs and groups for the first writing task in this study. By doing this, it then became clear when students provided input, sought clarification, and took a lead in the co-writing process. These deliberations were consistent with Storch and Wigglesworth's (2007) study, particularly regarding language and concept clarification. Worth noting is that it was common for some of the interactive methods to cross over into other categories. For example, there were recorded instances of 'Using L1' while the students may have been discussing structure, exhibiting leadership, or any of the other method categories. Other examples included when we recorded 'Written communication' in the chat when students were also 'Providing input'. For that reason, we recorded these instances as coded data in both categories when an interactive method fell into both.

Students were divided into groups of two or three and remained in the same group unless a student was absent. Student participation varied extensively between groups and there was a noticeable difference in the progression of each task. Some groups had a clear and dominant leader, whereas others were more balanced. The dominant leader was often determined by their capacity to give their partner or group members instructions or tasks within the co-writing activity. The students who regularly participated and volunteered answers in class also participated consistently in their groups and showed leadership in the given tasks. The calculations of the interactive methods students used in online co-writing activities by all groups across the three co-writing activities are shown in Table 2 below:

Table 2***Interactive methods used in co-writing checklist: Combined activity and group totals***

Method	Task 1 total	Task 2 total	Task 3 total	Combined total
Modes of communication				
Written communication in chat	15	1	45	61
Using L1	29	3	27	59
Content of the communicative event				
Providing input	14	21	73	108
Seeking clarification on task requirements	22	24	37	83
Leadership	22	23	33	78
Discussing structure	2	21	30	53
Making requests	8	7	26	41
Seeking knowledge about topic from partner or group	8	7	26	41
Conversing about topic	8	7	21	36
Language or concept clarification	12	7	17	36
Delegation	9	5	16	30
Assessing/providing feedback on others' work	3	6	20	29
Negotiation	2	1	11	14

On the other hand, some of the less active students in the class may have participated less or in diverse ways. For example, there were instances where a student's microphone was not working, or they were experiencing internet connection issues. Furthermore, for the more timid or less confident students, the ability to retreat and avoid certain tasks or communication in an online setting seemed easier than in a face-to-face setting. Even though it was made clear that students needed to have their cameras on and actively communicate in the breakout rooms, it was not always the case, despite being reiterated in written and verbal instructions before each task. Finally, most students became more comfortable with the progression of each task, and they developed different ways to communicate. This may have been due to the consistency of the co-writing instructions and practice. Whether students participated on a large or small scale, all tasks were completed sufficiently for the teachers to evaluate each group's task.

Learning outcomes

Discussion among group members was not necessarily conducted verbally. In many cases, students discussed most effectively through writing in Google Docs or in

Microsoft Teams messaging. They often wrote questions to each other, divided tasks, and provided feedback, which seemed to be a productive communication method. Next, all three co-writing tasks appeared to be challenging for students, with grammar and vocabulary showing the most difficulties. Some students observed that they felt their reading and speaking may have improved even though they felt like their writing did not necessarily. This was, however, also an opportunity because of the challenging nature of the tasks as the participants could learn from each other. More specifically, word forms, paraphrasing sentences, and writing with more fluidity showed improvement through increased linguistic accuracy.

Importantly, students noted the long-term improvement in their writing ability having completed co-writing tasks twice or several times. This could be seen in the narrative frames reflections, where students affirmed their belief that their writing and language ability improved despite the challenging nature of the tasks and co-writing as a method. Students also emphasised the value of student-to-student observations where they believed that these interactions could help them acquire language from each other and therefore improve their overall English language skills.

While our first research question focused on interactive methods students used in co-writing tasks, the second research question focused on the potential for these collaborative methods to enhance L2 learning. As mentioned, our diagnostic evaluation of the writing ability of the class that participated in this research project showed varied writing abilities which would generally be considered weak. Some students, and by extension some groups, had stronger writing abilities. These can be seen in the results of each co-writing task in Figure 1.

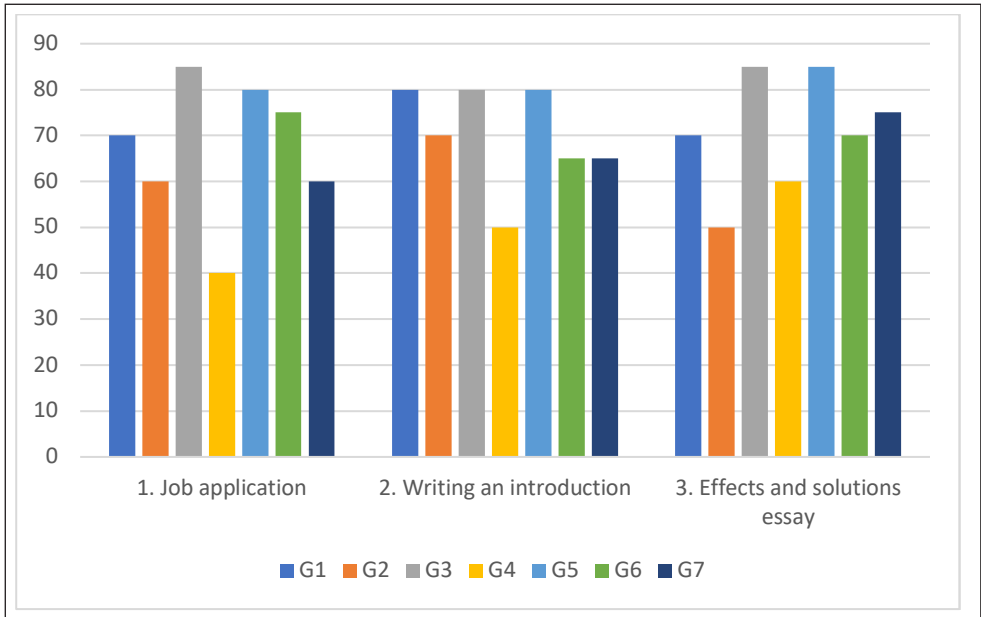


Figure 1. Group co-writing scores by task

By task and marked against an EAP 4B writing rubric adapted from IELTS criteria, the scores for writing task 1 ranged from 40 to 85, with a mean score of 67. Writing task 2 scores were generally more closely grouped and lacked the variation seen in writing task 1. The scores ranged from 50 to 80, with a mean score of 70. Surprisingly, writing group 2 did not perform as well in the last writing task, the effects and solutions essay. Scores for this task ranged from 50 to 85, with a mean score of 71. From the slight increase of the mean scores, we can perhaps assume that as students became more versed in co-writing and implementing effective interaction methods, co-writing tasks became easier and perhaps students' co-writing abilities improved.

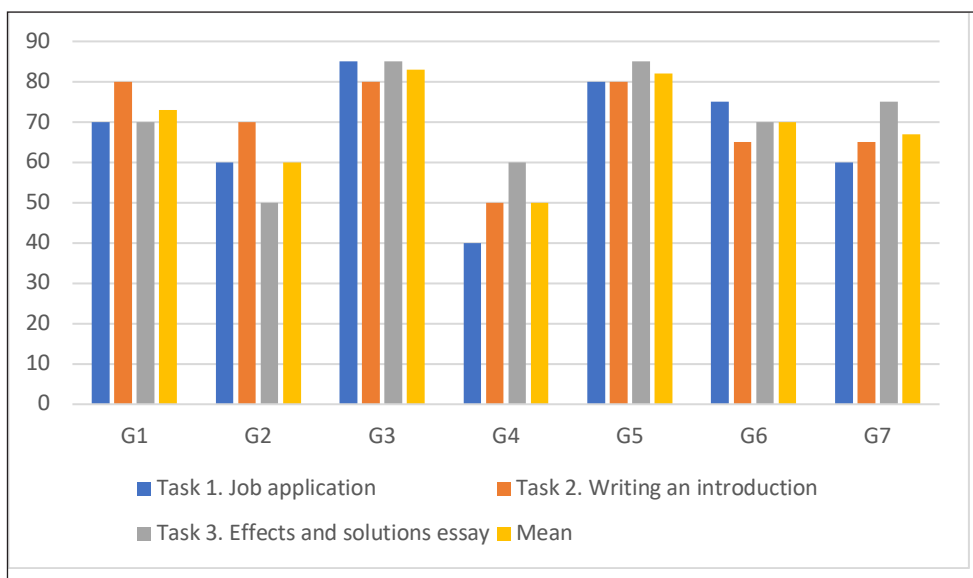


Figure 2. Co-writing task scores by group: Task 1, Task 2, and Task 3

Marked against the same writing rubric, we can see the scores for each task by group in Figure 2. Writing group 1 scores ranged from 70 to 80, with a mean of 73. Writing group 2 scores ranged from 50 to 70, with a mean of 60. Writing group 3 had the best scores of the cohort, ranging from 80-85 with a mean of 83, while writing group 4 struggled with the co-writing tasks, producing scores ranging from 40 to 60, with a mean of 50. Writing group 5 also performed strongly, with scores ranging from 80 to 85, with a mean of 82, while writing group 6 performed consistently with scores ranging from 65 to 75, with a mean of 70. Lastly, writing group 7 scores ranged from 60 to 75, with a mean of 67.

When compared with the individual writing results at the end of the term, the results of the co-writing scores by task and group generally did not present significant variation. The mean for individual writing tests results at the end of the term was 71, while the mean for co-writing tasks across all groups and tasks was 69. The individuals in writing groups 3 and 5 were among the highest performers in the writing exam, with results ranging from 80 to 90, not dissimilar to those seen in the co-writing tasks.

In results comparable to Sleeman’s (2015) study, it appears that students with higher writing abilities and consistent interactive and collaborative participation did not show the same improvement as those with weaker writing abilities pre-study. The members of writing group 4 were among the lowest. That said, the members of writing group 4 scored higher in their final writing exams than in their co-writing tasks, to the degree of 10 points above their mean co-writing scores. They also

showed incremental improvement in each of their co-writing tasks, suggesting that with increased practice in co-writing tasks, students with weaker writing abilities showed the most improvement in co-writing task scores. Perhaps the members of group 4 developed writing confidence over time, which culminated in a higher end of term writing result immediately after completing the co-writing tasks in this study. Alternatively, it is possible that students with lower writing ability may require increased teacher input and scaffolding.

Learner perceptions

Perceived benefit of practice

At the end of the last co-writing task, students were given prompts that reflected their co-writing experience for each task. These were developed in the form of narrative frames – a reflective writing task designed to interpret and evaluate learning experiences. Eight questions helped facilitate the interpretation of students' experiences during each task. Student quotes were carefully evaluated from the collected narrative frames by selecting those that responded more meaningfully to the prompts in the narrative frames in addition to those that offered well-detailed and developed answers. Each quote is from a unique student to provide learner insights representative of our participant sample (Emmel, 2013).

Judging by the participants' responses, 11 students acknowledged the difficulty of the co-writing tasks while also recognising that the tasks may have developed their communication skills and helped them learn different writing styles (see Excerpt 1).

(1) I can know how to write differently after three tasks and get many new vocabulary and ideas because of partner. Also, I could communicate and speak English more using my own words. I felt comfortable expressing myself.

The students mentioned that discussions enabled them to improve their speaking skills and divide tasks accordingly, whereas observing other students' writing styles helped them develop and strengthen their own. They mentioned that this was because of the different vocabulary and writing structures that their partner had applied (see Excerpt 2).

(2) The most efficient ways that I was able to collaborate with my partner were to keep talking. We split the work and then combine it later. I noticed that looking at other student writing helped me learn about my own and improve because different structure and vocabulary.

Therefore, this enabled them to observe, reflect and consider other grammatical structures or apply new vocabulary to their own writing (see Excerpt 3).

(3) The most engaging aspects of the tasks for me is being able to see the sentences written by other people. I always use similar expressions, so it is very interesting to see other people's writings.

The response, therefore, made a clear indication of the student's willingness to learn from others and pay close attention to other writing structures. Furthermore, students from a study completed by Shehadeh (2011) on co-writing stated that they also acquired a significant amount of English from their fellow peers, more specifically because their peers offered different ideas, perspectives, and vocabulary. In the narrative frames reflections, the students largely perceived discussions and observations as the most engaging aspects of the co-writing tasks in this study. These reflections also showed that students believed co-writing tasks may develop learner confidence in the work they are expected to produce. Furthermore, students expressed that with increased exposure to varied styles of writing, it could then become a reflection on their own writing style.

They also emphasised that seeing other students make mistakes helped them feel less intimidated and more confident when speaking or writing (Shehadeh, 2011). Perhaps this recognition, along with peer correction and feedback, raised students' awareness of the importance of recognising and calling out grammar or vocabulary errors in the hope that such recognition might improve their writing abilities.

Learner challenges

Despite students feeling like they benefitted from the challenges posed by the writing tasks, students noted additional co-writing challenges. One key challenge was the lack of verbal expression in the online classroom which made some students retreat and communicate less. This was easier to do online as students could turn off their cameras or leave the classroom for short periods of time. Overall, students mentioned that it became easier with the progression of each task and their partner or group's help. This might be because students' co-writing skills started to improve, and they became more comfortable with their group members (see Excerpts 4 and 5).

(4) I struggled with co-writing and had a hard time, but I think once you do it a few times then it gets much easier and is helpful.

(5) Co-writing was very difficult. I try my best and learn a lot from my partner.

Others noted that co-writing offered opportunities to learn (see Excerpt 6).

(6) In general, I found that co-writing was a place of learning.

Generally, students believed that they learned a lot about their own writing style through observing other students' writing styles. There was also a general view that

co-writing can facilitate and enhance students' overall learning experience across macro-English skills including listening, reading, writing, and speaking.

Discussion

This study largely focused on the interactive methods students used in co-writing tasks. As noted, many students were timid initially but were able to complete the co-writing tasks competently at a level where they could be assessed against commonly used and standardised writing assessment criteria. In the interactive methods table, participants commonly provided input, sought clarification, led their peers, and used instant messaging functions to interact with their peers during co-writing tasks. Less common, and perhaps somewhat surprising, were instances where the students praised, complimented, and encouraged their peers. Perhaps the inclusion of a constructive feedback form, where each group member throughout the co-writing tasks writes feedback by highlighting areas for improvement while boosting learner confidence, could help cultivate affirmative interaction.

The results of this study highlighted several questions about effectively scaffolding co-writing tasks. Including more instructions about the required writing structure and methods used in co-writing tasks would provide additional benefits. Teachers should consider how much additional input they need to provide, and when. Much of this may not be necessary if students have been taught the writing skills they will be expected to use prior to the co-writing tasks. In addition, giving students opportunities to collaborate prior to a co-writing study may help familiarise students with group dynamics prior to completing group tasks.

From the results of this investigation, we can also see that students may have developed confidence in co-writing and perhaps in their overall writing ability. Students also broadly felt like the co-writing tasks were useful in their overall writing skill and language development, especially when it came to seeing other students' writing styles, but also acknowledged the difficulty of the tasks and the concept of co-writing. This theme was prevalent across student responses in this study and deserves attention. Future teachers may wish to consider how students recognise other writing styles through text analysis where students compare their written text with their partner's or the members of their group. It also highlights that co-writing tasks should be understood as a continual process in which progress is not always linear, and co-writing tasks should be revisited to provide continuous improvement and refinement in co-writing skills. This should also include paying close attention to how tasks can be refined and updated to develop specific writing skills, or grammar or vocabulary improvements.

It should be noted that the students who began this study as relatively competent writers of English were able to complete the tasks in this study relatively easily and without teacher intervention, but their writing scores did not show substantial improvement. The students who were less competent writers of English began the tasks modestly and showed the greatest improvement in co-writing scores. Perhaps the more advanced writers of English had plateaued in their language development, while those who were less advanced may have exhibited faster development progress seen in developing language learners (Lightbrown & Spada, 2006). This could be because the linguistically stronger groups had less access to teacher input, monitoring, and scaffolding, while the more modest users received more detailed supervision during tasks. Challenging learners who plateau so they can excel in co-writing tasks is an important area for future research, especially in relation to the co-writing methods they use, along with how to provide more effective direction and guidance to linguistically weaker groups to enrich co-writing discourse.

Future directions

Though the research in this study was subject to several limitations (e.g., exclusively online context using Microsoft Teams; the majority participant nationality and L1 being Japanese), we hope that this study will encourage some future considerations in collaborative learning. One of these could be how co-learners who speak the same first language interact during co-writing activities. While conducting this study, we observed that the students mainly interacted in English with few instances where they used their L1. This was the case even when both students had the same L1 background and may be because they knew their meeting or video call was being recorded. A separate analysis or investigation focusing on the same L1 pairs or small groups could focus on this subset of interactive methods used in co-writing activities, as this study focused on interactive methods used in co-writing tasks, and the extent to which these may improve L2 learning.

Worth considering is that perhaps too much emphasis is placed on which language is used in collaborative learning activities, and thus practitioners should be open to other approaches and methods, such as translanguaging. Translanguaging continues to emerge as a pedagogy in language teaching in a variety of classrooms and contexts (Prilutskaya, 2021) because it allows language learners to draw from their “full linguistic repertoire” as they participate in the learning of an additional language, whether that be their second, third, or beyond (García & Kleyn, 2016, p. 4). This approach allows practitioners to provide students with purposeful opportunities to engage with languages they already know, thereby assisting their learning of a new language. While not immune to the “monolingual mindset” debate involving new education systems and curriculums (French & Armitage, 2020, p. 91), translanguaging

may help practitioners and researchers better understand how co-learners with the same L1 interact in co-writing activities.

CONCLUSION

Prior to the COVID-19 pandemic, co-writing was already used in face-to-face L2 classrooms. However, owing to the pandemic, L2 education had to shift rapidly towards the everyday use of digital technology and divert to online learning. This has and will continue to influence the future of L2 education and has created change in the language learning world insofar that despite the return of face-to-face learning, technology will likely be used much more in L2 classrooms. Co-writing in an online environment is one method to alleviate isolation, encourage communication and interaction, and integrate different learning methods and styles into the classroom. This article aimed at investigating which interactive methods and tools were used by students during the co-writing tasks and if they enhanced students' language learning. Indeed, some students benefitted from co-writing, whereas others did not appear to have benefitted as much. These uncertainties and inconsistencies could be due to the small sample size and time constraints within this research project. Nonetheless, the reflective narrative responses from students indicate that, overall, co-writing helped some students develop stronger writing skills by observing and learning through their partner(s) and that it improved their macro skills (speaking, listening, reading, and writing). Finally, we hope this article guides future research as it aimed to develop a better understanding of students' choice of methods and interaction in a co-writing environment.

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APPENDIX A

Narrative frames table: students' reflections

Questions:	Combined Responses:
<i>The most engaging (e.g., pleasant, attractive, I had fun doing them) aspects of the tasks for me were...</i>	<ul style="list-style-type: none"> - Observations of assorted styles of writing (grammar and vocabulary) - Discussing ideas together <p>Outliers:</p> <ul style="list-style-type: none"> - Consultations with partner if there were any misunderstandings.
<i>What I found most effective (e.g., worked well/best) was...</i>	<ul style="list-style-type: none"> - Communication is key - Splitting tasks and then combining them - Sharing ideas - Co-writing an essay
<i>The thing I found the most difficult was...</i>	<ul style="list-style-type: none"> - Grammar - Lack of verbal and written expression <p>Outliers:</p> <ul style="list-style-type: none"> - Writing an introduction and an essay
<i>Out of the three tasks (email, introduction, and essay), I found that...</i>	<ul style="list-style-type: none"> - Most time was spent on essay <p>Outliers:</p> <ul style="list-style-type: none"> - All three tasks were difficult - Email and essay most challenging
<i>The most efficient ways that I was able to collaborate with my partner were...</i>	<ul style="list-style-type: none"> - Breakout room verbal discussion - Breakout room group chat - Dividing tasks and assessing roles <p>Outliers:</p> <ul style="list-style-type: none"> - Learning partner's writing style
<i>What I learned about my own writing was...</i>	<ul style="list-style-type: none"> - Various sentence structures - Developed word formation/vocabulary <p>Outliers:</p> <ul style="list-style-type: none"> - How to paraphrase better - Write more quickly
<i>What I learned from another student's writing was...</i>	<ul style="list-style-type: none"> - Ability to write more complex sentence structures - Expanded vocabulary repertoire - Different perspectives in exchange of ideas
<i>In general, I found that co-writing was...</i>	<ul style="list-style-type: none"> - Communication and cooperation are necessary - A helpful and good place to learn - Challenging and difficult <p>Outliers:</p> <ul style="list-style-type: none"> - Improvement in writing skills