Asian Journal of Social Science Research (e-ISSN: 2600-9706)
Volume 8, Issue 1, 2026
DOI: https://doi.org/10.5281/zenodo.20822596

STUDENTS' PERCEPTIONS TOWARDS ENGLISH LANGUAGE LEARNING EXPERIENCE IN AN ONLINE PEN-PAL PROGRAM

Nur Atiqah Binti Lewi[1*], Arif Hakimi Bin Zulazli[2], Siti Nor Effadila Binti Su'aif[3], Muhamad Lothfi Bin Zamri[4], Siti Khairani Qalbi Binti Ahamad[5], Wan Norhidayah Binti Megat Ajib[6]

[1,3,4,5]Faculty of Languages and Communication, Sultan Idris Education University, Malaysia,
[2]Universiti Selangor (UNISEL), Bestari Jaya, Malaysia
[6]City University, Johor Bahru Campus, Malaysia

[*]Corresponding author, atiqah.lewi@fbk.upsi.edu.my

Received Date: 28/02/2026 Accepted Date: 15/06/2026 Published Date: 30/06/2026

ABSTRACT

The use of online peer collaboration has been integrated into English language teaching (ELT) due to the need for authentic use of the English language. This study investigates the perceived experiences and challenges of participation among English majors regarding language learning in an online pen-pal program through the use of social constructivist and interaction-based perspectives. One public and one private university in Malaysia served as the sites for a survey and follow-up semi-structured interviews as part of the mixed-method study. The survey and interview were used to analyse the two main constructs of the study which are the perceived experience of language learning and the challenges related to participation. Based on the descriptive statistics, participants reported positive perceptions of their language learning experiences, particularly in relation to writing practice, linguistic awareness, and confidence. The qualitative findings also showcased sustained writing practice, reflective processing of language, and contextual challenges that are easier to manage, such as time constraints and delayed responses. Although participants experienced a moderate level of participation challenges, it was evident that the challenges were not a dominant barrier toward their engagement. The results indicate that participants perceived structured asynchronous pen-pal programs as providing valuable opportunities to support their interaction-related language learning experiences.

Keywords: Online peer interaction, pen-pal program, perceived language learning, participation challenges, reflective writing, English language education

INTRODUCTION

In the context of higher education, the use of digital communication tools incorporated within the teaching of the English language has increased in frequency and scope. As the authentic use of language and communication has risen, teachers have incorporated tasks that require students to go outside the physical boundaries of the classroom to communicate. One example of this is the use of online pen-pal programs that aid collaborative writing engagements. These programs give students the role of communicators, using English for purposes that go beyond the classroom and evaluate contexts in real-world situations.

The importance of interaction in the development of the second language is well documented. Learning from a social constructivist perspective is the result of meaningful

DOI: https://doi.org/10.5281/zenodo.20822596

dialogue and active participation in collaborative activities (Vygotsky, 1978). Learners gain the benefits of planning, organising, and revising their written text in online collaborative writing environments such as an online pen-pal programme without the pressure of real-time communication. This is likely to contribute to more careful consideration of their words, grammar, and clarity of their writing. Recent studies in this area have shown that collaborative writing in a computer-mediated context promoted a higher level of language awareness and reflection (González-Lloret, 2020; Zhang & Hyland, 2022).

Aside from linguistic development, student learning experience perceptions are crucial for assessing the success of instructional strategies. Learners are more inclined to maintain their participation and engagement in an activity when they view it as meaningful, supportive, and advantageous (Ramadan & Jember, 2024). Within the context of online peer interaction, students' perceived improvements of their language skills, increase in confidence, and reflective processing may determine the success of the activity.

There is also a contextual challenge to online interaction. Research has shown that students experience writing anxiety, response latency, and problems with technology when writing in online environments (Waluyo & Panmei, 2024; Usher et al., 2025; O'Dowd, 2021). These limitations may impact both the extent of student participation and the flow of interaction. Therefore, researchers must consider the challenges of participation as much as the perceived learning benefits.

Although there is significant research on peer writing in online contexts (Blake, 2016; O'Dowd, 2021), there are limited studies on perceptions of English major students who are involved in organised pen-pal writing programme in higher education institutions in Malaysia. Previous research has been conducted on peer feedback, collaborative writing, and virtual exchange activities in online learning environments (Zhang & Hyland, 2022; O'Dowd, 2021; Waluyo & Panmei, 2024), but not on the extended one-to-one pen-pal exchanges. In this study, two Malaysian higher education institutions' volunteer students were matched with a designated peer and participated in the pen-pal activities asynchronously every week for eight weeks.

Due to this, it is crucial to understand what is happening in this context, as sustained one-to-one interaction differs from traditional activities of peer feedback where the focus of feedback is on a single short moment (Vygotsky, 1978; Long, 1996). Students' perceptions can be studied to deepen the understanding of the learning processes in structured asynchronous learning environments (Vygotsky, 1978; Long, 1996; O'Dowd, 2021). The results could also have implications for educators who want to create meaningful online communication activities in higher education. Thus, it is impossible to know from the literature how students majoring in English view structured online pen-pals exchanges and what difficulties they face when involved in such exchanges. This research study examines the following research questions:

RQ1 : How do students perceive their English language learning experience in the online pen-pal program?
RQ2 : What challenges do students encounter during participation?

Asian Journal of Social Science Research (e-ISSN: 2600-9706)
Volume 8, Issue 1, 2026
DOI: https://doi.org/10.5281/zenodo.20822596

LITERATURE REVIEW

This section examines the literature pertaining to online peer interaction and second language acquisition, focusing specifically on digital writing. It integrates three overlapping constructs which are online peer interaction and language development, learning and reflective writing in digital contexts and challenges in online peer interaction. This review provides a basis for understanding students' perceived language learning experience and participation obstacles in an online pen-pal program.

ONLINE PEER INTERACTION AND LANGUAGE DEVELOPMENT

Online peer interaction has been an important component of second language teaching and learning, especially in the context of higher education where digital technologies enable asynchronous interaction (Blake, 2016). Adopting a social constructivist approach, Vygotsky (1978) posits that language learning develops through interaction and collaborative meaning construction. In communicative exchanges, learners are required to organise their thoughts, negotiate meaning, and consider and respond to others' viewpoints. These cognitive processes are believed to contribute to linguistic and cognitive growth through social interaction and collaborative meaning-making (Vygotsky, 1978; Long, 1996).

The role of online peer interaction in second language writing development has been supported by recent research, with the focus and results being different in various studies. According to Zhang and Hyland (2022), students' rethinking and clarification of their written texts was associated with their review of the peer feedback. Likewise, Waluyo and Panmei (2024) found that online peer interaction contributed to English writing activities where the learners were more engaged. But most of this research has centered on peer feedback and collaborative writing assignments, not extended interpersonal exchanges. Therefore, it is uncertain if the benefits of peer review activities are equally applicable to long-term, one to one, pen-pal exchanges.

It is important to note that the interaction in online pen-pal exchanges is not a task-oriented type of computer-mediated collaborative learning, but a long-term, personal, and relationship-oriented type. Pen-pal exchanges are not necessarily tied to specific assignments, but rather are those in which the same participants continue to communicate over a longer period of time than is required for the peer review. This continued engagement can foster awareness of the audience, reflective language, and individual engagement with communication (O'Dowd, 2021). However, little research has looked at how the learners view these longer-term exchanges of 1:1, especially in Malaysian higher education setting.

LEARNING AND REFLECTIVE WRITING IN DIGITAL CONTEXTS

Student feedback and reflections regarding the online pen-pal program provide the basis to evaluate its success. Evaluating program success using student feedback and reflections is consistent with the principle that learner perception is a significant indicator of the effectiveness of the instruction (Crawford et al., 2024). Perceived learning is the estimation a student makes regarding their growth, improvement and understanding of the activity and the skills associated with the activity (Crawford et al., 2024). In language education, the perceived improvement usually relates to the learner's awareness of language (grammar and vocabulary) and the organisation of ideas and language use, which is consistent with research that relates learner perception to participation and confidence in communicative activities (Ramadan & Jember, 2024).

DOI: https://doi.org/10.5281/zenodo.20822596

The nature of online writing environments may encourage reflective processes of language due to their asynchronous writing environment (Irgin, 2024). As opposed to face-to-face communication, asynchronous writing environments give learners more time to plan, monitor, and edit their responses (Li & Zhu, 2017; González-Lloret, 2020). As stated in Li and Zhu (2017), learners who engaged in computer-mediated collaborative writing demonstrated higher planning and monitoring behaviours. Self-regulated learning strategies comprise of reflective processes, and in the context of Zimmerman (2002) this consists of drafting, reviewing, and revising prior to submission.

Collaborative online writing tasks may help students develop a greater sense of ownership and confidence in language production, particularly when communication is directed towards a real audience (O'Dowd, 2021; González-Lloret, 2020). Learners tend to be more attentive to writing clearly and accurately if they know that real peers will be reading their writing. This sense of audience has been noted by (O'Dowd, 2021) in the context of EFL, where meaningful digital peer interaction has been shown to foster intrinsic motivation and sustained engagement. It is reasonable to conclude based on the results of the studies that online pen-pal programs may positively affect students' linguistic outcomes and their perception of progress, reflective processing, and confidence in the use of the language.

CHALLENGES IN ONLINE PEER INTERACTION

Although there are many benefits to online peer interaction, there are also many challenges as well. Writing anxiety in peer-based environments has been documented in various studies, especially where students feel there are disparities in peer competency (Waluyo & Panmei, 2024; Bailey & Cassidy, 2019). Anxieties related to participation, grammatical, and linguistic performance all affect participation. In a study about asynchronous communication, it was determined that poor response timing and participation are all common phenomena. Usher et al. (2025) show that response time that is out of sync with the rest of the participants is detrimental to the motivation and flow of the conversation. In conjunction with this, O'Dowd (2021) show that asynchronous discussions, while promoting reflection, may reduce the participant's ability to feel present with the rest of the group and emotionally connected.

Other technical issues involving unreliable internet connection and difficulties related to the platform may also influence the continuity of communication (Pham, 2020). Although these problems are mostly contextual instead of structural, they could affect learners' experience of the activity as a whole (O'Dowd, 2021).

The literature reveals two themes in online peer interaction research that are present throughout. First, online engagement is often associated with better language awareness, reflective writing, and confidence, which can differ in terms of the kind of interaction, the learning context and the learner (Zhang & Hyland, 2022; O'Dowd, 2021; Waluyo & Panmei, 2024). Second, research has repeatedly found that problems with participation such as time limitations, slow feedback, or fear of writing, and technology issues (Waluyo & Panmei, 2024; Usher et al., 2025; O'Dowd, 2021) exist. These themes have been featured in studies on collaborative and peer feedback writing, but very few studies have been carried out on structured online pen-pal program in Malaysian higher education especially among students majoring in English. Thus, there is a need to investigate further on students' perception of the learning opportunities and difficulties encountered with continued one-to-one exchanges of pen-pals.

THEORETICAL FRAMEWORK

The study utilised the social constructivist theory, where learning is achieved through interaction, resulting in cognitive growth (Vygotsky, 1978). Learning is achieved through social participation and active collaboration. Practice is designed to offer opportunities to the students to formulate the ideas, relate, and carry on communicative to perfect the linguistic constructs.

Meaningful communication is essential in every area of research on second language acquisition. Long's (1996) hypothesis on interaction states that learners acquire a language when they participate in a conversation that involves clarification, modification, and negotiation of the meaning of the conversation. More current research focuses on online interaction, arguing that online interaction also aids in perception, modification of linguistic output, and linguistic development (Sato & Ballinger, 2016; González-Lloret, 2020). Interaction also encourages learners to make clear and precise linguistic modifications to their output.

While the social constructivist and interactionist approaches are helpful for the understanding of language learning through communication, there are some problems in applying them to the asynchronous digital learning environment. Both Vygotsky (1978) and Long (1996) built their frameworks in settings where interactions were mostly in the here and now, and were grounded in local social settings. Communication may be delayed, broken apart or constrained by technology in online environments, which can diminish opportunities for negotiation of meaning in real time. As mentioned by O'Dowd (2021), there is a possibility that asynchronous interaction will foster reflection, but also it can reduce the feeling of immediacy and social presence among the participants. Thus, the role of traditional interaction-based theories in explaining learning in structured online pen-pal interactions has yet to be explored.

When it comes to digitally mediated environments, asynchronous communication may also help learners to process language reflectively. Asynchronous communication can give learners the opportunity to think, plan, and revise their responses before posting, a feature frequently identified as an advantage of computer-mediated language learning environments (González-Lloret, 2020; O'Dowd, 2021). Recent research in computer-mediated environments focused on second language learners suggests that this "processing time" can promote greater attention to the selection and arrangement of words, grammatical accuracy, and the overall coherence of the text (Li, 2018; Zhang & Hyland, 2022).

In an online pen-pal program, participants are involved in the sustained written interaction with other participants. This interaction format makes it necessary for participants to respond and deepen their engagement by elaborating, as well as maintain the flow of conversation. From the social constructivist perspective, interaction provides opportunities for learners to construct meaning collaboratively and perceive progress in their language learning experiences. The self-monitoring of language and reflective processing may be prompted by the asynchronous interactions.

Online pen-pal exchanges have asynchronous characteristics which can pose challenges and opportunities to the use of these theories. With a social constructivist approach, the construction of meaning is not halted but is ongoing as the learner interacts with the partner but at a different time rather than in real-time or by conversation. As is the case with Long (1996), who pointed out that negotiations of meaning are key to communication, in an asynchronous mode there may be fewer chances for immediate clarification and feedback. Meanwhile, the time lapse that is built into the process could foster more reflection, self-monitoring, and revision among learners before they respond. Although it may seem like a drawback, over time, sustained online communication can help to create a greater sense of

DOI: https://doi.org/10.5281/zenodo.20822596

social presence and interpersonal connection (Castellanos-Reyes et al., 2024). So, the online pen-pal programs are a unique interactional context that may be different from that of face-to-face or synchronous interactional settings, where traditional theories of language learning apply.

In this study, the online pen pal activity is treated as a setting where students learn by communicating with a partner over time. As they continue writing to each other, they begin to notice changes in how they use the language and how involved they are in the task. The ongoing exchange gives them space to adjust their writing, clarify their ideas, and reflect on their progress. At the same time, since the activity relies on internet access and online platforms, technical or situational issues may sometimes interrupt the interaction. Because of this, the study pays attention to both students' perceptions of their language learning experiences and the practical difficulties that may affect their participation.

CONCEPTUAL FRAMEWORK

This study views the online pen-pal program as a potential platform for sustained peer engagement and interactivity. Guided by the social constructivist and interactionist perspective of language learning (Vygotsky, 1978; Long, 1996), the study employs prior studies on the computer-mediated language learning (CMCL) that reveal how environments that foster peer interactions influence learners' perceptions related to participation-related constraints and learning-related gains (Li, 2018; Waluyo & Panmei, 2024). The two-dimensions of learning and participation are highlighted in studies on online peer interactions, and are especially prominent in writing environments.

The initial construct is perceived language learning experience (Li, 2018; Zhang & Hyland, 2022), and it is informed by studies on online L2 writing and reflective language processing. It pertains to the self-reported perceptions of students and their increased confidence in the use of the English language, along with improvements in their writing, their awareness toward linguistics, the level of their ideas' organisation and reflective processing as a result of the pen-pal exchanges. These perceptions represent how students interpret the influence of sustained participation and collaborative meaning-making on their language learning experiences through interaction (Vygotsky, 1978; Long, 1996).

The second construct is participation challenges. This construct stems from the recurring patterns found in the studies of digitally mediated peer interactions (Waluyo & Panmei, 2024; Usher et al. (2025); O'Dowd, 2021). This construct encompasses the context and emotions that affect how students engage with the activity, such as having no time, waiting for responses, feeling anxious about the language, and feeling frustrated with technology. Although interaction can facilitate learning, several practical and emotional factors may encourage or inhibit participation (Waluyo & Panmei, 2024; O'Dowd, 2021). In this context, the online pen-pal system illustrates the instructional context that will affect how students perceive the challenges of language learning and the challenges of participation. The purpose of the study is to examine the two constructs in an attempt to capture how students construct their understanding of the interactional experience without establishing any relationships among the variables.

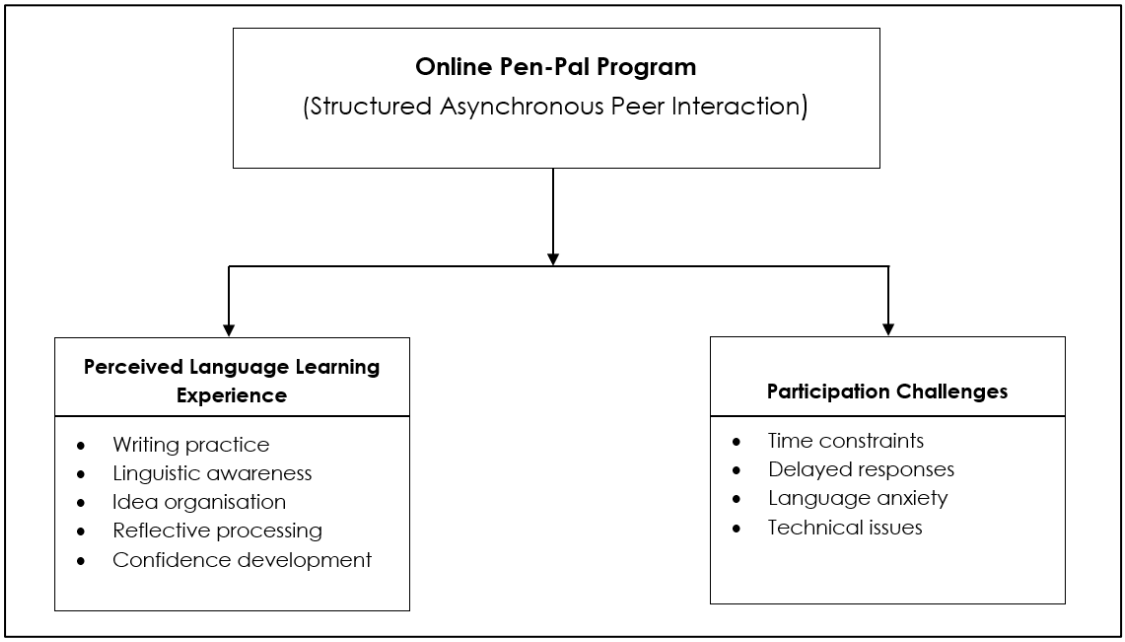


Figure 1. Conceptual Framework of the Study

METHODOLOGY

The study utilised a mixed-method approach to capture both the breadth and depth of understanding of students' perceptions of the online pen-pal program. This section provides the research design, participants, instruments, data collection and analysis techniques that were used in the study.

RESEARCH DESIGN

The study utilised a mixed methods approach (qualitative and quantitative). The quantitative data was gathered through a survey and analysed in terms of students' perceived experience and problems in language learning during participating in the pen-pal program online. To generate more in-depth understanding of students' perceptions and experiences, data was gathered using semi-structured interviews, which were conducted with students. This study was concerned with self-reported perceptions of students, and thus did not seek to determine the extent of language development or proficiency results. Both methods provided a more in-depth view into student perceptions of the online pen-pal program.

PARTICIPANTS

The subjects of the study were 54 students from a Teaching English as a Second Language (TESL) programme at a private university and a Diploma in English programme at a public university in Malaysia. The online pen-pal programme was offered on a voluntary basis and those students that agreed to take part were linked to a peer from the partner institution. This eight-week programme was based on a series of structured asynchronous activities for the purpose of fostering written communication, reflection and interaction. At the end of the programme all 54 participants fulfilled the survey. A total of eight participants who indicated that they wished to be interviewed were then chosen for the semi-structured interviews. Since participation was optional, results should be interpreted with some caution as students who chose to participate may have had a more positive attitude towards the activity than those who did not.

Permission from institutions to carry out the study was secured before the study was implemented. The purpose of the study, the voluntary nature of the study and the right to terminate the participation without consequences were explained to the participants. Participants were asked for informed consent prior to filling out the survey and conducting the interviews. The study ensured confidentiality and anonymity.

INSTRUMENTS

The study utilised a survey questionnaire and an interview protocol as the two main instruments. The instruments were designed to answer the two research questions related to the students' perceived language learning experiences, and the factors that inhibited their participation.

Survey

The survey consisted of fourteen (14) items on a Likert scale and two (2) open-ended questions, organised into two themes which are perceived language learning experience, and the challenges related to participation. The questions on each theme were answered using the five-point Likert scale, which has one "strongly disagree" and five as "strongly agree".

The development of survey items drew insights from instruments and constructs in prior research involving online peer interaction, reflective writing, and language learning in digital contexts (Li, 2018; Zhang & Hyland, 2022; Waluyo & Panmei, 2024). The items were for an online pen-pal program, but the literature spanning research on perceived language development and participation challenges guided their development.

Cronbach's alpha was used to check the internal consistency reliabilities of the perceived language learning experience scale (a = .70) and the participation challenges scale (a = .80). Participation challenges scale had a good reliability, and the perceived language learning experience scale had an acceptable level of internal consistency according to Taber (2018). The reliability coefficient is acceptable for exploratory research but results concerning the perceived language learning experience should be interpreted with proper precautions.

Before the main study, a pilot study was conducted with 10 students majoring in English to check the clarity, relevance and comprehensibility of the survey items and the interview questions. Ambiguous wording and the need for some items to be clearer was identified during the pilot and revised accordingly. To better align the instruments with the research objectives and target population, a few minor changes were made. Some of the instruments were piloted in the pilot study to ensure their suitability prior to the actual start of data collection in the main study.

Table 1. Survey Items by Research Questions

Research Question	Item No.	Survey Item
RQ1: Perceived Language Learning Experience	1	The pen-pal activity helped me use English more actively.
	2	Writing to a real peer made the learning experience more meaningful.
	3	I became more aware of how I organise my ideas in English.
	4	The activity encouraged me to think carefully before writing.
	5	I paid more attention to vocabulary and grammar when writing messages.
	6	I felt engaged during the pen-pal exchanges.
	7	The interaction helped me reflect on my language use.

	8	Overall, the pen-pal program supported my English learning.
RQ2: Participation Challenges	9	I felt anxious about making mistakes when writing messages.
	10	I sometimes struggled to understand my pen pal's responses.
	11	Delayed replies affected my motivation.
	12	Time constraints made it difficult to participate fully.
	13	Technical issues interfered with communication.
	14	I found it difficult to maintain consistent interaction.

Table 2. Open-Ended Survey Questions by Research Questions

Research Question	Open-Ended Question
RQ1: Perceived Language Learning Experience	In your opinion, what was the most helpful aspect of the online pen-pal program for your English learning?
RQ2: Participation Challenges	What was the most challenging aspect of participating in the online pen-pal program?

Interview protocol

The semi-structured interview protocol was adapted from qualitative studies on learners' experiences involving online peer interaction (O'Dowd, 2021; Zhang & Hyland, 2022). The questions were changed to address the two research questions of the study while also helping to examine the students' perceived language learning experience and participation challenges in depth. The interview protocol was designed to be open-ended, allowing for an elaborated response from the participants to articulate their reflections, perceived progress, and challenges experienced during the pen-pal exchanges. The interviews were conducted online, lasted approximately 30 to 45 minutes, were recorded with participants' permission, and subsequently transcribed for analysis. Eight participants were selected from those who volunteered for the interview stage to provide richer insights into the survey findings and to capture a range of experiences regarding both perceived language learning and participation challenges.

The number of interview participants was considered sufficient for obtaining in-depth qualitative insights into students' perceptions and experiences. Guest et al. (2006) suggested that thematic saturation may be achieved within a relatively small number of interviews, particularly when participants share similar backgrounds and experiences. As all interview participants had completed the same online pen-pal programme, eight interviews were considered adequate to provide rich and meaningful insights into perceived language learning experiences and participation challenges.

Table 3 Interview Questions (6 items):

Research Question	Item No.	Survey Item
RQ1: Perceived Language Learning Experience	1	How would you describe your overall experience participating in the online pen-pal program?
	2	How do you think the pen-pal activity helped you improve your English writing?
	3	How does participating in the pen-pal exchanges change how you feel about using English?

	4	Did participating in the pen-pal exchanges make you more motivated to use English?
RQ2: Participation Challenges	5	What difficulties did you encounter during the pen-pal exchanges?
	6	Based on your experience, what improvements could be made to reduce these challenges?

DATA COLLECTION PROCEDURE

Participants had to participate in an eight-week online pen-pal programme before data collection, in which they had to undertake weekly activities asynchronously with a partner from the partner institution. Self-introductions, reflective writing, creative writing, video-based reflections, poetry writing, storytelling, letter writing, and other communication-related activities were included. The survey was administered to all participants after they had participated in the same programme. The survey was posted online and open for 2 weeks with reminders at the end of the pen-pal module. A preliminary analysis of the survey answers was done before interviewing. Interviews were conducted after gaining consent to do so.

DATA ANALYSIS

The mean and frequency for each of the responses of the surveys were used to obtain the descriptive statistics. The transcripts of the interviews were thematically analysed using the six-step framework suggested by Braun and Clarke (2006). Then these responses were coded and documented based on the two research questions. The limitation of this study is that member checking and peer de-briefing were not performed due to lack of time, therefore should be taken into consideration when interpreting the qualitative results.

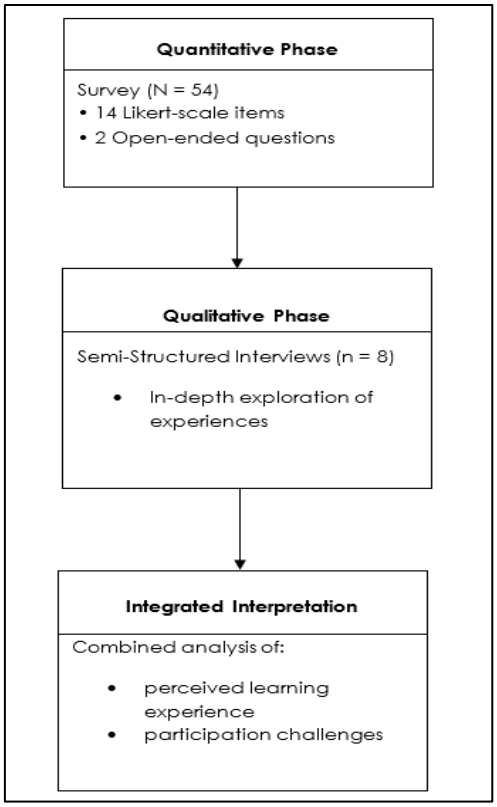


Figure 2. Mixed-Method Research Design

RESULTS

This section presents the findings according to the two research questions. Quantitative survey results are presented first, followed by qualitative findings from open-ended responses and interviews. The qualitative data are used to complement and elaborate on the patterns identified in the survey results.

RQ1: Perceived Language Learning Experience

To analyse students' perceptions of the online pen-pal program language learning experience (N = 54), descriptive statistics were calculated. The scale exhibited adequate internal consistency (α = .70). A mean of 4.20 (SD = .37) indicates strong agreement that participants perceived the activity as supporting their English language learning experience. The composite scores ranged from 3.25 to 5.00, indicating generally positive perceptions of the activity among the participants who voluntarily took part in the programme.

Table 4. Descriptive Statistics for Perceived Language Learning Experience (RQ1)

Students' Perception	Items	α	Mean	SD	Min	Max
Perceived Language Learning Experience	8	.70	4.20	.37	3.25	5.00

Table 5. Response Distribution for RQ1 Items (N = 54)

Item	Neutral (%)	Agree (%)	Strongly Agree (%)	Positive (Agree + Strongly Agree %)
1	16.7	48.1	35.2	83.3
2	9.3	63.0	27.8	90.8
3	5.6	61.1	33.3	94.4
4	16.7	51.9	31.5	83.4
5	11.1	40.7	48.1	88.8
6	11.1	63.0	24.1	87.1
7	18.5	48.1	33.3	81.4
8	13.0	57.4	29.6	87.0

Between 81% and 94% of the students responded "Agree" or "Strongly Agree" to all eight items. Item 3 (I became more aware of how I organise my ideas in English) recorded the highest positive response rate at 94.4%. Although Item 7 (The interaction helped me reflect on my language use) recorded the lowest positive response rate at 81.4%, this still represents a substantial majority of participants expressing agreement.

Thematic analysis of qualitative data from the interviews and open-ended questions was done to support the quantitative results. Sustained writing practice, enhanced linguistic awareness, confidence development and reflective language processing were the four interrelated dimensions of the perceived learning experience that were identified.

DOI: https://doi.org/10.5281/zenodo.20822596

Sustained Writing Practice

Responses from the survey suggested that students recognized their writing frequency and fluency. For instance:

SP1	: It helped me practise writing more frequently.
SP17	: It improved my fluency in writing.
SP22	: I wrote more consistently.

Interview data provide further elaboration. One participant explained:

IP2	: Because we had to reply every week, I needed to think properly before writing. It made me more aware of how I form my sentences.

Another participant stated:

IP3	: When my partner asked questions, I had to explain more. So I wrote longer and more detailed responses.

These excerpts show how the pen-pal activities encouraged the students to continuously write to their pen-pal partner.

Heightened Linguistic Awareness

Participants also stated that they paid more attention to grammar and vocabulary as mentioned below:

SP2	: I became more careful with grammar.
SP3	: I learned new vocabulary from my partner.
SP9	: I paid attention to word choice.
SP14	: It improved my grammar awareness.
SP18	: I realised my weaknesses in writing.
SP23	: I am more aware of my grammar.

Interview participants also noted that they reviewed their writing before submitting each individual message.

IP3	: Before sending the message, I read again and check if the sentence sounds correct.
IP5	: I try to use better vocabulary because I know someone will read it.

These responses suggest that with a real audience such as a pen-pal partner under the context of the program, encourages the students to monitor their own writing and this also illustrate autonomy in their writing skills.

Confidence Development

Many students described improvements in confidence when using English:

SP4	: It improved my confidence in expressing ideas.
SP13	: I gained confidence in expressing ideas.
SP17	: It made English writing more interesting.
SP32	: I became more comfortable using English.

Interview participants elaborated:

IP1	: Very fun to communicate and interact with my partner.
IP6	: It feels less stressful than writing for marks. So I feel more relaxed to express myself.

These instances indicate that non-evaluative and communicative activities provided emotional ease and boosted participants' self-assurance.

Reflective Language Processing

Students also showed that they would think more before writing their responses.

SP2	: I think more before writing
SP6	: I reflected more before sending messages
SP10	: Help me reflect on my weaknesses
SP12	: I organise my ideas better
SP34	: I organised my thoughts better before writing.

Interview data support this:

IP3	: Sometimes I draft first before sending because I want my idea to be clear.

These findings suggest that the asynchronous communication style provided the participants with the opportunity to plan, revise, and think about the language to increase their engagement through writing. Overall, the qualitative data suggest that participants perceived the pen-pal exchanges as contributing to increased writing practice, linguistic awareness, confidence, and reflective language processing.

RQ2: Participation Challenges

Descriptive statistics were performed to investigate the perceived barriers to participation in the online pen-pal program (N = 54). The scale showed strong reliability (a = .80). The composite mean was 2.59 (SD = .57) reflecting an overall moderate level of perceived difficulty. Composite scores were in the range of 1.33 to 3.83.

Table 6. Descriptive Statistics for Participation Challenges (RQ2)

Students' Perception	Items	a	Mean	SD	Min	Max
Participation Challenges	6	.80	2.59	.57	1.33	3.83

Table 7. Response Distribution for RQ2 Items (N = 54)

Item	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)
9	3.7	42.6	42.6	11.1
10	3.7	20.4	63.0	13.0
11	7.4	44.4	35.2	13.0
12	14.8	35.2	44.4	5.6
13	7.4	42.6	31.5	16.7
14	9.3	42.6	35.2	13.0

The frequency distributions show that, for most of the items, dissenting and neutral responses were more common than agreeing responses. Item 11 asked if the delayed responses impacted one's motivation and had the highest sum of disagreements (51.8%), meaning that most of the participants did not see delayed responses as a significant problem.

Unlike other items, Item 13 (Technical issues interfered with communication) received the highest agreement percentage (16.7%), which is still a minor percentage. Item 10 (I sometimes struggled to understand my pen pal's responses) received a relatively high level of neutral response (63.0%). This suggests that although this barrier is not largely considered a significant barrier, there were still some students who were uncertain. Participation challenges were present among the students but most are at a moderate level and no barrier were considered as a dominant barrier.

In order to deeply analyse the data, qualitative data were analysed thematically. The data revealed five categories which are delayed response time, flow of interaction, anxiety associated with the language, technical constraints, and difficulty of emotional engagement.

Time-Related Constraints

Time management reported in both the survey and the interview, has consistently been identified as one of the challenges. Many students noted that the pen pal activity takes significant time, especially in balancing with other academic and internship obligations:

SP12	: Time constraints due to other assignments.
SP14	: Balancing completing the tasks and internship.

Interview data further illustrate this concern:

IP4	: I have to juggle between my internship and this program. Sometimes I reply late because of that.

These responses reveal that the challenges with participation were influenced academic external constraints and not with the activity itself.

Delayed Interaction Flow

Survey responses indicated that delayed responses were not perceived as a major challenge by most participants. However, qualitative findings revealed that delayed replies and minimal responses occasionally disrupted the flow of interaction and created uncertainty during communication. This suggests that while delayed responses were not widely viewed as a significant barrier, they could still affect the quality of interaction in specific situations.

SP11	: Waiting for replies was frustrating.
SP13	: Sometimes responses were too short.
SP14	: Late replies from my partner affected our communication.
SP20	: Maintaining consistent interaction was difficult.
SP28	: Late responses reduce my motivation.

Participants in interviews noted that sometimes the flow of conversation would be disrupted, and brief comments created a sense of uncertainty:

IP4	: If someone just say 'Oh', I will be like, is she mad at me?
IP8	: Yeah, I'm the type to write like 'okaaay', so when someone replies my message with an 'ok' I would feel like is this person mad? Is she okay?

The excerpts reveal how asynchronous communication hinders clarity in both interpretation and understanding of emotions.

Language-Related Anxiety

Survey findings suggest moderate levels of concern regarding grammatical accuracy. While disagreement responses were common, qualitative data indicate that some students experienced anxiety, particularly when interacting with peers perceived as more proficient.

SP3	: I worried about grammar mistakes.
SP29	: Fear of making mistakes.

Interview participants elaborated:

IP3	: I feel a bit anxious sometimes when I'm communicating with my partner, because she's very proficient.

These findings suggest that anxiety existed for some students, although it was not a dominant or widespread barrier.

Technological and Emotional Factors

A small number of participants mentioned technical issues and feelings of limited connection:

IP2	: Internet connection issues.
IP7	: Feeling less connected online.

Concerns regarding the lack of a sense of connection were mentioned less frequently when compared to time related and response related challenges, and therefore appeared to be more secondary. The integration of both the qualitative and quantitative findings tells us that the challenges about participation existed, and were overall, of low intensity. The surveys show that the cohort did not endorse the challenges strongly, while the qualitative data shows that the challenges were contextual, and situational. The challenges did not appear to greatly impact the students' engagement in the online pen-pal program.

DOI: https://doi.org/10.5281/zenodo.20822596

DISCUSSION

In this study, qualitative and quantitative results were used to reflect on the difficulties that were encountered by the participants in the pen-pal programs online and the language learning experiences of the students. The findings indicate that participants in the online pen-pal programme showed positive attitudes to the programme and felt it helped their English language learning experience, although there were some difficulties in participating.

PERCEIVED LANGUAGE LEARNING EXPERIENCE AND INTERACTION-BASED LEARNING

Participants generally reported positive perceptions of the online pen-pal activity, as reflected in the high composite mean score and the qualitative themes of sustained writing practice, linguistic awareness, confidence development, and reflective language processing.

These findings generally support social constructivist perspectives that view learning as a socially mediated process. However, the present findings also suggest that social interaction in asynchronous online environments may operate differently from traditional face-to-face contexts. Rather than relying on immediate dialogue, participants appeared to benefit from extended opportunities to reflect, revise, and organise their ideas before responding. This suggests that reflection may play a more prominent role in online pen-pal exchanges than is typically emphasised in traditional social constructivist interpretations. The pen-pal activities gave participants the opportunity to organise their ideas, reply to other participants and provide feedback on the use of language. Rather than writing in isolation, students completed writing tasks through active participation and constructive feedback.

The findings also have implications in interaction-based research in L2 learning. The focus on negotiation of meaning in communication is highlighted by Long's (1996) Interaction Hypothesis. The exchanges between the pen pals in this study, however, were asynchronous, but not necessarily as immediate as when the two interact in person. Consequently, there may be fewer options for an immediate negotiation. Nevertheless, the participants were still able to feel the positive outcomes when they reflected, revised, and reviewed their written communication. This indicates that interaction-based learning processes can be sustained even in an asynchronous learning environment but possibly in other ways as has been proposed by Long (1996).

In this study, students indicated that they reviewed vocabulary, reorganised their thoughts, and drafted their answers before submission. These actions illustrate attention to form and output improvement, which aligns with interaction-based learning. Similar arguments have been made in recent studies suggesting that digitally mediated interaction may promote noticing and greater attention to language use (Sato & Ballinger, 2016).

Moreover, the asynchronous modality of the pen-pal exchanges seems to have encouraged the students to process the language reflexively. Students reported that they wrote, drafted, and reviewed their messages before sending them. This is congruent with studies that document the phenomenon where computer-mediated writing allows for greater revision and results in higher levels of cognitive engagement (Li, 2018; Zhang & Hyland, 2022). The combination of interaction and reflection may explain the heightened sense that students reported in relation to grammar, vocabulary and the overall structure of their writing.

The results, however, should be taken with a pinch of salt. The study focused on students' perceptions of L2 learning experiences instead of objective measures of L2 development. The positive perceptions by the participants must therefore not be seen as direct evidence of enhanced language input. In addition, because participation in the programme was

voluntary, it is possible that students who were more motivated or interested in English communication were more likely to participate and report favourable experiences.

PARTICIPATION CHALLENGES WITHIN INTERACTIONAL CONTEXTS

Students did report a considerable learning benefit but moderate participation challenges were also noted. Survey results indicated that the cohort did not strongly endorse the challenges and the qualitative data suggests that the challenges were more contextual and less structural.

The most significant obstacle was time-related issues. These results indicate that participants were most likely responding to extraneous academic concerns rather than self-imposed restrictions regarding the pen-pal format. In some instances, the lack of response and the shortness of responses disrupted the flow of the conversation, which speaks to the limitations of an asynchronous format. In most cases, however, an asynchronous format provides participants the time and space to reflect, and, in providing that space, it limits the immediacy and emotionality of the responses, as has been found in previous work (O'Dowd, 2021).

Some participants reported anxiety regarding language use, especially in cases where they were conversing with peers who were viewed as more proficient. This aligns with research that maintains that collaborative work settings fuel anxiety due to concerns over error and performance (Waluyo & Panmei, 2024). Nevertheless, anxiety did not seem to be an overpowering phenomenon here, and quite a number of students reported a higher sense of self-assuredness. This seems to indicate that the non-judgemental and supportive environment of the interactions may have countered any negative consequences related to anxiety.

Overall, it is evident that while learning opportunities were present, the challenges still allowed for a high level of participation and engagement. From a social constructivist standpoint, it is interaction together with context and emotional state that define the boundaries of a learning environment. These results indicate that participants generally perceived focused online peer interactions as supportive of their language learning experiences, despite the presence of contextual and participation-related challenges.

CONTRIBUTION OF THE STUDY

This research examines the perceptions of English major students involved in a structured online pen-pal program in the Malaysian higher education context. Although other studies have looked at online peer engagement, not many have examined the sustained one-to-one pen pal exchanges and the impact these exchanges have on students' perceived language learning experiences.

Through a mixed methods approach, the study seeks to provide an explanation of the students' experience of the structured asynchronous peer interaction as described in their own words. The results indicated that students saw this kind of one to one and asynchronous communication as positive in relation to reflective writing, language awareness and writing confidence. The present study emphasizes the importance of ongoing interpersonal exchanges for reflecting and building relationships as well as for language use, while many studies have examined peer feedback or short-term collaborative writing tasks. However, the research shows that there is still moderate and contextual participation challenges.

Findings should also be considered in the context of the Malaysian situation. While English is predominantly used in higher education, opportunities for students to interact in English outside of the classroom can be quite uneven for them. The online pen-pal programme was structured and participants were given an extra platform to communicate with a student from another

institution in English for a longer period. This could be because of the regular contact that participants had and the positive perception they received towards the experience.

LIMITATIONS OF THE STUDY

Several limitations should be considered when interpreting the findings of this study. First, participation in the online pen-pal programme was voluntary, which may have introduced self-selection bias. Students who chose to participate may have been more motivated, interested in English language activities, or positively predisposed towards online communication than those who did not participate. As a result, the overwhelmingly positive perceptions reported in the study may partly reflect the characteristics of the participants rather than the effects of the programme alone. Second, data were collected immediately after the completion of the programme, which may have influenced participants to evaluate the experience more favourably. Finally, the study focused on students' perceived language learning experiences and did not include objective measures of language development. Therefore, the findings should be interpreted as perceptions of learning rather than direct evidence of actual language improvement.

CONCLUSION

This research examines the perceived language learning experience and participation challenges of students in an online pen-pal program in Malaysian higher education context. The study explores students' perceptions of their language learning experiences through the lens of social constructivist and interaction-based perspectives. The study focuses on how sustained asynchronous peer interaction shaped the perceptions of students. The majority of students believe that communicating with their pen pals would be beneficial for their English studies. Students perceived improvements in writing practice, confidence when using English, organisation of ideas, and linguistic awareness. However, participation was only an issue with regards to time and waiting for responses and this did not greatly affect engagement overall.

This type of study can be useful for teachers to design online pen-pal programs, as they can provide students with an opportunity for language use and practice writing reflectively in an online format. The findings suggest that structured weekly exchanges over an extended period may provide sufficient opportunities for students to develop familiarity and confidence with their pen-pal partners. As delayed responses occasionally disrupted interaction, educators may consider establishing clear response expectations and timelines to support communication flow. In addition, reflective and personal communication prompts appeared to encourage sustained engagement and may be particularly suitable for online pen-pal programmes.

In addition, teachers might be able to foster students' linguistic progress and confidence by designing tasks that offer clear instructions and manageable timeframes. However, the study was limited to self-reported measures, perceptions and one institutional framework, and further studies might explore the measures of writing development objectively, as well as study similar programs in different levels of students' writing proficiency and in different educational frameworks.

ACKNOWLEDGEMENT

The authors would like to express their gratitude to UNITAR International University for its support in facilitating the publication of this research.

CONFLICT OF INTEREST

The authors declare that no conflicts of interest were involved in the implementation or publication of this study.

REFERENCES

Bailey, D., & Cassidy, R. (2019). Online peer feedback tasks: Training for improved L2 writing proficiency, anxiety reduction, and language learning strategies. *Computer-Assisted Language Learning Electronic Journal*, *20*(2), 70-88.

Blake, R. J. (2016). Technology and the four skills. *Language Learning & Technology, 20*(2), 129–142. https://doi.org/10.64152/10125/44465

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Castellanos-Reyes, D., Richardson, J. C., & Maeda, Y. (2024). The evolution of social presence: A longitudinal exploration of the effect of online students' peer-interactions using social network analysis. The Internet and Higher Education, 61, 100939. https://doi.org/10.1016/j.iheduc.2024.100939

Crawford, L. K., Arellano Carmona, K., & Kumar, R. (2024). Examining the impact of project-based learning on students' self-reported and actual learning outcomes. *Pedagogy in Health Promotion*, *10*(4), 241–249. https://doi.org/10.1177/23733799241234065

González-Lloret, M. (2020). Collaborative tasks for online language teaching. *Foreign Language Annals*, *53*(2), 260–269. https://doi.org/10.1111/flan.12466

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? *Field Methods*, *18*(1), 59–82. https://doi.org/10.1177/1525822x05279903

Irgin, P., & Bilki, Z. (2024). Students' perceptions of online peer feedback in process-oriented L2 writing: A qualitative inquiry. Studies in Educational Evaluation, 83, 101403. https://doi.org/10.1016/j.stueduc.2024.101403

Li, M. (2018). Computer-mediated collaborative writing in L2 contexts: An analysis of empirical research. *Computer Assisted Language Learning*, *31*(8), 882–904. https://doi.org/10.1080/09588221.2018.1465981

Li, M., & Zhu, W. (2017). Explaining dynamic interactions in wiki-based collaborative writing. *Language Learning & Technology*, *21*(2), 96–120. https://doi.org/10.64152/10125/44613

Long, M. H. (1996). *The role of the Linguistic Environment in Second language acquisition*. Handbook of Second Language Acquisition.

O'Dowd, R. (2021). Virtual exchange: Moving forward into the next decade. *Computer Assisted Language Learning, 34*(3), 209–224. https://doi.org/10.1080/09588221.2021.1902201

Pham, T. N., Lin, M., Trinh, V. Q., & Bui, L. T. P. (2020). Electronic Peer Feedback, EFL Academic Writing and Reflective Thinking: Evidence From a Confucian Context. Sage Open, 10(1). https://doi.org/10.1177/21582440209145

Ramadan Elbaioumi Shaddad, A., & Jember, B. (2024). A step toward effective language learning: An insight into the impacts of feedback-supported tasks and peer-work activities on learners' engagement, self-esteem, and language growth. *Asian-Pacific Journal of Second and Foreign Language Education,* 9(1), 1–31. https://doi.org/10.1186/s40862-024-00261-5

Sato, M., & Ballinger, S. (2016). Peer interaction and second language learning: Pedagogical potential and research agenda. *Language Teaching, 49*(3), 329–343. https://doi.org/10.1075/lllt.45

Taber, K. S. (2018). The use of Cronbach's alpha when developing and Reporting Research Instruments in science education. *Research in Science Education*, *48*(6), 1273–1296. https://doi.org/10.1007/s11165-016-9602-2

Usher, M., Roll, I., Fuhrman, O., & Amir, O. (2025). Supporting coordination and peer editing in students' online collaborative writing processes. *International Journal of Artificial Intelligence in Education, 35*(3), 1504–1527. https://doi.org/10.1007/s40593-024-00450-w

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (Vol. 86). Harvard university press. https://doi.org/10.2307/j.ctvjf9vz4

Waluyo, B., & Panmei, B. (2024). Students' peer feedback engagements in online English courses facilitated by a social network in Thailand. *Journal of Technology and Science Education, 14*(2), 306–323. https://doi.org/10.3926/jotse.2305

Zhang, Z. V., & Hyland, K. (2022). Fostering student engagement with feedback: An integrated approach. *Assessing Writing*, *51*, 100586. https://doi.org/10.1016/j.asw.2021.100586

Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory Into Practice, 41*(2), 64–70. https://doi.org/10.1207/s15430421tip4102_2