

RESEARCH ARTICLE

The Application of Padlet to Enhance Writing Skills in the ESL Primary Classroom: A Case Study

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ABSTRACT – Writing remains one of the most challenging language skills for primary school ESL pupils, as many of them encounter difficulties in developing ideas, organising content, and expressing their thoughts in written form. This study uses an interactive digital platform known as Padlet. The study aims to investigate the application of Padlet in enhancing writing skills in the ESL primary classroom by looking into pupils' writing performance after using Padlet. It also explores the perceptions of ESL primary school pupils in the application of Padlet. A noticeable gap in the use of digital tools, such as Padlet to enhance writing skills among primary school pupils in the Malaysian context is addressed in the study. A qualitative approach was employed, involving eight Year 4 pupils in a Malaysian primary school who were selected through purposive sampling. The data of this study were collected through pre- and post-test writing samples, semi-structured interviews and reflective journals, and were analysed using thematic analysis. Improvements in writing performance, particularly vocabulary, fluency and organisation, were revealed among the participants after the application of Padlet. Padlet was also perceived by the primary school pupils as a platform that facilitated collaboration and increased motivation to learn writing skills. However, challenges such as internet connectivity issues and technical difficulties were encountered during the application of Padlet in the study. The findings of this study have implications on primary school pupils' writing performance and their perceptions in the ESL primary classroom. ESL teachers may consider applying Padlet in Malaysian primary schools to enhance pupils' writing skills. Future studies may be considered with a larger sample size, in different school settings and over a longer intervention period to determine the broader applicability of the findings.

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1.0 INTRODUCTION

The use of technology in language acquisition has become prevalent in the education context. Due to an increase in the use of Information and Communication Technology (ICT), educators and students are urged to utilise technology in the process of teaching and learning. This aligns with the 7th Shift in the Malaysia Education Blueprint (MEB) 2013–2025 (Ministry of Education Malaysia, 2013), which emphasised the importance of intensifying the utilisation of ICT to elevate the standard of education in Malaysia. Meanwhile, the English language is a compulsory subject for students to pass in primary schools in Malaysia (Abu Bakar et al., 2021). As stated in the English Language Curriculum for Primary Schools (2017), primary school pupils should achieve A1 Mid on the CEFR level for the four main skills in English (Listening, Speaking, Reading, and Writing). However, the report by the Ministry of Education Malaysia of the Primary School Assessment (UPSR) in 2019 has revealed that English was the language with the lowest scores among national primary school pupils, with 14.87%, and 23.34% of them failing to meet the minimal standards for comprehension papers (Dawawi & Yamat, 2022).

Studies have identified that writing is the most challenging skill, as it is a conceptual process that requires learners to creatively envision and organise ideas into words (Yusuf et al., 2019; Selvaraj & Aziz, 2019). In the Malaysian primary context, pupils encounter problems in sentence construction due to the lack of understanding of writing tasks and the suitable strategies to apply in writing (Miin et al., 2019). A similar study conducted by Ghulamuddin et al. (2021) discovered that pupils tend to make grammatical errors which include the use of tenses, subject-verb agreement and sentence structure. These issues suggest that the writing skills of pupils are undeveloped, with ideas that are poorly expressed or not communicated at all. The first language (L1) interference among Malaysian primary school pupils also dissuades them from mastering writing skills. Maros et al. (2007; as quoted in Rahim and Wahi, 2023), in their study, observed that “students are discouraged in attaining English literacy due to their linguistic disparities” (p. 2346). Moreover, pupil perception is one of the obstacles of writing acquisition. Some pupils perceive writing as difficult or uninteresting due to its representation as a goal-oriented task and the lack of generating ideas in writing tasks (Baharudin et al., 2023; Akhtar et al., 2020). Another factor that influences the acquisition of writing skills is motivation. Getie (2020) found that the low levels of motivation in acquiring the English language are caused by the absence of social interaction. Students lose interest and have no interest without having group activities.

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Therefore, pupils should be instructed with the process of writing, which includes the process of brainstorming, drafting and finalising the composition (Leotta & Ahmad, 2025). This structured method helps pupils improve their understanding of writing mechanics while fostering creativity and critical thinking. Pupils should also be given immediate feedback to improve their writing, as their schemata are linked to their learning environment through writing (Dawawi & Yamat, 2022). Building upon this process writing approach into writing pedagogy, technological innovations like Computer Assisted Language Learning (CALL) have further expanded the possibilities for effective writing instruction. Furthermore, CALL helps pupils in improving language learning experiences, facilitates in scaffolding and enhancing learners' writing and critical thinking skills (Almashy et al., 2024; Shi et al., 2024). Padlet is one of the CALL tools that enables students to share ideas and collaborate with peers. Students use Padlet to share words, pictures, and videos on a wall that can be accessible to anyone who owns the link or address (Azid et al., 2022).

The existing literature on the application of Padlet in the ESL classroom has provided useful insights to language learning. However, there is a significant disparity regarding primary school pupils and their writing performance while using Padlet. While prior research covers Padlet's application for improving writing skills and collaboration, there remains a gap in pupils' perceptions, especially in the Malaysian ESL primary classroom. Hence, this study aimed to investigate the primary school pupils' writing performance after using Padlet in writing activities and the perceptions of pupils of the application of Padlet in writing activities. To explore the application of Padlet in the ESL primary classroom, the following research questions are addressed:

1. What is the primary school pupils' writing performance after using Padlet in writing activities?
2. What are the primary school pupils' perceptions of the application of Padlet in writing activities?

1.1 Padlet as a CALL Tool

Computer-Assisted Language Learning (CALL) allows students to use devices and online resources to learn language skills (Söderberg, 2024). Since its emergence in the 1960s, CALL has evolved from the behaviouristic, communicative and integrative phases that link all multimedia resources together. Research on CALL has demonstrated effectiveness in improving language proficiency. For example, Affendi et al. (2020) demonstrated that CALL facilitates students' ability to organise ideas and increases motivation to write. The ability of CALL in offering personalised feedback makes it an important tool in learning writing skills. Rofiah et al. (2023) highlighted CALL's role in promoting peer reviews and feedback that allow learners to develop and refine writing skills. These findings highlight that CALL offers interactive experiences to the students with the advancement of technology. Most CALL research has focused on secondary or tertiary learners. Among various CALL tools, Padlet is known as an online bulletin board that allows the sharing of text, images, and multimedia through a user-friendly interface (Suryani & Daulay, 2022; Megat Mohd. Zainuddin et al., 2020). It gives students the opportunity to brainstorm ideas, receive and provide feedback. However, there is a noticeable gap regarding its impact on primary school pupils' writing performance and perceptions. Bridging this gap is necessary to further apply Padlet's pedagogical value to the Malaysian ESL primary educational context.

Several studies have discovered the use of Padlet in teaching and learning activities. Subramaniam and Fadzil (2021) discovered the variety of resources in Padlet enable students to interact with each other. Through Padlet, students can collaboratively work on writing projects, use resources, find ideas, as well as conduct studies (Zhi & Su, 2015). Another study conducted by Mulyadi et al. (2021) found that students showed interest in learning while working with Padlet. Some studies also suggest that Padlet enhances learners' writing performance. Karki (2024) reported that Padlet improves students' writing skills, enhances written work achievement, and evokes optimism when fulfilling written tasks. Beitz (2019) also highlighted that the application of Padlet in classroom activities enhances the learning environment through the integration of technology in the ESL context. Together, these findings show that Padlet is a valuable CALL tool for enhancing writing skills in the ESL classrooms.

In Malaysia, Padlet is also used in the ESL classroom. Rashid et al. (2019) found that Padlet improves students' language proficiency and minimises anxiety, while Jong and Tan (2021) found that it fosters students' motivation in group writing tasks. Likewise, Bakar and Hashim (2022) discovered factors that influence students' involvement and perceptions in using Padlet to improve English language learning. Padlet encourages students to use the platform to practise their English with their peers. Their findings align with Dianati et al. (2020), which discovered the usefulness of Padlet. Moreover, Rizal et al.'s (2025) study found improvements of learners' writing proficiency and attitudes using Padlet in writing activities.

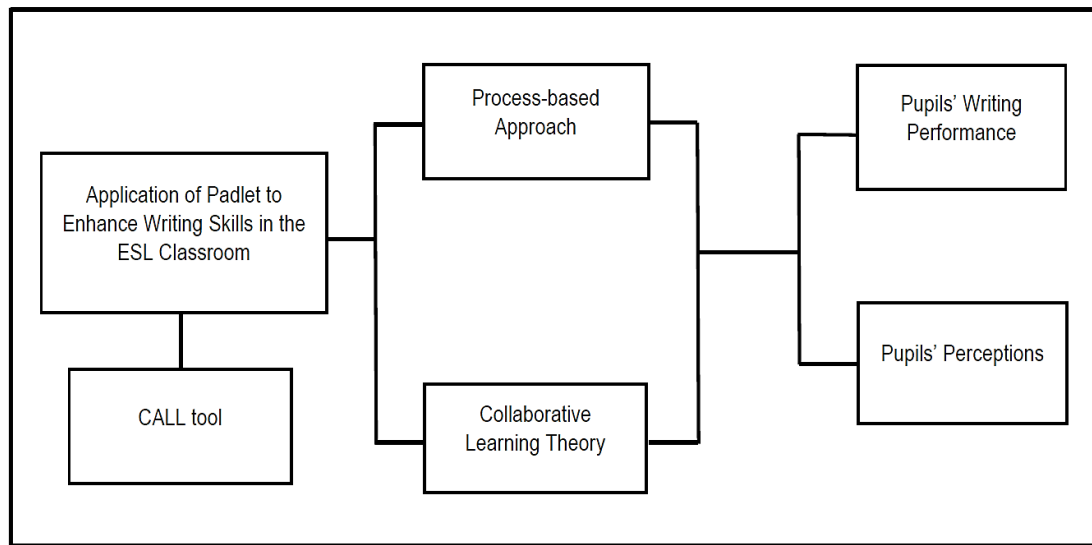
In conclusion, CALL supports writing instruction by facilitating collaboration, peer feedback, and learning support. Padlet, as one of the CALL tools, has demonstrated its ability to improve writing performance across multiple contexts. However, there are limited studies on the impact of Padlet on primary school pupils' writing performance and perceptions in the ESL Malaysian classroom. Therefore, this study seeks to fill this gap by examining the potential of Padlet in enhancing the writing performance and perception of pupils in the Malaysian ESL primary classroom.

1.2 Research Framework

In this study, pupils' writing performance and perceptions were examined through the application of Padlet in the ESL primary classroom. The theories related to the application of Padlet in the ESL primary classroom are the Collaborative Learning Theory and Process-based Approach. Figure 1 illustrates the theoretical framework of the application of Padlet to enhance writing skills in the ESL primary classroom. In this study, Padlet is a CALL tool which promotes brainstorming and the sharing of ideas during writing activities. This framework integrates the theory of collaborative learning, which focuses on learning through interaction. Guidance in writing activities was sought by the pupils through interaction with their peers, while feedback was provided by the teacher. Writing tasks were conducted collaboratively in groups of five to six pupils using Padlet. The process-based approach is also incorporated into this framework, whereby writing is an ongoing process rather than a final product.

Figure 1

Research framework



The Collaborative Learning Theory is grounded on interpersonal engagement between the teacher and students (Lev Vygotsky, 1978). The teacher becomes the facilitator instead of overseeing the lessons. Millis (2023) stated that the Collaborative Learning Theory is an effective pedagogical method. In this study, Padlet is an application that supports collaborative learning. Padlet provides students the opportunity of collaborative work in learning writing skills, sharing knowledge, and providing feedback on their tasks (Frison & Tino, 2019). The students gain valuable insights and improve their language skills. Manap et al.'s (2025) study found that collaborative learning facilitates the language acquisition of pupils through activities such as social interaction and shared responsibility in the ESL primary classroom. Students develop their language skills by completing tasks together. When two or more people work together and share joint ownership of the finished product, it is known as collaborative writing. The primary school pupils in this study collaborated and thought of ideas with peers in writing tasks on Padlet.

Furthermore, the process-based approach is applied into writing activities for students to plan and organise writing. The process-based approach is different from the product writing, a traditional method of writing. This approach is ongoing, and it emphasises students' creativity in producing text, whereas product writing focuses on the final product of writing. This is supported by Moussaoui (2024), whose study on process-oriented task-based instruction found it to improve writing quality. In this study, the process-based approach was conducted in several stages, namely brainstorming, drafting, revising, editing, and publishing. In the first stage, which is the brainstorming stage, the teacher asked questions such as "Name the different types of sports" and "What is your favourite sport?". The pupils worked together on Padlet to share ideas and feedback. During this stage, pupils came up with ideas and wrote their initial thoughts. This stage is crucial as it helps students think about what they intend to write and how their ideas relate to what they are writing (Martínez et al., 2020). After brainstorming, the pupils proceeded to draft their essays. Pupils searched for information and uploaded their first draft on Padlet. After drafting their essays, the teacher organised the pupils' posts by grouping them into two different sections in Padlet, namely the 'Brainstorming and Drafting' section and the 'Revising and Editing' section. The teacher posted feedback on the writing tasks in the 'Revising and Editing' section. The pupils then reviewed their essays by reading the feedback given by the teacher in the 'Revising and Editing' section. The comments given had given pupils some ideas to improve their essays. After the pupils edited their essays, the teacher created a new section named the 'Final Product' section. Lastly, the pupils uploaded their improved essays in the 'Final Product' section.

2.0 METHODOLOGY

This study aims to investigate the application of Padlet in enhancing writing skills in the ESL primary classroom by looking into pupils' writing performance after using Padlet. It also explores the perceptions of ESL primary school pupils in the application of Padlet.

2.1 Research Approach and Design

This study utilised a qualitative approach. Qualitative research is the understanding of the phenomena experienced in the study through the use of descriptive words within a natural context with the conduct of various scientific methodologies (Silverman, 2020). This study is a case study of the application of Padlet to enhancing writing skills in the ESL primary classroom. Case study is the depth of the research and focuses on how it relates to the environment (Creswell & Báez, 2021). The qualitative method provides an overview of the application of Padlet to enhance writing skills in the ESL primary classroom.

2.2 Research Participants and Sampling Method

The sampling of the study was taken from Year 4 primary school students from a primary school in Sabah, Malaysia. The school is located in an urban environment and is equipped with facilities such as laptops, projectors and Wi-Fi connections. The study involved eight Year 4 primary students from a Malaysian national primary school. These students were from the same class, with mixed levels

of proficiency in English. The study used purposive sampling method to select the participants. Purposive sampling denotes a group of non-probability sampling methods whereby participants are determined based on certain attributes which are required in this study (Busetto et al., 2020). The Year 4 primary school students were chosen as they are at their critical learning stage. At this stage of development, pupils are developing their writing skills. However, they are susceptible to external factors such as technological interventions that may impact their learning outcomes (Abdykerimova et al., 2025). Moreover, the participants were selected based on their pre-test writing results, in which a pupil scored a performance level of 5, two pupils scored a performance level of 4, and five pupils scored a performance level of 3. This was conducted to ensure representation of varying proficiency levels among the participants.

2.3 Research Instruments

Pre-test and post-test writing were administered to explore the writing performance of the primary school pupils after integrating the writing activities with Padlet. A semi-structured interview and reflective journals were conducted among the participants of the study with the purpose of exploring their perceptions regarding Padlet.

2.3.1 Pre-test and post-test writing

The tests were adapted from the Year 4 English Get Smart Plus 4 Workbook, which is distributed by the Ministry of Education Malaysia, and Teacherfiera.com, a website that provides ESL worksheets according to the English Language Curriculum for Primary Schools (2017). A writing rubric was used to assess the pupils' writing skills in both the pre-test and post-test writing. The writing rubric was adapted from the Curriculum and Assessment Document (DSKP) and the Common European Framework of Reference for Languages (CEFR). Aspects such as vocabulary, fluency, spelling, punctuation and organisation were evaluated. Firstly, the pre-test writing was conducted to explore the writing performance of students before using Padlet. During the pre-test, pupils introduced themselves to their pen pal through email writing. The post-test writing was conducted to explore the primary school pupils' writing performance after using Padlet in the ESL classroom. The number of questions was similar to the pre-test. However, in the post-test, the questions focused on assessing the pupils' ability to write an email about their holiday trip. Both the pre-test and post-test writing were administered face-to-face in the classroom. The pre-test and post-test were evaluated according to the writing rubric by another English teacher in the school to avoid bias.

2.3.2 Semi-structured interview

The semi-structured interview was conducted to explore the primary school pupils' perceptions of the application of Padlet in writing activities. This was to ensure that the findings obtained were valid (Creswell & Creswell, 2023). The semi-structured interview was conducted among eight Year 4 students. Qualitative data were obtained from asking questions about their perceptions of using Padlet. Perceptions allow people to recognise and interpret the stimuli in their environment (Creswell & Báez, 2021). The aspects of perception explored collaboration, pupil motivation, features, usability, and challenges of using Padlet. Before the interview was conducted, the questions were evaluated by an experienced lecturer majoring in Teaching English as a Second Language (TESL) at a university in Sabah. A consent form was given to the parents or guardians of the research participants. They were given a few days to complete and return the consent form to the researcher.

2.3.3 Reflective Journal

The reflective journal was used to further explore the primary school pupils' perception of the application of Padlet. A reflective journal is useful in addressing personal biases (Denzin et al., 2024). The primary school pupils wrote reflective journals for three weeks, within the start of the Padlet activity, which was on Week 4, Week 6, and Week 9. Through a reflective journal, the researcher was able to explore the primary school pupils' perception of the application of Padlet in certain aspects, such as the strengths and weaknesses of the study, as well as the limitations of the study.

2.4 Research Procedure

The study was conducted over a period of 14 weeks. This duration ensured that the respondents had prolonged use of the Padlet which led to increased rigour of the study. The pre-test and post-test writing were administered using the same rubric, instructions, venue and duration to further strengthen the reliability of the results.

In Weeks 1 and 2, approval was obtained from the school administrator. A Year 4 class consisting of 37 students was selected. A pre-test writing task was administered in Week 3 to the same class. Based on the pre-test results, 8 pupils were selected for the study. Consent forms were distributed to the parents or guardians of the research participants prior to their involvement, as they were underage. In Week 4, Padlet was introduced to the same Year 4 class, and Writing Topic 1 (My Favourite Sport) was conducted. During this stage, pupils' ideas were formed through brainstorming and organised into drafts using Padlet. Reflective Journal 1 was administered to the 8 participants to explore their perceptions. In Week 5, the pupils' work was revised, edited, and published based on the same writing topic (My Favourite Sport). In Week 6, Writing Topic 2 (My Holiday Trip) was introduced to the pupils, during which the stages of brainstorming and drafting were repeated. Reflective Journal 2 was given to the 8 participants in the same week.

In Week 7, pupils focused on revising, editing and publishing their essays in Padlet. In Week 8, Writing Topic 3 (My Favourite Celebration), which was the last writing topic, was introduced. The brainstorming and drafting process was conducted for Writing Topic 3 (My Favourite Celebration) in Week 8. In Week 9, pupils revised, edited and published Writing Topic 3. Reflective Journal 3 was administered to the 8 participants on the same week (Week 9). In Weeks 10 and 11, feedback on the essays was given by the researcher, and peer-editing sessions were conducted among the pupils to refine the essays. A post-test was administered in Week 12 and was assessed by another English teacher in the same school to avoid bias. A semi-structured interview was conducted to

explore pupils' perceptions of Padlet. Lastly, in Weeks 13 and 14, all data, including pre- and post-test writing samples, interviews and reflective journals were analysed. The implementation of the research procedure in this study is illustrated in Table 1.

Table 1

Research procedure

Week	Activity
Weeks 1 - 2	<ul style="list-style-type: none"> Obtain approval from the university. Receive approval from the school administrator. Participant Selection: 8 participants from a Year 4 class. Distribute consent forms.
Week 3	<ul style="list-style-type: none"> Pre-test writing was conducted in the Year 4 ESL classroom.
Week 4	<ul style="list-style-type: none"> Introduction to Padlet Writing Topic 1: My Favourite Sport (Brainstorming and Drafting) Reflective Journal 1
Week 5	<ul style="list-style-type: none"> Writing Topic 1: My Favourite Sport (Revising, Editing and Publishing)
Week 6	<ul style="list-style-type: none"> Writing Topic 2: My Holiday Trip (Brainstorming and Drafting) Reflective Journal 2
Week 7	<ul style="list-style-type: none"> Writing Topic 2: My Holiday Trip (Revising, Editing and Publishing)
Week 8	<ul style="list-style-type: none"> Writing Topic 3: My Favourite Celebration (Brainstorming and Drafting)
Week 9	<ul style="list-style-type: none"> Writing Topic 3: My Favourite Celebration (Revising, Editing and Publishing) Reflective Journal 3
Week 10 - 11	<ul style="list-style-type: none"> Feedback and editing session
Week 12	<ul style="list-style-type: none"> Post-test writing was conducted in the same classroom. Compare the results of the pre-test and post-test. Semi-structured interview
Week 13 - 14	<ul style="list-style-type: none"> Analyse results and compile findings

2.5 Data Analysis

The semi-structured interviews and the reflective journals were analysed using thematic analysis. The researcher adopted six key steps of qualitative data analysis as outlined by Braun and Clarke (2006).

1. Data Familiarisation: The researcher transcribed the data verbatim. The transcripts and reflective journals were read repeatedly to build a holistic understanding and familiarity of data.
2. Coding: Coding involved organisation and naming information in a logical manner into meaningful categories (Chowdhury, 2015). It is an iterative process. The researcher developed the codes which were related to the pupils' perceptions of the application of Padlet in writing activities.
3. Search for Themes: In this step, data were defined, arranged, labelled, and categorised into meaningful text chunks. Visual aids such as diagrams were used to show the connections between the codes and the themes.
4. Define and Name Themes: The themes were readily comprehensible and easily understood. Each theme was clarified on its relevance to the research question and its connection to the overarching data set (Ravitch & Carl, 2019). Well-defined themes improved the clarity of the results.
5. Reporting: The researcher produced a comprehensive and organised report on the findings. The report contains an introduction that highlights the research topic and methods, succeeded by a comprehensive exposition on the themes and their importance (Creswell & Creswell, 2023).

3.0 RESULTS

The research findings are presented from the data collected through the pre- and post-test. Data were collected through the semi-structured interviews and the reflective journals of the Year 4 pupils in an urban primary school at Sandakan, Sabah. The findings are presented in relation to the research questions that were stated earlier in the study: (1) What is the primary school pupils' writing performance after using Padlet in writing activities? and (2) What are the primary school pupils' perceptions of the application of Padlet in writing activities?

3.1 Pupils' Writing Performance After Using Padlet in Writing Activities

The researcher examined the writing samples of the primary school pupils in the pre-test and post-test. The writing samples were analysed to discover the primary school pupils' performance in aspects of vocabulary, fluency, spelling, punctuation, and organisation. Table 2 shows the pupils' results in the pre-test and post-test writing.

Table 2

Pupils' results in the pre-test and post-test

Participant	Pre-test Performance Level	Post-test Performance Level
P1	5	5
P2	4	5
P3	4	5
P4	3	4
P5	3	4
P6	3	3
P7	3	4
P8	3	3

Based on Table 2, five out of eight participants (P2, P3, P4, P5, and P7) showed improvements in their writing. Another three participants (P1, P6, and P8) maintained their scores in the pre-test and post-test writing. The pupils' results were evaluated using the writing rubric which follows the DSKP. P4, P5, and P7 improved from level 3 to level 4 in their post-test writing. These participants demonstrated the ability to use essential and personal information. They used a variety of sentence structures, used conjunctions effectively, and wrote coherent paragraphs with correct spelling and punctuation. The participants were able to organise their work well since they were able to write with less help. Moreover, P1, P2, and P3 achieved a performance level of 5 in their post-test writing. These participants were able to describe people and items with relevant details, minimise errors, and use varied sentence structures. P1, P2, and P3 also spelt words correctly, utilised punctuation, linked sentences into cohesive paragraphs, and wrote a draft with minimal information. P6 and P8 obtained a level 3 on their post-test writing. The participants were able to communicate and describe people and things well despite having grammatical errors in their writings. The participants used simple conjunctions, spelt some of the words correctly, applied punctuations and joined sentences to create coherent paragraphs.

3.1.1 Vocabulary

The pupils used basic vocabularies in the pre-test writing. However, the pupils showed improvement in the post-test, where they used more complex vocabularies in their sentences. The participants used a wider range of adjectives, verbs, and nouns. For example, P2 used adjectives such as "interesting" to describe the holiday experience, whereas "windy" and "cold" to describe the weather. P5 and P7 also added more vocabularies in their writing to provide additional information in their post-test writing.

Table 3

Comparison of vocabulary aspects in the pre-test and post-test

Participant	Pre-test (Vocabulary)	Post-test (Vocabulary)
P2	Use of simple vocabulary. E.g., "...I have two younger brothers. I like watching TV."	The use of descriptive words such as "windy" to convey meaning clearly. E.g.: "My family went on a trip to Arab. It was windy and cold... We saw a mountain... they were interesting too!"
P5	Limited variety of vocabulary used. E.g.: "My name Syah. My years 10 years. I'm from Malaysia."	Vocabulary was used to convey meaning and provide description. E.g.: "My family and I went on a trip to America. It was very cool... We rode a bike. They were very big."
P7	Limited range of vocabulary used. E.g.: "Age 10 from Malaysia."	Ideas were conveyed through the use of appropriate vocabulary. E.g.: "Last year, my family and I went at Indonesia. It was very hot and sunny. We rode a horse."

Table 3 shows a comparison of P2, P5 and P7's vocabulary before (pre-test) and after using Padlet (post-test). In this study, the participants were exposed to their peers' vocabulary choices and newly acquired vocabulary was applied in their own writing. Noticeable improvements of vocabulary usage were found in the post-test writing samples.

3.1.2 Fluency

An improvement in writing fluency was shown by some of the participants in the post-test compared to the pre-test. For instance, more sentence connectors were used by the participants in the post-test. An increase in word count in the participants' writing was also observed in the post-test. In the post-test, there was greater coherence in the participants' writing. This could be attributed to the responses given by the peers and teacher in the writing activity on Padlet. The feedback helped the participants learn from their mistakes and make changes to their essays. However, some of the participants' post-test writings contained grammatical errors. For example, P7 wrote "I'm so very happy" in the post-test. The sentence is incorrect since it should be "I'm very happy." Another grammatical error identified is the incorrect use of subject pronouns. For example, in the post-test, P3 wrote "Me and my sister saw a lot of animals" to describe his situation during his holiday trip. The correct sentence should be "My sister and I saw a lot of animals." The examples of the participants' writing that show the improvement in writing fluency are presented in Table 4.

Table 4

Comparison of writing fluency in the pre-test and post-test

Participant	Pre-test	Post-test
P2	Less written output with grammatical errors. E.g.: <i>Assalamualaikum, my name is Zana. And my is ten. I'm from Malaysia. I live in Sandakan, Taman Sejati. And I have two younger brothers. I like watching TV. See you, goodbye.</i> (30 words)	Ideas were presented in a coherent manner and organised. E.g.: <i>Hello, how are you? I want to tell you about my trip. Last year, my family and I went on a trip to Arab. It was windy and cold there. We rode camels to the Al-Jawf. They're very big. I took a lot of photos. We saw a mountain. They experience was interesting too! Arab was fun!</i> (57 words)
P3	No grammatical errors were observed, but limited amount of written output. E.g.: <i>Hi! My name Nat. I'm 10 years old. I'm from Malaysia. I live in Sandakan. I have little sister. I like to play football. Bye!</i> (26 words)	Sentences were found to be more connected with minor grammatical errors. E.g.: <i>Hello! How are you? Last week, my parents and I went on a trip to Australia. The weather was hot and sunny. We rode motorcycle to the museum. Me and my sister saw a lot of animals. Our trip was fun.</i> (41 words)
P7	Production of simple, incomplete sentence structures with grammatical errors. E.g.: <i>Hi my name is Alesya. Age 10 from Malaysia. I'm live Taman Perdana. I have friends she name is Carol. My family sister and younger brother.</i> (25 words)	A clearer progression of ideas was observed, although grammatical errors were still present. E.g.: <i>Hi. How are you? Last time, my family and I went at Indonesia. It was very hot and sunny there. We rode horse. They were very big. I also went to the museum and took photos. I'm so very happy. Bye see you next time.</i> (45 words)

3.1.3 Spelling and Punctuation

In the pre-test and post-test writing samples, errors in spelling and punctuation were identified. The frequency of the errors was lower in the post-test writing samples compared to the pre-test samples. This indicated that greater attentiveness to spelling and punctuation in writing was demonstrated by the pupils after using Padlet. For example, in one of the post-tests' writing samples, the word "mother" supposed to be "mother", which was spelt incorrectly. More examples are shown in Table 5.

Table 5

Comparison of spelling and punctuation aspects in the pre-test and post-test

Participant	Pre-test	Post-test
P1	Able to spell words in guided writing with minor mistakes. E.g.: <i>hobbies</i> Minor punctuation error – comma is written as a full stop. E.g.: <i>"I have a lot of hobbies... reading, singing, and studying."</i>	Words were spelt accurately in guided writing. No errors were found in this aspect. Spell words accurately and use punctuations in guided writing. Able to connect sentences into a coherent paragraph with some pertinent details. E.g.: <i>"Last week, my family and I went to Sarawak. It was windy there. I rode a motorcycle to the museum."</i>
P4	Able to spell words in guided writing with minor mistakes. E.g.: <i>inggris</i> Able to apply punctuation in guided writing and connect sentences into a coherent paragraph.	Words were spelt accurately in guided writing. No errors were found in this aspect. Able to punctuate and connect sentences into a coherent paragraph with very minimal pertinent details. However, minor errors were detected. E.g.: <i>bye see you next time</i> (Bye, see you next time.)
P6	Words were spelt accurately in guided writing. No errors were found in this aspect.	A minor spelling error was made, such as the word <i>muzium</i> (museum). A minor punctuation error, such as <i>Im</i> (I'm).
P8	Able to spell words and apply punctuation in guided writing with minor errors. E.g.: <i>sudjel</i> (subject), <i>Matematik</i> (Mathematic), <i>m'l</i> (I'm)	Able to spell words and apply punctuation in guided writing with errors. E.g.: <i>mothel</i> (mother), lack of full stops and commas

3.1.4 Organisation

The analysis also revealed how pupils organised their writing before and after using Padlet. In the pre-test, some of the pupils struggled with clear structure. Their writing lacked a clear introduction, body, and conclusion. In the post-test, pupils showed improvements in their writing organisation. The structure of the pupils' writing has improved with better introduction, body, and conclusion. The process writing approach (explained in 1.2 Research Framework) which was applied during the writing activities using Padlet has contributed to the pupils' ability to organise their thoughts before producing their essays. A comparison of the organisation of the pre-test and post-test of P5, P6, and P8 is shown in the table below.

Table 6

Comparison of Organisation Aspects in the Pre-test and Post-test

Participant	Pre-test	Post-test
P5	Weak organisation in writing as sentences were not clearly structured and paragraphing was poorly managed. E.g.: <i>my name i syafiera. my years is 10 years I'm from Malaysia i live in Taman sri rimba my family abroder. i like play ball.</i> <i>Ok good bye</i>	The writing has an introduction, body, and conclusion. E.g.: <i>Hello Izzah,</i> <i>How are you? Last my family and I went on a trip to Amerika. It was very cool there. We rode bike to the Amerika.</i> <i>they were very big. I took a lot photos. We saw bear at the museum.</i> <i>They were scary, but were interesting too! I liked bear the most! Amerika was fun.</i> <i>Syafiera</i>
P6	The writing showed limited use of effective paragraphing. E.g.: <i>Hi! My name is Ali my age Ten. I'm from Malaysia. i live in Sandakan. I have two parents, younger brother and one sister. favourite sport playing Sepak Takraw.</i>	The writing has an introduction, body, and conclusion. E.g.: <i>Hi Sam,</i> <i>How are you? Last year, I go to Australia and I see a zebra. We rode a horse. and I go to muzium. Im so happy. I go with family. The weather is so hot. Bye.</i> <i>Ali</i>
P8	Limited organisation in writing as sentences lacked clear formation and paragraphing was poorly developed. E.g.: <i>Hello, m'l name is Jamal, I'm from Malaysia I live in Sandakan m'l home 8 and I'm like subject Matematik I'm friends Nat and Alex.</i>	The writing has an introduction, body, and conclusion. E.g.: <i>Hello Alex,</i> <i>How are you? My name is Jamal.</i> <i>Last week, my parents and I went on a trip to Filipina. The weather is raining. We go to hotel my mothel. I feel so happy.</i> <i>Jamal</i>

3.2 Pupils' Perceptions of the Application of Padlet in Writing Activities

Based on the thematic analysis, there are four major themes: (1) Collaboration in Writing Activities, (2) Pupil Motivation to use Padlet, (3) Features and Usability of Padlet and (4) Challenges of Using Padlet. The findings from the study are obtained based on the themes generated based on the reflective journals and semi-structured interview to answer the research question, "What are the primary school pupils' perceptions of the application of Padlet in writing activities?"

3.2.1 Theme 1: Collaboration in writing activities

Based on the thematic analysis of the interview, participants perceived that the application of Padlet has facilitated collaborative activities. Padlet enabled the primary school pupils to engage with each other to collaborate and share ideas with each other. Pupils were also able to gain writing skills through the help of their peers. Table 7 shows the excerpts used to illustrate the finding.

Table 7

Collaboration in writing activities

Sub-theme	Excerpts
Peer interaction and support	<i>When I don't know what to write, my friends helped me. (P1, Interview)</i> <i>Because I can type with my friends. Everything is better with friends. (P1, Reflective Journal, Week 4)</i>
Teamwork	<i>My best friend comment "good job!" in Padlet. I felt that I did well in my essay. (P2, Interview)</i> <i>I feel good about the work that I do with my friends in the Padlet. It's nice that we can finish our work." (P4, Interview)</i>
Learning from Peers	<i>Hmm... when I don't have ideas to type, my friends help. (P6, Interview)</i> <i>I didn't know how to spell some words. I asked my friends and also find in Google. (P4, Reflective Journal, Week 4)</i>
Conflict resolution	<i>"I think Padlet helps me write interesting sentences. Especially when I discuss with friends or see their comments." (P3, Reflective Journal, Week 9)</i> <i>Sometimes... our pendapat (opinion)... not the same. But we talk to each other and try to finish the essay. (P7, Interview)</i>

As indicated in the interviews and reflective journals, pupils perceived Padlet as a collaborative learning tool. In reflective journal Week 4, P1 mentioned that she could use Padlet to collaborate with peers to type the essay. In reflective journal Week 9, P3 perceived Padlet's usefulness in facilitating discussion which enriched the writing process. The pupils also favoured using Padlet to work with

their peers in the writing tasks because they enjoyed reading and learning from their peers' responses. Receiving positive responses from peers, as mentioned by P2, also boosts the learner's confidence in writing activities.

The pupils took the initiative to learn writing skills through various ways with the help of their peers and the teachers. For example, the participants learned from the teacher's and peers' comments. When the participants encountered problems in writing, they took initiatives to seek help from their peers and the teacher. By engaging with both online materials and comments from peers, the participants were able to enhance their understanding and application of writing techniques.

3.2.2 Theme 2: Pupil motivation in writing tasks

The use of Padlet has increased the motivation and enthusiasm of the primary school pupils to conduct group writing activities in the ESL classroom. Padlet provided the pupils with a new experience in doing writing activities. As mentioned by some of the participants, they were motivated to carry out the group writing tasks. The excerpts to illustrate the findings are presented in Table 8.

Table 8

Pupils' motivation to use Padlet

Sub-theme	Excerpts
Fun learning and enjoyment	<i>Padlet is a website that I can use to post about my work. Um... I feel that Padlet is fun to use. I feel good...uh... because it's fun doing the activities." (P1, Interview)</i> <i>I feel happy and enjoy it. Because... uh... we used laptop to do essay in Padlet. We can share about... uh... our hobby, holiday trip, and more. (P2, Interview)</i> <i>I feel happy... Um... because it shows that my friends also read my essay and learn from it. (P8, Interview)</i>
New experience	<i>Padlet is new to me. It was fun to try something different for writing. (P2, Reflective Journal, Week 4)</i>

The use of Padlet has increased the motivation and enthusiasm of the primary school pupils to conduct group writing activities in the ESL classroom. Padlet provided the pupils with a new experience in doing writing activities. As mentioned by some of the participants, some of them were motivated to carry out the group writing tasks. The application of Padlet has encouraged pupils to post their writing task, which contributes to active participation and motivation in learning. The pupils were motivated to learn writing using Padlet. Based on the thematic analysis of the interview, the participants felt that using Padlet has added their interest in learning writing because it is different from traditional methods of learning. They also perceived Padlet as interesting and fun to use. Pupils also liked seeing their friends' posts on Padlet which increases their motivation to learn writing. While completing the writing tasks on Padlet, the pupils appreciated the support and companionship from their peers while doing the writing activities in Padlet. Additionally, the collaborative aspects of Padlet provided support to the primary school pupils, encouraging feedback and shared responsibility for completing writing tasks with their peers. These aspects not only increased the pupils' motivation, but they also helped them to develop confidence and a positive attitude towards learning.

3.2.3 Theme 3: Features and Usability of Padlet

This theme addresses Padlet's features and usability for writing activities which is based on the pupils' experiences. It captures the degree to which Padlet's features, such as multimedia integration (adding pictures and videos) and the comments section facilitate learner productivity. The participants were asked the following question, "Were there any features of Padlet that you found helpful or challenging?"

Table 9

Features and usability of Padlet

Sub-theme	Excerpts
Facilitate peer learning	<i>I feel happy and enjoy it. Because... uh... we used laptop to do essay in Padlet. We can share about... uh... our hobby, holiday trip, and more. (P2, Interview)</i> <i>Padlet is new to me. It was fun to try something different for writing. (P2, Reflective Journal, Week 4)</i> <i>I feel happy... Um... because it shows that my friends also read my essay and learn from it. (P8, Interview)</i>
Visual appeal	<i>"I think the feature to change colour and add pictures and videos is good." (P6, Interview)</i>
Writing support	<i>"Maybe it's good if Padlet can help me to check my mistakes before I post the essay." (P8, Reflective Journal, Week 9)</i>

The pupils enjoyed Padlet's features, particularly when pictures and comments were posted which makes Padlet an engaging platform for sharing ideas and knowledge. Peer learning was also facilitated through the use of Padlet, as pupils' written work could be shared and learning could take place through the exposure of their peers' work. Padlet was also viewed as visually appealing, as the features in Padlet allowed pupils to create interesting posts. Meanwhile, the expectation for Padlet to function as an error-detection tool that could enhance writing quality was perceived by one of the participants. The inclusion of feedback mechanism in Padlet's interface was suggested by P8. For example, the integration of spelling and grammar checker in Padlet could be considered to help identify inaccuracies and improve pupils' writing skills.

3.3.3 Theme 4: Challenges in using Padlet

Some challenges were encountered by the participants. To explore these challenges, the participants were asked, "Was there anything hard or not fun about using Padlet?" Participants reported challenges in using Padlet were caused by technical issues and unstable Internet connectivity which affected its implementation during the writing activities. The same challenges were also mentioned by the participants in their reflective journals. The following excerpts are used to illustrate the finding.

Table 10

Challenges of using Padlet

Sub-theme	Excerpts
Technical problems	<i>Sometimes... um... the laptop is lag. Then, I post twice by accident. (P2, Interview)</i> <i>Sometimes lah... when I click the add button, the box doesn't show. (P3, Interview)</i> <i>A bit difficult. Because the laptop is lagging. (P6, Reflective Journal, Week 4)</i>
Internet connectivity issues	<i>But can be a bit slow when the internet is bad. Sometimes lah, uh... have to wait longer to save my work." (P6, Interview)</i>

These challenges resulted in frustration among the pupils, increased time required to complete tasks and a tendency for duplicate posts to be created during the writing activities. Nevertheless, the challenges were alleviated through the support provided by the teacher and the peers. This highlights the importance of digital literacy among teachers and pupils in enhancing learning through the use of digital tools such as Padlet.

4.0 DISCUSSION

Various data collection methods were conducted with a sample of eight participants. The study has identified four themes, namely (1) Collaboration in Writing Activities, (2) Pupils Motivation in Writing Tasks, (3) Features and Usability of Padlet and (4) Challenges of Using Padlet. By drawing connections between the research results, the discussion explores the research questions: (1) What is the primary school pupils' writing performance after using Padlet in writing activities? and (2) What are the primary school pupils' perceptions of the application of Padlet in writing activities? This study was conducted differently than traditional lessons. Padlet is a CALL tool which facilitates collaboration among pupils by sharing ideas, providing and receiving feedback, and working together in real time. Contrary to traditional pedagogical practices that limit peer interaction, Padlet enabled communication in real-time, allowing students to co-create and improve their writing skills. The increase of motivation of primary school pupils in this study is attributed to the interactive features in Padlet, such as posting multimedia and providing real-time comments. Such interaction made classroom activities more fun as opposed to most conventional writing activities. Pupils also showed improvement in their vocabulary, fluency and organisation due to the exposure from their peers' work. Although there were still some mistakes in grammar, spelling and punctuation, the pupils were still able to learn from the peer review and the teacher's immediate feedback, which enhances CALL's capacity to facilitate long-term language learning.

4.1 Primary School Pupils' Writing Performance After the Use of Padlet in Writing Activities

The first research question is, "What is the primary school pupils' writing performance after using Padlet in writing activities?". The researcher explored the primary school pupils' writing performance after using Padlet in writing activities. The findings from this study indicate that Padlet had a positive impact on the primary school pupils' writing performance in certain aspects. Pupils' writing samples were evaluated based on vocabulary, fluency, spelling, punctuation and organisation aspects. Improvements were observed in pupils' vocabulary in the post-test, where more complex vocabulary such as descriptive adjectives (e.g., "windy" and "cold"), was used. This improvement may be attributed to the interactive features of Padlet, which encouraged active language use during peer interaction. This finding is supported by Shi et al.'s (2024) study, which found that interactive and student-centred approaches improve students' English language skills compared to traditional approaches.

In aspects of written fluency, some improvement was shown by the pupils, as more sentence connectors were used and there was an increase in word count in their post-test compared to the pre-test. Some grammatical errors, such as incorrect tense usage were present. This could suggest that although improvement in written fluency was facilitated through the application of Padlet, additional guidance in grammar was still needed. In aspects of spelling and punctuation, the frequency of errors had decreased in the post-test. However, some spelling errors remained. This may happen due to the lack of awareness which was not fully addressed during the sessions with Padlet. An improvement in the organisation of writing was also found in the pupils' written work after the use of Padlet. The post-test showed that the pupils' written work contained an introduction, body and conclusion compared to their initial writing in the pre-test.

The theory related in this study is the Collaborative Learning Theory which focuses on the interaction between pupils in the writing activities using Padlet. Pupils used Padlet simultaneously and received feedback in the comment box. Through interaction among themselves, pupils were exposed to the language and acquired new knowledge which allowed them to improve their performance in writing skills. This finding is consistent with Harlena et al.'s (2020) study, where the writing skills of students are developed through collaborative writing activities. As pupils were doing writing activities with the help of Padlet, they were able to gain knowledge from their peers, and through this, they were able to improve writing skills. This finding is consistent with Millis's (2023) study, which discovered that collaboration allows students to learn together to gain knowledge and achieve better results in writing. Moreover, the primary school pupils showed an improvement in writing organisation as they have been exposed to the process-based approach. The

findings showed that the implementation of process-based approach during the writing activities allowed the primary school pupils to organise their writing with clear introductions, body paragraphs, and conclusions. This aligns with the findings of Moussaoui (2024) that found process-based approach improves students' writing skills through various stages.

The improvement in writing performance may be affected by the features in Padlet that support continuous writing. This allows the primary school pupils to write, correct mistakes, and receive feedback. Dawawi and Yamat (2022) also emphasised the importance of feedback in increasing students' understanding of essay writing. The findings showed that the primary school pupils used a wide range of vocabulary in the post-test from the feedback given by their peers and the teacher. The pupils used a variety of nouns, adjectives, and verbs to describe their experiences in the writing tasks. Similar findings are reported in the study of Muralei et al. (2024), where students improved in their vocabulary mastery after using Padlet in the ESL classroom. However, grammatical and spelling errors persist in the pupils' writing in the post-test. The pre-test and post-test results revealed that there were errors in their writing even after using Padlet. Ghulamuddin et al. (2021) found similar results, where grammatical errors remain among primary school pupils.

4.2 Primary School Pupils' Perceptions of the Application of Padlet in Writing Activities

The qualitative findings from the reflective journals and semi-structured interviews revealed that the primary school pupils had positive perceptions of Padlet. Pupils described the application of Padlet in writing activities to be interesting and fun. All participants were actively involved in the writing activities using Padlet. The primary school pupils' perceptions relate to the Collaborative Learning and Collaborative Writing Theory, where pupils engage with their peers in meaningful discussions and collaborate on writing tasks. The findings support Subramaniam and Fadzil's (2021) study, which discovered that Padlet allowed students to interact with their peers during group discussion. The pupils discussed with their peers during the activities to complete their writing task. Padlet facilitates the exchange of ideas in writing through the group work activities. This finding is also consistent with Annisa and Fahri's (2020) study on collaborative writing techniques. The results found that collaborative writing has enabled students to come up with ideas before they start writing. Zhi and Su (2015) also discovered that Padlet has helped the primary school pupils to be able to acquire knowledge and participate in the writing tasks. The sharing of ideas during the writing activities contributed to the positive perception in pupils' writing.

The findings of this study also showed that pupils were motivated to participate in writing activities using Padlet. Bakar and Hashim (2022) discovered the factors affecting ESL students' engagement with Padlet. The results indicated that Padlet has encouraged students to complete tasks and work in groups. Mulyadi et al.'s (2021) study has revealed that Padlet increased student engagement in writing activities. The students actively participated in the activities by posting their essays and commenting on their peers' work. Similar results were reported in Rashid et al. (2019), claiming Padlet has made students willing to participate in writing activities because of its features and how convenient it is to work with others. The application of Padlet in writing tasks has made pupils feel safe to share their work and practice writing skills. Affendi et al. (2020) claimed that Padlet aids pupils in structuring their writing. In this study, Padlet's features to split the essay into various stages, such as brainstorming, drafting and planning, have helped pupils to organise writing. The pupils also used Padlet to correct errors and reflect on their mistakes. This finding aligns with Rofiah et al. (2023), affirming that using Padlet enables students to evaluate each other's work and develop writing skills.

Some participants mentioned experiencing slow devices and unstable internet connections. The effectiveness of Padlet might be affected by technological infrastructure (Mulyadi et al., 2021). However, these challenges did not outweigh the positive perceptions of Padlet. The pupils liked using Padlet in writing activities due to the feature of adding multimedia elements to their posts to make their work look appealing. This aligns with the findings of Suryani and Daulay's (2022) study, which suggested that students prefer using Padlet for learning over traditional methods due to Padlet's features. As a result, the pupils showed interest in completing the writing tasks. Therefore, the internet connection must be stable, and devices are up to date to ensure the smooth implementation of Padlet in the ESL primary classroom. In a nutshell, the primary school pupils showed positive perceptions towards the application of Padlet to enhance writing skills in the ESL primary classroom. The pupils enjoyed collaborating with their peers through the application of Padlet in writing activities. Pupils also showed an increase in motivation as all of them participated and were engaged during the writing tasks in Padlet.

5.0 CONCLUSION

In conclusion, this study explored the primary school pupils' writing performance and perceptions of the application of Padlet in the ESL primary classroom. The findings revealed that the primary school pupils showed improvement in their writing performance in terms of vocabulary, fluency and organisation after using Padlet in writing activities. However, some grammatical, spelling and punctuation errors were identified, indicating that additional guidance in writing is still needed among primary school pupils. Moreover, the findings also revealed that Padlet was perceived by the primary school pupils as a platform that facilitated collaboration in writing tasks and increased their motivation to learn writing skills. Challenges such as technical issues and unstable Internet connectivity were also encountered by the participants. While this study provides insights, it has some limitations on the generalisability of the findings. The sample size was rather small (eight 10-year-old participants with mixed proficiency), the setting was an urban primary school, and the duration of the study was limited to 14 weeks. Future studies can be conducted to explore the effectiveness of Padlet with larger and more diverse groups, in different school settings and over a longer intervention period to determine its broader applicability. Besides, the provision of up-to-date devices and a stable Internet connection should also be considered, as these factors may impact pupils' learning experiences. The findings of this study could contribute to research on technology integration in education, particularly in the primary school context, and may also serve as a resource for policymakers and educators seeking innovation in their instructional strategies.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

AUTHOR CONTRIBUTIONS

Christal Chong (Conceptualisation, Methodology, Investigation, Writing – original draft, Writing – review & editing)

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