



Perceptions of Malaysian Secondary School Students on GeniusWrite, AI-Integrated Module for Learning English Writing

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Abstract. Artificial intelligence (AI) is increasingly transforming the education sector, especially in English language teaching and learning, supporting the development of essential 21st-century skills. Realising the significance of AI-mediated pedagogies, the Malaysian Ministry of Education has introduced the Digital Educational Learning Initiative Malaysia platform to provide teachers and students with access to diverse AI tools for education. Information and Communication Technologies (ICT) also have become increasingly influential especially within education, with online learning modules becoming prominent due to their abilities to foster learner engagement, personalised learning and language skill development. Despite the growing focus on AI and ICT-enhanced learning, there is limited research on AI-supported online modules designed for Malaysian secondary school students, especially for writing, which is one of the most difficult skills to teach and learn. Therefore, this study explored Lower Secondary Form 2 (aged 14 to 15) students' perceptions of GeniusWrite, an AI-integrated online module, designed to support English writing instruction in Malaysian secondary schools. Using a small-scale explanatory sequential design, quantitative data was collected through a survey using questionnaire, followed by semi-structured interviews to enrich and explain the survey findings. Results from both phases indicated that students perceived GeniusWrite as easy to use and useful in learning English writing. This study recommends future research on curriculum-aligned AI features, ongoing teacher training for AI integration, teachers' views on AI-supported writing modules, peer collaboration and social learning, and how students with limited digital literacy adapt to AI-integrated modules.

Keywords: Artificial intelligence integration; English writing; Technology acceptance model; Malaysian secondary school

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1. Introduction

In the current era of globalisation, artificial intelligence (AI) technologies are rapidly reshaping the educational landscape, transforming traditional approaches to teaching and learning in significant ways (Popenici & Kerr, 2017). AI integration in education aligns seamlessly with the principles of 21st-century learning approach that emphasises learner-centred, diverse, personalised and technology-enhanced learning experiences, which support practicality and convenience for educators and students. Furthermore, AI offers substantial potential for strengthening language learning by providing personalised support tailored to learners' needs that enhances acquisition, comprehension and fluency (Zainuddin et al., 2024). Through AI-driven tools, learners can receive instant assessment and feedback on grammar and vocabulary, fostering a more dynamic (Chan et al., 2024) and efficient learning environment.

Considering numerous proclaimed benefits of AI integration for pedagogy, the Malaysian government has introduced the Digital Educational Learning Initiative Malaysia (DELIMa) platform to promote digital transformation in education (Google Malaysia, 2020). The platform provides a wide range of AI tools readily available to support teaching and learning inside and beyond the classroom. For instance, AI tools include SUNO AI, Claude AI, Microsoft Learn AI for Educator, ChatGPT, MS Copilot, Perplexity, Notebook LM and Gemini AI, among others. This initiative serves to encourage teachers and students to integrate AI tools meaningfully into teaching and learning processes to improve learning outcomes.

Currently, ICT is increasingly influential, especially in education (Ghavifekr & Wan, 2015) which it provides essential tools to transmit, store, produce and share information. ICT integration in teaching and learning supports 21st-century learning environments, which emphasise student-centred and technology-mediated approaches rather than teacher-centred instruction (Sujarwo et al., 2022). Among various digital innovations used in classrooms, online modules or e-modules are increasingly popular (Evenddy et al., 2024) due to their various benefits for both teachers and students. Their effective implementation has been shown to enhance learner engagement and promote personalised learning experiences (Evenddy et al., 2024). The modules often include multimedia features such as videos and audio, that can enrich English language instruction by increasing student participation and strengthening knowledge and language skills (Saphira & Andari, 2024).

Due to digitalisation and global demands for technological competence, students are expected to have strong English proficiency to perform effectively academically and professionally (Nishanthi, 2018). Hence, the Malaysian Ministry of Education (2013) introduced the Malaysian Education Blueprint 2013-2025, with one of its key shifts emphasising the importance of English proficiency to compete globally. English is taught as a second language from primary to tertiary levels in Malaysia (Derioh & Karim, 2024). However, writing remains the most challenging among other language skills like reading, speaking and listening, because many students struggle to master this skill (Ahmad et al., 2021). Malaysian English as a Second Language (ESL) learners frequently face

difficulties in producing written work that aligns with expected proficiency standards (Wan & Othman, 2021).

Given these issues, AI-enhanced and ICT supported pedagogical tools, such as AI-integrated online modules, offer promising avenues for improving students' English writing outcomes (Chan et al., 2024; Kristianto et al., 2022). An AI-integrated module functions as a technology supported adaptive learning tool that uses artificial intelligence to deliver personalised instruction, automated assessment, real time feedback and learner-centred support (Popenici & Kerr, 2017; Zawacki-Ritcher et al., 2019). Despite the growing global interest in such tools, a review by Liu and Abdullah (2024) revealed that research on online modules for English as a Foreign Language (EFL) and ESL learning in Malaysian secondary schools remains limited. Consequently, there are only a few online English modules available that are tailored specifically to the Malaysian secondary school English syllabus or examination requirements.

To address the gap, this study aimed to investigate Malaysian Form 2 (aged 14 to 15) students' perceptions of ease of use and usefulness of Genius Write, an AI-integrated module for learning English writing, guided by the following research questions (RQs):

RQ1: What is the Form 2 students' perceptions of the ease of use of Genius Write, an AI-integrated online module for learning English writing?

RQ2: What is the Form 2 students' perceptions of the usefulness of Genius Write, an AI-integrated online module for learning English writing?

2. Literature Review

2.1 Artificial Intelligence (AI) Integration in Teaching and Learning English Writing

AI is a field in technology in which machines and computer systems replicate human cognitive abilities to learn, interpret information, make decisions, solve problems, operate autonomously and show creative thinking (University of Illinois Chicago, 2024). Writing is a fundamental skill for effective communication and academic success in the currently information-rich environment (Rad et al., 2023). By relying on traditional instructional methods, students' English writing proficiency often does not meet expected standards, and their performance levels remain low (Arafah & Kaharuddin, 2019). Furthermore, many learners face continuous challenges in writing and frequently lack enough guidance or feedback to help them improve (Han & Xu, 2020).

Therefore, AI tools are becoming promising solutions by providing timely, accurate and personalised feedback that helps students develop their writing more effectively than traditional feedback methods (Moussalli & Cardoso, 2020). The AI-based assessment and feedback systems can assess student essays and give instant, constructive, and individualised comments (Octavio et al., 2024). Continuous feedback from AI also helps reduce uncertainty, lowering students' anxiety during English writing tasks (Jubier et al., 2024). When students can revise

their work based on specific feedback, they can improve their drafts and produce better writing.

When facing writer's block, students can use AI-based brainstorming tools to create outlines or templates (Sung & Jang, 2024) to improve their writing fluency. In addition, idea generation using AI can help students explore new and creative concepts (Kurt & Kurt, 2024), improving the overall quality of their essays. Another study by Song and Song (2023) also showed that students in AI-assisted writing classes had higher motivation and developed better academic writing skills than those in traditional instruction. Overall, these studies suggest that AI-enhanced writing environments improve learning outcomes. As AI tools continue to advance, their integration in English writing classes can lead to more personalised, efficient and student-centred learning.

2.2 Online Modular Approach for English

Alongside rapid digitalisation, online learning modules or e-modules are widely adopted educational technology in various teaching and learning contexts (Evenddy et al., 2024). These modules aim to enhance learning outcomes by providing interactive, engaging, and accessible content that learners can use flexibly anytime and anywhere (Bakar et al., 2022). An online module is a collection of structural components combined to form a more complex unit (Kusumawati et al., 2018). The online modular approach promotes autonomous learning for learners (Novia et al., 2022), allowing them to navigate resources independently and flexibly (Al Mamun et al., 2016), supporting student-centred learning (Suryani et al., 2021).

According to Evenddy et al. (2024), many studies have been done on implementation of online modules for English classes, highlighting the effectiveness of online modules in English language instruction. For example, Kristianto et al. (2022) found that integrating dynamic assessment in an augmented-reality-enhanced online module significantly improved students' writing performance in content and language. Furthermore, Etfita and Wahyuni (2021) found that Padlet-based online modules that promoted collaborative discussion, led to notable improvement in writing proficiency among English for Specific Purposes (ESP) learners.

However, research on AI-integrated online writing modules specifically designed for secondary or high school learners remains limited. A systematic literature review by Liu and Abdullah (2024) found that, although most studies on online ESL and EFL learning in Asia were conducted in Southeast Asia, only three of the 15 studies focused on Malaysian English education, and only one involved secondary school learners. Similarly, a systematic literature review of 25 journal articles from 2021 to 2025, by Ooi et al. (2025), on AI integration in English writing instruction, only 10 papers examined high schools or secondary school settings. No articles were Malaysian educational context, and none specifically addressed AI-integrated online English modules.

Therefore, AI-integrated online modules for English writing, holds strong potential to support autonomous, personalised and effective learning among Malaysian ESL secondary school students, thereby facilitating the achievement of targeted learning goals and outcomes.

2.3 English Writing Based on School Syllabus and Common European Framework of References (CEFR) for Form 2 in Malaysia

In Malaysian secondary schools, the English Standards-Based Curriculum for Secondary Schools or *Kurikulum Standard Sekolah Menengah* (KSSM) syllabus is aligned with the Common European Framework of References for Languages (CEFR) to uphold the quality of English language education, ensuring it adheres to internationally recognised standards (Ministry of Education Malaysia, 2019). CEFR, introduced in 2001, provides standardised international benchmarks for foreign language proficiency, streamlining assessment, instruction and learning which defines the communicative competencies learners must achieve across four core skills, namely reading, writing, speaking and listening (Mohammad & Abdul, 2018).

In the English CEFR framework, six descriptor levels categorise learners' ability to use the target language, into three main groups, namely, proficient users (C1 and C2 levels), independent users (B1 and B2 levels) and basic users (A1 and A2 levels) (Mohamad & Mat, 2022). According to the Malaysian English syllabus, Form 2 students' English proficiency level should be at CEFR A2 high for the first part and B1 low for the second part of the English writing paper (Ministry of Education Malaysia, 2024).

Malaysian English writing exam format for lower secondary Form 2 is based on the *Ujian Akhir Sesi Akademik* (UASA), a school-based final exam. In this exam format, the Form 2 English Writing Paper is divided into two parts. The first part is Short Communicative Message for 20 marks (Kementerian Pendidikan, n.d.) which tests students on email or message writing. For the second part, Note Expansion, 20 marks are allocated, testing students on narrative, descriptive or informative writing (Kementerian Pendidikan, n.d.). Hence, AI-integrated online modules that closely align with Malaysian school syllabus and the UASA exam format for English writing are relevant and practical for the students to improve English learning outcomes.

2.4 Technology Acceptance Model

The Technology Acceptance Model (TAM) (Davis et al., 1989) explains how users come to accept and use a new technology through two key constructs, namely perceived usefulness (PU) and perceived ease of use (PEOU). PU refers to the extent a user believes that using a system will enhance their performance whereas PEOU reflects the degree to which a system is viewed as effortless to operate. When users perceive a technology as easy to use and useful, their intention to continue engaging with it increases, contributing to its actual adoption and sustained use (Chang et al., 2023).

According to Chen et al. (2011), TAM has been widely employed across numerous fields within information technology and information systems. Alharbi and Drew (2014) further emphasise that TAM has been consistently validated as a robust and practical framework in various information science domains, particularly in Learning Management Systems (LMS) studies, a form of AI technology. Furthermore, Zou and Huang (2023) investigated learners' acceptance of generative AI, specifically ChatGPT, for English writing tasks using the TAM framework. The study found that doctoral students showed a strong intention to use ChatGPT in writing, influenced by their attitudes, PEOU and PU.

With TAM's extensive use and recognition within ICT and AI related research, this study adapted the model to guide the implementation of the GeniusWrite module. TAM also guided the design of the questionnaires and semi-structured interviews to explore students' perceptions of the module's PEOU, PU and their intention to continue using the tool to support English writing in Malaysian ESL classrooms.

3. Methodology

This study employed a mix method approach, using a small-scale explanatory sequential design. This study first collected quantitative data via a survey using a 5-point Likert scale questionnaire, followed by semi-structured interviews using open-ended questions. This allowed the study to quantify students' perceptions through statistical analysis and used qualitative insights to explain the results in depth as learner feedback on an educational intervention is important in educational research and real-world English classroom settings.

This chronological flow helped structure the study clearly and easier to manage with limited time and resources. Since the study focused on examining students' immediate evaluation of GeniusWrite's instructional value and usability rather than their long-term behavioural intention or actual adoption behaviour, only two TAM constructs were included, namely PU and PEOU. Given the small-scale sequential explanatory design, focusing on the core constructs enabled focused and manageable data collection and analysis of students' acceptance of the module.

To gather quantitative data, convenience sampling was conducted where participants were selected based on their willingness and availability to take part in the research (Creswell, 2012). The targeted participants were 40 Form 2 students from one whole class, in a secondary school in Perak, Malaysia, namely SMK A, Ipoh, Perak, but only 35 students participated in the survey, as five were either unwilling or unavailable. All participants had engaged with the GeniusWrite module for at least six weeks during their English writing lessons, took part voluntarily and were available. They were informed of the study purpose, and confidentiality was assured before study.

For qualitative data, three Form 2 students (T01, T02 and T03) were selected from the 35 survey respondents using purposeful sampling, for the semi-structured interviews based on the criteria in Table 2. Out of 35 students, 27 had high overall

mean scores in the questionnaire, while eight had a with moderate overall mean score but were unwilling to participate in the semi-structured interviews. All participants were informed of the study purpose with confidentiality assured prior to the study.

Table 1: Criteria for purposeful sampling of semi-structured interview

| No | Inclusion Criteria | Exclusion Criteria |
|----|---|--|
| 1 | Form 2 students in SMK A, Ipoh that had used the GeniusWrite module for 6 weeks for learning English writing. | Form 2 students in SMK A, Ipoh that had not used the GeniusWrite module for 6 weeks for learning English writing. |
| 2 | Students who had answered the student questionnaire distributed. | Students who had not answered the student questionnaire distributed. |
| 3 | Students who had high (3.67 to 5.00) overall mean scores on perceptions in student questionnaire. | Students who had moderate (2.34 to 3.66) and low (1.00 to 2.33) overall mean scores on perceptions in student questionnaire. |
| 4 | Students who were available and willing to participate in the semi-structured interview. | Students who were not available and unwilling to participate in the semi-structured interview. |

The authors were also participant English teachers due to time constraints. In addition, the corresponding author was one of the few teachers trained in using the new module, facilitating data collection. FirstThe 40 Form 2 students from SMK A, Ipoh used the GeniusWrite module for at least six weeks during English lessons in class and for flipped classroom activities at home. Then, a survey was done in which a questionnaire was self-administered to the students to gather quantitative data. The questionnaire was printed and distributed to the students to fill out. Then, qualitative data was gathered by conducting semi-structured interviews with three selected respondents who had answered the survey.

There were two sections in the 5-point Likert scale questionnaire with a total of 24 items with 1=Strongly disagree; 2=Disagree; 3=Neither agree nor disagree; 4=Agree; 5=Strongly Agree. The cut-off points for interpretation of the students' perception level aligned to the Likert-scale level (Majid et al, 2025) are depicted in Table 2. Meanwhile, the semi-structured interview protocol consisted of 29 questions.

Table 2: Cut-off points for Likert scale level categorization based on Majid et al. (2025)

| Level of categorization | Cut-off points for Likert scale |
|-------------------------|---------------------------------|
| High | 3.67 - 5.00 |
| Moderate | 2.34 - 3.66 |
| Low | 1.00 - 2.33 |

The quantitative data was analysed using descriptive statistics. The frequency, percentage, mean and standard deviation were calculated using SPSS software to analyse and report students' views on GeniusWrite. For the qualitative data, thematic analysis was conducted. The authors listened to the recordings of the semi-structured interviews and transcribed the interview verbatim before analysing the data. Thematic analysis was used to identify and categorise themes from the interview transcripts through coding, recoding and restructuring of

verbatim responses (Braun & Clarke, 2006). The data was continuously compared across respondents until saturation was reached, resulting in the final themes, categories and subthemes of the study.

3.1 Reliability and Validity of Survey

For validity, the questionnaire items of the survey (Appendix 1) were guided by TAM, adapted from questionnaires from past studies shown in Table 3 with some modifications applied.

Table 3: Aspects included in the questionnaire on students' perspective of GeniusWrite implementation

| Section | Aspects | Item (Number) | Source |
|---------|-----------------------|---------------|--|
| A | Perceived Ease of Use | 13 | Davis (1989); Yunus et al. (2010); Zainal (2022) |
| B | Perceived Usefulness | 11 | Davis (1989); Yunus et al. (2010); Zainal (2022) |
| | Total | 24 | |

For questionnaire reliability, a pilot test was done before full implementation on main group of respondents to assess if respondents could understand the items and complete the survey. It was done on a small scale with a class of 30 Form 2 students in SMK A, who had passed the English test (20% to 100%) in the UASA exam 2024 and used the GeniusWrite module for at least six weeks for English writing lessons. Purposeful sampling was used to ensure participants had suitable English proficiency and understanding of the GeniusWrite tool. The students chosen had to have passed the English final exam in 2024 with 20% or above, and also studied *Asas Sains Komputer* subject in school, which focused on hands-on computer coding and digital skills. The authors removed flaws like wording that caused confusion. Cronbach alpha values were calculated to evaluate the internal consistency of items within each domain (Table 4), ensuring questionnaire items were usable. Each construct had a Cronbach's alpha value within acceptable consistency of at least 0.7 (Barbera et al., 2021).

Table 4: Cronbach's Alpha value for questionnaire items

| Constructs | Cronbach's alpha value |
|-----------------------|------------------------|
| Perceived Ease of Use | 0.858 |
| Perceived Usefulness | 0.844 |

3.2 Reliability and Validity of Semi-structured Interview

For validity, the authors adapted items for the semi-structured interview guide (Appendix 2) from similar past studies (Davis, 1989; Magaldi & Berler, 2020; Teo, 2011; Venkatesh & Davis, 2000; Zainal, 2022) and made some modifications. The authors also used respondent validation to ensure qualitative data validity, which participants verified the accuracy and credibility of the results from semi-structured interview transcripts.

For reliability, the same semi-structured interview guide was used for all participants, asking the same core questions to minimise variation in topics covered and enhance consistency throughout interview. The semi-structured interviews were also conducted under similar conditions, including the same recording methods and time allocations, to minimise external influences on participant responses and ensure consistency in data collection.

3.3 GeniusWrite Module

GeniusWrite module was an AI-integrated online module targeted for Form 2 (Lower Secondary) English writing lessons in Malaysian schools (refer Figure 1). It closely aligned with the English school syllabus, CEFR and school UASA exam format. This module consisted of five lessons on Form 2 English writing (Figure 2). The sections were based on the Form 2 English UASA exam format, dividing the English Writing Paper (Paper 2) into two parts, namely Short Communicative Message and Note Expansion. Form 2 students were required to learn email and message writing for Short Communicative Message (Figure 3), and narrative, informative and descriptive writing for Note Expansion.

The GeniusWrite module was accessible online via smartphone application or website using computers. It was free and had downloadable notes for Form 2 exam revision for English writing. In this study, the 40 sampled Form 2 students of SMK A, Ipoh, Perak needed to have used the GeniusWrite module for at least six weeks for English writing lessons. Students were shown by the authors how to log in to the module.

The GeniusWrite module divided each lesson into different parts with notes, practice exercises and writing tasks with clear step-by-step instructions. Notes were presented in various modes such as engaging tutorial videos (Figure 4), downloadable slides notes and writing prompts (Figure 11). The notes were shown in short, clear bullet point forms with beautiful and colourful illustrations. Practice exercises in GeniusWrite included interactive online quizzes in Quizizz with automated feedback (Figure 8), catchy background music and emotional feedback music. The quizzes were arranged in increased difficulties in each section with different varieties such as drag-and-drop, matching, hotspot (Figure

6), reordering points in sequences, categorising, labelling and multiple-choice questions (Figure 5).

Towards the end for Email Writing and Note Expansion, students had to write their own essays (Figure 10) and learnt to use AI checker, Cathoven Hub (Figure 12), to check the lexical CEFR level as feedback and for improvement. Then, students had to use ChatGPT, an AI tool, to generate writing prompts and sample essays using AI prompts given in GeniusWrite (Figure 13), which enabled students to learn from comparisons between own essays with AI-generated examples. Moreover, there were AI-generated audio for the videos to ensure consistent quality of voiceovers, AI-generated quiz questions and writing prompts in GeniusWrite.



Figure 1: Webpage of GeniusWrite module



Figure 2: Lessons, called Programs, in GeniusWrite

The screenshot shows a lesson interface for 'Email Writing'. On the left is a navigation menu with a progress bar at 0%. The menu items are: Overview, Email Format (0/2 steps), Useful Expressions (0/2 steps), Step 1: Identify the information in question (0/3 steps), Step 2: Choose 1 option and give reasons why (0/2 steps), Step 3: Plan the outline of your email (0/2 steps), and Step 4: Write your email (0/3 steps). The main content area shows '14 Steps' and a video player with a cartoon character and the word 'EMAIL'. Below the video are sections for 'Rewards' (a badge for completing all steps) and 'Instructors' (a small profile picture). A 'Start' button is at the bottom.

Figure 3: Lesson on email writing (step-by-step)

The screenshot shows the GeniusWrite website interface. The top navigation bar includes 'Home', 'About', and 'Program List'. The main content area features a video player titled 'Useful Expressions (Email)'. The video content includes the text 'Choose your stand / point' and a list of expressions: 'In my opinion, you should', 'I suggest you to ...', 'I think you should', 'I think the best thing is to ...', and 'Why don't you ...'. The video player shows a progress bar at 00:42 / 01:33 and social media icons for Facebook, Twitter, and Instagram. The left sidebar shows the lesson progress for 'Email Writing', with 'Useful Expressions (Email)' selected and a duration of 01:32.

Figure 4: Videos with AI-generated audio

Email Writing 7%

Useful Expressions 1/2 steps

Useful Expressions (Email) 01:32

Quiz

Step 1: Identify the information in question 0/3 steps

Email Question 1

Quiz 1 (Level 1)

Quiz (Level 2)

Step 2: Choose 1 option and give reasons why 0/2 steps

Step 3: Plan the outline of your email 0/2 steps

Step 4: Write your email 0/2 steps

Quiz (Level 1)

Topic: Identify the main information in Email question

Answer the quiz.

3/4

4363 2172

What part-time jobs does Emma want to do?
(You can choose more than 1 answer.)

Select all correct options

1 do a part-time job

2 help at a pet shop

3 do gardening

work at a cafe

Submit

Complete Step

Previous Next

Figure 5: Level 1 quiz via Quizizz (multiple-choice)

Email Writing 28%

Overview

Email Format 0/2 steps

Useful Expressions 1/2 steps

Useful Expressions (Email) 01:32

Quiz

Step 1: Identify the information in question 0/3 steps

Email Question 1

Quiz 1 (Level 1)

Quiz (Level 2)

Step 2: Choose 1 option and give reasons why 0/2 steps

Step 3: Plan the outline of your email 0/2 steps

Step 4: Write your email 3/3 steps

Quiz (Level 2)

Topic: Identify the main information in Email question

Answer the quiz. Click on the numbers to choose the correct answers.

5829 5852

1/1

What is the important information (keywords) from the question?
Click on the numbers.

Reset Submit

Complete Step

Previous Next

Figure 6: Level 2 quiz (hotspot)

0273 9756

1/3

Reasons to work at a cafe:

a) Why don't you work at a cafe because

b) It helps you to talk to many people, so

c) You also can earn money besides

Drag these tiles and drop them in the correct blank above

you can take long breaks at work. you can improve your communication skills. you do not have to talk to anyone.

you can learn how to take orders and serve food. playing games on your phone while working. getting free meals.

Reset Submit

Figure 7: Drag-and-drop quiz

Question 1 ✖ 20.7s 0 / 1 pts Score: 0

Reasons to work at a cafe:
 a) Why don't you work at a cafe because (a) _____
 b) It helps you to talk to many people, so (b) _____
 c) You also can earn money besides (c) _____

Correct answer

- you can learn how to take orders and serve food.
- you can improve your communication skills.
- getting free meals.

Your answer

- you can improve your communication skills.
- getting free meals.
- you do not have to talk to anyone.

Correct Answers Your Answers

← PREVIOUS NEXT →

Figure 8: Quizizz answer feedback

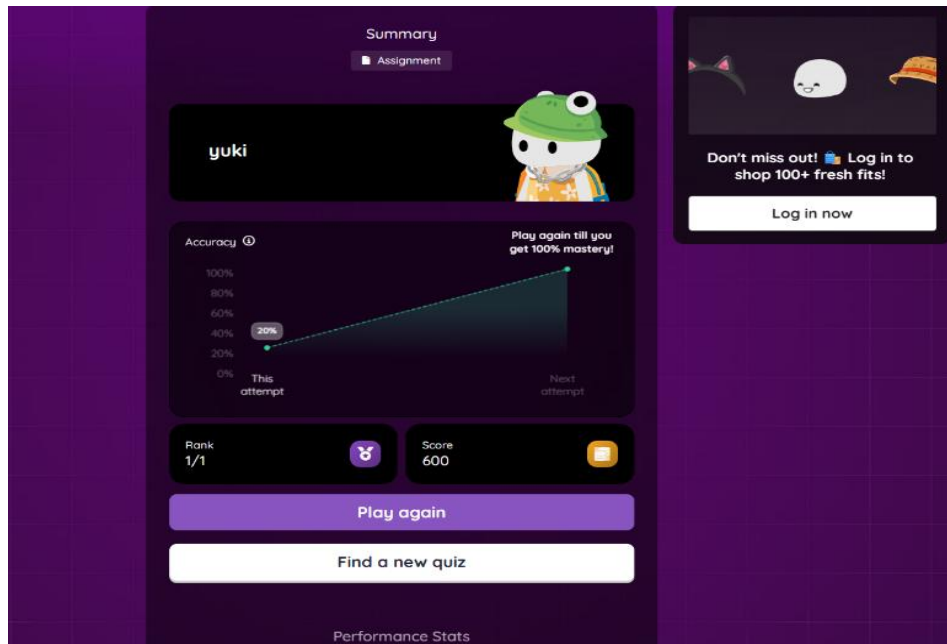


Figure 9: Quizizz leaderboard with scores

Email Writing 75%

Useful Expressions 1/2 steps

Useful Expressions (Email) 0/12

Quiz

Step 1: Identify the information in question 0/3 steps

Email Question 1

Quiz 1 (Level 1)

Quiz (Level 2)

Step 2: Choose 1 option and give reasons why 0/2 steps

Step 3: Plan the outline of your email 0/2 steps

Step 4: Write your email 0/3 steps

Email Question 1

Read the email question below. Then, try all the quizzes.

Read an email from your friend, Emma.

To: _____@gmail.com

Subject: Help Me Choose a Part-time Job

Hi,

I hope you're doing well. The school holidays are coming soon, and I'm thinking of doing a part-time job. Should I choose to work at a café, help at a pet shop, or do gardening? What do you suggest and why?

From, Emma.

In about 70 words, write an email to your friend, Emma.

Complete Step


Previous Next

Figure 10: AI-generated email question

Part-time Job

Instructions: Choose one part-time job and read the short notes given.

Work at a cafe



Work at a cafe

- learn to take orders - serve food
- improve communication skills
- earn money - get free meals




Figure 11: Writing prompts (AI-generated)

Email Writing 14%

Overview

Email Format 0/2 steps

Useful Expressions 1/2 steps

Step 1: Identify the information in question 0/3 steps

Step 2: Choose 1 option and give reasons why 0/2 steps

Step 3: Plan the outline of your email 0/2 steps

Step 4: Write your email 1/3 steps

Lucky Quiz (Level 1)


Let's Write Together! (Level 2)

Let's Write with AI

2 Guidebook slides:

AI CHECKER

- 1) Click on **Continue with Google**.
- 2) Log in with gmail account.



Check CEFR score
To check your CEFR score using the AI Checker, you can click on the slides to learn.
AI Checker link: <https://nexthub.cathoven.com/ai/>
Guidebook file

AI checker (with marks).pdf
Download PDF (609KB)

[Complete Step](#) [Previous](#) [Next](#)

Figure 12: Step-by-step guide to use AI-checker tool (Cathoven Hub)

Answer

AI Answer

- Now, use ChatGPT (AI) to help you write the essay again.
ChatGPT link: <https://chatgpt.com/>

[Click Me](#)


- Follow the steps below to use ChatGPT.
- Compare and see your answer with ChatGPT's answer.
- Copy and paste ChatGPT's answer into the Google Form here.
Google Form link: <https://forms.gle/Ms3dckoQ1mPeB8ov5>

[Click Me](#)


Steps to use ChatGPT (AI):

- Open ChatGPT.
- Copy and paste the prompts (Prompt 1) to ask ChatGPT to give you points for writing.
- Copy and paste the prompts (Prompt 2) to ask ChatGPT to give you an example of answer for the email.

Prompt 1:

 Prompt 1.docx
Download DOCX • 15KB ↓

Prompt 2:

 Prompt 2.docx
Download DOCX • 14KB ↓

[Complete Step](#) [< Previous](#)

Figure 13: Step-by-step guide with AI prompts to use AI for English writing

4. Findings

4.1 Students' Perceptions of the Ease of Use of GeniusWrite in Learning English Writing

The quantitative findings for PEOU of GeniusWrite are shown in Table 5. The overall mean score for PEOU of GeniusWrite for learning English writing was high ($M=3.92$), which means majority of the 35 student respondents strongly agreed that GeniusWrite was easy to use for learning English writing. This is because students found GeniusWrite easy to use and navigate, with interactive activities, clear instructions, downloadable materials, simple steps for completing writing tasks and convenient lesson review features. However, item A2, "...needs minimal technical skill" scored moderately ($M=3.54$).

Table 5: Percentage, frequency, mean and interpretation of GeniusWrite's PEOU

| Item code | Item | Percentage and frequency of respondents | | | | | Mean | Interpretation |
|-----------|---|---|--------------|----------------------------|---------------|----------------|------|----------------|
| | | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree | | |
| A1 | GeniusWrite is easy to use | 0 | 2.9% (1) | 8.6% (3) | 62.9% (22) | 25.7% (9) | 4.11 | High |
| A2 | Using GeniusWrite needs minimal technical skills | 0 | 14.3% (5) | 28.6% (10) | 45.7% (16) | 11.4% (4) | 3.54 | Moderate |
| A3 | GeniusWrite is user-friendly | 0 | 0 | 17.1% (6) | 42.9% (15) | 40.0% (14) | 4.23 | High |
| A4 | Instructions in GeniusWrite are clear and simple to follow | 2.9% (1) | 2.9% (1) | 8.6% (3) | 54.3% (19) | 31.4% (11) | 4.09 | High |
| A5 | GeniusWrite is easy to navigate | 2.9% (1) | 0 | 37.1% (13) | 42.9% (15) | 17.1% (6) | 3.71 | High |
| A6 | GeniusWrite is an interesting online module | 0 | 14.3% (5) | 14.3% (5) | 57.1% (20) | 14.3% (5) | 3.71 | High |
| A7 | GeniusWrite learning activities for English writing are interactive (includes feedback and students' participation) | 0 | 2.9% (1) | 42.9% (15) | 25.7% (9) | 28.6% (10) | 3.80 | High |
| A8 | GeniusWrite writing activities are fun | 2.9% (1) | 8.6% (3) | 20.0% (7) | 45.7% (16) | 22.9% (8) | 3.77 | High |
| A9 | I can understand the GeniusWrite learning activities for English writing easily | 0 | 8.6% (3) | 11.4% (4) | 40.0% (14) | 40.0% (14) | 4.11 | High |
| A10 | It is easy to review the lessons through slide | 0 | 5.7% (2) | 8.6% (3) | 42.9% (15) | 42.9% (15) | 4.23 | High |

| Item code | Item | Percentage and frequency of respondents | | | | | Mean | Interpretation |
|-----------|---|---|----------|----------------------------|------------|----------------|------|----------------|
| | | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree | | |
| | notes in GeniusWrite | | | | | | | |
| A11 | It is easy to download materials given in GeniusWrite | 0 | 0 | 20.0% (7) | 34.3% (12) | 45.7% (16) | 4.26 | High |
| A12 | GeniusWrite needs fewest steps possible to complete what I want to do in the module | 0 | 2.9% (1) | 40.0% (14) | 42.9% (15) | 14.3% (5) | 3.69 | High |
| A13 | GeniusWrite is flexible to be used anywhere and anytime | 0 | 5.7% (2) | 37.1% (13) | 40.0% (14) | 17.1% (6) | 3.69 | High |

The quantitative findings for RQ1 were supported by qualitative findings of the semi-structured interview on student respondents. The qualitative findings revealed that all three student respondents perceived GeniusWrite easy to use because of its clear and simple instructions, organised layouts, accessibility and multimodality as shown in Table 6.

Table 6: Respondents' quotations about GeniusWrite's PEOU

| Theme and Subthemes | Quotations from Respondents |
|---|---|
| Theme 1: Clear and simple instructions | |
| Subtheme 1: Step-by-step instructions supports users | [T01] <i>"The instructions are clear and outlined step-by-step..."</i> [T02] <i>"The instructions and guidelines are clear, organised and simple...easy to understand the steps..., so I can learn independently..."</i> |
| Subtheme 2: Ability to learn independently due to clear guidance | [T02] <i>"...easy to follow the instructions to learn independently and continue the next activity."</i> [T03] <i>"...I can learn independently using the clear and simple instructions... easy to understand."</i> |
| Theme 2: Organised layouts | |
| Subtheme 1: Systematic layouts allow easy and fast navigation | [T01] <i>"The layout is clear and easy to navigate."</i> |
| Subtheme 2: Consistent layouts reduce confusion | [T01] <i>"...I grasp the flow as the layouts are the same throughout for all sections or topics."</i> |
| Subtheme 3: Organised lesson division by genres | [T01] <i>"The lessons are divided by genres like Descriptive Writing and Email...The Email section has sub-parts with quizzes...This helps us navigate fast."</i> |

| Theme and Subthemes | Quotations from Respondents |
|---|--|
| | <p>[T02] "The layout is clear and arranged systematically. I can find the topics I want easily and fast."</p> <p>[T03] "The layout is organised and I can navigate the topics and parts easily...the essays are grouped into different types of genres in topics."</p> |
| Theme 3: Accessibility | |
| Subtheme 1: Downloadable notes for offline and repeated revision | <p>[T01] "The slides are even downloadable...I can print them out for revision too."</p> <p>[T02] "...the downloadable notes let me do English revision easily offline."</p> <p>[T03] "I can download the notes for revision offline for exam."</p> |
| Subtheme 2: Accessible anywhere anytime | <p>[T01] "... easily available online which is accessible anywhere anytime."</p> <p>[T02] "I prefer GeniusWrite because it is digital...I can use it on my phone easily anywhere anytime."</p> <p>[T03] "...I can rewatch the videos and notes at home comfortable...anytime."</p> |
| Theme 4: Multimodality | |
| Subtheme 1: Notes in multiple modes | <p>[T01] "notes are good and multimodal...given in video tutorials and slides."</p> <p>[T02] "The tutorial videos... explain the different formats of essay writing..."</p> |
| Subtheme 2: Short and clear notes | <p>[T03] "The notes in GeniusWrite are short, simple and easy to understand because they are in point form...have pictures to help me visualise the ideas easily."</p> |
| Subtheme 3: Visual guides help understanding | <p>[T01] "short notes...have images that illustrates the meaning clearly."</p> <p>[T02] "The slides notes have picture illustrations to explain the points and elaboration..."</p> <p>[T03] notes... have pictures to help me visualise the ideas easily."</p> |

4.2 Students' Perception on the Usefulness of GeniusWrite in Learning English Writing

The quantitative findings for PU of GeniusWrite are depicted in Table 7. The high overall mean score (M=3.90), for PU of GeniusWrite for learning English writing signified that majority of the 35 student respondents highly perceived that GeniusWrite was useful for learning English writing. This is because students found GeniusWrite to support syllabus-aligned writing tasks and exam preparation, improved writing skills and writing performance, provided guidance on vocabulary enrichment, idea organisation and effective communication. Item B1 had the highest mean score (M=4.20) which students perceived GeniusWrite useful for learning English writing based on the school syllabus and exam format. However, item on timesaving, B5 had a moderate mean score of 3.60.

Table 7: Percentage, frequency, mean and interpretation of GeniusWrite's perceived usefulness

| Item code | Item | Percentage and frequency of respondents | | | | | Mean | Interpretation |
|-----------|--|---|--------------|----------------------------|---------------|----------------|------|----------------|
| | | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree | | |
| B1 | GeniusWrite is useful for learning English writing based on the school syllabus and exam format. | 2.9% (1) | 0 | 14.3% (5) | 40.0% (14) | 42.9% (15) | 4.20 | High |
| B2 | Using GeniusWrite allows me to learn English writing skills more quickly. | 2.9% (1) | 2.9% (1) | 37.1% (13) | 31.4% (11) | 25.7% (9) | 3.74 | High |
| B3 | GeniusWrite improves my English writing performance. | 0 | 5.7% (2) | 22.9% (8) | 51.4% (18) | 20.0% (7) | 3.86 | High |
| B4 | GeniusWrite is effective for me to improve my English writing skills. | 0 | 2.9% (1) | 28.6% (10) | 51.4% (18) | 17.1% (6) | 3.83 | High |
| B5 | GeniusWrite saves time. | 2.9% (1) | 14.3% (5) | 17.1% (6) | 51.4% (18) | 14.3% (5) | 3.60 | Mode rate |
| B6 | GeniusWrite gives guidance to write in English according to school syllabus and exam format. | 0 | 5.7% (2) | 17.1% (6) | 42.9% (15) | 34.3% (12) | 4.06 | High |
| B7 | GeniusWrite provides useful materials to guide me to write in English according to school syllabus and exam format. | 0 | 5.7% (2) | 20.0% (7) | 40.0% (14) | 34.3% (12) | 4.03 | High |
| B8 | GeniusWrite provides useful activities on vocabulary enrichment for students. | 0 | 0 | 31.4% (11) | 51.4% (18) | 17.1% (6) | 3.86 | High |
| B9 | GeniusWrite provides useful activities on organisation and sequencing of ideas in writing (simple connectors, cohesive devices, etc.). | 0 | 5.7% (2) | 14.3% (5) | 60.0% (21) | 20.0% (7) | 3.94 | High |
| B10 | GeniusWrite provides useful activities for students on communicating ideas | 0 | 8.6% (3) | 17.1% (6) | 48.6% (17) | 25.7% (9) | 3.91 | High |

| Item code | Item | Percentage and frequency of respondents | | | | | Mean | Interpretation |
|-----------|--|---|-------------|----------------------------|---------------|----------------|------|----------------|
| | | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree | | |
| | effectively based on questions asked in English writing. | | | | | | | |
| B11 | GeniusWrite provides useful activities for students on using correct register and tone in English writing. | 0 | 2.9% (1) | 25.7% (9) | 51.4% (18) | 20.0% (7) | 3.89 | High |

The quantitative findings for RQ2 were supported by qualitative findings of the semi-structured interview on student respondents as shown in Table 8. The findings revealed that majority of the students perceived GeniusWrite useful because it improved writing performance, supported practice, provided feedback and reinforcement and aligned with national school syllabus and exam format.

Table 8: Respondents' quotations about GeniusWrite's perceived usefulness

| Themes and Subthemes | Quotations from Respondents |
|---|--|
| Theme 1 : Improved writing performance | |
| Subtheme 1: Improve overall writing performance | [T03] "I get to improve my writing performance and find learning English writing is not boring and hard anymore." |
| Subtheme 2: Improve Organisation aspect | [T01] "I improve my English writing skills in organisation..." [T01] "...learn about different varieties of cohesive devices for organisation aspect to use in my writing well." [T02] "It improves my English writing skills in organisation..." [T02] "I can use a variety of simple connectors and cohesive devices well." [T03] "I get to know different types of cohesive devices to get better marks for organisation in my writing." [T03] "I...learn how to expand my points for elaboration properly." |
| Subtheme 3: Improve Communicative Achievement aspect | [T01] "improve my English writing skills in...Communicative Achievement." [T01] "I learn and get to know to include more compound and complex sentence structures to get better marks." [T02] "...improves my...Communicative Achievement..." [T02] "I can build better compound and complex sentence structures..." [T03] "AI generator helps me a lot because I learn sentence structures... from the essay examples." |
| Subtheme 4: Improve Language aspect | [T01] "I could learn a lot from sample essays, especially the vocabulary..." [T02] "...improves my English writing skills in...and Language." [T02] "...use AI to generate sample essays...From the examples, I can improve vocabulary and grammar." |

| | |
|--|---|
| | [T03] <i>"AI generator helps me a lot because I learn...vocabulary words from the essay examples."</i> |
| Theme 2: Supported practice | |
| Subtheme 1: Practice exercises | [T02] <i>"The practice exercises...are enough, fun and effective to revise what I learn..."</i> |
| Subtheme 2: Interactive online quizzes | [T01] <i>"The exercises are enough with increasing difficulties such as the online interactive quizzes in Quizizz."</i> [T02] <i>"...hands-on practice in the online interactive quizzes... that have automated feedback."</i> |
| Subtheme 3: Helpful AI-generated sample essays | [T01] <i>"I can learn to use AI to generate sample essays using the AI prompts in GeniusWrite...helpful...to try it with other types of essays...I could learn a lot from sample essays."</i> [T02] <i>"AI essay generator...I love it when I can read essay examples and compare them to my own, so I can learn English writing skills faster."</i> [T03] <i>"I can learn how to use AI to generate sample essays to learn how to write good essays."</i> |
| Subtheme 4: Writing prompts | [T03] <i>"...the prompts or short notes with pictures outline the points and elaboration clearly which ease my writing, helping me answer the questions asked."</i> |
| Theme 3: Provided feedback and reinforcement | |
| Subtheme 1: AI checker provides CEFR level feedback | [T01] <i>"AI checker lets me know my current CEFR level of my writing..."</i> [T02] <i>"For AI-checker...can check my essays, especially the CEFR level, so I can improve on my vocabulary to improve English writing."</i> [T03] <i>"AI checker helps check my essay for proficiency level so I know my writing performance before I try harder to improve it."</i> |
| Subtheme 2: Automated feedback for quizzes | [T03] <i>"...online quizzes with feedback are fun and engaging. I can learn from my mistakes fast from the instant feedback."</i> [T01] <i>"The automated feedback in the quizzes gives guidance on the correct answers..."</i> [T02] <i>"...the automated feedback from the interactive online quizzes check and correct my answers on the spot."</i> |
| Subtheme 3: Reinforcement via leaderboard scores and music feedback | [T01] <i>"...fun and thrilling with the leaderboard scores...I can compete with my classmates to finish the quizzes."</i> [T01] <i>"I also get instant automated feedback for the quizzes. Correct answers will get happy music whereas wrong answers will get sad music with correct answers..."</i> [T02] <i>"The leaderboard scores feature is fun and exciting when I can see other friends doing the same activity."</i> [T03] <i>"...the fast feedback that the quizzes give me like happy music for correct answers and sad music for wrong answers..."</i> |
| Theme 4: Aligned with national school syllabus and exam format | |
| Subtheme 1: Content is suitable for Form 2 level | [T01] <i>"The exercises are suitable for our proficiency level of Form 2..."</i> [T01] <i>"The content...is suitable and based on Form 2 English syllabus and UASA exam format."</i> [T01] <i>"AI checker lets me know my current CEFR level of my writing, so I can improve my writing skills."</i> [T02] <i>"The content is suitable for Form 2 English level...Form 2 syllabus and English writing exam format as it follows the UASA format."</i> |

| | |
|--|--|
| | <p>[T02] <i>"GeniusWrite teaches the writing genres that Form 2 students should know like emails and message for Short Communicative Message and descriptive or narrative writing for Note Expansion."</i></p> <p>[T03] <i>"The language and materials like notes and exercises used, are for Form 2 level."</i></p> <p>[T03] <i>"The topics are based on the Form 2 English Pulse 2 textbook like Financial Awareness."</i></p> |
| Subtheme 2: Lessons aligned with national English syllabus and UASA exam format | <p>[T01] <i>"The exercises are...relevant to according to the English school syllabus and UASA exam format..."</i></p> <p>[T02] <i>"...content...follows the UASA format."</i></p> <p>[T03] <i>"The content also follows the UASA exam format for English Paper 2...suitable for Form 2 English level. The language and materials like notes and exercises used, are for Form 2 level."</i></p> |

5. Discussion

5.1 Discussion for Research Question 1

The results from the quantitative data showed that majority students highly perceived GeniusWrite to be easy to use with high overall mean score (M=3.92). This was supported by qualitative findings in which students also perceived GeniusWrite to be easy to use. This supports the TAM (Davis, 1989) PEOU construct that directly influences technology adoption (Ibrahim & Shiring, 2022). Students perceived GeniusWrite as easy to use for learning English writing as its effective ways of presenting information prevents frustration, confusion and reduces unnecessary cognitive burden or extraneous load on students (Rahmat, 2023), aligning with Sweller's Cognitive Load Theory (1988). For example, GeniusWrite had clear and simple instructions, organised layouts and multimodality of materials which enable easy navigation and better understanding in learning as shown in the paper's qualitative findings.

GeniusWrite's clear and simple instructions made it easy to follow. Organised layouts in GeniusWrite were based on genres which were systematic to allow easy navigation and review of lessons. Systematic content delivery is important to make students comprehend the lesson easier (Ahmad, 2018). Furthermore, GeniusWrite was an online module designed to be flexible to allow students to access it anywhere and anytime conveniently and across various devices (Melani et al., 2025). This is because GeniusWrite could be accessed via application for smartphones and website for computers.

Furthermore, GeniusWrite's content multimodality feature was perceived by students as easy to use. It had notes in multiple formats such as engaging tutorial videos, presentation slides and writing prompts in bullet point form with colourful illustrations. This made the notes short and clear with visual guides to help students visualise ideas and abstract concepts better as compared to purely text-based content, to improve understanding and supports effective learning (Kleftodimos, 2024). However, one questionnaire item, A2, "Using GeniusWrite needs minimal technical skills", in quantitative findings, was scored at a moderate level (M=3.54), indicating that some students still perceived challenges in technical aspects. Furthermore, students interviewed mentioned needing additional guidance, which was actually given by teacher, when first interacting

with the module, suggesting that while the design of GeniusWrite was user-friendly, initial scaffolding was still important.

5.2 Discussion for Research Question 2

A high overall mean score ($M=3.90$) in the quantitative findings indicated that students highly perceived GeniusWrite as useful for learning English writing. Item B1 had the highest mean score ($M=4.20$) with the most favourable response, demonstrating that students viewed GeniusWrite as particularly effective for syllabus-aligned writing tasks and exam preparation. This is because GeniusWrite was aligned with the Form 2 English school syllabus and UASA exam format questions for English Writing Paper. This was consistent with TAM studies, indicating learning technologies are more useful when they directly support syllabus requirements and academic performance goals (Anthony, 2024; Luan & Teo, 2009). Students also thought that GeniusWrite was useful for learning English writing as it promoted vocabulary enrichment, idea organisation, improved writing skills, correct writing register and tone, and effective written communication with various writing exercises and materials. These findings were consistent with the TAM, where PU is important in shaping learners' attitudes toward adopting educational technologies (Ali et al., 2025; Davis, 1989). However, B5 item on timesaving, had a moderate mean score ($M=3.60$). This suggests that while students recognised the GeniusWrite's value in enhancing learning quality, they did not perceive it as significantly reducing their workload. This is supported by Dau's (2025) study, which found that AI tools in English learning are appreciated more for performance improvement than for efficiency.

The qualitative results supported the quantitative findings, showing that students perceived GeniusWrite as useful in five aspects. The five aspects were enhancing writing performance, supporting practice, providing feedback and reinforcement and aligning with the national syllabus and exam format. Students reported that GeniusWrite improved their writing performance in organisation, communicative achievement and language aspects. Students reported that interactive quizzes and tutorial videos strengthened their understanding of simple connectors and cohesive devices, helping them organise ideas more coherently.

The module also improved communicative achievement when students could learn sentence structures from AI-generated essay samples produced by ChatGPT, which aligned with Vo and Nguyen's (2024) findings that students perceived ChatGPT as effective for writing skills improvement. GeniusWrite also helped students acquire new vocabulary through AI-generated examples, consistent with Dau's (2025) study showing the greatest gains in vocabulary and writing rather than other skills when using AI tools. As students increasingly relied on AI to expand vocabulary (Phan, 2023), the integration of AI tools in GeniusWrite made the module practical and well-suited to their learning needs.

Furthermore, GeniusWrite was perceived as useful because it supported practice through exercises like interactive online quizzes, AI-generated sample essays and AI-generated prompts. The interactive online quizzes with increasing difficulty

levels made them challenging and offered structured practice for students (Wen & Aziz, 2022). Creating AI-generated essay samples allowed students to practise and learn through examples where writing promoted independent learning, facilitating practice. GeniusWrite was viewed as useful because it provided feedback and reinforcement. Automated feedback with happy and sad music in its interactive online quizzes supported self-reflection and improved learning outcomes (Lu et al., 2025).

Happy music for correct answers acted as positive reinforcement while sad music signalled errors as negative reinforcement. This was consistent with Skinner's (1948) operant conditioning theory which suggests a method of learning using consequences to modify behaviour. The feedback encouraged students to aim for correct responses to experience the rewarding music and a sense of accomplishment (Skinner, 1948). Furthermore, gamification elements like competitive leaderboard in quizzes acted as a reward, motivating students to put in effort and completed writing tasks. AI feedback tools integrated in GeniusWrite also provided timely guidance, encouraged learners to reflect and to revise independently (Sadigzade, 2025).

When GeniusWrite was aligned to the Form 2 English school syllabus and UASA exam format, it became relevant to the students. They thought it was practical, did not waste time and benefitted their learning, making students perceive it as useful in learning English writing. Its content directly addressed Form 2 requirements by teaching important writing genres. This supported Shi's (2018) view that materials tailored to learners' needs naturally enhance satisfaction. Hence, students perceived GeniusWrite useful when were satisfied with its relevance to their academics. The module also strengthened relevance by monitoring students' exam readiness through an AI checker that provided CEFR-based lexical feedback on students' essays, useful for exam revision.

6. Limitations

This study used a small-scale, mixed method approach to explore students' experiences and to gather in-depth feedback, making the small number of participants suitable. Furthermore, only a few teachers were trained to use GeniusWrite module which was relatively new, and students had time constraints in that they had to use it for at least six weeks.

7. Conclusion

This study aimed to explore students' perceptions of GeniusWrite's PEOU and PU in learning English writing. In general, students showed positive responses and strongly perceived GeniusWrite as easy to use and useful for learning English writing.

This study contributes to existing literature on students' perceptions of AI-integrated English writing modules in Malaysian context which is limited. The findings also highlight the value of curriculum-aligned AI features such as CEFR-aligned prompts, exercises and feedback. Future writing modules should ensure AI-generated content is relevant to the syllabus, exam and pedagogy to maintain

credibility and learning effectiveness. With increasingly popular AI integration in classrooms, ongoing teacher training is needed to support effective AI tool integration, moderate responsible student use of AI and reduce the risk of overdependence on AI tools for English writing.

Future research should investigate teachers' perspectives on the use of AI-integrated modules in English writing instruction for a comprehensive understanding of their practicality and challenges. Moreover, studies should examine how AI-integrated writing modules facilitate peer collaboration and social learning, like through scaffolded peer review and group writing tasks. Furthermore, further research should be done to assess how students with limited digital literacy adapt to AI-integrated modules use as basic digital skills are important to engage meaningfully with AI systems. Lastly, future research should study strategies to balance AI assistance with the development of students' authentic writing abilities and critical thinking skills to maintain academic integrity. In conclusion, the study findings show the potential of AI-integrated writing modules to support skill development and enrich English writing instruction. The pedagogical, ethical and developmental considerations necessary are also highlighted for the responsible and effective implementation of the AI and ICT technologies.

Conflict of Interest

There is no conflict of interest.

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Appendix 1

GENIUSWRITE Student Questionnaire

This survey is created as a part of research to gather students' perspective on the implementation of GeniusWrite, an AI-integrated online module for learning English writing among Lower Secondary Form 2 students to improve their writing skills. The results of this survey will be used to help in gathering data on the implementation of GeniusWrite for English writing lessons. The module can be explored through this link: <https://www.geniuswrite.online/> You may have to go over GeniusWrite module again to complete the checklist.

INSTRUCTIONS:

This survey may take about 30 minutes to complete. Your participation in this study is completely confidential and voluntary. Please answer ALL questions. Participation in this study would not provide you with any direct benefit. If you have inquiry, you may contact the researcher, Ooi Yuen Hui via email: oyh.starcloud19@gmail.com

Participant code: _____

Personal information:

Complete the information below by choosing a tick (✓) in the brackets given.

| | | |
|---|--------------------|-------------------|
| Gender | Male () | Female () |
| Race | Malay | () |
| | Chinese | () |
| | Indian | () |
| | Others | () |
| English exam marks and grade for UASA 2024 | Grade A (82 - 100) | () |
| | Grade B (66 - 81) | () |
| | Grade C (50 - 65) | () |
| | Grade D (35 - 49) | () |
| | Grade E (20 - 34) | () |
| | Grade F (0 - 19) | () |

A. Perceived Ease of Use

Please tick (√) your level of agreement based on the scale of 1 to 5.

(1: Strongly disagree; 2: Disagree; 3: Neither agree nor disagree 4: Agree; 5: Strongly agree)

| No. | Item | 1 | 2 | 3 | 4 | 5 |
|-----|---|---|---|---|---|---|
| 1 | GeniusWrite is easy to use | | | | | |
| 2 | Using GeniusWrite needs minimal technical skills | | | | | |
| 3 | GeniusWrite is user-friendly | | | | | |
| 4 | Instructions in GeniusWrite are clear and simple to follow | | | | | |
| 5 | GeniusWrite is easy to navigate | | | | | |
| 6 | GeniusWrite is an interesting online module | | | | | |
| 7 | GeniusWrite learning activities for English writing are interactive (includes feedback and students' participation) | | | | | |
| 8 | GeniusWrite writing activities are fun | | | | | |
| 9 | I can understand the GeniusWrite learning activities for English writing easily | | | | | |
| 10 | It is easy to review the lessons through slide notes in GeniusWrite | | | | | |
| 11 | It is easy to download materials given in GeniusWrite | | | | | |
| 12 | GeniusWrite needs fewest steps possible to complete what I want to do in the module | | | | | |
| 13 | GeniusWrite is flexible to be used anywhere and anytime | | | | | |

$\alpha = .858$

B. Perceived Usefulness

Please tick (√) your level of agreement based on the scale of 1 to 5.

(1: Strongly disagree; 2: Disagree; 3: Neither agree nor disagree 4: Agree; 5: Strongly agree)

| No. | Item | 1 | 2 | 3 | 4 | 5 |
|-----|--|---|---|---|---|---|
| 1 | GeniusWrite is useful for learning English writing based on the school syllabus and exam format | | | | | |
| 2 | Using GeniusWrite allows me to learn English writing skills more quickly | | | | | |
| 3 | GeniusWrite improves my English writing performance | | | | | |
| 4 | GeniusWrite is effective for me to improve my English writing skills | | | | | |
| 5 | GeniusWrite saves time | | | | | |
| 6 | GeniusWrite gives guidance to write in English according to school syllabus and exam format | | | | | |
| 7 | GeniusWrite provides useful materials to guide me to write in English according to school syllabus and exam format | | | | | |
| 8 | GeniusWrite provides useful activities on vocabulary enrichment for students | | | | | |

| | | | | | | |
|----|--|--|--|--|--|--|
| 9 | GeniusWrite provides useful activities on organisation and sequencing of ideas in writing (simple connectors, cohesive devices, etc.). | | | | | |
| 10 | GeniusWrite provides useful activities for students on communicating ideas effectively based on questions asked in English writing | | | | | |
| 11 | GeniusWrite provides useful activities for students on using correct register and tone in English writing | | | | | |

$\alpha = .844$

Thank you for your kind cooperation.

Appendix 2 GENIUSWRITE

Semi-structured Interview Guide

This interview is conducted as a part of research to gather Form 2 students' in-depth perspective on the implementation of GeniusWrite, an AI-integrated online module for learning English writing to improve their writing skills. The results of this interview will be used to help in gathering data on the evaluation of GeniusWrite for English writing lessons. The module can be explored through this link: <https://www.geniuswrite.online/>

INSTRUCTIONS:

Your participation in this study is completely confidential and voluntary. Please answer ALL questions. Participation in this study would not provide you with any direct benefit. If you have inquiry, you may contact the researcher, Ooi Yuen Hui via email: oyh.starcloud19@gmail.com

| No. | Item |
|-----|--|
| 1 | Can you describe how easy or how difficult it was to use GeniusWrite in the first time? |
| 2 | Were there any parts of the module is confusing and slowed you down? |
| 3 | How did the instructions and layout help or hinder your learning? |
| 4 | Did you need help from others to use GeniusWrite? Why or why not? |
| 5 | What do you think about the graphics used in the GeniusWrite module? |
| 6 | What do you think about the notes provided in the GeniusWrite module? |
| 7 | Can you give an example of how GeniusWrite helped you improve your writing? |
| 8 | Do you think GeniusWrite helped you learn faster or better than usual classroom lessons? Why? |
| 9 | What features in GeniusWrite were most helpful for your writing tasks? |
| 10 | What do you think about the practice exercises in GeniusWrite for improving your writing? |
| 11 | What do you think about using GeniusWrite being practical and suitable in your English writing lessons? |
| 12 | What do you think about the content in GeniusWrite being suitable for Form 2 English level? |
| 13 | What do you think about the content in GeniusWrite being suitable for Form 2 syllabus and exam format for English writing? |
| 14 | What do you think about the content in GeniusWrite being useful outside the English classroom |

Appendix 3
Data from Survey using 5-point Likert Scale Questionnaire

a) Perceived Ease of Use

| No. | Item | Percentage and frequency of respondents | | | | | Mean | Standard deviation |
|-----|---|---|--------------|----------------------------|---------------|----------------|------|--------------------|
| | | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree | | |
| Q1 | GeniusWrite is easy to use | 0 | 2.9% (1) | 8.6% (3) | 62.9% (22) | 25.7% (9) | 4.11 | 0.676 |
| Q2 | Using GeniusWrite needs minimal technical skills | 0 | 14.3% (5) | 28.6% (10) | 45.7% (16) | 11.4% (4) | 3.54 | 0.886 |
| Q3 | GeniusWrite is user-friendly | 0 | 0 | 17.1% (6) | 42.9% (15) | 40.0% (14) | 4.23 | 0.731 |
| Q4 | Instructions in GeniusWrite are clear and simple to follow | 2.9% (1) | 2.9% (1) | 8.6% (3) | 54.3% (19) | 31.4% (11) | 4.09 | 0.887 |
| Q5 | GeniusWrite is easy to navigate | 2.9% (1) | 0 | 37.1% (13) | 42.9% (15) | 17.1% (6) | 3.71 | 0.860 |
| Q6 | GeniusWrite is an interesting online module | 0 | 14.3% (5) | 14.3% (5) | 57.1% (20) | 14.3% (5) | 3.71 | 0.893 |
| Q7 | GeniusWrite learning activities for English writing are interactive (includes feedback and students' participation) | 0 | 2.9% (1) | 42.9% (15) | 25.7% (9) | 28.6% (10) | 3.80 | 0.901 |
| Q8 | GeniusWrite writing activities are fun | 2.9% (1) | 8.6% (3) | 20.0% (7) | 45.7% (16) | 22.9% (8) | 3.77 | 1.003 |
| Q9 | I can understand the GeniusWrite learning activities for English writing easily | 0 | 8.6% (3) | 11.4% (4) | 40.0% (14) | 40.0% (14) | 4.11 | 0.932 |
| Q10 | It is easy to review the lessons through slide notes in GeniusWrite | 0 | 5.7% (2) | 8.6% (3) | 42.9% (15) | 42.9% (15) | 4.23 | 0.843 |
| Q11 | It is easy to download materials given in GeniusWrite | 0 | 0 | 20.0% (7) | 34.3% (12) | 45.7% (16) | 4.26 | 0.780 |
| Q12 | GeniusWrite needs fewest steps possible to complete what I want to do in the module | 0 | 2.9% (1) | 40.0% (14) | 42.9% (15) | 14.3% (5) | 3.69 | 0.758 |
| Q13 | GeniusWrite is flexible to be used anywhere and anytime | 0 | 5.7% (2) | 37.1% (13) | 40.0% (14) | 17.1% (6) | 3.69 | 0.832 |

b) Perceived Usefulness

| No. | Item | Percentage and frequency of respondents | | | | | Mean | Standard deviation |
|-----|--|---|--------------|----------------------------|---------------|----------------|------|--------------------|
| | | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree | | |
| Q14 | GeniusWrite is useful for learning English writing based on the school syllabus and exam format. | 2.9% (1) | 0 | 14.3% (5) | 40.0% (14) | 42.9% (15) | 4.20 | 0.901 |
| Q15 | Using GeniusWrite allows me to learn English writing skills more quickly. | 2.9% (1) | 2.9% (1) | 37.1% (13) | 31.4% (11) | 25.7% (9) | 3.74 | 0.980 |
| Q16 | GeniusWrite improves my English writing performance. | 0 | 5.7% (2) | 22.9% (8) | 51.4% (18) | 20.0% (7) | 3.86 | 0.810 |
| Q17 | GeniusWrite is effective for me to improve my English writing skills. | 0 | 2.9% (1) | 28.6% (10) | 51.4% (18) | 17.1% (6) | 3.83 | 0.747 |
| Q18 | GeniusWrite saves time. | 2.9% (1) | 14.3% (5) | 17.1% (6) | 51.4% (18) | 14.3% (5) | 3.60 | 1.006 |
| Q19 | GeniusWrite gives guidance to write in English according to school syllabus and exam format. | 0 | 5.7% (2) | 17.1% (6) | 42.9% (15) | 34.3% (12) | 4.06 | 0.873 |
| Q20 | GeniusWrite provides useful materials to guide me to write in English according to school syllabus and exam format. | 0 | 5.7% (2) | 20.0% (7) | 40.0% (14) | 34.3% (12) | 4.03 | 0.891 |
| Q21 | GeniusWrite provides useful activities on vocabulary enrichment for students. | 0 | 0 | 31.4% (11) | 51.4% (18) | 17.1% (6) | 3.86 | 0.692 |
| Q22 | GeniusWrite provides useful activities on organisation and sequencing of ideas in writing (simple connectors, cohesive devices, etc.). | 0 | 5.7% (2) | 14.3% (5) | 60.0% (21) | 20.0% (7) | 3.94 | 0.765 |
| Q23 | GeniusWrite provides useful activities for students on communicating ideas effectively based on questions asked in English writing. | 0 | 8.6% (3) | 17.1% (6) | 48.6% (17) | 25.7% (9) | 3.91 | 0.887 |
| Q24 | GeniusWrite provides useful activities for students on using correct register and tone in English writing. | 0 | 2.9% (1) | 25.7% (9) | 51.4% (18) | 20.0% (7) | 3.89 | 0.758 |

Appendix 4
Overall Mean Score of Each Respondent for Survey

| Participant code | Overall mean score | Interpretation of perception level |
|-------------------------|---------------------------|---|
| Q01 | 4.22 | High |
| Q02 | 4.20 | High |
| Q03 | 3.84 | High |
| Q04 | 3.76 | High |
| Q05 | 4.73 | High |
| Q06 | 3.33 | Moderate |
| Q07 | 4.94 | High |
| Q08 | 4.39 | High |
| Q09 | 3.92 | High |
| Q10 | 3.51 | Moderate |
| Q11 | 3.80 | High |
| Q12 | 3.92 | High |
| Q13 | 4.06 | High |
| Q14 | 4.96 | High |
| Q15 | 3.24 | Moderate |
| Q16 | 4.41 | High |
| Q17 | 3.51 | Moderate |
| Q18 | 3.96 | High |
| Q19 | 3.67 | High |
| Q20 | 3.16 | Moderate |
| Q21 | 4.29 | High |
| Q22 | 3.59 | Moderate |
| Q23 | 3.98 | High |
| Q24 | 4.04 | High |
| Q25 | 2.71 | Moderate |
| Q26 | 4.06 | High |
| Q27 | 3.29 | Moderate |
| Q28 | 3.96 | High |
| Q29 | 4.35 | High |
| Q30 | 4.24 | High |
| Q31 | 4.06 | High |
| Q32 | 3.71 | High |
| Q33 | 4.27 | High |
| Q34 | 3.98 | High |
| Q35 | 4.24 | High |