

“ChatGPT said I was wrong even though I did it right”: Exploring Myanmar Students’ Use of ChatGPT for IELTS Writing Feedback and Their Perceptions

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Abstract

This study aims to investigate how learners from Myanmar, preparing for the IELTS exam, use ChatGPT to obtain feedback on their writing, and their perceptions and their improvement in writing after ChatGPT’s feedback intervention. A concurrent mixed-methods research design was employed, involving ten participants from Myanmar. Qualitative data were collected over three days through chat logs containing students’ prompts as they engaged with ChatGPT, followed by semi-structured interviews. Meanwhile, the embedded quantitative data - pre- and post-test essays - were collected before and after receiving feedback from ChatGPT. Thematic analysis was employed for both qualitative datasets, and descriptive statistics and paired t-tests were applied to the quantitative data. The findings indicated that students requested feedback mainly on the skills described in the marking criteria. Students’ negative perceptions indicate the limitations of ChatGPT and its challenges. In contrast, positive perceptions also developed due to its systematic feedback and time-cost efficiency. Despite some negative perceptions, students’ writing improved after interacting with ChatGPT to obtain feedback, indicating that the type of prompts that required feedback in ChatGPT had a positive impact on their writing skills. This study is significant as it includes participants from Myanmar, making it the first study in the literature to explore the use of ChatGPT by these students, thereby bridging the contextual gap. It also offers insight into how ChatGPT can be a viable option as a feedback tool for learners in under-resourced conditions, and it can help students improve their writing skills.

Keywords: ChatGPT, IELTS Writing Feedback, Prompt Literacy, Myanmar Students’ Perceptions, Under-Resourced Contexts

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Introduction

Artificial Intelligence (AI) gained popularity when OpenAI, a private company, launched ChatGPT, a chatbot that generates text in a human-like manner, in November 2022. People have become familiar with the term AI through their daily use of ChatGPT. Undoubtedly, AI is also widely employed in the education sector, having a significant impact compared to other fields (Chen et al., 2020). The use of AI in education benefits students, teachers, and educational researchers. It includes teaching preparation and assessment for teachers, learning support, self-assessment, and obtaining feedback for students (Lo, 2023). Research on the use of ChatGPT by teachers has found that it assists them in generating course materials, planning lessons, creating quizzes and exams, grading, evaluating students' work, and conducting research (Atlas, 2023; Barrot, 2023; Božić & Poola, 2023; Kasneci et al., 2023). These studies also found that students receive support from ChatGPT for personalized learning, instant feedback, vocabulary, grammar, and other skills, as well as language translation and writing assistance.

Much of the existing work, such as Sakmiankaew et al. (2024) and Woo et al. (2024), focuses on how users generate texts using these AI tools, rather than examining them as feedback tools to improve writing. Several studies (Dai et al., 2023; Lundberg, 2024; Steiss et al., 2024; Thi & Nikolov, 2022) have compared the feedback between ChatGPT and other AI tools and humans to assess the potential of these tools. These studies suggest that these tools can offer instant feedback despite some limitations. These limitations include a lack of accuracy in giving higher-order skills feedback, such as content development and organization of the essay, inconsistent evaluations, and sometimes, topic irrelevance. Many studies (Hwang et al., 2024; Lu & Zeng, 2025; Ngo, 2023; Shoufan, 2023) have also explored students' experiences using ChatGPT to receive feedback and their perceptions of it through quantitative or mixed-methods approaches. However, there appears to be limited research examining chat logs and interviews together, along with the immediate measurement of students' improvement after ChatGPT's feedback intervention, to explore how students interact with ChatGPT and their perceptions of its use – a conceptual gap that this study aims to address. Examining chat logs and interviews together will allow the integration of behavioral and perceptual data.

Additionally, studies focusing on the interaction with ChatGPT for feedback and its impact on writing skills are underrepresented (Hwang et al., 2024; Su et al., 2023), particularly in under-resourced contexts such as Myanmar. Wang et al. (2025) also reported in their study

that numerous studies have utilized generative AI with participants from specific countries, including China, Iran, and the USA. However, a study on participants from some geographical locations, such as Myanmar, has not been reported in the existing literature. Research studies on the use of AI tools by Myanmar students are very limited. The current study also aims to address this contextual gap by including diverse participants, particularly from Myanmar, to contribute to the existing literature on the use of generative AI. Bridging this contextual gap will offer a distinct sociocultural and educational setting that is currently underrepresented and under-resourced. Although AI has been widely utilized in education, studies on AI and its feedback for self-directed learning perspectives are very limited (Dizon, 2024). By including these self-directed, independent IELTS preparation students from Myanmar, this study also aims to address the gap in self-directed learners' perspectives on AI feedback, as proposed by Dizon (2024). Self-directed learning is a process in which students take charge of their own learning needs with or without teachers, formulating learning goals, identifying resources for learning, implementing learning strategies, and evaluating their results (Knowles, 1975).

In Myanmar, due to the ongoing socioeconomic situation and financial constraints, various alternative and innovative forms of education delivery, such as free online courses and self-directed learning with technical tools, are being implemented (Wong & Karen, 2024). Furthermore, the number of students from Myanmar seeking opportunities to pursue higher education abroad has also increased significantly since 2021 (International Trade Administration, 2024). Hence, the demand for international English proficiency tests, particularly the International English Language Testing System (IELTS) exam, has significantly increased as IELTS scores are required for university and college admissions. Furthermore, Myanmar is among the top 40 countries with the highest number of IELTS academic test-takers (International English Language Testing System, 2025). Despite the high number of test-takers, formal IELTS preparation classes are generally considered expensive in Myanmar. Consequently, self-directed learning becomes a viable option for students, who often lack sufficient feedback from qualified instructors. Considering these factors, this study aims to support these learners by utilizing ChatGPT to provide instant feedback with minimal cost, thereby enabling them to enhance their writing skills.

Although the original goal included both writing and speaking skills, assessed subjectively, and thus where the provision of feedback is critical, writing became the primary focus. Moreover, as GPT 3.5's free version lacks voice mode (OpenAI, n.d.), it limits support for speaking practice. Therefore, this study centers on writing.

While ChatGPT offers promising potential to support learners, there is a lack of studies on how Myanmar students utilize ChatGPT to enhance their writing. In particular, how Myanmar students ask for feedback - their prompts - may show what writing support they seek, but, to our knowledge, this has not yet been studied in the existing literature. The perceptions of the students may also show whether they trust ChatGPT as a helpful writing tutor. Moreover, measuring the improvement of Myanmar students' writing skills after using ChatGPT is also necessary. Therefore, the present study investigated how Myanmar students preparing for the IELTS exam interact with ChatGPT to obtain feedback and how they perceive its role in supporting their writing development. Although the participants in this study were preparing for the IELTS exam in a self-directed learning context, it is worth noting that this study focused solely on how these learners received feedback and what their perceptions were. Furthermore, the study also measured students' writing performance before and after using ChatGPT to observe whether their use of prompts and feedback from ChatGPT could help them improve their writing skills.

To facilitate this investigation and bridge the aforementioned research gaps, the following research questions were developed:

RQ 1: How do Myanmar students preparing for the IELTS exam use prompts when interacting with ChatGPT to obtain feedback for their writing?

RQ 2: What are the perceptions of Myanmar students preparing for the IELTS exam of using ChatGPT to obtain feedback for their writing?

RQ 3: To what extent does ChatGPT feedback contribute to students' improvement in IELTS writing performance?

Literature Review

The Use of AI Tools in Education

AI in education, which encompasses tools such as chatbots and automated scoring systems, enhances the teaching and learning processes (Chiu et al., 2023). Common tools such as Grammarly, Google Translate, and Quillbot are widely used in various aspects (Sakmiankaew et al., 2024). Several studies have researched the potential of these tools, especially their time efficiency. For example, Bewersdorff et al. (2023) studied assessing students' essays using GPT-3.5 and GPT-4. The results showed that they could rapidly evaluate students' basic errors. Similarly, Powell and Courchesne (2024) analyzed AI-generated lesson plans using ChatGPT and found that AI could generate lesson plans within 30 minutes. However, limitations were

also identified: difficulties in assessing complex steps of essays in the former study, producing false information, and recommending unreliable resources in the latter. Another potential benefit is in writing skills, which the study by Woo et al. (2024) suggests that students improved by integrating AI-generated text into their writing, albeit with the limitation of providing less support for complex writing skills, such as content and organization. A mixed-methods study by Dizon (2024) investigated the use of ChatGPT by foreign language learners in a self-directed learning context within the online community, specifically on Reddit and Facebook. The researcher reported that self-directed learners primarily use ChatGPT for conversational practice, followed by learning vocabulary, grammar, and receiving feedback.

One major area where AI tools show promise is in providing feedback that benefits both teachers and students (Dai et al., 2023; Lu & Zeng, 2025; Lundberg, 2024; Thi & Nikolov, 2022). Studies by Dai et al. (2023), Lu and Zeng (2025), and Lundberg (2024) compared the feedback on students' writing skills generated by ChatGPT and humans. The results from the first study claimed that ChatGPT's feedback is more readable and detailed. Lu and Zeng (2025) also argued that students who received feedback such as model texts from ChatGPT outperformed those who received feedback from human texts. The study by Lundberg (2024) also showed that ChatGPT's feedback had a positive impact on students' writing in terms of lexical diversity and sophistication, but had no impact on syntactic complexity. The study conducted by Thi and Nikolov (2022) examined Grammarly's feedback on the writing of undergraduates, and their findings also suggested that AI tools can support only language-related feedback promptly. These studies acknowledge that AI tools have one major limitation in addressing high-level writing skills, specifically in providing feedback, although other aspects of feedback can enhance students' performance.

Prompting Literacy and Feedback Design

Some studies emphasize that the quality of AI feedback can be improved depending on how students engage with the tools, especially through prompting. For example, a feedback comparison study by Steiss et al. (2024) researched ChatGPT and teachers' feedback by analyzing them in five aspects: clarity, accuracy, supportive tone, essential features and criteria-based. The researchers noted that inputting the prompt, which includes the criteria for evaluation, will help students receive better writing feedback. Hwang et al. (2024) also highlighted the importance of prompting for the effectiveness of AI tools. They analyzed the chat logs of students using ChatGPT and found that students received surface-level feedback,

such as grammar and vocabulary, more easily than higher-order skills, due to prompting literacy. Considering these factors, the present study included training for participants to utilize AI tools to input criteria in their prompts, thereby improving their prompting literacy. The focus is on how to produce and input prompts effectively to receive the desired feedback.

Impacts of AI Feedback on Writing Improvement

The existing literature has also reported on how AI feedback may influence writing outcomes. Dai et al. (2023) found that ChatGPT's feedback is generally more readable and detailed than human feedback, which may support students' writing development. Lu and Zeng (2025) argued that students who received model text feedback from ChatGPT performed better than those who received human-written feedback. Lundberg (2024) also showed a positive impact in terms of lexical diversity, although not in syntactic complexity. Woo et al. (2024) observed improvements when students used AI-generated texts in their writing. These studies suggest that AI feedback can support certain areas of writing improvement, particularly in vocabulary and language use. However, many of these findings also recognize that the development of higher-order writing skills, such as content and structure, remains a challenge.

Perceptions of Using AI Tools in Education

Thi and Nikolov's (2022) study explored the perceptions of undergraduates using Grammarly quantitatively. The results showed that students recognized the usefulness of Grammarly, including its cost efficiency and time-saving features. Another quantitative study by Burkhard (2022) reported that out of 365 freshmen students in his study, 50.4% perceived AI-powered writing tools positively, while 40.3% held neutral attitudes, with text translation being the most valued, followed by spelling and plagiarism checking. Furthermore, a study on students and teachers from Thailand and Vietnam also delved into the perceptions of using AI tools (Sakmiankaew et al., 2024). Their quantitative findings also revealed that students showed generally neutral perceptions, recognizing the advantages and challenges of AI tools. However, their qualitative results leaned towards more positive perceptions, depicting AI tools that helped students generate ideas and edit.

Shoufan's (2023) qualitative study also revealed positive perceptions among 56 computer engineering students regarding the dominance of ChatGPT. The research found that ChatGPT helped students to motivate themselves and improve their study and work, despite some negative perceptions of its limitations. A mixed-methods study by Ngo (2023), researching 200 Vietnamese university students for their perceptions of using ChatGPT, also

revealed that more students had higher positive attitudes than had negative attitudes. Lu and Zeng (2025) also investigated the perceptions of Chinese high school students regarding the feedback provided by ChatGPT for their argumentative essays using a questionnaire. The majority of participants agreed that ChatGPT's model essay feedback helped improve their essays. Meanwhile, the responses to the open-ended questions in the questionnaire showed both an appreciation of ChatGPT and an awareness of its weaknesses. Dizon (2024) also reported in a mixed-methods study of self-directed foreign language learners' perceptions of ChatGPT that learners had positive perceptions of using ChatGPT, specifically in terms of accessibility, personalized learning, and ease of use, although some negative attitudes were expressed regarding accuracy and technological constraints.

These studies contribute to the existing literature that university or high school students with certain resources, such as teachers, have slightly more positive perceptions of the use of AI tools, particularly ChatGPT, during their learning, while they also agree upon the fact that there are limitations and challenges. This motivated the researchers of the present study to investigate the perceptions of students in Myanmar regarding the use of ChatGPT for their learning. Specifically, the present study aimed to focus on students who have limited resources for studying and rely on self-directed learning for their further education, investigating their perceptions of using ChatGPT and whether it enhances their learning.

Methodology

Research Design

This study adopted a concurrent embedded mixed-method design, in which both qualitative and quantitative data were collected simultaneously; however, one form of data (either qualitative or quantitative) was embedded as secondary data within the primary data of the other form (Creswell, 2009). To address the first and second research questions, the qualitative data served as the primary data in this study to identify the themes of the prompts used by students in ChatGPT and their perceptions of ChatGPT's feedback. Meanwhile, the collection of quantitative data on students' writing performance before and after receiving ChatGPT's feedback was embedded as a supplementary part to investigate their improvement, addressing the third research question. Collecting this quantitative data concurrently with qualitative data was feasible and efficient, as it was part of the initial qualitative design, making the concurrent embedded mixed methods design suitable for this study, and raising the third research question.

Participants

The participants in this study were 10 students from Myanmar. They had previously attended a 40-hour IELTS exam preparation class, conducted online at a private language school in Myanmar, where one of the researchers served as the instructor. These students, who were preparing to take the IELTS through self-study, were contacted and recruited through convenience sampling. The participants' English proficiency ranged from pre-intermediate to intermediate. Although the small number of participants may limit the generalizability of the findings, the study aimed to offer exploratory insights into how learners in under-resourced contexts interact with ChatGPT. The participants' other demographic information is presented in Table 1.

Table 1

Demographic Information of the Participants (n = 10)

Information	Categories	Number
Age Range	20 ~ 24	8
	25 ~ 29	1
	30 ~ 34	1
Gender	Male	2
	Female	8
Education Level	Undergraduate	8
	Graduate	2

Data Collection Process

This study was conducted online by using the Zoom video conferencing tool. After recruiting the participants, the researchers conducted the study over a period of three days. The first day involved a training session, the second day included writing essays and engaging with ChatGPT, and the third day was dedicated to conducting semi-structured interviews. The details of the research procedure are outlined as follows.

Step 1: A 30-minute online training session on ChatGPT was conducted on the first day. The training was delivered to all participants simultaneously to ensure a fair process, and

English and the Myanmar language were used as the medium of instruction for a better understanding. It focused on prompt literacy and how to use the tool. However, direct guidance with examples for further feedback was avoided to maintain the authenticity of students' genuine conversations with ChatGPT. As the training also introduced students to the IELTS writing band descriptors and how to use them in prompts, the intervention can be understood as ChatGPT use mediated by prompt literacy training, rather than unguided ChatGPT interaction.

Step 2: The participants wrote one IELTS Writing Task 2 essay (minimum 250 words) by using Google Docs the next day. Before writing, students were provided with a set of sample questions, which included a total of ten essay questions in IELTS Writing Task 2 format, compiled from the IELTS practice test books published by Cambridge University Press and Assessment. They agreed to choose one question and write the essay within 40 minutes, as in the actual IELTS test. Then, they shared their essays through Google Docs links via email with the researchers. These essays were collected and treated as pre-test samples for comparison later.

Step 3: After writing, participants used ChatGPT to obtain feedback. While interacting with ChatGPT, students were required to use English. Two initial prompts were given to all students. These prompts included: 1) the IELTS Band Descriptor for writing task 2, publicly available from the official IELTS website (copied in text format), and 2) a request for ChatGPT to evaluate and give feedback on their pre-test essays based on the band descriptor. After using these two prompts, students continued to interact with ChatGPT independently with further questions and requests until satisfaction. Then, the researchers collected a total of 10 chat logs from students. However, as ChatGPT was used only once in this study, followed by a single revision of the essay, the writing improvement observed should be interpreted as short-term revision gains rather than long-term writing development.

Step 4: Next, students reviewed the feedback from ChatGPT and rewrote the essays in Google Docs. The researchers collected those rewritten essays and treated them as post-test essays to compare with the pre-test ones.

Step 5: Finally, semi-structured interviews (lasting approximately 30 minutes per participant) were conducted with each participant on the third day. The interviews were conducted in English. The researchers recorded the interviews with both audio and video, using Zoom's recording function with the participants' consent. In the interview, pre-prepared open-ended questions were used to facilitate lengthy responses, and further extended

questions were raised based on participants' responses. These pre-prepared questions were developed in various parts, including demographic information about the participants, background related to IELTS and AI tools, usage of ChatGPT for writing feedback, perceived usefulness of ChatGPT, limitations, challenges, and recommendations for future use.

It is also important to note that the researchers conducted a pilot study with three students from Myanmar, following the same steps. The participants in this pilot study were students from the same IELTS preparation class, but from a different batch. Therefore, the background profile of the pilot study's participants closely matched that of participants from the actual study. The pilot study helped in refining the training session and the pre-prepared interview questions by identifying and addressing potential issues that might arise during the actual study, strengthening the overall validity and reliability of the present study.

Research Instruments

The primary research instruments used in this study were ChatGPT version 3.5, student prompts, and interview transcripts. As this study aimed to encourage learners to utilize cost-efficient AI tools for feedback and self-improvement, ChatGPT version 3.5, which is free and has no message limits, was employed. The researchers collected students' input prompts only from 10 chat logs, removing the two initial controlled prompts and responses from ChatGPT. For the interviews, one of the researchers video- and audio-recorded via Zoom, which also facilitated transcriptions. A total of 10 transcriptions were used to examine participants' perceptions of using ChatGPT for feedback. For the supplementary data, the researchers collected the essays that were attempted before and after receiving ChatGPT's feedback through Google Docs links via email. Then, one researcher evaluated the essays using the IELTS Writing Task 2 Band Descriptors from the official IELTS website as a criterion, where a band score of 9 is the highest and 0 is the lowest score. The scores were evaluated in four aspects: task response (TR), lexical resource (LR), grammatical range and accuracy (GA), and coherence and cohesion (CC), and then overall again. After evaluation, the researcher who had evaluated the essays had an agreement on scores with two inter-raters. As there were three raters, the inter-rater reliability was also calculated by using the Intraclass Correlation Coefficient (ICC). The ICC for the pre-test essays was 0.695, indicating moderate agreement, while the ICC for the post-test essays was 0.838, reflecting a high level of agreement. Given the small sample size and exploratory nature of the study, the scores were used primarily to

observe short-term performance shifts after revision. These results do not aim to provide generalizable evidence of improvement or learning.

Data Analysis

Thematic analysis was employed to address RQ1 (themes of prompts) and RQ2 (students' perceptions). Following the outline by Lochmiller (2021), the analysis included three phases: setup, analysis, and interpretation. The setup phase involved collecting prompts, transcribing interviews, and verifying accuracy. Then, the data were cleaned and anonymized to ensure validity and reliability. Secondly, the analysis phase followed the approach of Braun and Clarke (2006). It included familiarizing data, generating initial codes with two coding cycles, and developing sub-themes. To ensure the reliability of the analysis, the researchers coded the data at two different periods and discussed the results to develop final sub-themes. The analysis focused solely on the verbal data from the transcriptions. The interpretation phase involved reviewing the sub-themes and grouping them into main themes. Each main theme was confirmed by the sub-themes that appeared in the coding stage. Next, the researchers selected strong examples from the data to support each theme. The details of the coding scheme for sub-themes, main themes, and examples are provided in Appendix A for the themes of prompts and in Appendix B for students' perceptions. For RQ3 (students' writing performance), the supplementary quantitative data, pre- and post-test essay scores, were analyzed using descriptive statistics and paired sample t-tests to examine changes after ChatGPT feedback intervention. The analyses were conducted in Microsoft Excel. However, due to the small number of participants and the non-random sample, these statistical results are treated as exploratory. Interpretations of statistical significance are made with caution, and causal claims are not assumed.

Findings

Themes of Prompts Used by Students in ChatGPT

There were 83 prompts to analyze. However, three prompts were considered non-analytical entries. This was because two of them were fragmented and incomplete input prompts, and one was a simple interaction by the student to engage with ChatGPT. They did not offer any meaningful insights and failed to contribute to the study's objectives. They were 'I mean the essay', 'for the above essay', and 'thank you'. Although the first two prompts appeared to clarify unclear feedback from ChatGPT, the researchers reviewed the chat logs

and confirmed that they were incomplete prompts. Hence, 80 prompts were analyzed. The analysis focused on the types of prompts used by students and the prominence of any theme that emerged from the prompts. Several key themes related to their interactions with ChatGPT emerged from the analysis. These include 1) checking and learning writing skills based on marking criteria (grammar, vocabulary, and coherence & cohesion), 2) evaluating essays, 3) asking general inquiries to strategies for band score improvement, 4) revising essays, paragraphs, or sentences, 5) generating ideas and developing content, 6) requesting model essays and examples, 7) clarifying unclear feedback, and 8) checking and avoiding plagiarism. The results of the thematic analysis of the prompts used by students are presented in Table 2. The table lists the themes that emerged, reflecting the areas of focus for students in their interactions with ChatGPT. The frequency and percentage of each theme are also presented to provide a clearer overview.

To further clarify each theme, one representative example from the chat logs is provided below:

1. Checking and Learning Writing Skills Based on Marking Criteria: *“Can you check my grammar, vocabulary, and cohesion based on the IELTS band descriptor?”*
2. Evaluating Essays: *“Please evaluate my essay and give me a band score.”*
3. Asking General Inquiries to Strategies for Band Score Improvement: *“How can I improve my essay to reach band 7?”*
4. Revising Essays, Paragraphs, or Sentences: *“Can you help me revise this paragraph for better coherence?”*
5. Generating Ideas and Developing Content: *“What are the pros and cons of globalization for my essay?”*
6. Requesting Model Essays and Examples: *“Can you give me a sample essay for this topic?”*
7. Clarifying Unclear Feedback: *“What do you mean by ‘lack of clarity in paragraph 2’?”*
8. Checking and Avoiding Plagiarism: *“Is this paragraph considered plagiarized by AI detectors?”*

Table 2*Thematic Analysis of the Prompts Used by Students in ChatGPT to Obtain Feedback*

No.	Themes	Frequency	Percentage (%)
1	Checking and Learning Writing Skills Based on Marking Criteria	27	33.75
2	Evaluating Essays	13	16.25
3	Asking General Inquiries to Strategies for Band Score Improvement	12	15.00
4	Revising Essays, Paragraphs, or Sentences	11	13.75
5	Generating Ideas and Developing Content	7	8.75
6	Requesting Model Essays and Examples	6	7.50
7	Clarifying Unclear Feedback	2	2.50
8	Checking and Avoiding Plagiarism	2	2.50
Total		80	100.00

Students' Perception of ChatGPT to Obtain Feedback

The analysis was performed by categorizing students' responses from transcriptions into three main themes: positive, neutral, and negative perceptions. To ensure clarity and transparency, it is essential to note that the longer responses were broken down into smaller segments for a more detailed analysis. For instance, a single extended response could contain multiple sub-themes, and the response was broken down into segments to classify them accordingly. Hence, a total of 149 segments were analyzed. These segments were first grouped as positive, neutral, and negative to provide an overall orientation toward ChatGPT. Within each theme, inductive coding was applied to identify recurring ideas and meaningful patterns, which were then used to develop sub-themes. The thematic analysis of the interview transcription, aimed at understanding students' perceptions of using ChatGPT for feedback, is presented in Table 3. The themes under each category, with examples of the segments representing each theme, are presented in Appendix B.

Table 3

Thematic Analysis of Students' Perceptions of Using ChatGPT to Obtain Feedback

Themes	Frequency	Percentage (%)
Positive	53	35.57
Neutral	38	25.50
Negative	58	38.93
Total	149	100.00

The results reveal that students had slightly more negative perceptions (38.93%) than positive ones (35.57%). At the same time, responses that do not firmly state endorsements or rejections, sometimes expressing only their experiences of using ChatGPT to obtain feedback, are considered neutral (25.5%). Under the negative perceptions, students expressed the view that ChatGPT provided unreliable and insufficient feedback. As per participant 3, ChatGPT gave corrective feedback that the student made an error on punctuation, although the student was confident that they did not make that mistake, *"Sometimes it gives the wrong feedback. Yesterday, I was not wrong in the punctuation, like a comma or something like that. ChatGPT pointed out that I was wrong. Yeah, even though I did it right."* Participant 6 also commented on the unreliability of feedback, which gave feedback that was not contained in the original input, *"Some feedbacks are not found in my original essay. So, I asked ChatGPT again, and it acknowledged its mistake."*

The students also faced challenges due to the language barrier, were concerned about plagiarism, data privacy, and security, and encountered technical issues. Participant 6 explained, *"I'm not sure, but there is a chance it saves what we input in the chat,"* showing that students were concerned with their personal data privacy. The concern about plagiarism when requesting feedback, especially on model essays, was shown as when Participant 7 mentioned, *"ChatGPT always produces what they already have in their database, so I have to change all the text, such as vocabulary, to avoid plagiarism."* Hence, the students stated that they preferred human feedback. For neutral perceptions, they shared their casual experiences, how they developed strategies to prompt desired feedback, and non-judgmental comments on the use of AI tools.

Conversely, within positive perceptions, the students described how ChatGPT provided them with detailed feedback, especially related to the skills mentioned in the marking criteria. Participant 9 remarked that, *“It gave detailed feedback, for example, grammar, it mentioned what mistake I made, and what punctuation I have to use. And cohesion, it provided linking words to improve.”* Furthermore, due to its detailed feedback, students claimed that ChatGPT is reliable in situations where teachers are not available and when they want to reduce costs. They can self-evaluate and obtain feedback, enhancing time-cost efficiency. Participant 2 commented, *“As a person who doesn’t have a teacher to check my essay, ChatGPT is reliable for me,”* indicating oneself as an independent learner without instructors whom ChatGPT could support to receive feedback in practicing writing skills. Participant 4 also commented, *“ChatGPT is free, so I’m gonna use ChatGPT for sure because I don’t have a tutor,”* implying that ChatGPT is a cost-effective option for receiving feedback in their learning. The students also expressed their satisfaction with ChatGPT, citing its human-like conversation as a valuable support and guidance tool. The details of the sub-themes related to the students’ perceptions are reported in Appendix B, along with more examples.

Students’ Writing Performance

The students’ pre- and post-test scores on their essays, before and after receiving ChatGPT feedback, are shown in Table 4. These results show that the writing performance of students was generally improved, ranging from 0.5 to 1, except for one participant. The researchers also applied descriptive statistics and paired sample t-test analysis on the overall scores of the pre- and post-test of the students’ writing to determine their improvement. The detailed analysis is presented in Tables 5 and 6.

It is important to note that these results reflect short-term revision performance rather than long-term development of writing ability. The post-test essays were written immediately after feedback was received, and the observed gains probably reflect immediate uptake and editing effects.

Table 4

Pre- and Post-test Scores of Students' Writing

Participant	Pre-test Scores					Post-test Scores					Differences between Overall Scores of Pre- and Post-test
	TR	LR	GA	CC	Overall	TR	LR	GA	CC	Overall	
1	6	6.5	6	6	6	6	6.5	6.5	6.5	6.5	0.5
2	6	6.5	6	6	6	6.5	7	7	7	7	1
3	6.5	6.5	6.5	6	6.5	6.5	7	7	7	7	0.5
4	5	5.5	5.5	5.5	5.5	4.5	5.5	5	5	5	- 0.5
5	6	5.5	5.5	6	5.5	6.5	6	6	6	6	0.5
6	6.5	6.5	6.5	6	6.5	7	7	7	6.5	7	0.5
7	6.5	6	6	6.5	6	7	7	7	6.5	7	1
8	6	6.5	6.5	6.5	6.5	6	6.5	6.5	6.5	6.5	0
9	6	5.5	5	5	5.5	6	6.5	6	6.5	6	0.5
10	6	6	6	5.5	6	6	7	6.5	6.5	6.5	0.5
Sum	60.5	61	59.5	59	60	62	66	64.5	64	64.5	4.5
Mean	6.05	6.1	5.95	5.9	6	6.2	6.6	6.45	6.4	6.45	0.45

TR = Task Response, LR = Lexical Resource, GA = Grammatical Range and Accuracy, CC = Coherence and Cohesion

Table 5

Descriptive Statistics of Pre- and Post-Test Scores

	Pre-test Score				Post-test Score				Mean Difference
	Mean	Median	SD	SE	Mean	Median	SD	SE	
TR	6.05	6.00	0.44	0.14	6.20	6.25	0.71	0.23	0.15
LR	6.10	6.25	0.46	0.15	6.60	6.75	0.52	0.16	0.50
GA	5.95	6.00	0.50	0.16	6.45	6.50	0.64	0.20	0.50
CC	5.90	6.00	0.50	0.15	6.40	6.50	0.57	0.18	0.50
Overall	6.00	6.00	0.41	0.13	6.45	6.50	0.64	0.20	0.45

Table 6*Paired Sample T-test of Pre- and Post-test Overall Scores*

Pre-test Overall Score		Post-test Overall Score		df	t-value	p-value	Cohen's <i>d</i>
Mean	SD	Mean	SD				
6	0.41	6.45	0.64	9	- 3.25	0.01	1.03

The results of descriptive statistics analysis indicate that the mean overall score of students' essays improved by 0.45, showing that students' writing performance was enhanced after ChatGPT's feedback. Furthermore, the paired t-test analysis also shows a statistically significant improvement ($p\text{-value} < 0.05$) with a large effect size ($d = 1.03$) in the overall score of students' writing performance after ChatGPT's feedback intervention. Although the effect size is large, it should be interpreted with caution due to the small sample size ($n = 10$) and the immediate nature of the task.

Rather than claiming development in L2 writing ability, the results should be understood as improvements in revision quality following ChatGPT-supported feedback. In detail, students improved by 0.5 score mean difference in three aspects: lexical resource, grammatical range and accuracy, and coherence and cohesion, while the task response gained the slightest improvement (0.15 score mean difference) after ChatGPT's feedback. This suggests that the feedback from ChatGPT was more effective in helping students make surface-level or mechanical improvements, such as vocabulary and grammar, rather than in areas requiring deeper cognitive engagement, such as idea development or argumentation.

Discussion

This study examined how Myanmar students preparing for the IELTS exam utilize ChatGPT to obtain feedback on their writing, their perceptions of using it, and their subsequent writing improvement after receiving feedback from ChatGPT. The results largely align with the previous studies in the existing literature.

Firstly, the findings on the themes of the prompts that students use in ChatGPT imply that Myanmar students employed several types of prompts to obtain feedback, resonating with the findings from the study by Hwang et al. (2024). The themes mainly consist of the prompts that demand feedback related to writing skills, including vocabulary, grammar, coherence, and cohesion. Students focused on receiving feedback on these surface-level

features more, which are also depicted as the main aspects in the criteria. Although they also required feedback related to higher-order skills, such as idea generation and content development, this feedback was less prevalent. This outcome focus is consistent with Hwang et al. (2024), who also found that students prioritize measurable, superficial feedback. As students were familiar with the test format and marking criteria, they prioritized receiving feedback related to the skills described in the criteria. Furthermore, as these students were outcomes-oriented ones who intended to increase their scores in the actual test, their use of ChatGPT, prompting to evaluate their essays constantly, and inquire about strategies to improve their band scores, also stood as the main themes.

Another interesting theme is that students requested ChatGPT to provide model essays as feedback, beyond merely offering corrective feedback. They prompted ChatGPT to provide model essays with the desired band score. These IELTS preparation students who prioritize outcomes demanded sample essays rather than university students in the previous study by Hwang et al. (2024). Nonetheless, they were also concerned with plagiarism, and one student included ‘*avoid plagiarism*’ in the prompt while requesting the model essay. The theme, ‘*Clarifying Unclear Feedback*,’ also emerged, implying that students also encountered challenges in understanding ChatGPT’s feedback. We compared this theme with the student’s chat log again to investigate the root of this theme’s emergence. It was found that students asked ChatGPT to find the sentences that the feedback referred to in their original essays, implying that ChatGPT produced feedback with fake information that was not originally included in the student’s essay. This aligns with the previous studies by Powell and Courchesne (2024) and Steiss et al. (2024), who noted that ChatGPT sometimes provides fake information and inaccurate feedback. It is essential to raise awareness among students regarding this issue when utilizing ChatGPT as a feedback tool, particularly in situations where instructors are unavailable and students rely solely on ChatGPT’s feedback. From this experience, the researchers of the present study would also like to suggest that using ChatGPT as a sole feedback provider is still too early, particularly for self-directed and independent learners without proper guidance from instructors, in agreement with previous studies (Lu & Zeng, 2025; Steiss et al., 2024).

Importantly, the study’s intervention combined the use of ChatGPT with prompt literacy training, and therefore the observed results may reflect this combined effect rather than the impact of ChatGPT alone. This point highlights that students’ improvement may not

be fully attributed to the chatbot itself, but also to their increased ability to prompt and interact effectively with it.

The perceptions of these Myanmar students, preparing for the IELTS exam, towards ChatGPT for receiving feedback were mixed, despite the negative perceptions slightly prevailing among three main themes: positive, neutral, and negative. This finding contradicts previous studies by Dizon (2024), Ngo (2023), and Shoufan (2023), which reported that students perceived the feedback provided by ChatGPT more positively, although the reasons behind these perceptions are aligned. In this study, students appreciated ChatGPT for its systematic, timely, and cost-effective feedback, its support as an interactive tool, particularly human-like interaction, and its ease of use. These findings of students' positive perceptions demonstrate the alignment with this study's core objective, suggesting that ChatGPT can be utilized to a certain extent to obtain instant feedback with minimal cost for self-directed learners to improve their writing skills. Furthermore, students also remarked that ChatGPT successfully provided them with systematic feedback that aligned with the marking criteria, helping to improve their band score. The researchers provided the initial controlled prompt, which included the IELTS writing criteria, to students during their interaction with ChatGPT. This helped them receive more structured feedback, reinforcing the findings from Steiss et al. (2024) that inputting the criteria before requesting feedback is crucial for obtaining the desired feedback.

On the other hand, students also expressed their negative perceptions towards using ChatGPT for obtaining feedback. The sub-themes of these negative perceptions also largely mirror the findings from the previous studies (Chen et al., 2025; Dizon, 2024; Ngo, 2023; Shoufan, 2023), including ChatGPT's unreliability and insufficient feedback, language level, data privacy, and technical limitations. It demonstrates that ChatGPT generates inaccurate feedback, aligning with the findings from studies by Dizon (2024), Powell and Courchesne (2024), and Steiss et al. (2024). The participants also stated that ChatGPT provided inconsistent band score estimations, signaling the emergence of the theme, *'Evaluating Essays,'* as one of the main themes in their prompts due to these unreliable estimations, and students repeatedly asked ChatGPT to evaluate their essays. This finding also supports the findings from the studies by Chen et al. (2025), Koraishi (2024), and Sari (2024), who argued that ChatGPT is only moderately reliable in assessing IELTS writing scores. Additionally, participants also reported that ChatGPT's feedback is insufficient, as it is topic-specific and lacks adaptability, echoing the study by Kasneci et al. (2023). Finally, students encountered technical challenges,

including issues with the Internet connection and a lack of technology competence. These factors should be considered when adapting ChatGPT in education delivery, especially where technology accessibility is minimal, such as in Myanmar.

While the pre- and post-test scores showed a mean improvement of 0.45, this gain should be interpreted cautiously. The statistical significance observed may reflect immediate revision effects in response to ChatGPT feedback, rather than long-term development in writing ability. The interpretation of the improvement is further limited by the lack of a control group, which means the improvement could also be due to test familiarity or revision practice. Therefore, the quantitative results should be seen as exploratory and illustrative, rather than conclusive evidence of ChatGPT's effectiveness. These findings indicate a potential association between ChatGPT-supported feedback and short-term improvement, particularly in lower-order skills such as grammar, vocabulary, and cohesion. However, gains in higher-order skills such as task response remained minimal, suggesting limited depth of learning from a single intervention.

Conclusions

The findings offer several insights by addressing the research gaps this study aims to bridge. By understanding the use of ChatGPT by Myanmar students, who are within under-resourced conditions, this study fulfills the contextual gap to include diverse participants in the existing literature related to the use of AI tools and their feedback on writing. In addition, this study examines the chat logs of these students with ChatGPT and their perceptions to bridge the conceptual gap that was promised to be addressed, as mentioned in the literature.

The key themes of the prompts used by students to interact with ChatGPT, along with the positive perceptions of students, suggest that ChatGPT can support learners as an affordable feedback tool, although there are limitations. Therefore, relying solely on ChatGPT for feedback is not recommended in classrooms, suggesting that replacing human feedback entirely is not yet possible. However, for self-directed learners who lack proper instructor guidance and want to reduce costs in learning due to the expense of formal education, ChatGPT can be a beneficial alternative for them.

It is also important to note that the study involved a short-term, single intervention of ChatGPT use combined with prompt literacy training. Thus, the observed writing improvements should be interpreted as immediate revision outcomes, not as evidence of sustained writing

development. Further research is needed to determine whether such improvement can be retained over time with repeated use.

The improvement in the scores of the participants in this study indicates that learners can enhance their writing skills by utilizing feedback from ChatGPT, provided they engage in proper interaction or use relevant prompts. This implies that proper prompt engineering and design, or training, should be proposed for these IELTS preparation students who wish to learn independently in a self-directed learning context for further development. Finally, in the context of Myanmar, where access to higher education, internet access, and exposure to AI tools all remain limited, integrating ChatGPT into educational practices requires careful planning as a creative approach to education delivery. In conclusion, this study highlights ChatGPT as a potential feedback tool for learners preparing for standardized tests in under-resourced settings, although it has limitations.

Limitations and Suggestions for Future Research

Several limitations in this study should be considered. Firstly, this study was conducted with a small sample size in the context of Myanmar. The sample in this study consists primarily of participants aged between 20 and 24, with the majority being female and undergraduate students. Therefore, the findings may not be generalizable to all English language learners. Additionally, they were preparing for the specific language proficiency test, IELTS; therefore, preparation for other tests and comparisons with those different test-preparation contexts should be considered in future studies. Secondly, the intervention combined ChatGPT feedback with prompt literacy training. This means the observed improvement may reflect this combined effect, not ChatGPT alone. Future research should separate these variables to isolate their individual contributions.

The research focused on a short-term single intervention using ChatGPT. It did not include a control group, which limits the ability to draw firm conclusions about the tool's effectiveness and whether the observed improvement would be sustained over time with multiple interventions of ChatGPT feedback. Therefore, future studies are encouraged to include a control group and view ChatGPT-supported improvement as an associated effect, not a confirmed cause. Future studies could adopt a longitudinal design to investigate how sustained use of ChatGPT over time influences writing improvement. Including a control group and expanding the sample size would also allow for a more robust comparison between ChatGPT and teacher feedback. Additionally, the students' English language proficiencies may

have been influenced since ChatGPT and interviews were conducted in their L2, English, suggesting that future studies conducted in their L1 language are recommended. Future research should also investigate how students in other under-resourced environments, including those with more diverse participants, face context-specific challenges and integrate AI tools equitably and effectively into writing instruction.

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AI Declaration Statement

During the preparation of this work, the authors used ChatGPT and Grammarly in order to refine the language. After using these tools, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

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Appendix A

Categorization of the Prompts Used by Students to Obtain Feedback: Sub-Themes, Themes, and Theme Descriptions with Examples

Themes	Sub-Themes	Theme Descriptions with Examples
Checking and Learning Writing Skills Based on Marking Criteria	- Asking for suggestions to improve writing skills based on band score descriptors (grammar, vocabulary, coherence and cohesion) - Identifying and addressing mistakes in those skills - Learning and asking for resources to learn those skills	Asking to give suggestions, address mistakes, and provide resources to learn the writing skills based on marking criteria that includes grammar, vocabulary, and coherence and cohesion Example: <i>inversion ... can you teach me more of this pattern?</i> (Participant 2) <i>can you suggest me for better logical manner</i> (Participant 7)
Evaluating Essays	- Estimating band score of whole essays - Overall evaluating of specific paragraphs or sentences - Evaluating specific score criteria - Evaluating by comparing with the model essay	Asking to give band score estimation of the whole essays, specific paragraphs or sentences based on band score descriptors, and comparison with model essays Example: <i>Can you give me the band score for my essay?</i> (Participant 4)
Asking General Inquiries to Strategies for Band Score Improvement	- Asking for general strategies to achieve higher band scores - Requesting personalized strategies to achieve higher band scores	Asking for general or personalized strategies to improve writing skills and achieve higher band scores Example: <i>What is the most important thing I should focus on right now? Based on my essay</i> (Participant 1)
Revising Essays, Paragraphs, or Sentences	- Asking to rewrite essays to obtain a specific band score - Asking to rewrite specific paragraphs or sentences to address mistakes	Asking to rewrite the whole essay, some paragraphs or sentences to obtain a specific band score Example: <i>Can you edit this essay to get band score 9?</i> (Participant 1)

Themes	Sub-Themes	Theme Descriptions with Examples
Generating Ideas and Developing Content	● Asking for suggestions for idea generation strategies ● Asking to address and improve repetitive ideas to improve content clarity	Asking for suggestions for ideas generation and content development Example: <i>the development of ideas could be more balanced. how can I do this?</i> (Participant 2)
Requesting Model Essay & Examples	● Requesting model essay with specific band score ● Requesting example paragraphs and sentences	Asking to provide full model essays or example paragraphs and sentences Example: <i>Can you give me band 8 essay</i> (Participant 10)
Clarifying Unclear Feedback	● Clarifying feedback that is unable to be traced in the original essay	Asking to clarify unclear feedback that is not found in the original essay Example: <i>Original: "The writer expresses a position, but the development is not always clear." Where can I find this original? I do not find this in the essay I provided.</i> (Participant 6)
Checking and Avoiding Plagiarism	● Asking to check and avoid plagiarism in essays	Checking plagiarism in the provided essays and model essays Example: <i>write a better one but make sure to avoid plagiarism</i> (Participant 7)

Appendix B

Themes and Sub-themes of Students' Perceptions with Examples

Extracted from Students' Responses

Themes	Sub-Themes	Examples for Each Sub-Theme Extracted from Students' Responses	Frequency	Percentage (%)
Positive	● Providing detailed feedback on writing skills based on marking criteria	<i>I feel like it is so systematic ... and the feedback will get more specific and related to the marking criteria</i> (Participant 2)	29	19.46
	● Self-evaluating and time-cost efficiencies in receiving feedback	<i>it is important to have a teacher to get feedback so when the teacher is unavailable, for example like at night so it is really useful to get feedback immediately</i> (Participant 1)	10	6.71
	● Supporting and guiding as an interactive tool	<i>It's kind of like having mentor by using Chat GPT. Whenever we ask them something, they're gonna reply</i> (Participant 4)	9	6.04
	● Being convenient in obtaining and integrating feedback	<i>It is easy to use and ... it's really comfortable and convenient to use</i> (Participant 5)	5	3.36
Neutral	● Expressing casual experiences on using AI and strategic prompts	<i>first I asked ChatGPT to write an essay is to have like band 8 and ... I would like to see the nature of how ChatGPT will organize and give me a better one</i> (Participant 7)	32	21.48
	● Considering ethical dilemmas and limitations in AI usage	<i>If we're using it for idea generation, it's really good, but not for copies of them</i> (Participant 8)	5	3.36
	● Being uncertain about the usefulness of AI	<i>Actually, I've mixed feelings for this question, ... It's too early to say if it has pros or drawbacks, all like this. So it's too early to judge</i> (Participant 3)	1	0.67
Negative	● Providing unreliable and insufficient feedback	<i>I asked it to point out all my mistakes, ... there are 16 sentences that they</i>	28	18.79

Themes	Sub-Themes	Examples for Each Sub-Theme Extracted from Students' Responses	Frequency	Percentage (%)
		<i>gave me, but only I think only eight sentences that are related to the essay I have written (Participant 2)</i>		
	Experiencing challenges in prompting and understanding feedback due to language level	<i>I have some difficulties because English is not my first language ... sometimes ChatGPT doesn't understand what I want to say, so sometimes it's frustrating (Participant 5)</i>	13	8.72
	Concerning plagiarism, data privacy, and security	<i>ChatGPT always produces what they already have, in the database. So, when I give the instruction, I would say to avoid plagiarism please (Participant 7)</i>	7	4.70
	Preferring human feedback	<i>I think having a teacher is a bit better. Like for high vocabulary. In vocabulary part, it is higher ... I think ChatGPT alone is not enough (Participant 6)</i>	6	4.03
	Encountering technical limitations and challenges	<i>it's really lagging, and sometimes, I need to refresh it or go into the website again ... And that really frustrates me (Participant 1)</i>	4	2.68
Total			149	100.00