Generative AI as an English Writing Aid: Thai University Students' Perceptions and Experiences with ChatGPT and Gemini

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ABSTRACT

Background and Objectives: The emergence of AI-driven writing assistants has sparked discussions on the potential benefits and drawbacks of these tools in higher education. While AI tools can enhance writing skills, provide instant feedback, and facilitate brainstorming, concerns persist regarding academic integrity, ethical considerations, and over-reliance on AI. This study aimed to explore Thai university students' perceptions and experiences with generative AI tools—ChatGPT and Gemini—within the context of academic writing in English. By examining these students' subjective experiences, this research also sought to better understand the benefits and risks associated with AI-driven writing assistants in higher education, particularly in Thailand's unique academic environment.

Methodology: A qualitative approach was employed using semi-structured interviews with 12 Thai university students selected through purposive sampling. The study applied thematic analysis to identify key patterns and insights from the participants' responses. NVivo software was used for data organization. The study was grounded in the constructivist paradigm, emphasizing students' subjective experiences and contextual understanding of AI usage in academic writing.

Main Results: Thai university students view ChatGPT and Gemini as valuable aids for academic writing, particularly in brainstorming, structuring ideas, and improving grammar. AI-assisted feedback boosted confidence and writing quality, but concerns about over-reliance, academic integrity, and ethical considerations were prominent. Students employed strategies like paraphrasing and cross-referencing AI-generated content to ensure originality. While AI enhanced language learning through real-time feedback, some feared it might lead to superficial learning and reduced engagement in skill development. The findings underscore the need for clear academic guidelines to help students balance AI use with independent learning.

Discussions: This study highlights the dual nature of AI integration in academic writing—offering both significant advantages and potential risks. Students demonstrated a pragmatic approach, leveraging AI for efficiency while maintaining an awareness of ethical considerations. Their cautious engagement suggests that AI is seen as a supplementary tool rather than a complete replacement for traditional writing and learning methods. The findings align with broader discussions on responsible AI use in education, emphasizing the importance of balanced and mindful engagement with AI

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technologies. The study also underscores the importance of institutions developing clear guidelines on AI usage, as well as offering digital literacy programs that can help students navigate the ethical and practical aspects of AI integration. These efforts could ensure that AI tools enhance the learning experience without compromising academic integrity or the development of essential writing skills.

Conclusions: This study provides valuable empirical insights into how Thai university students perceive and utilize AI tools, particularly ChatGPT and Gemini, in academic writing. AI tools were found to significantly support writing quality and language development, yet concerns over over-reliance, ethics, and integrity remain. The findings stress the necessity of institutional policies and structured guidance to foster responsible AI use. Future research should include cross-cultural comparisons to examine variations in AI adoption within higher education. Longitudinal studies could assess AI's long-term impact on writing proficiency, and targeted interventions should be developed to promote balanced and ethical AI integration in academic contexts.

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Introduction

Recent advances in generative artificial intelligence (AI) have fundamentally transformed conventional approaches to text generation and content development. This is particularly evident with the introduction of sophisticated language models such as ChatGPT by OpenAI and Gemini by Google (AlSagri et al., 2024). The deployment of ChatGPT in late 2022, underpinned by the general pre-trained transformer (GPT) framework, has attracted substantial scholarly attention due to its capacity to facilitate naturalistic dialogue and produce contextually appropriate text across multiple domains (Ray, 2023). The subsequent release of Google's Gemini in December 2023 marked another significant advancement, introducing a multimodal system capable of interpreting and generating diverse data formats while exhibiting enhanced cognitive processing capabilities. These large language models (LLMs) have demonstrated exceptional proficiency in natural language processing (NLP) tasks, including text generation, query response, and linguistic analysis. Their increasing accessibility has prompted extensive scholarly discourse regarding their implications for educational practices, with particular emphasis on academic composition (Imran & Almusharraf, 2024; Shopovski, 2024). Within tertiary educational contexts, the incorporation of AI-powered writing assistance tools presents a complex dichotomy. While these systems offer potential benefits for writing skill enhancement, instantaneous feedback provision, and ideation support, they simultaneously raise significant concerns regarding academic integrity standards, potential cognitive dependence on AI systems, and the evolution of writing pedagogy in response to generative AI technologies (Marzuki et al., 2023; Qazi et al., 2024).

Thailand, like many other countries, is grappling with the implications of these technological advancements in its educational system (Aung et al., 2022). Thai universities, which have traditionally placed a strong emphasis on English language proficiency and academic writing skills, are now faced with the task of adapting to this new technological landscape (Buripakdi & An, 2024; Thangthong et al., 2024). Additionally, the unique cultural

and linguistic context of Thailand adds another layer of complexity to this transition. As English is a second language for most Thai students, the adoption of AI tools in language learning and academic writing must be accompanied by consideration for the specific challenges and needs of these learners. This include addressing issues such as the accuracy of AI-generated content in a non-Anglophone context, the potential for reinforcing language biases, and the need for culturally relevant teaching materials (Boonyarattanasoontorn, 2017; Kaewkamnerd et al., 2023; Thangthong et al., 2024). The pressure to keep pace with global educational trends while ensuring that AI technologies are appropriately tailored to the Thai context further underscores the urgency for comprehensive research in this area. Given the significance of this issue, this qualitative inquiry seeks to elucidate the perceptions and experiences of Thai university students regarding the utilization of ChatGPT and Gemini as writing aids. By concentrating on a specific educational milieu, this research endeavors to provide nuanced insights into how students in a non-Anglophone context engage with and conceptualize these AI tools in relation to their academic writing practices.

Research Objective

This study aimed to explore Thai university students' perceptions and experiences using generative AI tools, particularly ChatGPT and Gemini, in their academic writing tasks.

Research Question

How do Thai university students perceive and experience the use of generative AI tools, specifically those of ChatGPT and Gemini, in their academic writing tasks?

Review of Literature

The integration of generative AI into educational contexts, particularly within academic writing domains, has emerged as a prominent focus of contemporary research inquiry. Empirical investigations have begun to elucidate the potential advantages of AI-assisted writing tools in academic environments. Notable research by Golan et al. (2023) demonstrated significant improvements in technical writing elements, including grammatical accuracy, structural coherence, citation formatting, and adherence to academic conventions. These technological innovations have been observed to enhance both the productivity and qualitative aspects of scholarly writing, potentially enabling researchers to allocate greater cognitive resources to higher-order tasks such as analytical thinking and creative ideation.

Understanding how students perceive AI tools is essential for their effective integration into education. Chan and Hu (2023) examined university students' views on generative AI, such as ChatGPT, in higher education, focusing on aspects like familiarity, engagement, benefits, challenges, and overall integration. It was found that students held a positive attitude toward generative AI in teaching and learning, recognizing benefits such as personalized learning support, assistance with writing and brainstorming, and improved research and analysis capabilities. Similarly, Grájeda et al. (2023) explored students' perceptions of AI tools and concluded that these technologies significantly enhance the academic experience. Specifically, ChatGPT provides immediate and relevant information, making it a valuable resource for academic research and an indispensable tool for educators.

The impact of AI writing aids on language learning, particularly in non-English speaking contexts, is an increasingly explored area. Wei (2023) investigated the impact of AI-mediated language instruction on English learning outcomes, second language (L2) motivation, and self-regulated learning among English as a Foreign Language (EFL) learners. The study, driven by the growing interest in AI-powered educational tools, showed that the experimental group outperformed the control group in all aspects of English learning. Additionally, the experimental group exhibited greater L2 motivation and a higher frequency of self-regulated

learning strategies. This suggests that AI-mediated instruction can significantly improve English learning performance, motivation, and self-regulation in EFL settings.

The AI integration into academic writing also presents challenges. Malik et al. (2023) explored students' perceptions of AI in academic essay writing. Major concerns included the negative impact on critical thinking skills and the risk of over-reliance on technology. Students also expressed concerns about misinformation, inaccuracies, and the ethical implications of unintended plagiarism. Other challenges included difficulties with complex topics, limited customization options, unintentional biases, and the time needed for adjustments. While students recognized the benefits of AI, they emphasized the importance of their own creativity, critical thinking, and ethical writing practices, leading them to be cautious about extensive AI use in academic essays.

Methodology

Qualitative research, rooted in a social action approach, focuses on understanding how individuals interpret and make sense of their experiences, shedding light on the social realities they encounter. As an exploratory method, this approach aims to explain how and why a particular social phenomenon or program functions within a specific context, offering insights into the social world and the factors influencing its current state. In this study, a qualitative exploratory design was used to investigate Thai university students' perceptions and experiences with AI tools, particularly ChatGPT and Gemini, in academic writing tasks. The exploratory nature of this research is warranted by the novelty and rapidly changing landscape of AI integration in educational settings. Furthermore, the research is situated within the constructivist paradigm, which asserts that individuals derive meaning through their experiences and interactions with their environment. This framework is well-suited to the study's objective of exploring how students perceive and incorporate these AI tools into their writing processes, recognizing that these experiences are both subjective and context-dependent.

The primary method of data collection for this study was semi-structured interviews, chosen for their flexibility and ability to elicit rich, detailed responses from participants. The semi-structured format allows for consistency across interviews while enabling the exploration of unique perspectives and experiences as they arise. The development of the interview protocol was a rigorous process aimed at ensuring its robustness and relevance. This process began with a thorough literature review, which helped identify key themes and existing gaps in the current knowledge base. Consultations with two experts in educational technology and two in academic writing further informed the design of the research protocol. To refine the questions and pinpoint areas for further exploration, pilot testing was conducted with a small group of students. The final protocol consisted of open-ended questions organized into thematic areas, covering: (1) The perceptions and experiences of Thai university students regarding the use of generative AI tools, such as ChatGPT and Gemini, in their academic writing tasks; (2) The ways in which students address ethical considerations and navigate potential challenges related to AI-generated content in their coursework; and (3) The perceived impact of these AI tools on students' English language learning and the development of their writing skills. Interviews were conducted in person or via video conferencing software (e.g., Zoom), based on participants' preferences and logistics. With participants' consent, interviews were audio-recorded, and field notes were taken to capture non-verbal cues and immediate reflections.

Participants were selected using a purposive sampling strategy, which facilitates the identification of information-rich cases that can provide deep insights into the phenomenon under investigation. The sample size was determined based on the principle of data saturation, with an initial target of 12 participants. Participants were chosen based on specific criteria to ensure relevance and consistency. The selection criteria included being a full-time student at a

university in Thailand, being 18 years of age or older, having used ChatGPT and Gemini specifically for English-language academic writing tasks within the past three months, and possessing proficiency in English, as the interviews were conducted in this language. Table 1 provides demographic information for the study's participants, along with the dates and times of their interviews.

Table 1. Respondents' Demographic Information and Interview Dates and Times

No.	Gender	Age	Year of Study	Date and Time of Interview
R1	Male	20	2nd	December 12, 2024 at 09:30 am
R2	Male	22	4th	December 12, 2024 at 11:00 am
R3	Male	19	1st	December 12, 2024 at 01:00 pm
R4	Male	21	3rd	December 13, 2024 at 09:00 am
R5	Male	23	4th	December 13, 2024 at 11:00 am
R6	Male	20	2nd	December 13, 2024 at 01:00 pm
R7	Female	22	3rd	December 14, 2024 at 09:00 am
R8	Female	21	3rd	December 14, 2024 at 10:30 am
R9	Female	24	4th	December 14, 2024 at 01:30 pm
R10	Female	19	1st	December 15, 2024 at 09:00 am
R11	Female	23	4th	December 15, 2024 at 10:30 am
R12	Female	20	2nd	December 15, 2024 at 01:00 pm

Table 1 provides a comprehensive overview of the participants' demographic information and interview schedules. The sample consists of 12 Thai university students, evenly split between males and females, ranging in age from 19 to 24 years old. The participants represent a cross-section of academic levels, including first-year (2 students), second-year (3 students), third-year (3 students), and fourth-year (4 students) undergraduates. This diverse sample ensured a broad perspective across different stages of university education. The interviews were conducted in December 2024. This structured approach to data collection demonstrates a systematic and time-efficient methodology, allowing for consistent intervals between interviews and potentially facilitating more effective data analysis. The table's detailed presentation of this information underscores the study's commitment to transparency and methodological rigor in its qualitative research design.

The study employed thematic analysis to identify, analyze, and report patterns within the data. This method was selected for its flexibility and its ability to provide a detailed and nuanced understanding of the dataset. The analysis process followed six phases: (1) familiarization with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report. In the initial coding phase, a line-by-line analysis of the interview transcripts was conducted, with codes assigned to relevant segments of text. This phase employed both inductive and deductive approaches. Inductive coding facilitated the discovery of emergent themes not anticipated in

existing literature, while deductive coding, guided by the research questions and theoretical framework, ensured the capture of key concepts. Following the initial coding, codes were organized into potential themes by identifying patterns across the dataset and examining how different codes might combine to form overarching themes. Themes were then reviewed and refined through an iterative process, which included reviewing all coded extracts for coherence, assessing the validity of individual themes in relation to the entire dataset, and generating a thematic map to visualize the relationships between themes. NVivo, a user-friendly tool for novice users, facilitated coding for thematic narrative synthesis. To complement the qualitative analysis, a word frequency analysis was conducted using NVivo's text search and word frequency query functions. This approach provided a visual representation of prominent terms and concepts within the dataset, offering additional insights into recurring themes and patterns.

Results

The in-depth analysis of participants' responses uncovered several critical themes related to the implementation of AI tools, specifically ChatGPT and Gemini, in academic writing practices. The emergent themes were categorized into three primary areas: (1) perceptions and experiences of using AI tools, (2) navigating ethical considerations and challenges, and (3) beliefs about the impact on English language learning and writing skill development. These themes were meticulously identified through a rigorous content analysis, ensuring a systematic and comprehensive examination of the qualitative data collected from the interviews. In addition to content analysis, a word frequency analysis was conducted to quantify the prevalence of key terms and concepts, thereby enhancing the depth and clarity of the study's findings. This dual-method approach not only provided a nuanced understanding of the participants' perspectives but also allowed for the triangulation of data, thereby increasing the reliability of the results.

Figure 1 presents a word cloud that visually encapsulates the dominant themes and recurrent terms identified in the interviews, with a particular focus on the influence of ChatGPT and Gemini. The relative size of each word in the cloud corresponds to its frequency or significance within the dataset, offering a clear visual representation of the predominant areas of interest and concern among participants. This visualization serves as a crucial tool for interpreting the data, highlighting the aspects of AI integration in writing that were most salient to the study's participants.

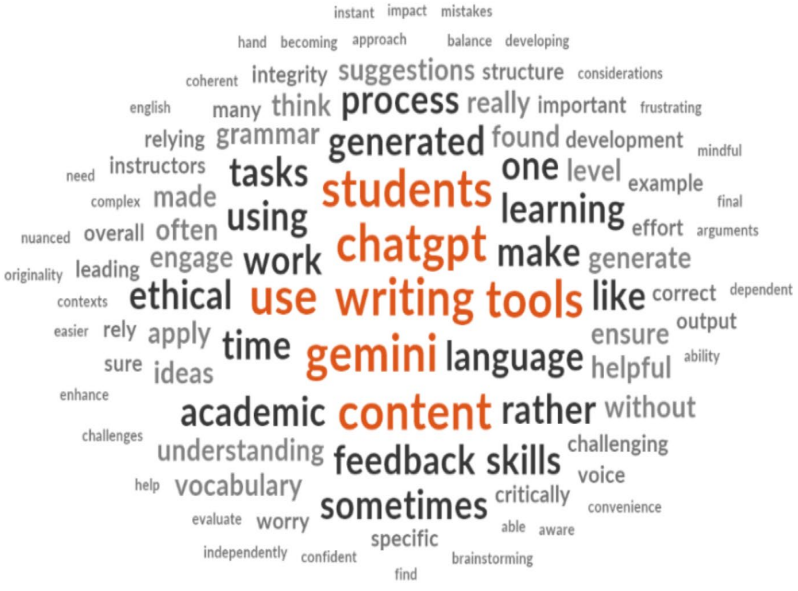

Figure 1 Word Cloud (Source: The Authors via NVivo)

This word cloud, presented in Figure 1, visualizes key themes surrounding students' use of AI writing tools like ChatGPT and Gemini in academic settings. It highlights the central focus on how students utilize these tools for content generation and writing tasks. The prominence of words related to language learning, grammar, and vocabulary suggests a particular interest in how AI impacts English language development. Ethical considerations are also emphasized, indicating discussions about academic integrity when using AI-generated content. The cloud reflects the complex interplay between the potential benefits of these tools, such as time-saving and writing assistance, and the challenges they present, including concerns about over-reliance and the need for critical evaluation. Overall, the figure captures the multifaceted nature of integrating AI writing tools into academic processes, touching on aspects of learning, ethics, and skill development.

Perceptions and Experiences of Using AI Tools

The students expressed enthusiasm for the integration of generative AI tools like ChatGPT and Gemini into their academic writing tasks. They found these tools especially useful for brainstorming and idea generation, often using AI to overcome initial barriers to starting their writing assignments. For instance, students frequently mentioned that AI helped them break down complex topics into more manageable components, making it easier to develop a coherent structure for their essays. Moreover, students highlighted the tools' ability to enhance the quality of their drafts by suggesting improvements in grammar, syntax, and vocabulary. They noted that AI-generated feedback was instrumental in refining their arguments and ensuring clarity in their writing. The tools also served as an educational resource, providing instant examples and explanations of language use that students could learn from and apply in future tasks.

Despite the positive reception, students also voiced concerns about becoming overly dependent on these AI tools. Some feared that excessive reliance on AI might erode their ability to think critically and independently. They worried that constant use of AI might reduce their initiative to engage deeply with the content, leading to a more passive approach to learning. Furthermore, a subset of students experienced frustration when the AI-generated content did not fully align with their desired tone, style, or academic level. They found that while the AI could produce technically correct content, it sometimes lacked the nuanced understanding of the context or creativity that they sought in their work. This led to additional effort in revising and personalizing the AI output to meet their specific requirements.

> *"Absolutely. I've actually found ChatGPT and Gemini to be incredibly helpful, especially when I'm stuck at the beginning of an assignment. Sometimes, just getting started is the hardest part, and using AI for brainstorming and idea generation has made a huge difference. The tools help break down complex topics into more manageable pieces, which makes it easier to create a coherent structure for my essays"* (R1, Personal Communication).

> *"One of the best features is the feedback on grammar, syntax, and vocabulary. The AI, especially ChatGPT, often suggests improvements that I might not have thought of, and this really enhances the overall quality of my drafts. It's like having an extra set of eyes to catch mistakes and refine my arguments. Plus, the AI provides instant examples and explanations of language use, which I can learn from and apply in future tasks"* (R2, Personal Communication).

> *"While I really appreciate the convenience, I do worry about becoming too dependent on AI. There's a part of me that fears I might start relying on it too much and that my*

own critical thinking and independent writing skills might suffer as a result. Sometimes, I find myself wondering if I'm engaging deeply enough with the content or if I'm just letting the AI do the heavy lifting" (R3, Personal Communication).

"AI-generated content doesn't always align perfectly with my tone, style, or the academic level I'm aiming for. While the AI can produce technically correct content, it sometimes misses the nuanced understanding of context or the creativity that I want in my work. This means I often have to spend extra time revising and personalizing the AI's output to meet my specific needs, which can be a bit frustrating" (R7, Personal Communication).

"There's a balancing act between leveraging the AI's strengths and maintaining your own voice and originality in your writing. I try to use the AI as a tool rather than a crutch. For example, I'll use it to generate ideas or get feedback, but I make sure to critically evaluate what it produces and make significant edits to ensure that the final work is truly mine. I also make an effort to engage with the content on a deeper level, even if the AI has helped me with the initial draft. It's about finding that middle ground where I can benefit from the AI's assistance without losing my own voice in the process" (R9, Personal Communication).

Navigating Ethical Considerations and Challenges

The students demonstrated a nuanced understanding of the ethical implications of using AI, like ChatGPT and Gemini, in their coursework. They were particularly mindful of the risks of plagiarism and the importance of maintaining academic integrity. Many students adopted a cautious approach, using AI-generated content as a supplementary resource rather than a primary source. They often used the AI output as a template or a starting point, making significant modifications to ensure originality and to integrate their own voice into the final product.

To navigate these ethical considerations, students developed strategies to ensure that their work remained authentic. These strategies included cross-referencing AI-generated content with other sources to verify accuracy, paraphrasing AI suggestions, and adding personal insights to ensure that their submissions reflected their own understanding and analysis. Some students even mentioned consulting with instructors or peers to gauge the appropriateness of using AI-generated content in specific contexts, demonstrating a proactive approach to ethical dilemmas.

However, the students also faced challenges in determining the extent to which they could rely on AI without compromising the integrity of their work. The need to constantly evaluate and revise AI-generated content to avoid misinterpretations or factual inaccuracies was cited as time-consuming and occasionally frustrating. Additionally, students found it difficult to balance the efficiency gains provided by AI with the necessity of developing their own writing skills, leading to an internal conflict about the appropriate level of AI involvement in their academic work.

"I think many of us are very aware of the ethical implications of using AI in our academic work. The main concern is, of course, the risk of plagiarism. We understand that it's important to maintain academic integrity, so we're careful about how we use AI-generated content. Personally, I see AI as a supplementary resource rather than something to rely on entirely" (R4, Personal Communication).

"For me, it's about using the AI output as a starting point rather than a final product. I might generate some ideas or a rough draft with AI, but then I make significant modifications to ensure that the work reflects my own voice and understanding. I also cross-reference the AI-generated content with other sources to verify its accuracy. It's important to make sure that what I submit is my own, even if AI played a role in the process" (R6, Personal Communication).

"One strategy is paraphrasing the AI's suggestions and adding my own insights and analysis. This not only helps to make the work more original but also ensures that I'm engaging with the content on a deeper level. I also sometimes consult with my instructors or peers to get their perspective on the appropriateness of using AI in certain contexts. This way, I can be more confident that I'm using the tool ethically" (R8, Personal Communication).

"One of the biggest challenges is determining how much I can rely on AI without compromising the integrity of my work. It's not always easy to know where to draw the line. I find that I have to constantly evaluate and revise the AI-generated content to avoid any misinterpretations or factual inaccuracies. This process can be time-consuming and sometimes frustrating, but it's necessary to ensure that my work is accurate and authentic" (R9, Personal Communication).

"On one hand, AI can save a lot of time by generating ideas and providing instant feedback. On the other hand, I'm aware that I need to develop my own skills, and I don't want to become too dependent on technology. I try to strike a balance by using AI for specific tasks, like brainstorming or checking grammar, but still putting in the effort to craft my writing independently. It's about finding that sweet spot where I can benefit from AI without it taking over my learning process" (R11, Personal Communication).

"I think it would be helpful if there were more guidelines or discussions around the ethical use of AI in academia. If we had more resources on how to use these tools responsibly, it might make it easier for students to navigate these issues. Also, more open conversations with instructors about the appropriate use of AI could help clarify expectations and reduce the uncertainty around these tools" (R12, Personal Communication).

Beliefs About the Impact on English Language Learning and Writing Skill Development

The students had mixed opinions regarding the impact of AI tools on their English language learning and writing skills. On one hand, many students believed that these tools significantly contributed to their language development. They appreciated the real-time feedback provided by AI, which often included suggestions for improving sentence structure, expanding vocabulary, and enhancing overall coherence. By analyzing the AI's corrections and suggestions, students felt that they were able to internalize better writing practices and apply them in subsequent tasks. Some students also noted that AI tools made them more confident in their writing abilities. The ability to quickly generate content and receive feedback reduced anxiety associated with writing in a non-native language, allowing them to focus more on content rather than worrying excessively about language mechanics. This boost in confidence was seen as a key factor in their willingness to take on more challenging writing tasks and experiment with more sophisticated language use.

The students also expressed concerns about the potential negative impact of AI on their language learning journey. They worried that by relying on AI to correct their errors, they might miss out on important learning opportunities, particularly in areas where they struggled the most. For instance, some students feared that AI might inadvertently encourage them to bypass the hard work of mastering grammar or expanding their vocabulary, leading to superficial rather than deep learning. Moreover, students were concerned that the convenience of AI could lead to complacency in their writing practice. There was a worry that students might become less inclined to engage actively in the writing process, opting instead to let the AI handle the more challenging aspects of writing. This, they believed, could result in a decline in their overall writing proficiency over time, as they might lose the incentive to critically engage with their own writing.

> *"I've found that AI tools have been really helpful for my language development. One of the biggest benefits is the real-time feedback they provide. For example, when I'm writing, the AI often suggests ways to improve my sentence structure, expand my vocabulary, and make my writing more coherent. By analyzing these suggestions, I feel like I've been able to internalize better writing practices, which I can then apply in other tasks"* (R1, Personal Communication).

> *"The AI tools have made me more confident in my writing abilities. Being able to quickly generate content and receive immediate feedback has reduced a lot of the anxiety I used to feel when writing in English, which isn't my first language. Instead of worrying too much about grammar or mechanics, I can focus more on the content and ideas I want to express. This confidence boost has made me more willing to tackle challenging writing tasks and experiment with more sophisticated language"* (R2, Personal Communication).

> *"While AI has been helpful, I do worry that I might be missing out on important learning opportunities by relying on it to correct my mistakes. For example, if the AI fixes my grammar errors automatically, I might not take the time to really understand why I made those mistakes in the first place. I'm concerned that this could lead to a more superficial understanding of the language, rather than deep learning"* (R5, Personal Communication).

> *"I think there's a risk of becoming complacent in my writing practice. The convenience of AI makes it tempting to let it handle the more challenging aspects of writing, like structuring complex arguments or refining my language. I worry that if I rely too much on AI, I might not engage as actively in the writing process. This could result in a decline in my overall writing proficiency over time, as I might lose the incentive to critically engage with my own work"* (R8, Personal Communication).

> *"I try to use AI as a tool to enhance my writing, not as a replacement for my own efforts. For example, I use the AI to get feedback and generate ideas, but I make sure to take the time to understand and apply what I've learned. I also make a conscious effort to challenge myself by writing without AI assistance sometimes, just to make sure I'm still developing my skills independently"* (R10, Personal Communication).

> *"I think more guidance from instructors on how to use AI tools effectively and ethically would be really helpful. If there were clear guidelines on when and how to use AI, it might help students like me find the right balance between relying on technology and*

developing our own skills. Also, discussions about the potential downsides of AI use could raise awareness and encourage us to be more mindful about how we integrate these tools into our learning" (R12, Personal Communication).

Discussion

This analysis elucidates the complex relationship between Thai university students and generative AI tools such as ChatGPT and Gemini, revealing a nuanced landscape of perceptions and practices across three primary areas: (1) perceptions and experiences of using AI tools, (2) navigating ethical considerations and challenges, and (3) beliefs about the impact on English language learning and writing skill development. This study prioritizes students' subjective beliefs about how AI influences their English language development in academic writing. This qualitative lens reveals that many students view AI tools as both supportive—helping them overcome linguistic limitations—and potentially detrimental, raising concerns about dependence and diminished personal growth. These tensions are not always captured in studies employing quantitative or experimental designs, highlighting the value of a constructivist, interpretive approach.

Regarding the perceived value of AI tools, students generally view them as beneficial aids in the writing process. This suggests that they recognize the potential for AI to enhance their work and possibly improve efficiency. The study's findings corroborate recent research by Bibi and Atta (2024), which highlights the positive reception of AI tools in academic settings. Their study reports that students generally hold favorable attitudes toward ChatGPT, with a significant proportion expressing satisfaction with its support in various aspects of English-language content creation. These findings suggest that AI-powered language tools are increasingly regarded as valuable aids in enhancing the academic writing process. Malik et al. (2023) reported generally positive student perceptions of AI writing tools, highlighting their effectiveness in improving grammatical accuracy, plagiarism detection, translation assistance, and essay organization. Their findings suggest that AI integration can enhance students' writing skills, academic confidence, and awareness of scholarly integrity, positioning AI as a promising educational resource. The participants in this study demonstrated a proactive and reflective approach to maintaining academic integrity, employing strategies such as paraphrasing AI-generated content, cross-referencing with authoritative sources, and consulting instructors to clarify appropriate usage. This heightened ethical sensitivity may reflect the influence of institutional policies promoting academic honesty, the increasing global discourse on AI ethics, and the relatively high English proficiency of the participants, which potentially enhances their ability to critically evaluate AI outputs. These findings underscore the importance of fostering critical digital literacy alongside AI adoption in academic contexts to ensure responsible and effective use of emerging technologies.

Regarding awareness of risks and ethical considerations, students demonstrate a clear understanding of the potential drawbacks associated with AI use. This awareness is critical, as it indicates that students are not adopting technology uncritically but are instead reflecting on its implications. In particular, concerns about plagiarism and originality suggest that students are actively engaging with questions of academic integrity in the age of AI. Such awareness may foster more thoughtful and responsible use of generative AI tools. These findings align with recent research, including the work of Doyal et al. (2023), which highlights the transformative potential of AI language generation models like ChatGPT in medical writing and other natural language processing applications. However, this body of research also emphasizes the need to address a range of ethical concerns. These include algorithmic bias, misinformation, privacy infringement, lack of transparency, potential job displacement, inhibition of creativity, plagiarism risks, authorship disputes, and over-reliance on AI systems. To mitigate these challenges, the study advocates for the development and implementation of

robust strategies. These include enhancing bias and misinformation detection mechanisms, strengthening privacy protections, increasing algorithmic transparency, and evaluating the broader socioeconomic impacts of AI adoption. This multifaceted approach seeks to maximize the benefits of AI language models while minimizing their potential risks in academic and professional contexts. Furthermore, given the increasing integration of generative AI in education, the study underscores the urgent need for clear institutional policies and classroom practice guidelines that govern the ethical and pedagogically appropriate use of these technologies. While students are increasingly engaging with tools like ChatGPT and Gemini, their use often occurs in the absence of formal guidance, leading to inconsistent practices and ethical uncertainties. As indicated by Chan (2023), Funa and Gabay (2025), and Zlotnikova et al. (2025), comprehensive institutional frameworks and instructional guidelines would help ensure that AI tools are used to support learning while maintaining academic integrity. These policies should address appropriate usage, authorship and attribution, data privacy, and critical evaluation of AI-generated content. By doing so, educational institutions can better equip both educators and students to navigate the evolving role of AI in academic settings.

Regarding careful integration and need for balanced use, students are adopting cautious approaches to integrating AI in their academic work, demonstrating an effort to balance AI benefits with academic integrity. The study also emphasizes the importance of balanced and mindful AI use, aligning with broader educational discussions on integrating technology without compromising core learning objectives. This approach suggests a growing awareness among students of the need to use AI responsibly in academic settings. The research findings correspond with Haber et al. (2025) and Habib et al.'s (2024) advocacy for a nuanced integration of AI in creative education, acknowledging its potential benefits while recognizing possible drawbacks. The study emphasizes a judicious approach to AI implementation, proposing a symbiotic relationship between human creativity and AI. It recommends a balanced pedagogical strategy that leverages AI capabilities to augment human creative processes without over-reliance or avoidance. Moreover, in line with Anani et al. (2025), along with Malmous and Zaidoune (2025), the findings are further informed by the Technology Acceptance Model (TAM) and constructivist learning theory. According to TAM, students' adoption of AI tools is influenced by their perceived usefulness and ease of use—both of which were evident in participants' positive experiences. At the same time, constructivist theory emphasizes that meaningful learning occurs when learners actively construct knowledge rather than passively receive information. In this context, the study recommends a balanced pedagogical strategy that positions AI as a tool to support critical thinking, idea generation, and language development, without fostering over-reliance. A constructivist-informed approach encourages students to critically evaluate AI-generated content, integrate it with prior knowledge, and use it as a springboard for deeper inquiry, consistent with the perspective of Pavlik (2025) and Rasul et al. (2023). Therefore, successful AI integration in education requires both technological acceptance and pedagogical intentionality to ensure these tools enhance, rather than diminish, learners' creative and cognitive development.

Regarding tension between short-term benefits and long-term development, there is an interesting conflict between the immediate advantages of using AI for writing improvement and concerns about potential negative impacts on long-term language skills. This raises important questions about the role of AI in education and how it might affect students' fundamental skill development. The findings of this study are consistent with those of AlSagri et al. (2024), Anani et al. (2025), Bibi and Atta (2024), and Grájeda et al. (2023) who reported that AI-assisted instruction significantly enhanced students' writing skills and motivation. Participants in the present study similarly acknowledged the benefits of AI tools in improving the quality and efficiency of their academic writing. However, they also expressed concerns regarding contextual inaccuracies and the risk of over-reliance, suggesting that critical

engagement with AI-generated content remains essential. These insights highlight the need for the continued development of AI tools in education, with attention to both their short-term advantages and long-term implications. For example, Córdova-Esparza (2025), Hosseini and Seilani (2025) and Pop et al. (2025) introduce the concept of agentic AI, referring to systems with a degree of autonomy that enables them to make decisions, initiate actions, and pursue goals without continuous human oversight. Such systems can adaptively respond to users' needs and are designed to perform functions such as planning, reasoning, and problem-solving. In educational contexts, an agentic AI tutor could independently monitor student progress and adjust instructional content in real time, offering a more personalized and responsive learning experience.

Ultimately, this study illuminates the complex dynamics between students and generative AI tools, like ChatGPT and Gemini, in academic writing. The findings reveal a judicious approach among students, balancing enthusiasm for AI's potential with awareness of its implications. This underscores the imperative for educational institutions to develop comprehensive frameworks guiding AI integration, aiming to maximize benefits while mitigating risks. Such guidance is crucial to ensure AI enhances rather than compromises the educational experience, fostering responsible and effective use of these technologies in academic environments.

Conclusion

This study elucidates the multifaceted relationship between Thai university students and generative AI tools such as ChatGPT and Gemini, contributing to the growing corpus of literature on AI integration in higher education. The findings reveal a nuanced perception among students, who generally regard these tools as valuable aids in enhancing their writing process while simultaneously demonstrating acute awareness of associated risks. Ethical considerations, particularly concerning plagiarism and the preservation of originality, emerge as paramount concerns, prompting students to adopt judicious approaches to AI integration in their academic work. The research identifies a significant tension between the immediate benefits of AI in improving writing skills and apprehensions about potential impediments to long-term language acquisition. This duality underscores the necessity for a balanced and mindful application of AI in academic contexts, ensuring that technological advancements support rather than undermine educational objectives. The study's academic contributions include empirical evidence of students' complex perceptions of AI tools and insights into their navigation of academic integrity issues. Practically, these findings can inform the development of institutional policies, curriculum design, and digital literacy programs that promote responsible AI use. Moreover, the research provides valuable user perspectives for AI tool developers, highlighting areas for refinement to address concerns about over-reliance and long-term skill development. Ultimately, this study enhances our understanding of AI's role in academic writing and provides a foundation for developing effective strategies to harness its benefits while mitigating potential risks in educational settings.

Limitations and Future Research

This study offers valuable insights into Thai university students' perceptions of AI tools—specifically ChatGPT and Gemini—in English academic writing; however, several limitations should be acknowledged. A key limitation is the study's primary focus on students' perceptions and experiences with generative AI tools, without examining the broader ethical, institutional, and pedagogical frameworks that shape their use. Future research should explore the development, implementation, and impact of institutional policies and classroom guidelines related to AI integration in academic settings. Such investigations could examine how these frameworks influence the behaviors, perceptions, and ethical decision-making of both students

and educators. Identifying best practices in policy design and application will be critical to ensuring that AI tools enhance learning while upholding academic integrity. Moreover, the study's small sample size, narrow focus on two specific tools, and reliance on self-reported data limit the generalizability of the findings. Future studies should address these limitations by conducting larger-scale, cross-cultural research involving a broader range of AI tools and adopting mixed-methods approaches. Longitudinal and experimental studies could provide insights into changes in AI usage over time and its effects on academic writing quality and learning outcomes. Another limitation is the absence of a comparative analysis between ChatGPT and Google Gemini. While this study explored students' general perceptions and experiences with both tools, future research could conduct a direct comparison of their functionalities, user experiences, and impact on academic writing performance to offer more comprehensive insights into their relative effectiveness.

Furthermore, to protect participant anonymity, the specific university affiliations of participants were not disclosed. Given the small sample size and detailed demographic data, revealing the institutions could compromise confidentiality, which is a fundamental ethical obligation in qualitative research. Future research might focus on specific university contexts to examine how institutional factors—such as digital infrastructure, academic policy, and faculty attitudes—influence students' perceptions and responsible use of AI writing tools. To uphold ethical standards, strict anonymization protocols should be maintained to protect participant confidentiality while allowing for context-rich analysis. Another notable limitation is the absence of academic performance data, such as students' cumulative grade point average (GPAX). Academic achievement may influence students' perceptions, usage patterns, and ethical considerations regarding AI tools. For instance, lower-performing students may be more inclined to rely on AI without critical evaluation, whereas higher-achieving students may engage more cautiously and ethically. Including GPAX data in future research would enable more nuanced interpretations of students' behaviors and attitudes toward AI, helping to identify potential correlations between academic standing and responsible usage. Additionally, future studies could incorporate academic performance as a variable, comparing perceptions among "above average," "average," and "below average" groups to better understand these dynamics. Additionally, employing methodological triangulation—such as combining self-reported data ("what students say"), behavioral observation ("what they do"), and objective assessments of writing quality and academic integrity—would enhance the validity and depth of the findings by capturing the multifaceted nature of AI use in academic contexts.

References

AlSagri, H. S., Farhat, F., Sohail, S. S., & Saudagar, A. K. J. (2024). ChatGPT or Gemini: Who makes the better scientific writing assistant? *Journal of Academic Ethics*, 1-15. https://doi.org/10.1007/s10805-024-09549-0

Anani, G. E., Nyamekye, E., & Bafour-Koduah, D. (2025). Using artificial intelligence for academic writing in higher education: The perspectives of university students in Ghana. *Discover Education, 4*, 46. https://doi.org/10.1007/s44217-025-00434-5

Aung, Z. H., Sanium, S., Songsaksuppachok, C., Kusakunniran, W., Precharattana, M., Chuechote, S., Pongsanon, K., & Ritthipravat, P. (2022). Designing a novel teaching platform for AI: A case study in a Thai school context. *Journal of Computer Assisted Learning, 38*(6), 1714-1729. https://doi.org/10.1111/jcal.12706

Bibi, Z., & Atta, A. (2024). The role of ChatGPT as AI English writing assistant: A study of student's perceptions, experiences, and satisfaction. *Annals of Human and Social Sciences, 5*(1), 433-443. https://doi.org/10.35484/ahss.2024(5-I)39

Boonyarattanasoontorn, P. (2017). An investigation of Thai students' English language writing difficulties and their use of writing strategies. *Journal of Advanced Research in Social Sciences and Humanities, 2*(2), 111-118. https://doi.org/10.26500/JARSSH-02-2017-0205

Buripakdi, A., & An, L. T. (2024). "Why can't I use ChatGPT for my academic learning?" Voices from Ph.D. students in a Thai university. *LEARN Journal: Language Education and Acquisition Research Network, 17*(2), 299-319. https://doi.org/10.70730/VRVS6900

Chan, C. K. Y. (2023). A comprehensive AI policy education framework for university teaching and learning. *International Journal of Educational Technology in Higher Education, 20*, 38. https://doi.org/10.1186/s41239-023-00408-3

Chan, C. K. Y., & Hu, W. (2023). Students' voices on generative AI: Perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education, 20*, 43. https://doi.org/10.1186/s41239-023-00411-8

Córdova-Esparza, D.-M. (2025). AI-powered educational agents: Opportunities, innovations, and ethical challenges. *Information, 16*(6), 469. https://doi.org/10.3390/info16060469

Doyal, A. S., Sender, D., Nanda, M., & Serrano, R. A. (2023). ChatGPT and artificial intelligence in medical writing: Concerns and ethical considerations. *Cureus, 15*(8), e43292. https://doi.org/10.7759/cureus.43292

Funa, A. A., & Gabay, R. A. E. (2025). Policy guidelines and recommendations on AI use in teaching and learning: A meta-synthesis study. *Social Sciences & Humanities Open, 11*, 101221. https://doi.org/10.1016/j.ssaho.2024.101221

Golan, R., Reddy, R., Muthigi, A., & Ramasamy, R. (2023). Artificial intelligence in academic writing: A paradigm-shifting technological advance. *Nature Reviews Urology, 20*, 327-328. https://doi.org/10.1038/s41585-023-00746-x

Grájeda, A., Burgos, J., Córdova, P., & Sanjinés, A. (2023). Assessing student-perceived impact of using artificial intelligence tools: Construction of a synthetic index of application in higher education. *Cogent Education, 11*(1), 2287917. https://doi.org/10.1080/2331186X.2023.2287917

Haber, E., Jemielniak, D., Kurasiński, A., & Przegalińska, A. (Eds.). (2025). *Using AI in academic writing and research: A complete guide to effective and ethical academic AI.* Palgrave Macmillan. https://doi.org/10.1007/978-3-031-91705-9

Habib, S., Vogel, T., Anli, X., & Thorne, E. (2024). How does generative artificial intelligence impact student creativity? *Journal of Creativity, 34*(1), 100072. https://doi.org/10.1016/j.yjoc.2023.100072

Hosseini, S., & Seilani, H. (2025). The role of agentic AI in shaping a smart future: A systematic review. *Array, 26*, 100399. https://doi.org/10.1016/j.array.2025.100399

Imran, M., & Almusharraf, N. (2024). Google Gemini as a next generation AI educational tool: A review of emerging educational technology. *Smart Learning Environments, 11*, 22. https://doi.org/10.1186/s40561-024-00310-z

Kaewkamnerd, K., Dibyamandala, J., Mangkhang, C., & Khuankaew, S. (2023). Navigating the landscape of CEFR-CLIL-based language pedagogy in the Thai context: A captivating journey through needs analysis. *3L: Language, Linguistics, Literature, 29*(4), 194-213. https://doi.org/10.17576/3L-2023-2904-13

Malik, A. R., Pratiwi, Y., Andajani, K., Numertayasa, I. W., Suharti, S., & Darwis, A. (2023). Exploring artificial intelligence in academic essay: Higher education student's perspective. *International Journal of Educational Research Open, 5*, 100296. https://doi.org/10.1016/j.ijedro.2023.100296

Malmous, M. & Zaidoune, S. (2025). Student adoption of AI writing tools: A PLS-SEM and TAM-based analysis in Moroccan higher education. In E. Cela, N. Vajjhala, & M. Fonkam (Eds.), *Next-Generation AI Methodologies in Education* (pp. 209-254). IGI Global Scientific Publishing. https://doi.org/10.4018/979-8-3693-7220-3.ch009

Marzuki, Widiati, U., Rusdin, D., Darwin, & Indrawati, I. (2023). The impact of AI writing tools on the content and organization of students' writing: EFL teachers' perspective. *Cogent Education, 10*(2), 2236469. https://doi.org/10.1080/2331186X.2023.2236469

Pavlik, J. V. (2025). Considering the pedagogical benefits of generative artificial intelligence in higher education: Applying constructivist learning theory. In *Generative AI in Higher Education* (pp. 46-58). Edward Elgar Publishing. https://doi.org/10.4337/9781035326020.00014

Pop, M. V., Tonț, G., Flonta, F. V., & Flore, M. (2025). Agentic AI in STEM education: Enhancing cognitive flexibility and workforce readiness. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 16*(1 Sup1), 239-249. https://doi.org/10.70594/brain/16.S1/20

Qazi, S., Kadri, M. B., Naveed, M., Khawaja, B. A., Khan, S. Z., Alam, M. M., & Su'ud, M. M. (2024). AI-driven learning management systems: Modern developments, challenges and future trends during the age of ChatGPT. *Computers, Materials and Continua, 80*(2), 3289-3314. https://doi.org/10.32604/cmc.2024.048893

Rasul, T., Nair, S., Kalendra, D., Robin, M., de Oliveira Santini, F., Ladeira, W. J., ... & Heathcote, L. (2023). The role of ChatGPT in higher education: Benefits, challenges, and future research directions. *Journal of Applied Learning and Teaching, 6*(1), 41-56. https://doi.org/10.37074/jalt.2023.6.1.29

Ray, P. P. (2023). ChatGPT: A comprehensive review on background, applications, key challenges, bias, ethics, limitations and future scope. *Internet of Things and Cyber-Physical Systems, 3*, 121-154. https://doi.org/10.1016/j.iotcps.2023.04.003

Shopovski, J. (2024). Generative artificial intelligence, AI for scientific writing: A literature review. *Preprints*, 2024060011. https://doi.org/10.20944/preprints202406.0011.v1

Thangthong, P., Phiromsombut, J., & Imsa-ard, P. (2024). Navigating AI writing assistance tools: Unveiling the insights of Thai EFL learners. *THAITESOL Journal, 37*(1), 111-131.

Wei, L. (2023). Artificial intelligence in language instruction: Impact on English learning achievement, L2 motivation, and self-regulated learning. *Frontiers in Psychology, 14*, 1261955. https://doi.org/10.3389/fpsyg.2023.1261955

Zlotnikova, I., Hlomani, H., Mokgetse, T., & Bagai, K. (2025). Establishing ethical standards for GenAI in university education: a roadmap for academic integrity and fairness. *Journal of Information, Communication and Ethics in Society, 23*(2), 188-216. https://doi.org/10.1108/JICES-07-2024-0104