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Utilizing Artificial Intelligence (AI) Tools for Improving Academic Writing: Thai EFL Learners' Perspectives

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Abstract

This research article to study explores the integration of artificial intelligence (AI) in teaching academic writing. It focuses on three main areas: (1) comparing students' confidence levels before and after using AI tools for academic writing, (2) identifying the most frequently used AI tools, and (3) examining students' perspectives on AI assistance. The research involved 104 fourth-year English majors at Suan Sunandha Rajabhat University and utilized a mixed-methods design. Quantitative data were gathered through a rating form, while qualitative data were collected via semi-structured interviews. The qualitative data were analyzed, using Braun and Clarke (2006) thematic analysis, while the quantitative data were analyzed, using descriptive statistics, including mean, standard deviation, and paired t-tests.

Findings are as follows: indicated a significant increase in students' confidence in their academic writing after using AI tools, with ChatGPT being the most popular choice. Overall, students expressed positive views about AI tools, although they noted some limitations in their use.

Keywords: Academic Writing, AI Tools, Artificial Intelligence, Popular AI tools in Thailand
Type of Article: Research Article

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การใช้เครื่องมือปัญญาประดิษฐ์ (AI) เพื่อพัฒนาการเขียนเชิงวิชาการ: มุมมองผู้เรียนภาษาอังกฤษในฐานะภาษาต่างประเทศชาวไทย

พัชราพรรณ สุสมาวัตนะกุล[1]

บทคัดย่อ

บทความวิจัยนี้วัตถุประสงค์เพื่อศึกษาการใช้ปัญญาประดิษฐ์ (AI) ในการสอนการเขียนเชิงวิชาการ ซึ่งมุ่งเน้นสามประเด็นหลัก ได้แก่ (1) การเปรียบเทียบระดับความมั่นใจของผู้เรียนก่อนและหลังการใช้ AI ในการเขียนเชิงวิชาการ (2) การระบุเครื่องมือ AI ที่ผู้เรียนนิยมใช้มากที่สุด และ (3) ความคิดเห็นของผู้เรียนต่อการใช้ AI ผู้เข้าร่วมการศึกษาครั้งนี้ประกอบด้วยนักศึกษาสาขาภาษาอังกฤษ ชั้นปีที่ 4 มหาวิทยาลัยราชภัฏสวนสุนันทาจำนวน 104 คน การศึกษานี้ใช้วิธีการแบบผสานวิธี โดยเก็บข้อมูลเชิงปริมาณผ่านการใช้แบบประเมินและเก็บข้อมูลเชิงคุณภาพด้วยการสัมภาษณ์แบบกึ่งโครงสร้าง วิเคราะห์ข้อมูลเชิงคุณภาพด้วยกระบวนการวิเคราะห์แก่นสาระ (Thematic analysis) ตาม Braun & Clarke (2006) และวิเคราะห์ข้อมูลเชิงปริมาณโดยใช้สถิติเชิงพรรณนา ได้แก่ ค่าเฉลี่ย ค่าเบี่ยงเบนมาตรฐาน และแบบทดสอบ paired t-test

ผลการวิจัย พบว่า นักศึกษามีระดับความมั่นใจสูงขึ้นอย่างมีนัยสำคัญหลังจากใช้เครื่องมือ AI ในการเขียนเชิงวิชาการ โดยที่ ChatGPT เป็นเครื่องมือที่ได้รับความนิยมมากที่สุด ในภาพรวม นักศึกษามีทัศนคติเชิงบวกต่อเครื่องมือ AI แม้จะกล่าวถึงข้อจำกัดบางประการจากการใช้งานเครื่องมือด้วยเช่นกัน

คำสำคัญ: การเขียนเชิงวิชาการ; เครื่องมือ AI; ปัญญาประดิษฐ์; เครื่องมือ AI ที่ได้รับความนิยมในไทย
ประเภทบทความ: บทความวิจัย

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Background and Significance of the Problems

It cannot be denied that artificial intelligence (AI) has, nowadays, penetrated in a wide range of areas, such as healthcare, education, finance, and manufacturing. Back on November 30, 2022, ChatGPT was launched, impressing users with its capabilities. However, its earlier version still had some limitations. Therefore, the chatbot has undergone continuous improvements that have led to its current status as a widely recognized tool. According to research by creative agency BBDO Bangkok (Nation, 2024, July 24), over 70 percent of Thai people use AI for its convenience in daily life, saving time, and boosting operational efficiency.

In the field of education, AI has established its presence, serving various purposes, from answering questions and checking grammar to teaching foreign languages and conducting research. Bransen (2024) lists the 22 best AI in education tools for students and teachers in 2024. The top ten tools are (1) ChatGPT (2) Copilot (Bing Chat) (3) Perplexity AI (4) Quillbot (5) Canva (6) Grammarly (7) SCI Space (8) Explain Paper (9) Tavily AI, and (10) Consensus, respectively. A quick search on Google using the keyword "เครื่องมือ AI ที่ได้รับความนิยมในไทย" (Popular AI tools in Thailand) reveals numerous websites, most of which unanimously regard ChatGPT as the most popular tool. Others are listed inconsistently, including Gemini, Quillbot, Canva, and Grammarly.

The increasing integration of AI into daily life underscores its significance, particularly in education. In Thailand, the adoption of AI in educational settings is rapidly growing, evidenced by various articles, books, and conferences focused on this trend. One of the notable examples includes Aroonmanakun's book "Know and Understand AI: Linguists' Perspectives" (2024). Additionally, several scholars in the field of teaching have explored the roles of AI in teaching all four language skills, with a particular focus on writing. Previous studies (e.g., Methaneethorn, 2024; Sakkampang & Mansourmahani, 2023; Santhuenkaew, 2024) have found that AI chatbots have been found to improve writing skills in various ways. They help create high-quality, engaging content, such as articles and advertisements, while also enhancing writing ability. Chatbots reduce writing time and increase efficiency, allowing users to learn effective writing techniques. By providing consistent practice and personalized feedback, they help students develop their skills and build confidence. Studies have also investigated students' perspectives of the use of AI in writing. It was found that students were aware of AI tools and had used them for both daily and academic purposes, but not for professional writing. While they had positive attitudes toward AI tools after a trial period, they acknowledged certain drawbacks and expressed reservations about adopting AI tools for future academic and professional writing, particularly in English rather than Thai. Some of their concerns included over-reliance on technology, potential academic misconduct, and the occasional ineffectiveness

of the tools (Tantivejakul et al., 2024; Thangthong et al., 2024).

Suan Sunandha Rajabhat University (SSRU) also recognizes the importance of AI, as one of its strategies in the digital era is to develop a learning management system, foster learning innovation, and enhance administrative processes to meet international standards. Consequently, AI is undeniably important and is being incorporated into teaching and learning at the university. This article focuses on the perspectives of fourth-year English majors at SSRU regarding the use of AI in their Independent Studies course. Based on a comprehensive literature review, it is evident that while a large body of studies explores different facets of AI in education, they collectively emphasize AI's transformative potential, the importance of ethical considerations, and the need for ongoing research and collaboration in this rapidly evolving field. As the use of AI in education continues to grow, it is essential for educators to comprehend how these technologies can enhance the teaching and learning of English.

Despite its increasing presence in education, comprehensive studies examining which AI tool is the most popular among learners remain under-researched. Also, while evaluating the effectiveness of AI tools is important, it is equally vital to consider students' perspectives on their use. Understanding how students perceive AI applications can provide valuable insights into their experiences, engagement, and overall learning outcomes. Therefore, this study was designed according to the following research objectives (ROs):

Research Objectives

1. To identify the AI tools most frequently used by Thai EFL learner in academic writing.
2. To explore perspectives of Thai EFL learners toward the selected AI tools in academic writing.
3. To analyze the confidence level of Thai EFL learners before and after integrating AI tools in academic writing.

Research Benefits

Based on the three research objectives, this study offers valuable benefits for both educators and students. First, by exploring the most popular AI tools utilized by students, the research identifies which tools are most widely accepted and effective, guiding educators in selecting and recommending the best resources for students. Second, understanding students' perspectives of these tools provides insights into their experiences, engagement, and overall satisfaction, enabling educators to tailor AI integration in ways that optimize learning outcomes and foster a supportive learning environment. Finally, assessing students' confidence in using

AI tools for writing research reveals how well students are able to utilize these technologies, which can inform the development of instructional strategies aimed at enhancing their skills and comfort. Together, these insights can contribute to the successful integration of AI in educational settings, ensuring that it meets student needs and improves academic performance.

Concepts, Theories, and Related Literatures

1. English Writing Problems among Thai Students

Multiple studies (e.g., Boonyaratthanasoontorn, 2017; Imala-Ong; 2013; Pawapatcharaudom, 2007) have examined the challenges Thai students face in language learning. Pawapatcharaudom (2007) identified writing as the most challenging aspect of the English language for Thai undergraduates in international university programs in Thailand. Similarly, Imala-Ong (2013) found that writing difficulties were especially common among undergraduate students. The most common mistakes found in writing of Thai students include grammatical errors, incorrect use of punctuation, transferring Thai sentence structures into English, and using non-colloquial vocabulary. These challenges become even more pronounced in academic writing, where students often struggle with specific aspects such as structuring coherent arguments, adhering to academic conventions, and mastering complex vocabulary and grammar (Gillett, 2024). Additionally, academic writing requires critical thinking, clarity, and a formal tone, which can be difficult for students whose proficiency in English is still developing. For Thai students, the need to produce well-organized, evidence-based writing that meets international standards in a second language adds further complexity, making academic writing a particularly daunting task.

In most cases, Thai students are strongly encouraged to write paragraphs once they enter university. Pongsukvajchakul (2023) highlights that these students emphasize the need for writing practice starting from elementary school. However, in today's digital world, many institutions have begun incorporating AI tools into their writing instruction, and evidence shows that these tools have proven effective in enhancing writing skills (Sanderson & Stephens, 2023). Likewise, after the introduction of AI tools in education, students have reported improvements in various aspects of academic writing, including grammar, structure, and content generation. These tools not only assist in producing better-written academic work but also provide valuable feedback, fostering greater writing confidence and encouraging independent learning among students (Buripakdi & An, 2024).

2. Roles of Artificial Intelligence (AI) in Education

Gibson et al. (2023) present a three-level model that synthesizes and unifies existing

learning theories to explore the roles of (AI) in promoting learning processes. They outline a three-level model of learning and the roles of artificial intelligence AI in education across micro, meso, and macro levels, as visually shown in Figure 1.

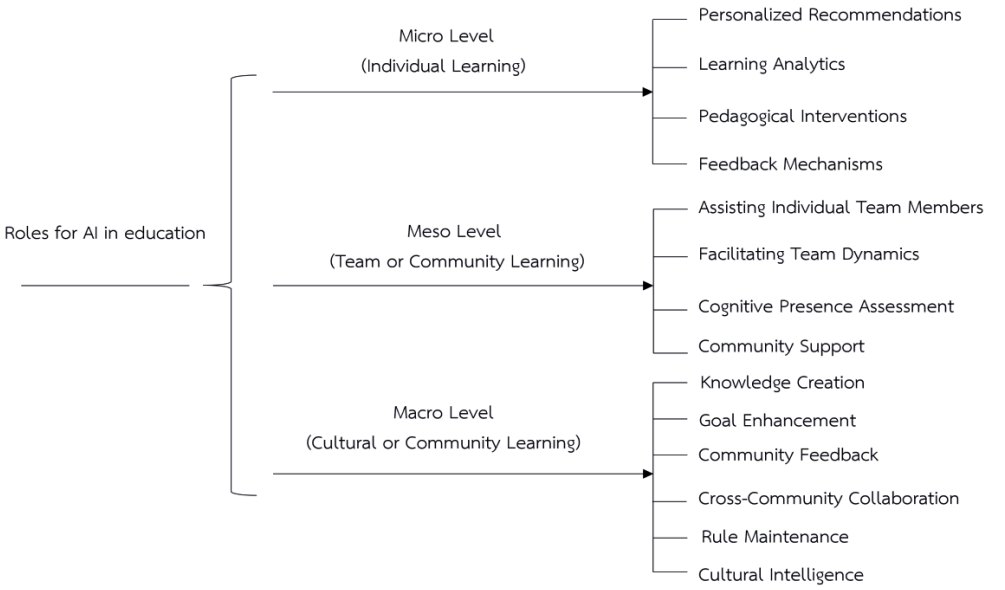

Figure 1 Three-level model of learning and the roles of AI (adapted from Gibson et al., 2023, p. 1130)

According to Figure 1, AI plays vital roles across the three levels. At the micro level, AI has four key roles, which can be further elaborated as follows: (1) providing tailored suggestions to guide learners' next steps based on their unique knowledge and performance, (2) helping individuals understand their progress and compares their performance to peers, (3) fostering confidence through targeted support and adaptive learning experiences, and (4) offering formative and summative feedback to ensure learners understand their progress and areas for improvement. At the meso level, its four roles are (1) aligning individual capabilities with team tasks, (2) nudging team members toward establishing shared understanding and maintaining organization within the group, (3) evaluating and supporting the cognitive engagement of team members, and (4) building and sustaining knowledge communities. At the macro level, its six roles are (1) generating new ideas and tools that contribute to the collective knowledge of a community, (2) clarifying objectives and developing strategies for achieving community aims, (3) facilitating reflective practices within communities by providing insights on collective progress and contributions, (4) fostering connections between different fields and communities,

(5) maintaining and adapting the norms, practices, and membership rules that govern community interactions and knowledge entry, and (6) enhancing the distribution of cognitive resources.

3. AI in English teaching

Recently, many scholars in the field of English teaching (e.g., Imthap et al., 2024; Methaneethorn, 2024; Pakdee & Phetmalhkul, 2024) have focused more on AI, as demonstrated by the substantial amount of research being conducted in this area. Furthermore, while acknowledging the limitations and drawbacks, most of them highlighted the benefits of AI. AI has been incorporated into teaching all four English skills. Studies that indicate that AI enhanced students' listening skills, increased their motivation and confidence in using English (e.g., Suryana et al., 2020; Yu et al., 2023) In the realm of reading skill, studies have shown that such AI can yield significant improvements in reading comprehension (e.g., Hidayat, 2024; Iwata et al., 2020; Liu et al., 2020). Regarding speaking, many studies highlight the positive impact of AI such as correcting English pronunciation, enhancing speaking awareness among English language learners, and elevating learning experiences (e.g., Huang & Zou, 2024; Noviyanti, 2020; Yang et al., 2024). Finally, for writing, Harunasari, (2023) study on AI-integrated approach in EFL writing shows that the integration of ChatGPT has shown to assist EFL students in generating ideas, planning stories, and correcting grammar. In a similar vein, Ahmad et al. (2024) reveal that students' attitude toward the use of AI played a mediating role in explaining the effect of reading and feedback on writing skills, that reading had an indirect effect through attitude on writing skills improvement, and that lecturers' feedback had an indirect effect through attitude on writing skills.

In summary, recent research in English teaching highlights the growing integration of AI across the four core skills. The positive impact of AI in education is evident, making it essential to embrace its use wisely rather than resorting to bans.

4. Students' Perspective towards AI in Education

The literature suggests that viewpoints on the use of AI in education can be divided into two main categories: those of teachers and those of students. Teachers tend to focus on how AI can enhance instructional strategies, streamline administrative tasks, and provide personalized learning experiences for their students (e.g., Bezjak, 2024; Fakhar et al., 2024; Fissore et al., 2024). In contrast, students tend to focus on their direct experiences with AI tools; many students appreciate how technologies like ChatGPT and personalized learning platforms can provide immediate feedback, assist in brainstorming, and help with writing and research tasks (e.g., Chan & Hu, 2023; Djokic et al., 2024; Johnston et al., 2024). In simpler terms, they recognize that AI can facilitate personalized learning by tailoring resources to their individual needs, thus enhancing engagement and motivation in their studies. However, students also

voice concerns about issues like accuracy, ethical implications, and the potential impact on their personal development and future career prospects. Ultimately, understanding students' perspectives is crucial for developing effective policies and practices that harness AI's potential while mitigating its risks in educational contexts.

Conceptual Framework

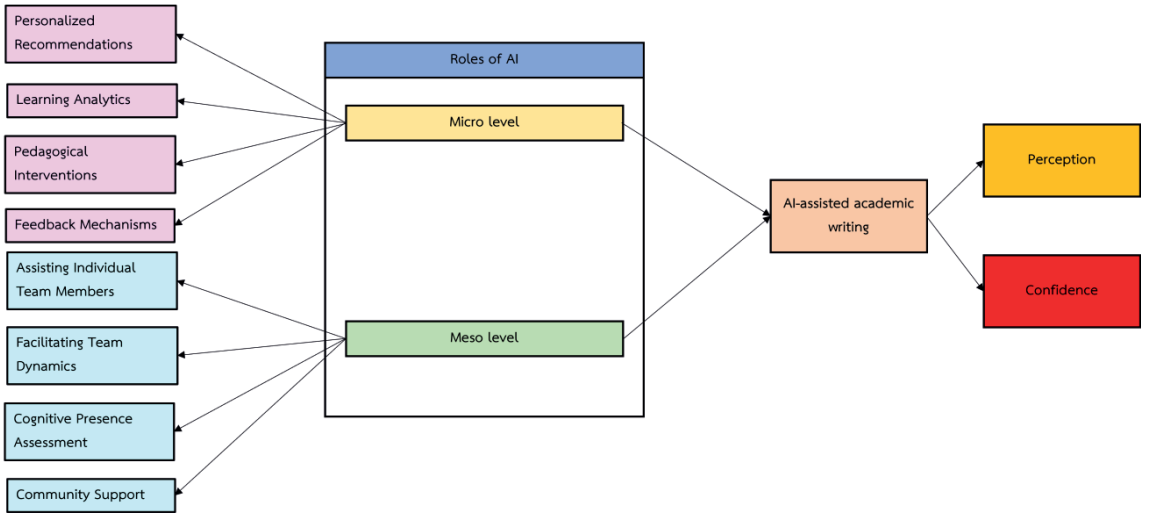

Figure 2 Conceptual framework

Based on Gibson et al.'s (2023) framework for AI roles in education, this study adopts two levels: The micro level (individual learning) and the meso level (team learning). Students work both collaboratively in groups and individually to develop their independent research, with the support of AI tools. Upon completion, their confidence and perspectives are assessed to determine whether the use of AI has positively influenced their confidence and how they perceive its role in their learning process.

Research Methodology

1. Research Design

This study utilizes a mixed-method research design that combines both quantitative and qualitative approaches to examine students' confidence in using AI tools, identify the most frequently used AI tools, and gather their perspectives on AI in writing research. By focusing on the qualitative aspect, the research aims to provide deeper insights into students' experiences, attitudes, and concerns regarding the integration of AI tools into their learning processes.

2. Participants

The participants in this study consisted of 104 fourth-year English majors at SSRU who were selected through purposive sampling. They had completed four compulsory writing courses —Introduction to English Writing, Academic Reading and Writing, English Expository Writing, and Research Paper Reading and Writing Proposal— and were all enrolled in the Independent Studies course during the 1/2024 academic year. This course focuses on fundamental research principles, such as selecting a research topic and presenting findings in both written and oral formats. By selecting participants from this specific course, the study aims to create a targeted context to explore students' perspectives of AI's role in their educational experiences, providing insights into how these technologies impact their learning processes and outcomes.

3. Research Instruments

The research instrument consists of tools for collecting both qualitative and quantitative data. In the qualitative approach, interviews were used as the primary research instrument. Onsite interviews with audio recording were first employed to gather data on the students' most frequently used AI tools. For exploring their perspectives of AI tools, semi-structured interviews were conducted. The specific questions posed during these interviews included: (1) What is the AI tool you use most frequently for writing your research?, (2) How do you perceive the usefulness of AI tools in your writing process?, (3) Do you prefer writing independently, as you did in the initial phase, or with the assistance of AI?, and (4) What limitations, if any, have you encountered when using AI tools? For the quantitative approach, a rating form, developed specifically for this purpose and based on a Likert scale, was used to assess the students' confidence levels before and after using AI tools. The scale ranged from 1 (very unconfident) to 5 (very confident).

4. Data Collection

Data collection occurred in two phases: During the first half and the second half of the course. In the initial phase, students were tasked with developing a research topic, writing an introduction, and conducting a literature review. AI use was prohibited during this period, with the lecturer closely monitoring their progress. Each student completed a rating form to assess their initial confidence in academic writing. Subsequently, they were organized into groups of eight to collaborate on their approved topics, resulting in a total of 13 groups.

In the latter phase, students focused on developing the results, discussion, and conclusion sections of their research. During this time, they were permitted to use AI tools in class. It is important to note here that the students were allowed to use AI tools for partial

assistance rather than having them write entire research papers. This approach encouraged them to enhance their writing skills while still benefiting from the support provided by AI. Once again, students were asked to rate their confidence in academic writing, using the same rating form employed in the initial phase. This consistency allowed for a comparative analysis of their self-assessed confidence levels before and after incorporating AI tools into their learning process.

At the end of the course, the lecturer conducted semi-structured interviews in Thai, in person, during class, using an audio recorder. The students were called in groups, and each student within the group was asked to identify their most frequently used AI tool. Additionally, the lecturer asked each group about their perspectives of the AI tools they utilized in writing their research.

5. Data Analysis

This study employs a multi-faceted approach to analyze the data collected during the two phases of the course, focusing on confidence levels and perspectives of AI tools as follows:

1. Calculation of AI Tool Usage

From the individual interviews with 104 students, the frequencies of the AI tools mentioned by students were compiled. The percentage of students who identified each tool was calculated based on the total number of participants. This data provides insights into the most popular AI tools among students for research writing.

2. Analysis of Semi-Structured Interview Responses

To identify common themes and insights regarding students' experiences with AI tools, the responses from the semi-structured interviews were qualitatively analyzed, using Braun and Clarke's (2006) thematic analysis, which includes six phases, i.e., familiarization, codes formulation, generation of themes, themes review, defining and naming themes, and report formation. The data were then presented textually. By examining these qualitative data, the study aims to gain a deeper understanding of how students perceive the integration of AI in their writing processes and how it affects their overall learning experience.

3. Comparison of Confidence Ratings

To assess the impact of AI tools on students' confidence in academic writing, the average confidence ratings from the initial phase (before AI use) will be compared to those from the latter phase (after AI use). Descriptive statistics, namely mean, standard deviation, and paired t-tests, were employed to determine if there were significant differences in confidence levels. This comparison will highlight whether the introduction of AI tools positively influenced students' self-assessed writing confidence.

Results and Discussion

This section presents the results to address the three research objectives (ROs) as follows:

1. The Most Popular AI Tools

RO1 investigates the AI tools most frequently used by the students in academic writing. The results from the interviews are illustrated in the table 1.

Table 1

Ranks of the students' AI tools used

No.	AI tools	N (104 students)	Percentage
1	ChatGPT	73	70.19
2	Google Translate	15	14.42
3	Quillbot	9	8.65
4	Gemini	5	4.81
5	Grammarly	2	1.92
6	Unheard of	0	0.00

Remarkably, the interviews show that ChatGPT gains the most popularity among the students (70.19%). This aligns with several Thai websites reporting that ChatGPT ranks first among the AI tools currently in use (e.g., Thairath Online, 2023, December 26; Techsauce, 2024, January 26). This suggests that ChatGPT has already established a presence in educational settings in Thailand. However, this is not parallel to some studies that examined AI use in education in the West. For example, Johnston et al. (2024) conducted a study on University of Liverpool students' perspectives towards AI, revealing that Grammarly is the most popular tool (88.5%), followed by ChatGPT (68.9%). Similarly, Cohen (2024) from IU International University of Applied Sciences in Germany supports this finding. Ultimately, this disparity highlights potential cultural or contextual differences in the adoption of AI in education, reflecting varying educational priorities and attitudes toward technology in different regions.

Notably, although Google Translate is much less popular than ChatGPT, having been around for a long time, it still maintains a degree of popularity, ranking second at 14.42%. Moreover, it is important to highlight that none of the students (0%) reported being unfamiliar with AI tools. This indicates a complete awareness of AI technology among the student population surveyed, suggesting that these tools are well-recognized and potentially integrated

into their educational experiences. This level of familiarity could reflect the increasing prevalence of AI in academic contexts, emphasizing its relevance and importance in today's education.

2. Student's Perspectives towards AI Tools

RO2 explores students' perspectives of using AI tools for academic writing. The responses to the three questions from the semi-structured interviews are detailed below.

How do you perceive the usefulness of AI tools in your writing process?

When asked the question, most of the students expressed that AI tools saved them time when writing, particularly for lengthy assignments required during class. They noted that these tools also helped paraphrase and summarize long references and alleviated concerns about grammar. The immediate suggestions provided by AI tools were especially beneficial. When the lecturer inquired about their frequent use of ChatGPT, students mentioned its talk of the town on social media platforms like Facebook, along with positive word-of-mouth, highlighting its quick responses and time-saving features. Many students preferred ChatGPT over Google Translate, as they found the latter's suggestions occasionally awkward and primarily limited to translation, lacking in summarization and question-answering capabilities. Further, they were less familiar with Quillbot and Gemini. Some noted that while Grammarly is available online, it is preferable to install it; however, once installed, it often interrupted their writing process.

Do you prefer writing independently, as you did in the initial phase, or with the assistance of AI?

When asked whether they prefer writing independently, as they did in the initial phase, or with the assistance of AI, most students expressed a preference for using AI tools. Only a few preferred independent writings, citing concerns that heavy reliance on AI could undermine their writing skills and limit their opportunities for practice. These students emphasized the importance of developing their abilities rather than depending solely on technology. In addition to the binary answers, some students pointed out that they should maintain a balance between independent effort and technological aid.

What limitations, if any, have you encountered when using AI tools?

In response to the question, the students noted that ChatGPT consistently generated high-quality English that often surpassed their actual writing abilities. Occasionally, the output was difficult to understand, leading them to request simpler language by specifying "easy" or "moderately difficult" English. Additionally, Google Translate was acknowledged as limited, primarily serving as a translation tool without capabilities for paraphrasing, summarization, or question-answering. Furthermore, Grammarly presented its own challenges; once installed,

it frequently interrupted the students' writing process. This ongoing interference disrupted their flow and made it harder for them to cultivate their own voice and style.

In summary, despite encountering some limitations, students expressed trust in AI tools that supported their academic writing, citing benefits such as time savings, grammar checking, paraphrasing, and question-answering. Influenced by advertisements and discussions on social media, many students opted for AI tools in their educational practices. As a result, most leaned toward writing with AI assistance, while some preferred a balance between independent writing and using AI support. Notably, very few students indicated a desire to rely solely on their own efforts. The results are consistent with several studies. Sumakul et al. (2021) found that students had positive attitudes toward using an AI app, enjoying the learning experience and appreciating the assistance it provided in their writing. Similarly, Marzuk et al. (2023) reported that AI writing tools significantly enhanced their students' writing quality, especially in terms of content and organization. Additionally, Kim et al. (2025) discovered that students believed AI-assisted writing could help them in three key areas: The writing process, their performance, and their emotional engagement. These findings offer a deeper understanding of the effects of AI on academic writing, incorporating student perspectives and suggesting implications for the design of educational AI and instructional strategies.

3. Students' Confidence in Using AI Tools

RO3 aims to explore students' confidence in using AI tools. The table 2 presents the students' confidence levels before and after the integration of AI tools in academic writing. The analysis of the data using descriptive statistics reveals the following results:

Table 2

Results from the paired samples test

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1 Before and After AI Use	-1.933	.672	.066	-2.063	-1.802	-29.325	103	.000

The comparison of the students' confidence levels in academic writing before and after using AI tools reveals a t-value of -29.325 and a p-value (sig.) of 0.000. The results demonstrate that AI tools enhanced their confidence, confirming the usefulness of these tools in academic writing. However, the results are inconsistent with those of Johnston et al. (2024) who reveal

that students who used or considered using AI technologies had lower median confidence scores in academic writing compared to those who did not. This suggests that reliance on AI may correlate with decreased confidence in their own writing abilities. In simpler terms, while AI tools can enhance confidence in academic writing, there is a risk that over-reliance on them may correlate with reduced self-assurance, highlighting the need for a nuanced approach to integrating technology in education. The Figure 3 provides a visual representation of the increase in the students' confidence levels.

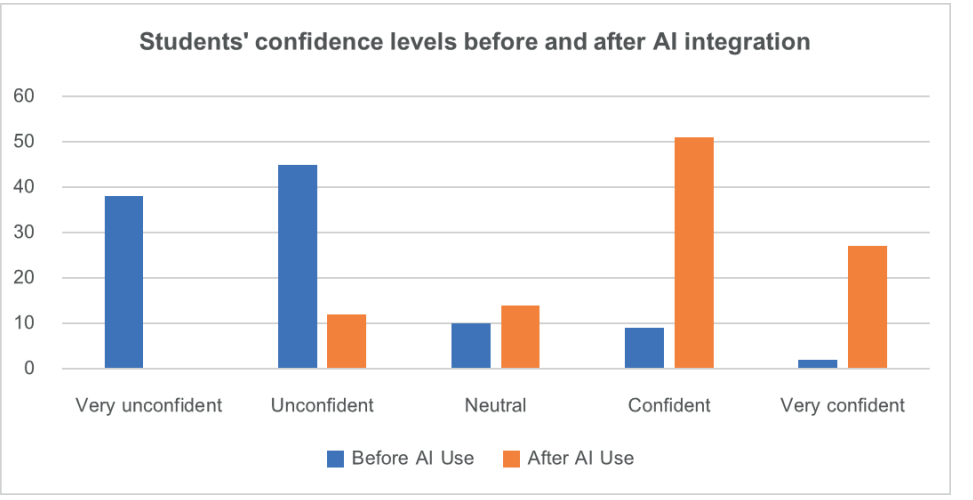

Figure 3 Students' confidence before and after AI integration

Conclusion

The study highlighted a significant boost in student confidence after they began using AI tools for their writing tasks. Many students reported that these tools were particularly advantageous for several reasons: They saved time, helped with grammar checking, facilitated paraphrasing, and provided quick answers to questions. Through interviews, it was revealed that the influence of advertisements and discussions on social media played a crucial role in students' preferences, with ChatGPT emerging as the most commonly used tool. Following closely behind was Google Translate, which, despite being a long-established resource, is still earning the trust of students. This trend suggests that ChatGPT has made a strong impression in educational settings, indicating its potential as a valuable resource for learners.

Interestingly, every student surveyed was aware of AI tools, reflecting their growing prevalence in academic contexts. When it came to their perspectives, the majority expressed a positive view towards AI tools, seeing them as beneficial. This favorable perspective led many

students to favor AI assistance in academic writing over traditional methods of independent writing. However, while students appreciated the benefits of AI, they also identified some limitations during their writing activities. Ultimately, these findings enhance understanding of AI's influence on academic writing by incorporating student perspectives. By recognizing both the positive experiences and the limitations identified by students, educators and developers can design AI-integrated writing instruction and adopt strategies that lead to more effective and user-friendly tools, ultimately better supporting learning outcomes.

Recommendations

The findings from this study shed light on the growing influence of AI tools in academic settings, particularly in writing tasks. While students generally express positive views towards AI, recognizing its potential to enhance productivity and support learning, there are also challenges and limitations that need to be addressed. To maximize the benefits of AI in education, it is important to consider recommendations for its effective implementation, development of policies to guide ethical usage, and areas for future research. The following sections outline key recommendations in three critical areas: Implementation, policy, and future research.

1. Implementation

It is recommended that educators integrate AI tools, such as ChatGPT, into academic writing instruction. Teachers should provide guidance on how to use these tools effectively to enhance students' writing skills while ensuring that students remain engaged in the process of independent thought and critical thinking. It is important to offer training on the strengths and limitations of AI tools to ensure students understand when and how to use them appropriately. Additionally, educators should incorporate AI tools into writing assignments in a structured manner, allowing students to leverage their time-saving benefits while also encouraging original work and creativity.

2. Policy

At the institutional level, policies should be developed to guide the ethical use of AI tools in education. Institutions should establish clear guidelines that promote responsible usage, ensuring that AI tools supplement rather than replace students' efforts. Policies should also address issues such as plagiarism, over-reliance on AI-generated content, and the importance of maintaining academic integrity. Furthermore, universities and educational bodies should invest in the continued development and integration of AI tools in curricula, recognizing their potential to enhance learning outcomes and prepare students for future careers in an increasingly digital world.

3. Future Research

Future research should focus on expanding the understanding of how AI tools impact long-term learning outcomes, particularly in relation to academic writing. It would be beneficial to explore how different AI tools affect various student demographics, such as those with varying levels of academic proficiency. Studies could also investigate the development of new AI features that better address students' identified limitations, such as improving the tool's ability to handle complex writing tasks or offering more personalized feedback. Additionally, further research should examine how students' attitudes and engagement with AI evolve over time, providing insights into how AI tools can be adapted to meet the changing needs of learners.

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