Integrating Generative AI in EFL Academic Writing: Thai English-Major Students' Purposes, Perceptions, and Experiences with ChatGPT

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Article information	Abstract
	The rapid proliferation of generative AI, particularly ChatGPT, is fundamentally transforming EFL academic writing. Although AI-mediated writing has been widely researched, empirical studies within the Thai higher education context remain limited. To address this gap, the present mixed-methods study conceptualizes ChatGPT not only as software but also through the lens of Sociocultural Theory (SCT) as a mediated tool that can provide cognitive scaffolding. The study examined the purposes, perceptions, and experiences of 50 Thai senior English-major undergraduates who used ChatGPT as a writing assistant. The data from structured questionnaires and scenario-based interviews indicate that students primarily use the tool for self-regulation, specifically for paraphrasing, idea generation, and coherence enhancement. However, their adoption is discerning rather than uncritical. Participants valued the tool's accessibility but remained cautious about ethical concerns, particularly plagiarism and the reliability of information. Importantly, despite AI's efficiency, human feedback remains the essential form of "other-regulation" necessary for developing advanced writing proficiency. These findings suggest that educators should aim for a pedagogical balance that integrates technological resources with human guidance, offering clear implications for curriculum design and academic integrity in an AI-mediated era.

INTRODUCTION

In the globalized knowledge economy, English academic writing has emerged as a cornerstone skill for academic success, professional mobility, and cross-cultural communication in English as a Foreign Language (EFL) context (Bhowmik, 2021; Hyland, 2003; Puspitasari & Tsara, 2022). The ability to express complex ideas with clarity and academic rigor is not only vital for students' scholarly achievements but also shapes their employability in increasingly competitive job markets (Seensangworn, 2017). For EFL learners, writing proficiency enables access to international academic discourse, the capacity to publish, and participation in knowledge creation beyond national boundaries. Yet, despite its significance, academic writing remains one of the most challenging skills for EFL learners to master due to its cognitive demands, linguistic complexity, and socio-cultural nuances (Ahmed, 2010; Silva, 1993).

In Thailand, specifically, these challenges are particularly pronounced. While English is a compulsory subject in the Thai education system, writing has historically received less emphasis compared to receptive skills, primarily reading and listening (Rattanadilok Na Phuket & Othman, 2015). Thai undergraduate students in an EFL context—both English and non-English majors—often report writing as the most demanding of all language skills, citing a lack of explicit writing instruction, limited practice opportunities, and minimal feedback beyond surface-level corrections (Suraprajit, 2021). Even English-major students, who are expected to achieve at least CEFR B2 proficiency by graduation (Ministry of Education, 2014), frequently struggle with advanced academic writing conventions such as cohesion, critical argumentation, and hedging (Seensangworn, 2017). Therefore, there is an urgent need for innovative tools that can offer the additional support needed to close this proficiency gap.

The integration of technology into language education has offered new possibilities for addressing these challenges. In recent years, Artificial Intelligence (AI) has emerged as a transformative force in higher education, with the potential to provide personalized, real-time support for language learners (Kukulska-Hulme et al., 2023; Roe et al., 2023). NLP-based applications have evolved rapidly, giving rise to advanced generative AI models capable of producing coherent, contextually relevant, and stylistically appropriate text. ChatGPT, developed by OpenAI and launched publicly in November 2022, has emerged as a leading example of this technological shift. Built on large language models (LLMs), ChatGPT can engage in interactive, multi-turn conversations and perform a wide range of tasks, from answering factual questions to assisting with complex writing tasks (Koubaa et al., 2023).

As an NLP-powered conversational agent, ChatGPT can support EFL learners in multiple aspects of academic writing: generating topic ideas, refining sentence structure, suggesting cohesive devices, and enhancing lexical sophistication (Tai et al., 2023). Its interactive interface allows learners to engage in iterative drafting and revision, simulating aspects of one-on-one writing conferences with teachers or peers. However, the pedagogical use of ChatGPT in EFL contexts also raises important questions about accuracy, reliability, ethical use, and the development of learner autonomy (Yan, 2023). Critics argue that excessive dependence on these tools can reduce students' independent problem-solving abilities and critical thinking skills by providing immediate solutions without requiring cognitive effort (Turková et al., 2025). Additionally, the adoption of these technologies presents substantial challenges to academic integrity, especially in detecting AI-generated plagiarism and upholding ethical standards (Ray, 2023).

Despite this growing global discourse, empirical research on AI-assisted academic writing in EFL in the Thai context remains scarce. A small number of studies have examined the use of NLP tools such as Quillbot among Thai university students (Kittivorawut et al., 2023). Still, few have focused on ChatGPT specifically or explored its role among English-major students. This lack of research is significant because English majors represent a group with both higher proficiency and greater exposure to academic writing, making their adoption of AI tools particularly relevant for pedagogical and policy considerations. Understanding their purposes, perceptions, and experiences with ChatGPT can inform curriculum design, teacher training, and institutional policies in ways that align with both national educational goals and emerging global AI guidelines.

Globally, educational policymakers are moving to formalize frameworks for AI integration in higher education. A striking example comes from the Tertiary Education Quality and Standards Agency (TEQSA)—Australia's independent national regulator—which released *Assessment reform for the age of artificial intelligence* (Tertiary Education Quality and Standards Agency, 2023). This guidance mainly argues that institutions must move beyond simple detection tools and instead prioritize the fundamental redesign of assessment tasks to secure academic integrity in an automated era. The Russell Group in the UK has similarly outlined *Principles on the Use of Generative AI in Education*, highlighting academic integrity and skill development (Russell Group, 2023). In Asia, the Singapore Ministry of Education (2023) launched *the EdTech Masterplan 2030*. The Education Minister Chan Chun Sing announced the national masterplan at the Schools Work Plan Seminar in September 2023, which focuses on strengthening the development of students' Digital Literacy and Technological Skills (DLTS). Similarly, in the Thai context, policy frameworks are currently in a formative stage. While the Ministry of Higher Education, Science, Research, and Innovation (MHESI) has established the *National AI Strategy and Action Plan* (2022–2027) to promote ethical AI governance (MHESI, 2022), the practical translation of these high-level guidelines into concrete institutional policies remains fragmented. This regulatory inconsistency underscores the urgent need for empirical research that can guide the responsible and pedagogically effective integration of tools like ChatGPT in EFL contexts.

Consequently, this study seeks to address these gaps by examining how Thai English-major students engage with ChatGPT as an NLP-based writing assistant. Specifically, the study is guided by the following three research questions:

1. For what purposes do English-major students use ChatGPT in academic writing tasks?
2. How do students perceive ChatGPT in terms of its usefulness, limitations, and ethical implications?
3. How do students describe their experiences of integrating ChatGPT into the academic writing process?

Addressing these research questions provides context-specific evidence for ongoing discussions regarding AI use in language education, with a particular focus on Thai higher education. The following section reviews relevant literature on AI-mediated writing in English as a Foreign Language (EFL) context to position the present study within this emerging field.

LITERATURE REVIEW

Challenges associated with academic writing in Thai EFL higher education

Academic writing is widely regarded as one of the most intellectually demanding tasks for English as a Foreign Language (EFL) learners, as it requires the coordination of planning, formulation, and revision processes (Kellogg, 2008; Weigle, 2002). Kellogg (2008) argues that writing is cognitively demanding because writers must engage three high-level processes simultaneously in their working memory: planning ideas, formulating them into structures,

and evaluating the text against objectives. Complementing this cognitive perspective, Weigle (2002) emphasizes that these processes are recursive rather than linear. She posits that successful writing requires 'strategic competence' – the ability to constantly monitor and adjust one's output – which creates an additional layer of difficulty for L2 learners who must manage limited linguistic resources and complex rhetorical expectations.

Beyond these cognitive burdens, academic writing serves as a primary mechanism for assessment and knowledge construction in higher education, making it a critical gatekeeping skill. According to Hyland (2003), writing is inherently social because it involves not only conveying propositional meaning but also negotiating membership within a disciplinary discourse community. Therefore, developing proficiency requires learners to navigate genre conventions and audience awareness while simultaneously maintaining control over formal language.

These cognitive and rhetorical challenges are particularly apparent within the Thai educational context. Although English is a compulsory subject from primary through tertiary education, research consistently demonstrates that Thai university students frequently struggle to produce coherent, well-organized, and grammatically accurate academic texts (Rattanadilok Na Phuket & Othman, 2015; Seensangworn, 2017; Suraprajit, 2021). Even English-major students, who are expected to achieve upper-intermediate proficiency levels (B2) after graduation, according to national policy guidelines (Ministry of Education, 2014), continue to encounter persistent difficulties in ideal development and textual organization (Seensangworn, 2017). These recurring difficulties suggest that Thai students' writing problems are not simply isolated skill deficits but reflect broader pedagogical limitations.

Given that academic writing is a non-linear and exploratory process (Zamel, 1983), L2 learners require ongoing guidance and individualized feedback to overcome these challenges. Limited access to process-oriented instruction often restricts learners' ability to develop strategic control over their writing. As a result, students are likely to seek alternative forms of support to bridge the gap between formal instruction and the demands of academic writing tasks. Under these conditions, it is crucial to investigate how students are utilizing emerging tools, particularly generative AI, to mitigate these challenges and support their writing development.

Theoretical frameworks

Sociocultural theory and AI-mediated scaffolding

To examine ChatGPT's role in academic writing, we must ground our analysis in Vygotsky's (1978) Sociocultural Theory (SCT), which posits that cognitive development is inherently socially mediated rather than an isolated internal endeavor. Vygotsky (1978) asserted that "human learning presupposes a specific social nature and a process by which children grow into the intellectual life of those around them" (p. 88). In the context of EFL writing, this learning growth is facilitated through engagement with mediational means—cultural artifacts and tools that bridge the gap between a learner's independent ability and their potential capability, a developmental space Vygotsky termed the *Zone of Proximal Development* (ZPD).

Traditionally, applied linguistics has conceptualized scaffolding tools as human agents – teachers or peers who guide development through dialogue (Lantolf & Thorne, 2006). Yet, the emergence of Generative AI necessitates a fundamental reconsideration of this 'More Knowledgeable Other,' particularly considering Lantolf's (2000) observation that language learning is inherently mediated by external artifacts. Within this framework, ChatGPT represents a significant evolutionary leap: unlike static resources, it functions as a dynamic interlocutor, offering real-time lexical suggestions that drastically reduce the cognitive demands of writing. However, Li (2020) argues that AI lacks the intersubjectivity required for authentic negotiation. The limitation here is not necessarily that the output sounds 'robotic'—current models are often deceptively fluent—but rather that their reliance on probabilistic modeling produces feedback devoid of communicative intent. This raises a critical pedagogical dilemma: does AI scaffolding guide learners through their ZPD, or does it foster dependency by bypassing the cognitive struggle necessary for internalization?

Process-oriented writing and AI-mediated support in EFL contexts

This concern regarding cognitive bypass is particularly acute when situated within the Process-Oriented Writing framework, which explicitly values the recursive struggle of constructing meaning over the final product itself.

Drawing on Zamel's (1976, 1983) foundational work and subsequent developments by White and Arndt (1991), this study conceptualizes writing not as linear production, but as a recursive cycle of planning, drafting, and revising. This perspective prioritizes the learner's metacognitive involvement, emphasizing "tactical planning" rather than the mere generation of refined text (Zamel, 1983). While empirical research confirms that this pedagogy enhances writing quality and confidence in EFL contexts (Badger & White, 2000; Hyland, 2003), the integration of generative AI disrupts traditional notions of process support.

Unlike earlier technological tools that assisted with discrete, surface-level revisions, generative AI represents a qualitatively distinct form of mediation. Because systems like ChatGPT can generate extended text and simulate feedback, they have the capacity to reshape how learners plan, draft, and revise. Consequently, the pedagogical value of AI cannot be determined solely by the quality of its output, but by how learners intentionally employ it to support—rather than supplant—their engagement with the writing process.

ChatGPT as an AI-mediated writing assistant

Chatbots are fundamentally AI-driven software agents designed to engage in domain-specific or open-domain conversations by leveraging Natural Language Processing (NLP) to simulate human dialogue. However, the emergence of ChatGPT (Generative Pre-trained Transformer) by OpenAI represents a paradigm shift from simple conversational agents to sophisticated writing assistants. This tool has evolved rapidly through four generations—from the initial ChatGPT-1 in 2018 to the advanced ChatGPT-5 model in 2025—with each iteration marking a significant leap in deep learning scalability, contextual awareness, and generative quality.
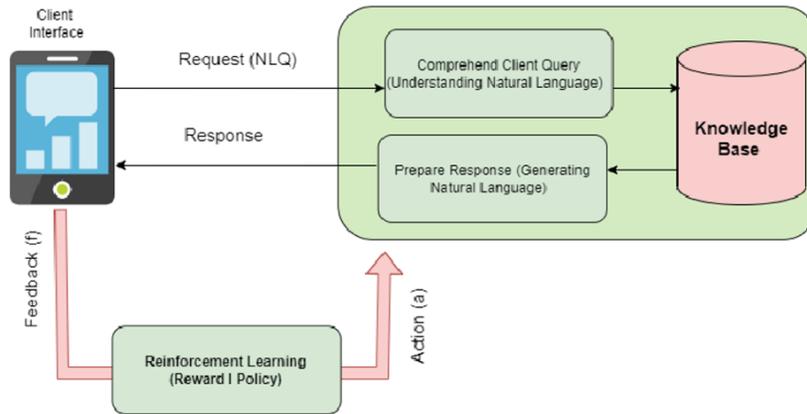
Figure 1 General architecture of ChatGPT

Note. From Gill & Kaur, 2023, p. 264.

As illustrated in Figure 1, ChatGPT's general architecture demonstrates its capacity to perform a diverse range of natural language processing (NLP) tasks directly relevant to second language learning and academic communication. The model can generate text, such as drafting essays or summarizing academic articles, which supports learners in organizing and refining their written work (Meniado et al., 2024). According to Kohnke et al. (2023), this AI-mediated tool also provides pedagogical affordances, i.e., creating personalized materials or dialogue practice, yet simultaneously establishes the urgent need for critical digital literacy among teachers to navigate ethical risks, including plagiarism and inaccuracy. In addition, ChatGPT offers language translation, which facilitates cross-linguistic academic support and provides scaffolding for learners engaging with texts beyond their first language (Dwivedi et al., 2023; Gasaymeh et al., 2025).

In addition to architecture distinctions, Figure 2 presents a comparison of ChatGPT's global search popularity with other widely used NLP-based writing tools, including Grammarly, Quillbot, and Google's LaMDA. Trend data from 4 August 2024 to 4 August 2025 shows that ChatGPT has the highest worldwide interest, indicating broad adoption and perceived utility among diverse user groups. This prominence establishes ChatGPT as a particularly significant subject of investigation in English as a Foreign Language (EFL) academic writing context. In contrast to tools such as Grammarly and Quillbot, which primarily facilitate surface-level language correction or paraphrasing, ChatGPT functions as a multi-functional writing assistant by providing integrated support for idea development, text organization, stylistic revision, and linguistic accuracy within a single interactive environment.
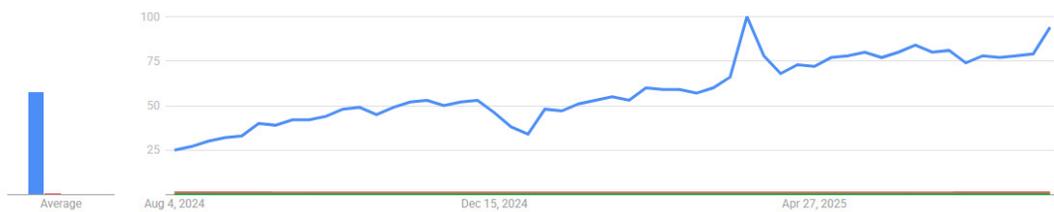
Figure 2 Google search interest for AI writing tools (4 August 2024 – 4 August 2025)

Note. The blue line indicates search interest for "ChatGPT," while the red, yellow, and green lines represent "Grammarly," "Quillbot," and "LaMDA," respectively. Data were retrieved from Google Trends (https://trends.google.com). Copyright 2025 by Google LLC.

In the context of English as a Foreign Language (EFL) writing, ChatGPT functions not merely as a chatbot but as a dynamic "mediator" of the writing process. Research indicates that the tool supports learners across multiple dimensions of text production. For instance, Fitria (2023) and Marzuki et al. (2023) observed that ChatGPT effectively scaffolds the pre-writing stage by generating content ideas and organizing thoughts, while also serving as a real-time error detector during drafting. This capability allows students to bridge the gap between their cognitive intent and their linguistic performance.

In addition, recent empirical evidence grounds these technical capabilities in students' experiences. Meniado et al. (2024) expanded the geographic scope of this discourse, investigating 357 EFL learners in Thailand and Vietnam. Their findings suggest that students in these contexts perceive ChatGPT as a transformative aid that directly influences their writing experiences, helping them navigate the specific linguistic challenges inherent to L2 composition. This aligns with Baskara's (2023) observation that the tool sustains learner engagement through tailored, interactive feedback, which helps demystify complex language rules.

Nevertheless, the technology is not without limitations. Algaraady and Mahyoob (2023) argued that AI-generated feedback often lacks the depth and contextual sensitivity of human instruction, particularly when addressing complex rhetorical or discourse-level issues. Moreover, the integration of such tools raises significant ethical questions; concerns regarding plagiarism, accuracy, and the legitimacy of AI-generated output have been repeatedly raised in recent scholarship (Roe & Perkins, 2022, as cited in Roe et al., 2023). Thus, while ChatGPT offers unprecedented support for learners, its role in academic writing remains contested, demanding careful scrutiny of how students actually use it in practice.

Overall, the integration of these tools is not without nuance. While the AI serves as a powerful "chatbot powerhouse" for fluency and mechanics, it functions best as a supplementary aid rather than a replacement for critical human thought. Thus, the literature increasingly advocates a balanced approach in which technological affordances are weighed against the need for authentic skill development.

Previous research on AI-mediated writing

The rapid integration of generative AI into educational settings has sparked a polarized worldwide discussion. This debate shifts between enthusiasm for its pedagogical affordances and worries about academic integrity (Koubaa et al., 2023; Kukulska-Hulme et al., 2023; Ray, 2023; Zhai, 2022). As the field moves beyond these initial reactions, research in EFL writing contexts has begun to reveal a more sophisticated reality. The literature suggests that, for L2 learners, ChatGPT is not simply a shortcut. Instead, it serves as a complex cognitive scaffold that requires extensive digital competence.

For instance, in the Middle Eastern context, Mohammed et al. (2023) reported that Arab EFL students actively used ChatGPT to address specific linguistic challenges, primarily for translation, idea generation, and structural organization. However, their findings emphasized that the tool's effectiveness was not universal; its utility depended significantly on students' existing digital literacy. Similarly, Gasaymeh et al. (2025) found that more than half of Jordanian education students used ChatGPT for written assignments, most frequently for idea generation and outlining, indicating that these practices are not marginal but rather typical of AI adoption in higher education. This suggests that AI may inadvertently exacerbate the "digital divide" rather than mitigate it. Moreover, Yan (2023) conducted a one-week L2 writing practicum and found that while ChatGPT reduced psychological barriers to writing, it also introduced substantial ethical concerns regarding authorship and the potential erosion of learner autonomy.

Expanding beyond general usage patterns, Kostka and Toncelli (2023) provided a detailed analysis of student perceptions, challenging the notion of "blind reliance." Their qualitative data demonstrated that students were frequently aware of the tool's limitations. Specifically, while participants appreciated the AI's efficiency in summarizing texts and generating cohesive devices, they expressed skepticism regarding its "hallucinations." Many criticized the tool for producing misleading content or offering ineffective advice, such as suboptimal presentation strategies. These findings indicate that advanced learners critically engage with the AI, selectively accepting or rejecting outputs based on their linguistic judgment.

In contrast, research on this advanced tier of generative AI in Thai higher education is still in its early stages. Existing studies have predominantly examined precursor natural language processing (NLP) technologies rather than large language models. For example, Kittivorawut et al. (2023) explored the use of Quillbot among Thai university students, reporting positive perceptions and high adoption rates among both English and non-English majors. However, Quillbot primarily functions as a paraphrasing tool that refines existing text, whereas ChatGPT offers generative capabilities to produce original content. As a result, there is limited empirical evidence on how Thai students, particularly English majors with higher proficiency expectations, navigate the transition from "AI-as-editor" (Quillbot) to "AI-as-co-author" (ChatGPT). The present study aims to address this gap by investigating whether the critical awareness identified in international contexts (Kostka & Toncelli, 2023) is evident in Thai classrooms, where cultural and institutional norms regarding academic authority may differ.

METHODOLOGY

Participants

The study initially recruited 56 Thai EFL undergraduate students majoring in English at a public university in Bangkok, Thailand. All participants were senior students who had completed several academic writing courses and had experience producing English texts in various genres. Screening results indicated that 50 students had prior experience using ChatGPT to support their English writing, while 6 reported no such experience. As a result, only the 50 students with ChatGPT experience were included in the final sample. Participants ranged in age from 20 to 22 years and self-reported English language proficiency at the Upper-Intermediate to Advanced level (CEFR B2–C1). Most participants had studied English for approximately 15 to 19 years.

Research instruments

This study employed a mixed-methods research design to address its three research objectives: examining English-major EFL students' purposes, perceptions, and experiences in using ChatGPT as an AI academic writing assistant (Creswell & Plano Clark, 2018; Dörnyei, 2007). A mixed-methods approach was selected to capture both the prevalence of ChatGPT use across a broader student population and the depth of individual engagement with the tool in academic writing contexts. Following Creswell's (2012) principle of methodological triangulation, the two data strands were collected concurrently, analyzed separately, and integrated at the interpretive stage to provide a coherent, context-sensitive account of AI-assisted writing practices in a Thai EFL university setting. There were two primary tools: questionnaires and scenario-based interview questions.

<u>Questionnaires</u>

The study employed a researcher-developed questionnaire as the primary instrument for data collection. The questionnaire consisted of four sections: (a) a screening section, (b) personal information, (c) a yes–no close-ended section adapted from Mohammed et al. (2023) and relevant literature to explore the purposes of ChatGPT use (see Appendix A), and (d) a four-point Likert-scale section (ranging from *Strongly Agree* to *Strongly Disagree*) adapted from Kittivorawut et al. (2023) to examine students' perceptions of ChatGPT (see Appendix B).

As mentioned, Sections 3 and 4 of the questionnaire were adapted from two previously validated studies (Kittivorawut et al., 2023; Mohammed et al., 2023), as seen in Tables 1 and 2 below, and modified to suit the context of this research. For example, an item from Mohammed et al. (2023) "*ChatGPT can help students brainstorm ideas, organize their thoughts, and suggest relevant keywords and sources to explore,*" was rephrased as, "*Do you use ChatGPT to aid in brainstorming during your writing process?*" Likewise, from Kittivorawut et al. (2023), the statement, "*Quillbot is a more accessible digital tool for language writing than other digital tools like Grammarly, Reverso, Ginger, etc.*" was adapted into, "*Is ChatGPT a more accessible digital tool for language writing compared to other digital tools such as Quillbot, Grammarly, LaMDA, etc.?*"

Table 1

Mohammed et al. (2023)'s questionnaire items

Questionnaire items
ChatGPT generates highly effective essays on any topic and in any field.
As Arabic is my first language, using ChatGPT enriches the English vocabulary I need in my specialization.
ChatGPT is a useful tool to improve reading skill.
ChatGPT is important for me to get information on different topics.
ChatGPT texts are highly reliable and need not be second checked for reliability.
ChatGPT saves my time, effort and energy.
Research scholars can use ChatGPT to generate ideas and gain inspiration for their academic writing.
ChatGPT can help students brainstorm ideas, organize their thoughts and it can suggest relevant keywords and sources to explore.
Research scholars can make use of ChatGPT to help them write literature reviews, introduction to topics and terms definitions.
As a post graduate student, ChatGPT is a useful tool to improve academic writing skill.

Note. Reprinted from Mohammed et al., 2023 p. 12.

Table 2

Kittivorawut et al. (2023)'s questionnaire items

Questionnaire items
QuillBot is a more accessible digital tool for language writing than other digital tools like Grammarly, Reverso, Ginger, etc.
QuillBot's features such as paraphraser, grammar checker, summarizer, co-writer, and citation generator, greatly assist me in academic writing.
The QuillBot application is effective in improving the quality of my writing because it includes several features such as paraphraser, grammar checker, summarizer, co-writer, and citation generator.
The QuillBot application encourages me to write because I can check my grammar and choose word choices better.
Using the QuillBot application boosts my confidence in my writing because I can be assured that my writing work has been revised and edited before submission.
By using the QuillBot application, I have improved my writing skills in organizing text because I learn it through QuillBot's suggestion text in grammar checkers and paraphrases.
Unconsciously, my vocabulary, particularly the terms used in academic writing, have increased because I learn it through QuillBot's suggestion text in grammar checkers and paraphrases.
Using the QuillBot application to write academic essays improves my grammar skills through QuillBot's suggestion text in grammar checkers and paraphrases.
I prefer QuillBot to other apps (i.e. Grammarly, Reverso, Ginger) because it is user-friendly and has more free features compared to other apps.
I can write efficiently and my writing gets better when I use the QuillBot app.

Note. Reprinted from Kittivorawut et al., 2023, p. 11.

Scenario-based interview questions

With respect to Research Question 3, scenario-based interview questions were adapted from previous studies (Kittivorawut et al., 2023; Mohammed et al., 2023) and employed to investigate the experiences of five participants who had integrated ChatGPT into their academic writing. The interview protocol (see Appendix C) included four scenarios: (a) integrating ChatGPT into the writing process, (b) ethical decision-making, (c) perceived growth and improvement, and

(d) difficulties and constraints. In contrast to questionnaire-based data, which typically capture generalized attitudes or self-reported frequencies, scenario-based interviews facilitate the articulation of situated reasoning and judgment in response to specific, realistic prompts. This approach is particularly valuable for examining emerging user experiences such as AI-assisted writing, where learners' actions may deviate from their stated beliefs. According to Frey and Fontana (1991), scenario-based interviewing enables researchers to understand how participants interpret and respond to complex situations, thereby uncovering tacit assumptions, ethical tensions, and contextual constraints that are often challenging to elicit through fixed-response instruments.

Data collection procedures

Data collection was conducted during the second semester of the 2024 academic year using a sequential mixed-methods approach. Participants were first recruited via university email and in-class announcements. The invitation explained the study's purpose, emphasized voluntary participation, and outlined confidentiality measures ensuring that all volunteers provided informed consent regarding confidentiality and the voluntary nature of the study. Subsequently, participants completed the structured questionnaire online via Google Forms, a task that took approximately 15–20 minutes; researchers conducted targeted follow-up checks to clarify incomplete entries and ensure dataset integrity. For the qualitative phase, five participants were purposively selected from the survey pool for interviews. While this sample size is numerically modest, the decision prioritizes depth over breadth. It adheres to methodological standards for inquiry, which suggest that 5 to 25 participants are sufficient to achieve saturation in specific contexts (Creswell, 2012). These semi-structured interviews were conducted individually in the language laboratory and transcribed by a research assistant for subsequent analysis.

Data analysis

There are two parts of the analysis. Quantitative data were analyzed using IBM SPSS Statistics (free trial version). Responses from the purpose section of the questionnaire were descriptively summarized using frequency and percentage distributions. For the perception section, mean scores were calculated based on a four-point Likert scale (see Table 3), providing a clearer picture of participants' levels of agreement with each statement. With regards to the reliability, it was assessed by calculating Cronbach's alpha for the four Likert-scale questionnaires, yielding a coefficient of 0.803, indicating satisfactory internal consistency.

Table 3
Likert-scale interpretation interval

Likert-scale description	Scale	Interval
Strongly disagree	1	1.00–1.75
Disagree	2	1.76–2.50
Agree	3	2.51–3.25
Strongly agree	4	3.26–4.00

On the other hand, qualitative data from the open-ended interview questions were examined using thematic analysis, also referred to as domain analysis. After transcribing the interview dialogue, the researchers analyzed and identified recurring themes and patterns in participants' experiences and perceptions of ChatGPT. By combining the statistical overview with thematic insights, the analysis captured both the breadth of trends across the group and the depth of individual perspectives.

RESULTS AND DISCUSSION

Research question 1: Purposes of using ChatGPT

The descriptive findings from this study indicate a pragmatic, rather than passive, adoption of AI tools among English-major students. Participants most frequently utilized ChatGPT for specific rhetorical functions, with paraphrasing (16.4%), brainstorming (15.3%), and revising structure (14.9%) identified as the primary purposes, as presented in Table 4.

These figures represent more than simple usage statistics; they highlight areas of cognitive challenge for EFL learners. The substantial reliance on these functions is consistent with Baskara's (2023) findings that ChatGPT acts as a fundamental support for language development and ideation in higher education. Qualitative data from interviews further clarify this quantitative pattern. Participants primarily used ChatGPT to address specialized or particularly challenging topics, leveraging the AI to overcome the "blank page" syndrome. By applying the tool for initial idea generation and content organization, students actively address persistent EFL writing challenges documented in the Thai context, such as difficulties in structuring well-organized arguments (Rattanadilok Na Phuket & Othman, 2015; Seensangworn et al., 2017).

These results challenge the binary narrative prevalent in early AI literature, which often frames usage as either "cheating" or "assistance." Instead, the results support the perspectives of Mohammed et al. (2023) and Kostka and Toncelli (2023), who contend that AI serves as a complex cognitive scaffold for advanced learners. Also, the findings are consistent with Gaseymeh et al. (2025), who observed that Jordanian students used AI to address specific linguistic gaps between personal and academic use. In academic settings, participants in this study appear to use ChatGPT for academic assignments, mostly for writing prompts to find a theme for their writing and for summarizing content. On the other hand, for personal use, it is widely used as translation and content creation tools. This also supports the conclusions drawn from Fitria's (2023) and Yan's (2023) work that the tool's value lies in its capacity to clarify and co-construct text, rather than merely replace the writer.

Table 4

Total frequency of participants who used ChatGPT for different purposes in academic writing

Purpose	Frequency	%
Providing writing feedback	33	12.3
Helping with grammar, spelling and usage, wordiness, and punctuation in writing	38	14.2
Helping with brainstorming in the writing process	41	15.3
Using as a paraphrasing tool in the writing	44	16.4
Editing and proofreading in the writing	35	13.1
Offering suggestions for revising the writing style (e.g., making it more formal or academic as needed)	33	12.3
Revising sentence structure for clarity and coherence in the writing	40	14.9
Other	4	1.5%

Research question 2: Perceptions of ChatGPT

With respect to Table 5, Results from the four-point Likert-scale questionnaire demonstrated that students generally perceive ChatGPT positively as a writing support tool. Statement 2 – "*The features of ChatGPT, such as paraphrasing and grammar checking, significantly assist me in my English writing*" – received the highest mean score (M = 3.36), indicating strong agreement regarding ChatGPT's effectiveness in supporting linguistic accuracy and text refinement. From a sociocultural perspective, this suggests that students primarily utilize ChatGPT as a mediational tool to reduce cognitive load during drafting and revision, enabling greater focus on meaning construction rather than surface-level form (Lantolf, 2000; Vygotsky, 1978). This trend is consistent with previous research indicating that L2 writers frequently employ ChatGPT for sentence-level revision, paraphrasing, and grammatical support during composition (Baskara, 2023; Fitria, 2023; Mohammed et al., 2023).

Ranked second-highest, Statement 11, which addressed ethical awareness and academic integrity, received a high mean score (M = 3.34), indicating that students recognize the importance of using ChatGPT responsibly. This finding supports Mohammed et al.'s (2023) observation that EFL learners are not passive recipients of AI-generated output but instead exercise reflective judgment when engaging with such tools. From a sociocultural theory perspective, this ethical awareness demonstrates that learners actively negotiate the boundaries of mediation, determining when and how AI support aligns with institutional norms and disciplinary expectations. Similarly, Statement 8 – "*I prefer ChatGPT over other writing applications due to its user-friendliness*" – yielded a relatively high mean (M = 3.12), further supporting previous findings that ease of interaction encourages learners to adopt AI-mediated tools for academic tasks (Zhai, 2022).

Table 5

Overall mean scores and standard deviations of students' perceptions of ChatGPT's features and effectiveness in English writing

	Statement	Mean	Standard deviation
1.	ChatGPT is a more accessible digital tool for English writing assistance compared to other tools like Grammarly, Reverso, Ginger, etc.	3.18	.59556
2.	The features of ChatGPT, such as paraphrasing and grammar checking significantly assist me in my English writing.	3.36	.56279
3.	ChatGPT is effective in improving the quality of my writing because it includes all features like paraphrasing, grammar checking, co-writing, and giving writing feedback.	3.32	.51270
4.	Using ChatGPT motivates me to engage more in English writing because it helps me check grammar and provides me with better word choices.	3.20	.83299
5.	Using ChatGPT boosts my confidence in my English writing because I can be assured that my writing work has been revised and edited before submission.	3.18	.62890
6.	Unconsciously, my English vocabulary, especially academic terms has increased because I learn from ChatGPT's suggestions in grammar checking and paraphrases.	2.98	.68482
7.	Using ChatGPT to write academic essays has improved my grammar skills through its suggestion text in grammar checking and paraphrases.	2.90	.76265
8.	I prefer ChatGPT over other writing assistant apps (e.g., Quillbot, Grammarly, LaMDA) because it is user-friendly.	3.12	.74615
9.	I prefer ChatGPT over other writing assistant apps (e.g., Quillbot, Grammarly, LaMDA) because it offers more free features.	3.16	.71027
10.	I have experienced the improvement of my writing and overall writing quality when using ChatGPT as an English writing assistant	3.14	.63920
11.	I am aware of using ChatGPT ethically and ensuring that my writing maintains originality and academic integrity.	3.34	.55733
12.	I feel confident in my ability to effectively use ChatGPT as a writing assistant for my English writing tasks.	3.26	.66425

In contrast, Statement 6 – "*Unconsciously, my English vocabulary, especially academic terms, has increased because I learn from ChatGPT's suggestions*" – received the lowest mean score (M = 2.98). This relatively weak endorsement indicates that, although ChatGPT serves as effective external scaffolding, students may not consistently internalize the linguistic input it offers.

According to Lantolf and Thorne (2006), internalization is a gradual process that requires reflective engagement and intentional use of mediational resources, rather than passive exposure to corrected output. Previous studies have reported similar concerns: learners value AI tools for efficiency but express uncertainty about their impact on long-term language development (Kostka & Toncelli, 2023; Yan, 2023). These results highlight the distinction between assisted performance and independent control, which is central to sociocultural accounts of learning.

Taken together, these results suggest that students perceive ChatGPT as a useful, accessible mediational resource that supports writing performance, particularly during revision-oriented stages of the writing process. However, consistent with SCT, the findings also indicate that mediation alone does not guarantee development unless learners engage in conscious reflection and strategic use of the tool. In the Thai EFL context, where access to individualized feedback

is often limited, ChatGPT appears to serve as a supplementary scaffold that extends learners' capacity to perform within their zone of proximal development, while ultimately leaving the responsibility for internalization and authorship with the learner (Lantolf, 2000; Vygotsky, 1978).

Research question 3: Experiences of using ChatGPT

Analysis of the semi-structured interviews suggests that students generally perceived ChatGPT as a valuable resource that supports multiple aspects of academic writing, particularly idea development, language refinement, and task efficiency. At the same time, participants consistently acknowledged ethical concerns, technical limitations, and the continued necessity of human guidance for higher-order writing decisions. Rather than viewing ChatGPT as a replacement for human support, students described a balanced model of AI–human collaboration, in which AI functions as a supplementary resource within the writing process. These findings were organized into five themes, summarized in Table 6, which together illustrate how students integrate, evaluate, and regulate AI use in their academic writing practices.

Table 6
Thematic analysis of EFL learners' erxperiences with ChatGPT in writing with key messages

Theme	Key Messages from the Interview
1) Integration of ChatGPT into writing processes	● The is particularly useful for brainstorming ideas, especially for challenging or specialized topics, and enhancing coherence and clarity in writing. ● They use it for generating ideas, improving coherence, and revising sentences.
2) Dealing with ethical considerations	● Concerns about potential plagiarism with ChatGPT. ● Strategies include self-checking, cross-referencing, and paraphrasing for originality. ● Some express concerns about the reliability of information from ChatGPT.
3) Learning development and growth	● ChatGPT enhances writing skills by expanding vocabulary, improving sentence structures, and providing creative ideas for brainstorming. ● The extent of improvement can vary based on user engagement and active utilization of ChatGPT's suggestions.
4) Challenges and limitations	● Challenges: use of excessively fancy language, difficulties with paraphrasing, information completeness, and consistency. ● Concerns about the limitations of the free version.
5) ChatGPT versus human assistance and other applications	● Human assistance (peers and professors) valued for in-depth feedback, source recommendations, and motivation. ● Comparisons with other tools like Quillbot and Grammarly, each with specific strengths and weaknesses.

Theme 1: Integration of ChatGPT into writing processes

Interview data indicated that participants integrated ChatGPT extensively into their writing processes, particularly during the pre-writing and revision stages. Students reported using the tool for idea generation, clarifying content direction, improving grammatical accuracy, and enhancing textual coherence. This pattern of use is consistent with prior research suggesting that L2 writers tend to employ ChatGPT as a process-oriented scaffold rather than as a source of final textual output (Fitria, 2023; Marzuki et al., 2023; Mohammed et al., 2023). From a

process-writing perspective, such practices reflect learners' engagement with writing as an iterative activity involving planning, formulation, and refinement, rather than a linear act of text production (Zamel, 1983).

Within this broader pattern of process-oriented use, participants most frequently emphasized ChatGPT's role in supporting language accuracy and clarity during revision. For instance, Student 1 noted that the tool was effective for "verifying and improving language and wording," particularly for grammar checking. This reliance on AI for surface-level linguistic support echoes Baskara's (2023) findings that EFL learners often use generative AI to reduce the cognitive load associated with form-focused concerns, thereby allocating greater attention to content development. Similarly, Student 3 described selectively incorporating ChatGPT's rephrasing suggestions into their own writing, indicating an active evaluative stance rather than uncritical acceptance of AI-generated output.

Beyond revision-related support, participants also described using ChatGPT as a resource for generating ideas and initial structural planning, especially at the outset of writing tasks. Student 2 explained that the tool was frequently used to brainstorm "basic ideas" that served as a guideline throughout the writing process, while Student 5 reported using ChatGPT to generate outlines for essays and presentation scripts. These practices align closely with sociocultural accounts of writing development, which conceptualize external tools as mediational resources that enable learners to perform beyond their current independent capabilities within the zone of proximal development (Lantolf, 2000; Vygotsky, 1978). In this respect, ChatGPT appears to function as a form of technological mediation that supports task initiation and planning, particularly when students are confronted with unfamiliar topics or limited instructional guidance.

Considered alongside the questionnaire results, the interview findings from Theme 1 offer additional insight into how students appropriate ChatGPT as a process-oriented writing tool. The high mean score for items related to paraphrasing and grammar support (M = 3.36) indicates that students generally perceive ChatGPT as effective for surface-level linguistic assistance. Interview data support this perception, demonstrating that learners frequently rely on the tool during pre-writing and revision to reduce linguistic uncertainty and streamline composition. Conversely, the lower mean score for vocabulary development (M = 2.98) corresponds with participants' descriptions of ChatGPT as a short-term support rather than a mechanism for sustained language internalization. Collectively, these findings suggest that students primarily view ChatGPT as a mediational resource that enhances immediate writing performance, while deeper lexical and rhetorical development remains reliant on learners' own engagement and external human feedback.

Theme 2: Dealing with ethical considerations

Extending the analysis of students' integration of ChatGPT into their writing processes (Theme 1), interview data indicated a pronounced ethical awareness and self-regulation in AI use. Participants frequently expressed concerns about potential plagiarism and the reliability of AI-generated content, particularly given ChatGPT's ability to aggregate information from

multiple sources. Instead of uncritical reliance on the tool, students reported deliberately employing strategies such as selectively adopting suggestions, paraphrasing, consulting external sources, and using plagiarism-detection software to preserve originality and academic credibility.

In addition, Multiple participants emphasized that ethical use of AI necessitates active authorial control. Students described adapting ChatGPT's suggestions into their own language, verifying information through reputable sources, and applying prior academic training to restructure AI-assisted text. These practices are consistent with previous research indicating that EFL learners approach generative AI with caution and reflective judgment, rather than unquestioning reliance (Mohammed et al., 2023; Roe & Perkins, 2022, as cited in Roe et al., 2023). From a sociocultural perspective, such behavior exemplifies mediated regulation, wherein learners coordinate technological, instructional, and social resources to maintain responsibility for their writing (Lantolf & Thorne, 2006; Vygotsky, 1978).

Concerns regarding accuracy additionally strengthened this evaluative approach. Participants observed that ChatGPT's output may be misleading or imprecise, particularly when dealing with academic content that demands disciplinary expertise. This skepticism corresponds to previous research on learners' awareness of AI hallucinations and contextual limitations (Algaraady & Mahyoob, 2023; Kostka & Toncelli, 2023).

Theme 3: Learning development and growth

Following the discussion of ChatGPT's integration into writing practices (Theme 1) and its ethical management (Theme 2), participants reflected on the perceived impact of AI on their learning growth. Several interviewees reported expanded vocabulary, increased creativity, and improved idea generation, particularly when ChatGPT functioned as a stimulus for exploring alternative expressions or unfamiliar topics. These accounts suggest that developmental benefits are most evident when learners engage with AI reflectively rather than mechanically.

Furthermore, some participants identified ChatGPT as a creative stimulant that increased both idea pools and lexical choices. Student 2 pointed out that the tool offered surprising suggestions—ideas they "had never expected before." Meanwhile, Student 3 noticed concrete progress in vocabulary, enabling more precise word choice. These experiences mirror earlier studies suggesting that generative AI supports lexical exploration and conceptual expansion in L2 writing, especially in early writing stages (Fitria, 2023; Yan, 2023). When seen through the lens of SCT, such benefits occur within the learner's zone of proximal development: AI supports L2 performance beyond what is possible alone (Lantolf, 2000; Vygotsky, 1978).

However, not all participants experienced developmental gains. Student 1 reported that no specific skills were acquired, attributing this to a lack of verification or engagement with AI-generated content, suggesting a passive or unreflective approach. This finding underscores a key distinction in sociocultural theory – assistance alone is insufficient for development. Effective learning requires that mediated support be paired with conscious reflection and internalization (Lantolf & Thorne, 2006). When learners engage with ChatGPT passively, without

evaluation or strategic uptake, its impact appears limited to short-term performance improvements rather than sustained language development.

Theme 4: Challenges and limitations

Although ChatGPT offers notable benefits, participants identified significant limitations that constrain its effectiveness as an academic writing tool. A primary concern was the quality and reliability of AI-generated text. Students indicated that ChatGPT frequently produced overly complex or imprecise language, particularly during paraphrasing tasks. Rather than conveying meaning holistically, the system often substituted words individually, resulting in unnatural phrasing, repetitive sentence structures, and diminished coherence. For example, Student 5 highlighted that paraphrased sentences sometimes "look weird to read," while Student 3 observed that ChatGPT "often paraphrases my writing using complicated vocabulary that makes it hard to understand."

Concerns regarding the credibility and completeness of information further influenced students' cautious perspectives. Several participants observed that ChatGPT occasionally generated content lacking verifiable references or citations, which undermined its academic reliability. For instance, Student 2 expressed worries that ideas were produced "without any proven references," necessitating further verification through external sources. These challenges were exacerbated by the limitations of the free version of ChatGPT, especially its knowledge cutoff in 2021, which diminished its relevance for current academic tasks and required students to independently verify the timeliness and accuracy of the information it provided.

These challenges align with previous research on the limitations of AI-assisted writing. Dwivedi et al. (2023) caution that large language models may generate "hallucinated" or formulaic responses, which, while fluent, often lack factual accuracy. Meniado et al. (2024) report that students using AI tools frequently encounter difficulties with coherence, contextual accuracy, and overly generalized language. In summary, these findings indicate that while ChatGPT can enhance fluency and efficiency during drafting and revision, its limitations necessitate critical evaluation and human oversight. The students' ambivalence reflects a growing consensus that AI is most effective as a supplementary tool rather than a definitive authority in academic writing.

Theme 5: ChatGPT versus human assistance and other applications

Extending the discussion of AI-mediated support and its limitations (Themes 1–4), participants compared ChatGPT with both human and other AI-mediated writing tools. Although ChatGPT was valued for its versatility and user-friendliness, it was not regarded as a complete substitute for human feedback. Students found lecturers and peers offer nuanced, discipline-specific guidance, source recommendations, motivational support, and contextual explanations. These contrasts highlight the distinctive qualities of human input compared to AI-generated feedback. Such observations are consistent with previous research, which indicates that AI-generated feedback lacks the intersubjectivity and dialogic negotiation essential for effective writing development (Algaraady & Mahyoob, 2023; Li, 2020).

Compared to human assistance, students perceived ChatGPT as efficient and broad but lacking depth. Several participants indicated that while peer review and instructor feedback were motivating, excessive reliance on ChatGPT led to feelings of passivity, highlighting a tension between convenience and active engagement. This concern aligns with Yan's (2023) findings, which caution that generative AI may lower affective barriers to writing but can also diminish learners' cognitive investment if used uncritically. Interestingly, only one participant preferred ChatGPT to human assistance, citing limited access to native-speaker feedback. This observation suggests more extensive contextual constraints in EFL settings rather than a general rejection of human mediation.

In comparing ChatGPT with other AI writing tools, students demonstrated an awareness of each tool's specific strengths: Grammarly was preferred for grammatical accuracy, QuillBot for paraphrasing, and ChatGPT for integrated support during brainstorming, drafting, and revision. Students consistently contrasted ChatGPT's generalist capabilities with the specialized effectiveness of Grammarly and QuillBot, noting that ChatGPT was less effective for targeted tasks. This distinction is consistent with findings from Kittivorawut et al. (2023) and Meniado et al. (2024), which indicate that learners employ multiple tools. Ultimately, students viewed ChatGPT as one component within a more extensive writing support system, rather than as a replacement for other tools or human feedback.

CONCLUSION AND IMPLICATIONS

This mixed-methods study investigated the purposes, perceptions, and experiences of 50 Thai senior English-major undergraduates integrating ChatGPT into their academic writing. The descriptive data from structured questionnaires and scenario-based interviews revealed that participants embrace this AI-mediated tool for self-regulation—specifically for paraphrasing and idea generation in academic writing. However, they have a strategic skepticism regarding its reliability. When viewed through a sociocultural perspective, these patterns suggest a critical distinction between assisted performance and internalized competence. While ChatGPT effectively scaffolds production within the Zone of Proximal Development (ZPD), the data indicate it acts as a bounded resource; it facilitates immediate performance but cannot replace the motivation, disciplinary socialization, and authentic dialogic negotiation provided by human instructors (Kostka & Toncelli, 2023; Lantolf & Thorne, 2006; Vygotsky, 1978).

Consequently, the integration of Generative AI demands a coordinated pedagogical response rather than ad hoc prohibition. We argue for a framework of "critical AI literacy" (Kohnke et al., 2023; Lo et al., 2024), where tools are embedded into writing workflows to support—rather than supplant—L2 learners (Kohnke et al., 2023; Lo et al., 2024). Ideally, this involves pedagogical designs that balance automated assistance with the cognitive struggle necessary for deep learning, supported by institutional policies that normalize transparency over surveillance. Future research should now pivot toward longitudinal designs to determine whether this form of AI scaffolding fosters sustainable writing proficiency or only masks developmental stagnation through learning dependency.

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Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Participation in the study was voluntary and participants were free to withdraw at any time. The requirement for written informed consent was waived in accordance with institutional requirements.

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Appendix A
Yes-no closed ended questions of the purposes of using ChatGPT as a writing assistant

1.	Do you use ChatGPT to provide writing feedback?	Yes	No
2.	Do you use ChatGPT for helping with grammar, spelling and usage, wordiness, and punctuation in writing?	Yes	No
3.	Do you use ChatGPT to help with brainstorming in your writing process?	Yes	No
4.	Do you use ChatGPT as a paraphrasing tool in your writing?	Yes	No
5.	Do you use ChatGPT for editing and proofreading in your writing?	Yes	No
6.	Do you use ChatGPT to offer suggestions for revising your writing style (e.g., making it more formal or academic as needed)?	Yes	No
7.	Do you use ChatGPT for revising sentence structure for clarity and coherence in your writing?	Yes	No
8.	Other (please specify)		

Appendix B
Four-Likert scale students' questions of their perceptions in using ChatGPT
as a writing assistant

ChatGPT is a more accessible digital tool for English writing assistance compared to other tools like Grammarly, Reverso, Ginger, etc.	Strongly Disagree	Disagree	Agree	Strongly Agree
The features of ChatGPT, such as paraphrasing and grammar checking significantly assist me in my English writing.	Strongly Disagree	Disagree	Agree	Strongly Agree
ChatGPT is effective in improving the quality of my writing because it includes all features like paraphrasing, grammar checking, co-writing, and giving writing feedback.	Strongly Disagree	Disagree	Agree	Strongly Agree
Using ChatGPT motivates me to engage more in English writing because it helps me check grammar and provides me with better word choices.	Strongly Disagree	Disagree	Agree	Strongly Agree
Using ChatGPT boosts my confidence in my English writing because I can be assured that my writing work has been revised and edited before submission.	Strongly Disagree	Disagree	Agree	Strongly Agree
Unconsciously, my English vocabulary, especially academic terms has increased because I learn from ChatGPT's suggestions in grammar checking and paraphrases.	Strongly Disagree	Disagree	Agree	Strongly Agree
Using ChatGPT to write academic essays has improved my grammar skills through its suggestion text in grammar checking and paraphrases.	Strongly Disagree	Disagree	Agree	Strongly Agree
I prefer ChatGPT over other writing assistant apps (e.g., Quillbot, Grammarly, LaMDA) because it is user-friendly.	Strongly Disagree	Disagree	Agree	Strongly Agree
I prefer ChatGPT over other writing assistant apps (e.g., Quillbot, Grammarly, LaMDA) because it offers more free features.	Strongly Disagree	Disagree	Agree	Strongly Agree
I have experienced the improvement of my writing and overall writing quality when using ChatGPT as an English writing assistant.	Strongly Disagree	Disagree	Agree	Strongly Agree
I am aware of using ChatGPT ethically and ensuring that my writing maintains originality and academic integrity.	Strongly Disagree	Disagree	Agree	Strongly Agree
I feel confident in my ability to effectively use ChatGPT as a writing assistant for my English writing tasks.	Strongly Disagree	Disagree	Agree	Strongly Agree

Appendix C
Thematic scenario-based interview questions

Scenario 1: Incorporating ChatGPT into the writing process	• Imagine you have to complete any English assignments for English writing course. How can you integrate ChatGPT in your writing process? • Could you describe how ChatGPT helps you to overcome a challenging English writing task?
Scenario 2: Dealing with ethical considerations	• Suppose you have used ChatGPT to generate some sections in your English writing, but you are concerned about maintaining originality. How would you address this ethical dilemma while still benefiting from the tool? • If you encountered a situation where ChatGPT suggested plagiarized content, what might be the reasons for this, and how would you address or deal with the situation?
Scenario 3: Realizing growth and improvement	• Reflect on your experiences with ChatGPT over time. Have you noticed any changes in your writing in overall ability, positive and/or negative? Please describe and give some examples. • Describe a situation where you used ChatGPT's feedback and suggestions to revise and improve a piece of English writing. How did this affect the final outcome?
Scenario 4: Challenges and limitations	• What are some specific challenges or limitations you have encountered when using ChatGPT for your writing? Please provide examples if possible? • In your experience, what are some specific challenges, similarities or differences that AI tools like ChatGPT pose when compared to other apps such as Quillbot, Grammarly and human assistance, such as professors or peers?