

Fourth-year English majors' perceptions and practices of AI tools in English writing self-study at Quy Nhon University

ABSTRACT

This study investigates the perceptions and practices of 60 fourth-year English majors at Quy Nhon University (QNU) regarding the integration of Artificial Intelligence (AI) tools in English writing self-study. Employing a mixed-methods research design, data were collected through questionnaire surveys and semi-structured interviews. The findings reveal the widespread use of ChatGPT (96.67%) alongside supplementary tools such as Grammarly and QuillBot. Students predominantly employ AI as a corrective scaffold during the revising stage ($M = 4.58$), while largely maintaining learner autonomy in the drafting stage (20%). Despite holding positive perceptions of the usefulness of AI in enhancing linguistic accuracy ($M = 4.62$), students expressed considerable concerns about potential over-dependence on these tools ($M = 4.38$). Based on these findings, the study proposes pedagogical adjustments aimed at fostering students' AI literacy and developing AI-responsive assessment practices.

Keywords: *AI tools, English writing, practices, perceptions, self-study*

1. INTRODUCTION

In the current landscape of the Fourth Industrial Revolution, English has solidified its status as the global lingua franca, serving as the indispensable medium for international science, technology, diplomacy, and higher education [1]. Within the domain of English as a Foreign Language (EFL), academic writing is widely recognized as the most cognitively demanding and linguistically complex skill to master [2]. Unlike oral communication, which often permits immediate clarification through interaction, academic writing requires a sophisticated interplay of linguistic precision, logical coherence, and strict adherence to disciplinary rhetorical conventions [3]. For EFL learners, particularly those in non-native contexts like Vietnam, the challenge of writing is often compounded by "writing anxiety," limited lexical resources, and the structural difficulty of organizing ideas according to Western academic standards [4].

To address these multifaceted hurdles, the paradigm of language learning has undergone a fundamental shift from traditional teacher-centered instruction to a more autonomous, learner-centered approach [5]. Self-directed learning (SDL) has emerged as a crucial strategy for students to bridge the gap between classroom theory and the high-level proficiency required for professional careers. For senior English majors at

Quy Nhon University (QNU), self-study is not merely an auxiliary activity but a critical necessity as they transition toward professional and academic discourse. Learner autonomy is considered the hallmark of successful language acquisition, where students take proactive responsibility for setting goals, monitoring progress, and evaluating their own performance [6].

However, the landscape of self-study has been radically transformed by the emergence of Generative Artificial Intelligence (GenAI). The introduction of Large Language Models (LLMs) such as ChatGPT, alongside specialized Automated Writing Evaluation (AWE) tools like Grammarly and QuillBot, has introduced a new dimension to how students practice writing [7]. These AI tools provide immediate, personalized scaffolding—acting as a "digital tutor" that offers formative feedback and corrective suggestions twenty-four hours a day [8]. While traditional self-study once relied on static resources like dictionaries and textbooks, modern EFL learners are increasingly integrating AI into various stages of the writing process, from initial brainstorming to final syntax refinement [9].

Despite the evident benefits of AI in enhancing linguistic accuracy and reducing cognitive load, its integration remains a "double-

edged sword" [10]. On one hand, AI empowers students to produce higher-quality texts and significantly boosts their writing confidence by providing a "safety net" for grammatical errors [11]. On the other hand, profound concerns regarding academic integrity, the potential loss of a unique "authorial voice," and a detrimental over-reliance on technology have become central topics in contemporary educational discourse [12]. As AI tools become more autonomous, there is a pressing need to understand how students navigate these tools—not just as passive recipients of corrections, but as active agents in their own learning process [13].

Currently, while there is a growing body of international research on AI in education, there remains a notable gap in localized studies that examine the specific practices and perceptions of EFL students in regional academic settings in Vietnam. Existing literature often focuses on metropolitan universities, potentially overlooking the unique challenges faced by students at regional institutions like Quy Nhon University. Furthermore, few studies have applied the Technology Acceptance Model (TAM) specifically to the use of GenAI in self-directed writing environments among senior students who are on the verge of graduation [14]. This study seeks to fill this gap by investigating the extent of AI adoption, the specific writing stages where AI is most utilized, and the students' perceptions of its impact through the lens of TAM—focusing on Perceived Usefulness (PU) and Perceived Ease of Use (PEOU).

By examining the experiences of fourth-year English majors at QNU, this research provides empirical evidence on how GenAI acts as a "corrective scaffold" rather than a replacement for human intellect. The findings aim to offer pedagogical recommendations for both students and instructors to optimize AI integration in a way that enhances linguistic competence while preserving critical thinking and intellectual agency.

Research questions

Based on the issues and research gap identified in the preceding sections, this study addresses the following research questions:

1. How do fourth-year English majors at Quy Nhon University utilize AI tools in their English academic writing self-study

in terms of purposes, frequency, and extent of use?

2. What are the perceptions of these students concerning the advantages, effectiveness, and limitations of AI tools in their English academic writing self-study?

2. THEORETICAL BACKGROUND

2.1. Theoretical background

2.1.1. *Self-Study and the Evolution of Learner Autonomy in the Digital Age*

Self-study, fundamentally rooted in the concept of learner autonomy, has remained a cornerstone of language acquisition theories for several decades. Historically, autonomy was conceptualized by Holec [15] as the "ability to take charge of one's own learning," which involves the learner's responsibility for defining objectives, monitoring progress, and evaluating outcomes. In the contemporary era, however, this definition has transitioned from a purely individualistic pursuit into a complex socio-technical process. Modern scholars argue that autonomy in the digital age is not merely the absence of teacher intervention but rather a proactive, strategic engagement with technological resources to manage one's own learning process [16], [17].

In the specific context of English as a Foreign Language (EFL), self-study creates what is often termed a "third space"—a self-regulated environment where students bridge the gap between abstract classroom theory and functional linguistic proficiency [18]. For English majors, writing-focused self-study demands a high degree of Self-Regulated Learning (SRL). This involves a cyclical process of goal setting, strategic implementation, and critical self-reflection [19]. With the advent of Generative AI, the nature of autonomy has been redefined as "techno-autonomy," where students must navigate the fine line between utilizing AI as a supportive scaffold and maintaining their own intellectual agency [6].

2.1.2. *The Technology Acceptance Model (TAM) as a Framework*

To analyze the mechanisms behind how English majors at Quy Nhon University adopt AI tools, this study utilizes the Technology Acceptance Model (TAM) proposed by Davis [14]. Despite

being a foundational model, TAM remains highly relevant in explaining the integration of emerging technologies like LLMs. The model posits that two primary constructs—Perceived Usefulness (PU) and Perceived Ease of Use (PEOU)—are the core predictors of an individual's intention to use a new system.

Perceived Usefulness (PU): In the realm of EFL writing, PU refers to the extent to which a student believes that using AI will enhance their linguistic accuracy, expand their lexical repertoire, and improve the overall quality of their academic output [20].

Perceived Ease of Use (PEOU): This construct reflects the extent to which students perceive that interacting with AI tools requires minimal effort. The natural language-based interaction of contemporary generative AI systems allows users to perform complex tasks through simple conversational commands, thereby reducing perceived complexity and lowering the learning curve for users with limited technical skills [21].

By applying the Technology Acceptance Model (TAM), this research explores the psychological drivers behind the ubiquitous adoption of AI, investigating whether the 'perceived usefulness' of AI-generated content outweighs the cognitive effort and the necessity for verification to ensure accuracy [22], [23].

2.1.3. AI Integration in the Cognitive Process of Writing

The writing process is widely recognized as a non-linear, recursive activity involving three critical stages: pre-writing, drafting, and revising [24]. The integration of AI has introduced a "synergistic scaffolding" that assists learners at each cognitive juncture.

2.1.3.1. Pre-writing and Idea Generation

The pre-writing stage, encompassing brainstorming and outlining, is often where students encounter the highest cognitive load. Flower and Hayes [24] identified "planning" as a major bottleneck for novice writers. Modern LLMs like ChatGPT act as "intellectual partners" or "brainstorming co-pilots," helping students organize fragmented thoughts into coherent structures and alleviating the phenomenon of "writer's block" [10]. This AI-mediated brainstorming allows learners to focus more on

high-level conceptual development rather than low-level structural organization [9].

2.1.3.2. Drafting and Lexical Retrieval

During the drafting phase, the focus shifts to translating abstract ideas into linguistic forms. While human agency is vital for maintaining an "authentic authorial voice," AI tools provide real-time support for lexical selection, idiomatic expressions, and collocation accuracy. This is particularly beneficial for non-native speakers (NNS) who struggle with "lexical gaps" [11]. AI serves as a dynamic thesaurus, offering context-aware suggestions that enhance the academic tone and register of the student's work [2].

2.1.3.3. Revising and Corrective Feedback

Revision is arguably the most intensive stage for AI integration. Murray [25] famously argued that "writing is rewriting," suggesting that deep learning occurs during the iterative refinement of a text. AI-powered Automated Writing Evaluation (AWE) tools like Grammarly and QuillBot provide "Grammar and Syntax Rectification" through a low-stakes feedback loop. This immediate, formative feedback allows students to identify and correct errors in real-time, fostering a more reflective approach to their own linguistic development [4].

2.1.4. Challenges and Ethical Considerations in Digital Self-Study

Despite the pedagogical potential, the "AI-mediated self-study" model introduces significant risks. Oxford [26] warned that an over-reliance on digital tools can lead to a decline in intrinsic motivation and a "dilution" of critical thinking skills. In the Vietnamese higher education context, scholars have raised concerns that students may prioritize "grammatical correctness" over "deep understanding," potentially leading to a superficial mastery of writing skills where the AI does the "thinking" while the student merely "approves" the output [27].

Furthermore, the rise of Generative AI has ignited a global debate on academic integrity and the concept of "AI-giarism." As Khalifa and AlbadaWy [28] note, although AI tools significantly enhance productivity in academic writing, the distinction between AI-assisted writing and fully AI-generated content is becoming increasingly complex, requiring careful attention to authorship, transparency, and

academic integrity. There is a risk that the student's unique authorial voice may be eclipsed by the standardized, often 'homogenized' style of AI models [29]. This study investigates how QNU students navigate these ethical complexities while attempting to maintain their autonomy and intellectual integrity in an AI-saturated environment.

2.2. Previous studies

The scholarly discourse on self-study practices in English as a Foreign Language (EFL) writing has evolved significantly, encompassing a complex interplay between learner autonomy, self-regulation, and the affordances of digital technology. Foundational research underscores the criticality of Self-Directed Learning (SDL) and Self-Regulated Learning (SRL) in determining writing proficiency. Adnan and Sayadi [30] emphasize that a student's readiness for SDL is a pivotal factor in their ability to improve writing quality independently, as it fosters the necessary agency to navigate complex rhetorical tasks. This is further substantiated by Sun and Wang [19], who identify a strong correlation between learner self-efficacy and the effective deployment of SRL strategies, indicating that motivated students who actively manage their learning processes tend to achieve higher academic outcomes. Moreover, the longitudinal development of second-language (L2) writing is inherently tied to the learner's goal-setting capabilities, which are shaped by both personal objectives and the prevailing educational environment [31].

As the pedagogical landscape has transitioned into the digital age, informal self-study environments have gained prominence. Early investigations into Web 2.0 tools, such as those by Ibrahim, Prain, and Collet [32], demonstrated how platforms like social media could facilitate metacognitive and collaborative learning in non-formal settings. However, as technology has advanced, the focus of research has shifted toward the impact of more structured and intelligent digital interventions. Warschauer [33] emphasizes that while short-term efficiency gains from digital tools may be observed, sustained progress in writing proficiency requires extended instructional support and consistent, intentional self-practice. This shift in pedagogical focus has become particularly evident in the recent surge of literature regarding Generative

Artificial Intelligence (AI). Recent empirical evidence suggests that AI tools now serve as a "transformative scaffold" for EFL learners, moving beyond simple error correction to providing sophisticated linguistic support [11]. Barrot [10] further explores the dual nature of AI, highlighting its potential to enhance linguistic accuracy while cautioning against a potential decline in critical thinking if used without pedagogical guidance.

In the Vietnamese context, the adoption of AI tools such as ChatGPT and Grammarly has reached a state of near-ubiquity among English majors, who increasingly view these platforms as essential 'corrective scaffolds' rather than mere information-retrieval systems [9], [34]. Nevertheless, current research emphasizes that the effectiveness of these tools is contingent upon the learner's ability to integrate them strategically within the writing process, particularly during the revision stage where AI-driven feedback can significantly boost linguistic confidence [11]. Collectively, these studies establish a robust theoretical framework for understanding how senior English majors navigate the challenges of academic writing by synthesizing autonomous learning strategies with cutting-edge AI integration. This body of work underscores a significant shift toward a hybrid model of writing where human cognitive effort is augmented by digital intelligence, necessitating a redefined understanding of writing competence in the modern era.

3. METHODOLOGY

3.1. Participants and Research Context

The present study was situated within the Faculty of Foreign Languages at Quy Nhon University (QNU), a prominent regional institution in Central Vietnam. The target population comprised senior English majors in their fourth and final year of undergraduate study. This specific cohort was selected via a purposive sampling technique, a method prioritized when the research objectives require a group with specialized experience and high-stakes academic demands [35]. At this terminal stage of their degree, these students are tasked with mastering complex academic genres and are theoretically expected to demonstrate a high degree of learner autonomy as they prepare for professional careers or postgraduate research.

A total of 60 senior students (N=60) participated in the study. On average, the participants possessed a substantial linguistic foundation, having studied English for over a decade and completed a rigorous sequence of academic writing courses from their first to third years. The sample included a diverse representation of academic tracks: English Language majors (56.7%) and English Language Teaching majors (43.3%). This dual-track composition ensures a comprehensive perspective, allowing the study to capture how AI integration might vary according to different professional orientations—whether toward linguistic analysis or pedagogical application.

3.2. Research Design

This study employed a mixed-methods research design, primarily anchored in a quantitative descriptive approach to systematically map the landscape of students' perceptions and practices [36]. Descriptive research is particularly effective in educational technology studies as it provides an empirical overview of "what is" regarding current self-study routines [36]. By analyzing structured survey data, the study sought to quantify the frequency of use and the perceived utility of various AI tools.

The theoretical framework for this research is the Technology Acceptance Model (TAM), originally proposed by Davis [14]. TAM provides a robust psychological lens to evaluate the adoption of emerging technologies by focusing on two core variables: Perceived Usefulness (PU)—the degree to which students believe AI enhances their writing performance—and Perceived Ease of Use (PEOU)—the extent to which they find these tools user-friendly and accessible [14], [21].

3.3. Research Instruments and Data Collection

The primary instrument for data collection was a structured, multi-dimensional questionnaire developed in alignment with the cognitive stages of the writing process and the TAM framework [37]. To minimize linguistic ambiguity and ensure the highest possible data validity, the questionnaire was administered in Vietnamese. The instrument was divided into four strategically designed sections:

Part 1: Demographic and Proficiency Profile. This section identified gender and self-

4.1. Result

assessed writing proficiency to establish a context for potential individual differences in AI adoption patterns.

Part 2: AI Practices and Integration. This part surveyed the specific repertoire of tools utilized (e.g., ChatGPT, Grammarly, QuillBot, Gemini) and the frequency of use across the three critical writing stages: Pre-writing (ideation), Drafting (text generation), and Revising (refinement).

Part 3: Perceptions Towards AI Scaffolding. Utilizing a 5-point Likert scale (ranging from 1 = Never to 5 = Always), this section measured perceived benefits such as linguistic accuracy and confidence, alongside perceived limitations like the loss of authorial voice and ethical concerns [38], [11].

Part 4: Qualitative Insights. The final section consisted of open-ended questions inviting students to articulate the nuanced challenges of AI integration and offer suggestions for maintaining intellectual agency in an AI-saturated environment.

The survey was distributed digitally via Google Forms. Rigorous ethical protocols were maintained; all participants were provided with a clear statement of the study's objectives and were guaranteed total anonymity and confidentiality [37].

3.4. Data analysis

Quantitative data were processed and analyzed using descriptive statistics, including Mean (M), Frequency (f), and Percentage (%). These metrics were essential for identifying dominant patterns and hierarchy of needs in student practices [2]. For the qualitative data gathered from the open-ended responses, thematic analysis was conducted to categorize recurring challenges and pedagogical suggestions [39]. This process involved coding the responses to identify core themes such as "AI-dependency" and "Prompt engineering." The synthesized findings are presented through systematic tables and graphical representations to facilitate a rigorous evaluative discussion.

4. RESULT AND DISCUSSION

4.1.1. The Landscape of AI Tool Adoption and Preferences

Table 1. Distribution of AI Tools Used by Participants (n=60)

No.	Types of Modality Markers	Instances	Percentage
1	ChatGPT (OpenAI)	58	96.67
2	Grammarly	48	80.00
3	QuillBot	42	70.00
4	Google Gemini / Bing AI	15	25.00
5	Claude	8	13.33
Total		171	100

The findings reveal a ubiquitous integration of Artificial Intelligence among senior English majors at Quy Nhon University. Data indicates a near-universal adoption rate, with ChatGPT (OpenAI) being the most dominant tool, utilized by 96.67% of participants. This is followed by specialized automated writing evaluation (AWE) tools, namely Grammarly (80.0%) and QuillBot (70.0%), while other platforms like Google Gemini and Claude remain peripheral.

The overwhelming preference for ChatGPT suggests a shift from traditional rule-based

grammar checkers to Large Language Models (LLMs) that offer conversational, context-aware support. This ubiquity signifies that AI is no longer an optional aid but has become a core component of the students' personal learning environments (PLE), providing an immediate "scaffold" that traditional self-study methods lacked.

4.1.2. Functional Practices across the Writing Taxonomy

Table 2. Distribution of AI Tools Used by Participants (n=60)

Writing Aspects	Mean (M)	Std. Deviation (SD)
Grammar and Syntax Rectification	4.55	0.52
Vocabulary and Style Enhancement	4.10	0.74
Idea Generation and Brainstorming	3.75	0.88
Structural Organization and Outlining	3.20	1.05

When examining the specific purposes of AI usage, "Grammar and Syntax Rectification" emerged as the primary function with the highest Mean score (M=4.55). Other high-frequency uses include "Checking spelling and punctuation" (M=4.42) and "Enhancing vocabulary and formal writing style" (M=4.38). In contrast, the use of AI for "Brainstorming and developing new ideas" recorded a notably lower mean (M=3.65).

The intensity of AI integration is disproportionately distributed across the stages of the writing process:

The Revising Stage: This is the most AI-intensive phase, with 85% of students reporting frequent use. Students utilize AI to paraphrase, polish, and ensure linguistic accuracy before final submission.

The Pre-writing Stage: Approximately 45% of students use AI for outlining and organizing ideas, using the tool as a "cognitive spark" to overcome initial writing blocks.

The Drafting Stage: In stark contrast, this stage remains largely human-led, with only 20% of participants reporting heavy AI assistance. This suggests that senior students at QNU still

prioritize their "authentic voice" and independent creative thought during the primary composition of text.

Table 3. Distribution of AI Tools Used by Participants (n=60)

No.	Writing Stages	Mean (M)	SD	Frequency of high usage (%)
1	Pre-writing (Outlining, Brainstorming)	3.65	0.85	50
2	Drafting (Generating sentences/paragraphs)	2.40	1.15	20
3	Revising (Paraphrasing, Polishing)	4.58	0.54	85

4.1.3. Perceptions of Utility, Confidence, and Ethical Challenges

Table 4. Distribution of AI Tools Used by Participants (n=60)

No.	Statements	Mean (M)	SD
1	AI tools significantly improve my linguistic accuracy	4.62	0.49
2	Using AI tools increases my motivation to practice writing	3.95	0.72
3	AI support makes me feel more confidence in my writing tasks	4.20	0.65
4	AI provides immediate feedback that facilitates self-correction	4.35	0.58

Participants expressed a highly favorable view of AI's impact on their linguistic development. The highest perceived benefit was "Linguistic Accuracy" (M=4.62), followed by an increase in "Confidence" (M=4.20) and "Motivation" (M=3.95).

However, this positive perception is tempered by significant metacognitive concerns. The fear of "Over-dependence on AI" recorded a high mean of 4.15, and concerns regarding "Ethical and Plagiarism issues" stood at 3.85. Qualitative data from open-ended questions further revealed that students are acutely aware of AI's limitations, such as its inability to fully replace human creativity and the occasional generation of inaccurate or misleading information.

4.2. Discussion

4.2.1. The "Corrective Scaffold": Redefining the Writing Process

The heavy concentration of AI usage in the revising stage (85%) versus the drafting stage (20%) provides a compelling insight into the cognitive strategies of senior EFL learners. According to Hyland [2], writing involves a constant negotiation between meaning-making and formal accuracy. The findings at QNU suggest that students are strategically delegating "lower-order" syntactic concerns (M=4.55) to AI to liberate their cognitive resources for "higher-order" rhetorical planning.

This strategic delegation supports the Cognitive Process Theory of Writing, where the "monitoring" phase is identified as the most cognitively taxing [24]. By utilizing AI as a "digital editor," students are effectively managing their cognitive load. However, the observed reliance on AI for accuracy (M = 4.62) aligns with literature on automation bias and algorithmic dependency, which shows that users often over-trust AI outputs and may fail to verify incorrect

predictions [40]. There is a risk that if the revision process becomes entirely automated, students may bypass the essential "noticing" phase—vital for internalizing linguistic rules—potentially leading to a stagnation in their intrinsic linguistic competence.

4.2.2. TAM and the Affective Filter: Confidence vs. Competence

The high adoption rate of ChatGPT (96.67%) can be elucidated through the Technology Acceptance Model (TAM) [4]. While Perceived Ease of Use (PEOU) is a significant factor, the Perceived Usefulness (PU) in this context extends into the "affective domain." The recorded Mean of 4.20 for "Confidence" indicates that AI functions as a non-judgmental feedback loop.

In the Vietnamese EFL context, where students often struggle with "evaluative anxiety" and the "fear of losing face," AI effectively lowers the "Affective Filter". This psychological safety net encourages students to experiment with complex structures they might otherwise avoid. Nevertheless, a critical paradox emerges: while students feel more confident (M=4.20), their concern about over-dependence (M=4.15) suggests that this confidence is "externalized." As Bandura [41] posits, true self-efficacy must be rooted in personal mastery. The challenge for QNU students is ensuring that AI remains a "servant" to their intellect rather than a "master" of their creative output.

4.2.3. Ethical Resilience and the Preservation of "Voice"

The most sophisticated finding of this study is the emergence of "Ethical Resilience" among senior majors. Despite the generative ease of AI, the low intensity of AI usage during drafting (20%) and the high concern for "Creative Voice" (M=3.85) demonstrate that students are consciously setting boundaries. They are resisting the "easy path" of machine-generated content in favor of maintaining their rhetorical identity.

This aligns with Kasneci et al. [8], who argue that the future of academic integrity lies in students becoming "critical prompters" who manage, rather than follow, the technology. The qualitative feedback—where students emphasized that "AI cannot fully replace my own creative voice"—indicates a high level of Metacognitive Awareness. These students are

navigating the "AI-Ethics Crossroads" by utilizing technology to amplify, not replace, their human agency.

4.2.4. Pedagogical Implications: Toward AI-Assisted Literacy

The synergy observed at QNU necessitates a radical shift in EFL pedagogy. The traditional focus on "correctness" is being rendered obsolete by AI's ability to provide near-perfect accuracy (M=4.62). Consequently, instructors should shift their focus from "correcting errors" to "teaching critical evaluation."

The qualitative data suggests that students desire more structured guidance on the ethical use of AI. This calls for the integration of "AI Literacy" into the curriculum—not to ban AI, but to teach students how to use it as a "cognitive amplifier." As Khalifa and Albadawy [28] emphasize, artificial intelligence in academic writing and research acts as an essential productivity tool that facilitates idea generation, content structuring, literature synthesis, data analysis, and editing support — yet it must be balanced with human insight to preserve academic integrity and critical thinking.

5. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

The present study was undertaken to investigate the practices and perceptions of senior English majors at Quy Nhon University (QNU) regarding the integration of Artificial Intelligence (AI) in their academic writing self-study. Based on the rigorous analysis of data collected from 60 senior students, several significant conclusions can be drawn:

Firstly, regarding AI Practices, the study highlights a ubiquitous adoption of generative AI tools, with ChatGPT emerging as the primary scaffold for the majority of participants (96.67%). The findings indicate that students primarily utilize AI as a "corrective scaffold" rather than a purely generative one. This is evidenced by the high mean scores for linguistic refinement tasks, such as Grammar and Syntax Rectification (M=4.55) and Vocabulary Enhancement (M=4.38). Furthermore, the integration of AI is strategically distributed across the writing stages; while the Revising stage is heavily supported by technology (85%), the Drafting stage remains a

human-centric endeavor (20%), reflecting the students' commitment to maintaining their original ideas and rhetorical voice.

Secondly, regarding Perceptions, senior English majors at QNU exhibit a highly positive attitude toward the effectiveness of AI in enhancing Linguistic Accuracy (M=4.62) and boosting Confidence (M=4.20). AI provides an immediate, non-judgmental feedback loop that effectively lowers the "affective filter," which is often a barrier for EFL learners. However, this optimism is balanced by a sophisticated level of Metacognitive Awareness. Students are acutely aware of the risks associated with Over-dependence (M=4.15) and Ethical/Plagiarism issues (M=3.85). This critical stance suggests that senior students do not view AI as a replacement for human intellect but as a synergistic partner that requires careful management.

In summary, AI integration at Quy Nhon University represents a transformative shift in self-study habits. While it offers unprecedented opportunities for linguistic precision, it necessitates a new form of digital literacy that balances technological efficiency with intellectual integrity [14].

5.2. Recommendations

5.2.1. For Students: Strategies for Effective AI Integration

To maximize the benefits of AI without compromising independent critical thinking, students should adopt the following strategies:

Active Engagement with Feedback: Instead of merely accepting AI corrections, students should use these tools as "socratic tutors." As emphasized by Nation [42], self-study is most effective when learners understand the why behind linguistic choices. By asking AI to explain the underlying grammatical rules or the reasoning behind a suggested paraphrase, students can internalize linguistic knowledge for long-term retention.

Preserving the Drafting Integrity: Students must be cautious not to let "AI-enhanced output" replace personal mastery. Following Bandura's [41] theory, true academic confidence must be rooted in one's own capability to produce content. Learners should ensure that the core intellectual substance of their writing remains authentically human

Developing Prompt Engineering Skills: Students should proactively learn "Prompt Engineering" to better command AI outputs. This shift from passive usage to critical management is essential for avoiding the "cognitive atrophy" warned of in recent educational debates [43].

5.2.2. For Instructors and the University: Pedagogical Adaptation

Quy Nhon University and its faculty play a pivotal role in guiding students through the AI era:

Integrating AI Literacy into the Curriculum: The Faculty of Foreign Languages should incorporate formal training on the ethical and practical use of AI. This includes teaching students how to identify AI-generated inaccuracies (hallucinations) and how to use AI for brainstorming without violating academic integrity.

Revising Assessment Rubrics: Assessment should shift from purely evaluating the "final product" to evaluating the "writing process." Instructors could require the submission of initial drafts, outlines, and "AI-interaction logs" to ensure that the final work is a result of the student's critical engagement with technology.

Fostering an Open Dialogue: Rather than banning AI, instructors should create a "psychologically safe" environment where students can openly discuss their use of AI tools. This transparency allows educators to monitor usage patterns and provide timely guidance on ethical boundaries.

5.3. Limitations and Suggestions for Future Research

While this study provides valuable insights, certain limitations suggest directions for future inquiry:

Sample Expansion: Future research should involve a larger and more diverse sample size, including junior and sophomore students, to track the evolution of AI practices across different proficiency levels.

Experimental Methodology: To move beyond perceptions, future studies should employ experimental designs that compare writing outcomes between control groups (traditional writing) and experimental groups (AI-assisted writing) using standardized proficiency rubrics.

The Instructor Perspective: Investigating the attitudes and readiness of EFL instructors at QNU would provide a more holistic view of the university's educational ecosystem in response to the AI revolution.

Long-term Impact on Proficiency: Longitudinal studies are needed to determine whether long-term AI usage leads to sustained linguistic improvement or if it results in a decline in fundamental writing skills due to "cognitive atrophy."

Conflict of interest

The author(s) declare no competing interests.

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Việc sử dụng các công cụ trí tuệ nhân tạo trong quá trình tự học viết học thuật tiếng Anh của sinh viên năm tư ngành ngôn ngữ Anh tại Trường Đại học Quy Nhơn

TÓM TẮT

Nghiên cứu này tìm hiểu nhận thức và thực tiễn của 60 sinh viên năm cuối chuyên ngành tiếng Anh tại Trường Đại học Quy Nhơn (QNU) đối với việc tích hợp công cụ Trí tuệ nhân tạo (AI) trong tự học viết. Sử dụng phương pháp nghiên cứu hỗn hợp (mixed-methods), dữ liệu được thu thập qua bảng hỏi và phỏng vấn bán cấu trúc. Kết quả cho thấy sự phổ biến rộng rãi của ChatGPT (96,67%) và các công cụ hỗ trợ như Grammarly, QuillBot. Sinh viên chủ yếu sử dụng AI như một "giàn giáo hiệu đính" (corrective scaffold) ở giai đoạn chỉnh sửa (M=4,58) nhưng vẫn duy trì tính tự chủ trong giai đoạn viết nháp (20%). Mặc dù có nhận thức tích cực về tính hữu ích của AI đối với độ chính xác ngôn ngữ (M=4,62), sinh viên vẫn bày tỏ lo ngại về sự lệ thuộc quá mức (M=4,38). Nghiên cứu đề xuất các điều chỉnh sự phạm nhằm thúc đẩy năng lực AI (AI literacy) và các hình thức đánh giá thích ứng với AI.

Keywords: Công cụ AI, viết tiếng Anh, thực trạng, nhận thức, tự học