

FOREIGN LANGUAGES AND VIETNAMESE

STUDENTS' PERCEPTIONS AND ETHICAL CONCERNS REGARDING AI-ASSISTED ACADEMIC WRITING IN HIGHER EDUCATION

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ABSTRACT: The rapid advancement of Artificial Intelligence (AI) is increasingly shaping academic writing practices in higher education. While AI-assisted writing tools offer potential benefits in efficiency and language quality, they also raise critical ethical concerns regarding academic integrity. This study examines students' perceptions and ethical concerns through a dual-layered survey instrument (n=45). Methodologically, the research integrates a 5-point Likert scale, adapted from the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB), with qualitative open-ended questions to capture nuanced student reflections. The quantitative analysis confirms high scale reliability across all studied constructs (Cronbach's $\alpha \geq 0.741$). The findings indicate that students perceive AI as a valuable academic support tool while simultaneously expressing significant apprehension about over-reliance and potential risks to academic integrity. These results provide crucial context-specific insights and underscore the need for clearer institutional guidelines to govern and facilitate responsible AI integration in higher education.

KEY WORDS: Artificial Intelligence (AI); academic writing; academic integrity; Technology Acceptance Model (TAM); Theory of Planned Behavior (TPB).

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1. Introduction

The rapid advancement of artificial intelligence (AI) technologies has fundamentally transformed multiple sectors, including higher education. In recent years, generative AI systems powered by large language models (LLMs) have gained widespread attention due to their ability to produce coherent, context-aware text that closely resembles human writing. Among these systems, ChatGPT, developed by OpenAI, has become one of the most widely adopted AI tools globally. Its accessibility and user-friendly interface have enabled millions of users, including university students, to generate essays, summaries, research drafts, and academic responses within seconds. In addition to ChatGPT, a growing ecosystem of AI tools, including Google Gemini, Microsoft Copilot, Claude, and specialized academic writing assistants such as Grammarly and QuillBot, has further expanded the role of AI in academic writing and learning support. These tools collectively represent a new generation of AI-powered writing assistants that are reshaping how students approach academic tasks.

The integration of AI-powered writing assistants into higher education presents both critical pedagogical opportunities and profound ethical challenges. On the one hand, AI tools can significantly enhance learning efficiency, support second language (L2) development, and facilitate structured idea generation. On the other hand, serious concerns have emerged regarding academic integrity, cognitive overreliance, loss of personal voice, and fairness in assessment. Recent international studies have highlighted both the pedagogical potential and ethical risks of generative AI in education (Kasneci et al., 2023; Cotton et al., 2024). Specifically, concern regarding authorship, intellectual contribution, and responsible AI usage have moved to the forefront of academic discourse, creating a pressing need to investigate how students navigate this technological shift.

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In the Vietnamese context, the integration of AI into education has received increasing scholarly attention, particularly in relation to nationwide digital transformation initiatives. Existing studies have mainly highlighted the structural applications and macroscopic benefits of AI in teaching and learning, such as personalized learning, automated assessment, and intelligent tutoring systems (Thi et al., 2025; Nguyen, 2023). More recent empirical research indicates that AI tools are being widely adopted by educators for lesson planning, content creation, and assessment design, showing generally positive perceptions alongside challenges related to limited training and lack of institutional guidelines (Le et al., 2025). However, much of the current domestic literature remains descriptive or conceptual, with limited empirical focus on students' psychological perceptions and actual behavioral responses, particularly within foreign language disciplines where academic writing is a core competency.

Despite these growing contributions, several research limitations remain unaddressed. Much of the existing literature is either purely conceptual, policy-oriented, or descriptive in nature. Empirical studies that simultaneously examine both the perceived benefits and ethical concerns of AI-assisted academic writing within a unified cognitive framework are still scarce, especially in the context of emerging higher education systems like Vietnam. Furthermore, few studies have integrated established technology adoption frameworks, such as the Technology Acceptance Model (TAM), with subjective behavioral boundaries from the Theory of Planned Behavior (TPB) to explain how students balance immediate efficiency gains against potential long-term academic integrity costs.

Addressing this gap, the present study aims to examine university students' perceptions of AI-assisted academic writing, focusing on both perceived usefulness and ethical concerns within a unified analytical framework. Specifically, the study seeks to:

1. Investigate students' attitudes toward the usefulness and linguistic utility of AI writing tools in academic tasks.
2. Examine students' multi-dimensional concerns related to academic dishonesty, factual inaccuracy, and cognitive overdependence.
3. Explore how these ethical considerations interact with and moderate students' behavioral intentions to adopt AI.

By providing empirical evidence based on a dual-layered mixed-methods approach, this study contributes to the growing body of literature on AI in higher education. The findings are expected to inform institutional policy development, support responsible AI integration, and offer insights into how educational systems can balance technological innovation with academic integrity.

2. Literature Review

2.1. International Research on AI-Assisted Academic Writing

The rapid advancement of AI, particularly generative AI powered by large language models (LLMs), has significantly transformed academic writing practices in higher education. Tools such as ChatGPT, Google Gemini, Microsoft Copilot, and Claude enable students to generate coherent, context-aware academic content efficiently. These technologies are increasingly used for idea generation, structural drafting, and language refinement.

A growing body of international research has examined both the opportunities and challenges associated with AI in education. Kasneci et al. (2023) highlight the potential of AI to enhance personalized learning and improve academic performance, arguing that generative AI may fundamentally reshape educational practices by enabling more flexible and adaptive learning environments. However, these benefits are accompanied by significant concerns. Ethical issues, particularly those related to academic integrity, have become central in recent discussions. Bretag (2013) emphasizes the persistent challenges of plagiarism and academic misconduct in higher education, which are further complicated by the seamless emergence of AI-generated content. Cotton et al. (2024) specifically address the risks associated with tools like ChatGPT, noting that these

technologies may facilitate undetected cheating, complicate the verification of student work, and blur the traditional boundaries of authorship.

From a theoretical perspective, the Technology Acceptance Model (TAM) developed by Davis (1989) provides a robust framework for understanding users' adoption of technology, emphasizing *Perceived Usefulness* (PU) and *Perceived Ease of Use* (PEOU) as primary determinants of system usage. While TAM effectively captures the pragmatic utilities driving technology adoption, it often overlooks the moral and normative constraints prevalent in educational settings. To mitigate this limitation, researchers frequently supplement TAM with the Theory of Planned Behavior (TPB) proposed by Ajzen (1991), which underscores attitudes, subjective norms, and perceived behavioral control shape intentions. Together, these complementary frameworks have been widely applied to explain technology adoption in educational contexts, offering a balanced lens to analyze both the technical pull and the moral pushback regarding AI tools.

2.2. Vietnamese Research on AI in Education

In Vietnam, the integration of AI into education has attracted increasing scholarly attention, particularly driven by institutional pushes for digital transformation in higher education. Existing studies have primarily focused on the conceptual applications and operational benefits of AI in teaching and learning processes.

For example, Thi et al. (2025) provide a comprehensive overview of AI applications in education in Vietnam, highlighting its prospective role in personalized learning pathways, automated grading assessment, and intelligent tutoring systems. Their study emphasizes that AI enhances learning efficiency and supports both students and educators in optimizing academic activities. Similarly, Nguyen (2023) discusses the macro-impact of AI in higher education within the context of Industry 4.0, emphasizing its potential to revolutionize traditional teaching methodologies and learning environments. However, these studies remain largely conceptual and focus on general nationwide trends rather than localized empirical investigations.

More recent empirical research has begun to explore the reality of AI adoption in Vietnamese educational settings. Le et al. (2025) conducted a large-scale survey of Vietnamese educators, revealing that AI tools are actively used for lesson planning, content creation, and assessment design. Their findings indicate generally positive attitudes toward AI utility, while simultaneously highlighting practical bottlenecks such as limited professional training and insufficient institutional support. Despite this valuable progress on teachers' perspectives, there remains a critical research deficit regarding how Vietnamese university students—the direct end-users of generative AI—perceive and psychologically rationalize the ethical boundaries of these tools in their formal writing tasks.

2.3. Research Gap

Although existing literature has explored AI adoption and ethical concerns separately, empirical research examining the precise interplay between perceived usefulness and ethical apprehension remains highly limited within specific non-native English higher education contexts. Furthermore, much of the current domestic discourse is conceptual rather than data driven.

Importantly, there is a distinct lack of context-specific empirical investigation targeting English-major students, who face a unique professional paradox: they must produce high-level academic texts where language quality is heavily graded, yet their core learning objective is the autonomous development of linguistic and critical thinking skills. Delegating writing tasks to AI poses a direct risk to their language acquisition process.

This study addresses these gaps by examining students' perceptions and ethical concerns through a convergent mixed-methods design. By integrating technology acceptance theory (TAM) with ethical governance perspectives (TPB) and employing a rigorous dual-layered validation comprising internal reliability testing (Cronbach's Alpha) and descriptive-thematic analysis, this research

provides a nuanced, data-driven framework to understand how students navigate the delicate boundary between AI assistance and academic dishonesty.

3. Theoretical Framework

3.1. *AI-Assisted Academic Writing in Higher Education*

The rapid development of generative AI has significantly influenced teaching and learning practices in higher education. Tools such as ChatGPT, Google Gemini, Microsoft Copilot, and Claude enable users to generate coherent and context-aware academic text efficiently. These systems, powered by large language models (LLMs), are increasingly used by students to support diverse writing tasks, including idea generation, structural drafting, and language refinement.

Recent studies highlight both the immense opportunities and profound challenges associated with AI-assisted writing. According to Kasneci et al. (2023), AI tools can enhance learning efficiency and support personalized education by acting as continuous cognitive scaffolds. At the same time, emerging research raises critical ethical concerns regarding the use of AI in formal academic contexts, particularly in relation to academic integrity, authorship attribution, and the risk of turning students into passive consumers of information rather than active critical thinkers (Cotton et al., 2024). Consequently, navigating the boundary between constructive assistance and ethical misuse has become a focal point of contemporary educational research.

3.2. *Technology Acceptance Model*

The Technology Acceptance Model (TAM), originally proposed by Davis (1989), is widely recognized as a foundational framework for explaining and predicting user adoption of new information systems. TAM posits that an individual's behavioral intention to adopt a technology is primarily determined by two cognitive beliefs: *Perceived Usefulness* (PU) and *Perceived Ease of Use* (PEOU).

In the context of this study, PU is defined as the degree to which a student believes that incorporating AI tools into their academic writing workflow will enhance their academic performance, productivity, and linguistic quality. PEOU, on the other hand, reflects the extent to which students perceive AI tools as being free of cognitive or operational effort. Davis (1989) posits that PEOU directly and positively influences PU, as technologies that are intuitive and easy to navigate are more likely to be recognized as useful. Extended versions of the model (Venkatesh & Davis, 2000) have consistently confirmed the robustness of this relationship. In the domain of AI-assisted academic writing, TAM provides a strong theoretical baseline to evaluate the functional pull and immediate efficiency drivers from the student's perspective.

3.3. *Attitude and Behavioral Intention*

While TAM focuses heavily on pragmatic utility, the Theory of Planned Behavior (TPB), proposed by Ajzen (1991), introduces normative and moral dimensions to behavior. According to TPB, human behavior is driven by behavioral intentions, which are shaped by three core factors: attitude toward the behavior, subjective norms, and perceived behavioral control.

Attitude represents an individual's positive or negative evaluation of performing a specific behavior. In technology adoption research, a positive attitude consistently acts as a vital psychological bridge linking cognitive beliefs (such as PU) to ultimate behavioral outcomes (such as AI acceptance). TPB complements TAM by demonstrating that AI adoption in academic writing does not occur in a vacuum; rather, it results from a complex psychological negotiation. While high PEOU and PU strengthen students' perceived control over complex writing assignments and foster a positive attitude toward efficiency, this drive is simultaneously constrained by subjective norms—including perceived expectations from educators, institutional policies, and peer benchmarks regarding what constitutes legitimate authorship.

3.4. *Ethical Concerns and Academic Integrity*

Despite the structural advantages offered by LLMs, ethical concerns remain a critical subjective barrier in academic settings. Academic integrity—encapsulating principles of honesty, trust, fairness,

respect, and responsibility—faces unprecedented disruption due to the capabilities of generative AI. Bretag (2016) highlights the ongoing challenges of maintaining integrity in education, emphasizing that technological innovations often outpace institutional policy formulation.

In AI-assisted writing, ethical concerns (EC) primarily revolve around the risks of unmediated plagiarism, unauthorized content generation, and the misrepresentation of authorship (Cotton et al., 2024). Because modern AI tools can generate highly sophisticated text that easily bypasses traditional text-matching software, the boundaries of authentic intellectual contribution have become heavily blurred. These ethical anxieties function as strong negative subjective forces. When students experience uncertainty regarding acceptable AI usage boundaries or fear institutional penalties, their overall attitude and ultimate intention to sustain AI usage are expected to be heavily moderated, creating a distinct cognitive tension between technological utility and moral compliance.

3.5. Conceptual Model

To comprehensively capture how university students balance technical convenience against moral boundaries, this study integrates the functional mechanics of the Technology Acceptance Model (TAM) with the normative boundaries of the Theory of Planned Behavior (TPB) and academic integrity literature into a unified conceptual framework. The proposed structural relationships are visually conceptualized in Figure 1.

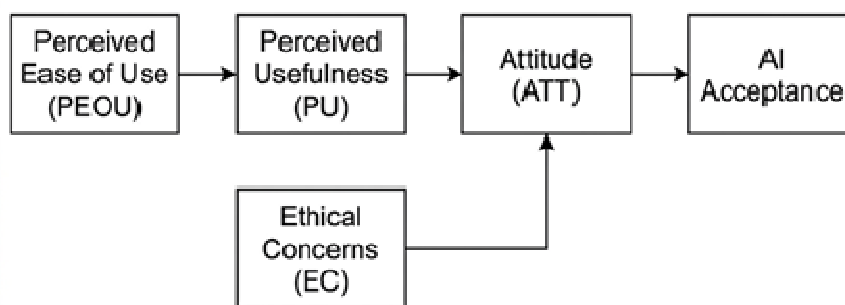


Figure 1. Proposed Conceptual Framework for AI Acceptance in Academic Writing.

As illustrated in Figure 1, the model specifies the following interconnected pathways:

Perceived Ease of Use (PEOU) → Perceived Usefulness (PU): The operational simplicity and user-friendly nature of utilizing AI writing tools directly enhance students' appreciation of their academic usefulness, performance acceleration, and output quality.

Perceived Usefulness (PU) → Attitude (ATT): Perceived improvements in writing efficiency, structural drafting, and linguistic refinement foster a positive internal attitude toward integrating AI into the academic workflow.

Ethical Concerns (EC) → Attitude (ATT): Heightened moral anxieties regarding plagiarism, unauthorized authorship delegation, factual inaccuracies, and potential cognitive erosion act as negative psychological constraints, deflating and pushing back against positive attitudes toward AI adoption.

Attitude (ATT) → AI Acceptance: Students' overall synthesized attitude—resulting from the internal negotiation between perceived utility and moral costs—directly dictates their final behavioral intentions to accept or reject AI as a sustained co-collaborator in academic writing.

In this framework, *Attitude (ATT)* serves as a critical internal mediator, harmonizing the psychological tension between the functional benefits (PU) driven by TAM and the ethical barriers (EC) introduced by TPB before translating them into ultimate adoption intent (AI Acceptance).

Given the exploratory mixed-methods design of this research ($n = 45$), this conceptual model does not serve as a framework for rigid structural hypothesis testing via covariance-based structural equation modeling (CB-SEM). Instead, it functions as an analytical mapping framework to guide the descriptive statistics, scale reliability checks, and thematic qualitative analyses in the subsequent sections, illuminating the exact cognitive mechanism through which students establish stable moral boundaries regarding AI delegation.

4. Research Methodology

4.1. Research Design

This study employed a convergent mixed-methods design, integrating a quantitative structured survey with qualitative open-ended questions to investigate students' perceptions and ethical concerns regarding AI-assisted academic writing. Data were gathered through a dual-layered questionnaire focusing on key cognitive and behavioral constructs: perceived usefulness, perceived ease of use, ethical concerns, attitude, and behavioral intention toward AI adoption. Concurrently, qualitative insights were captured through open-ended prompts, allowing for more nuanced interpretation and facilitating data saturation. The overarching research design was systematically informed by the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB), which guided both the formulation of the measurement scale items and the subsequent thematic analysis of the findings.

4.2. Participants

Participants were 45 undergraduate English majors selected via purposive sampling from a specialized course titled “Specialized Subject of International English Proficiency Examinations” at the Vietnam Aviation Academy. This specific cohort was selected as an embedded case study because, for foreign language majors, academic writing represents a core competency and a mandatory, high-stakes component of both their formative and summative assessments. Throughout the academic term, these students were required to complete rigorous essay-based assignments and a final research writing task, making their engagement with generative AI tools a matter of genuine professional and academic accountability.

While the sample size is focused, the integration of extensive qualitative open-ended questions ensured data saturation, prioritizing context-specific depth and the authentic, lived experiences of specialized language learners within this training environment over broad statistical generalizability. The comprehensive demographic profile of the final sample ($n = 45$) is detailed in Table 1 below.

Variable	Category	Frequency (n)	Percentage (%)
Gender	Female	35	77.8%
	Male	10	22.2%
Year of Study	Year 1	2	4.5%
	Year 3	33	73.3%
	Year 4	10	22.2%
Major	English Language & Linguistics	42	93.3%
	Business English	2	4.5%
	Others (English Studies)	1	2.2%
Frequency of AI Use	Sometimes	17	37.8%
	Often	21	46.7%
	Very Often	7	15.5%

Table 1. Demographic Profile of the Participants ($n = 45$)

As illustrated in Table 1, the sample is predominantly female (77.8%) and consists almost entirely of upperclassmen, with Year 3 and Year 4 students accounting for a combined 95.5%. This distribution is highly appropriate for the scope of this research, as senior English-major students

engage more intensively with complex academic writing workflows and discursive tasks. Notably, a combined 62.2% of the respondents' report utilizing generative AI tools either "Often" or "Very Often," underscoring the pervasive integration of AI assistance among current higher education language learners in Vietnam.

4.3. Instruments

A dual-layered structured instrument was developed to collect demographic information and empirically examine students' multi-dimensional perceptions of AI-assisted academic writing. The quantitative layer consisted of 5-point Likert-scale items (ranging from 1 = *Strongly Disagree* to 5 = *Strongly Agree*) adapted from established technology adoption and behavioral frameworks, specifically the TAM (Davis, 1989) and the TPB (Ajzen, 1991), thereby ensuring high conceptual and construct validity. These items measured five core dimensions: Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Perceived Risks (PR), Ethical Perceptions (EP), and Behavioral Intention (BI).

Complementing the quantitative scales, the qualitative layer featured open-ended reflection prompts. These prompts allowed participants to elaborate freely on their concrete experiences, perceived operational utilities, and latent moral anxieties regarding the integration of generative AI into formal higher education writing practices.

5. Results and Discussions

5.1. Results

This study utilizes an integrated mixed-methods survey instrument comprising three primary analytical layers: (1) a demographic section outlining the localized participants' academic backgrounds; (2) a quantitative section structured around the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB) to assess students' internal cognitive evaluation of AI tools; and (3) a qualitative section consisting of targeted open-ended questions designed to explore nuanced subjective experiences, operational motivations, and explicit moral boundaries in academic writing.

5.1.1. Measurement Scale Reliability Analysis

Prior to conducting a descriptive examination of students' perceptions and intentions, the internal consistency and reliability of the measurement scales adapted from TAM and TPB were empirically evaluated using Cronbach's alpha. This preliminary psychometric check serves as a critical academic foundation, verifying that the quantitative survey data possesses sufficient statistical stability and trustworthiness despite the focused sample size.

No.	Research Construct	Number of Items	Cronbach's Alpha (α)	Internal Consistency Level
1	Perceived Benefits (PB)	3	0.859	Excellent
2	Perceived Risks (PR)	3	0.741	Acceptable
3	Ethical Perceptions (EP)	3	0.785	Good
4	Behavioral Intention (BI)	3	0.820	Very Good

Table 2. Reliability Analysis Results for the Research Constructs

As presented in Table 2, all core constructs yielded Cronbach's alpha values well above the universally accepted academic threshold of 0.70 (Hair et al., 2010). Specifically, the "Perceived Benefits" construct exhibited the highest internal consistency ($\alpha = 0.859$), followed by "Behavioral Intention" ($\alpha = 0.820$), "Ethical Perceptions" ($\alpha = 0.785$), and "Perceived Risks" ($\alpha = 0.741$).

Furthermore, the corrected item-total correlation coefficients for all individual items exceeded the minimum requirement of 0.30, indicating strong internal homogeneity among the items within each construct. These statistical diagnostics confirm that the research instrument possesses high reliability and construct validity, fully justifying the subsequent descriptive and qualitative discussions.

5.1.2. The students' background

The survey was conducted with a total of 45 participants, all of whom are English majors specializing in specialized sub-disciplines including Aviation English, Business English, or Tourism English. These students were enrolled in this specialized course as a mandatory requirement for their graduation pathways. Therefore, the participants represent a highly relevant, context-specific cohort, as the course serves as a critical capstone component in their academic progression and formal professional preparation.

To provide a visual and comprehensive representation of this cohort, Figure 2 illustrates the detailed demographic breakdown. As demonstrated in the gender distribution, the sample ($n = 45$) is predominantly female (77.8%), with males accounting for 22.2%, reflecting the typical gender distribution in higher education foreign language programs in Vietnam. In terms of academic classification, Figure 2 further highlights that most of the participants are upperclassmen, consisting of third-year students (73.3%) and a concentration of fourth-year students (22.2%), establishing a cumulative upperclassman group of 95.5%.

This concentration reflects a mature sample in terms of academic exposure. At this advanced stage, students have developed complex linguistic skills and are frequently engaging with high-stakes discursive tasks. As a result, the data collected provide highly informed, reflective, and practically relevant insights compared to exploratory feedback from lower-level students.

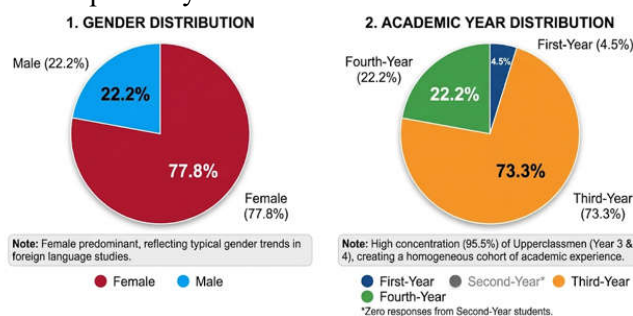


Figure 2. Students' Demographic Information ($n = 45$)

5.1.3. The Prevalence and Trends of AI Usage in Specialized Academic Writing

Building upon the demographic profile established in Figure 2, Figure 3 explores the practical application of technology among this specific cohort. The data reveals a significant trend: a collective transition towards AI-assisted writing within the English Studies department. With a combined 62.2% of upperclassmen utilizing AI tools at a frequent or intensive level ('Often' and 'Very often'), it is evident that for these students, AI has shifted from an optional novelty to a fundamental academic resource. This high level of engagement is particularly noteworthy as these students are all completing a mandatory capstone course required for graduation, where the precision and efficiency offered by AI tools become increasingly critical.

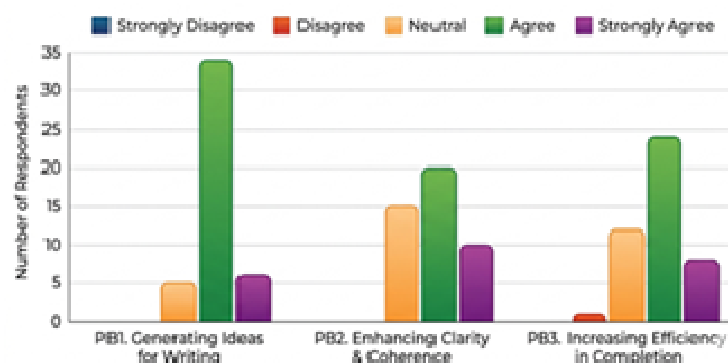


Figure 3. Frequency of AI utilization in academic writing among English majors ($n = 45$)

The universal adoption of AI among these final-year students suggests a fundamental shift in the academic writing process. Rather than acting as sole creators, students are increasingly evolving into AI-augmented writers and editors, where their primary task involves prompting, refining, and verifying machine-generated output to meet the rigorous standards of their graduation requirements. This underscores the urgent need for pedagogical frameworks that emphasize AI literacy alongside traditional linguistic competence to ensure students can navigate this technological synergy effectively and ethically.

5.1.4. Perceived Benefits of AI-assisted Writing: Efficiency and Utility

To evaluate the level of technology acceptance among students, the survey focused on exploring various aspects of practical utility through a series of questions related to the academic writing process. These items examine the ability to support initial idea generation (PB1), the refinement of language to enhance clarity and coherence (PB2), and the optimization of time to increase overall task efficiency (PB3). The responses from 45 students regarding these perceived benefits are synthesized and visually presented in Figure 4 below:

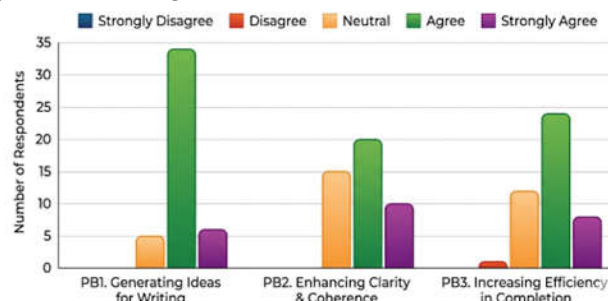


Figure 4. Students' Perceived Benefits of AI in Academic Writing ($n=45$)

Figure 4 indicates that students hold generally positive views on the practical benefits of AI. For PB1 (idea generation), nearly 89% of participants agreed that AI supports brainstorming and helps overcome writer's block, reflecting a high level of perceived usefulness within the TAM. However, this finding also suggests a potential risk of cognitive offloading, where students may rely on AI for initial thinking processes.

Regarding PB2 (Clarity and Coherence), while over 65% of respondents affirm AI's role in refining language and structure, the visualization reveals a more distributed pattern of responses with a significant 33% remaining neutral. This indicates that while AI is valued for its linguistic output, a notable portion of students remains cautious about their ability to maintain a unique academic "voice" or handle complex argumentation. This finding aligns with the TPB, where "Perceived Behavioral Control" is moderated by the student's own skepticism toward the tool's structural reliability.

For PB3 (efficiency), 71% of participants reported faster task completion, though this item also showed some disagreement and neutral responses. This suggests that perceived efficiency is

subjective and may depend on students' ability to use AI effectively. It also highlights a potential tension between efficiency and academic integrity, which is explored in subsequent sections.

5.1.5. Perceived Risks of AI Integration: Cognitive and Accuracy Concerns

To provide a multidimensional perspective on technology acceptance, the survey continued to explore students' perceptions regarding the potential risks of using AI in academic writing. This set of questions focused on the decline of critical thinking skills (PR1), the negative impact of overreliance on AI on writing ability (PR2), and the risk concerning the accuracy of information provided by AI (PR3). The survey results are detailed in Figure 5.

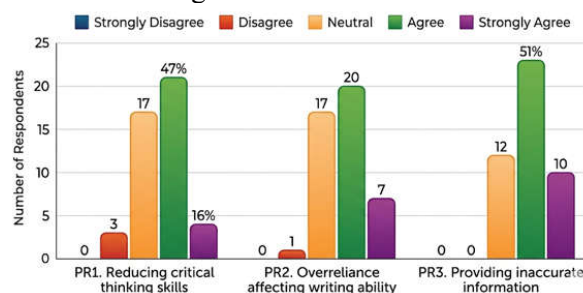


Figure 5. Students' Perceived Risk of AI Integration (n=45)

Figure 5 shows that, despite recognizing the benefits of AI, students are aware of its potential risks. For PR1 (reduction of critical thinking), most participants expressed concern, indicating awareness of possible cognitive drawbacks. From the perspective of TPB, such concerns may act as a subjective barrier influencing their use of AI.

For PR2 (overreliance), most students expressed concern (20 agree, 7 strongly agree), indicating awareness that excessive AI use may weaken writing ability. This contrasts with the strong support for idea generation, suggesting students value efficiency but remain cautious about becoming overly dependent. A notable number of neutral responses also reflects ongoing uncertainty in adapting to AI-assisted writing.

Finally, PR3 (Inaccurate information) recorded the highest level of concern in this group, with 23 students agreeing and 10 strongly agreeing. The absence of any "Disagree" responses highlights that "hallucination" or factual inaccuracy is perceived as the most tangible and immediate risk of AI. From a TAM perspective, this perceived risk directly challenges the "Perceived Usefulness" of the tool; if the output is untrustworthy, the overall utility decreases, forcing students to engage in more rigorous fact-checking and human oversight.

5.1.6. Ethical Perceptions of AI Usage: Establishing Academic Boundaries

To further delineate the scope of academic integrity, the survey explored students' ethical perceptions regarding AI integration. This section examined the acceptability of using AI for brainstorming ideas (EP1), grammar checking (EP2), and the act of submitting AI-generated content without proper attribution (EP3). As illustrated in Figure 6, there is a clear distinction in how students perceive "supportive" versus "substitutive" AI usage.

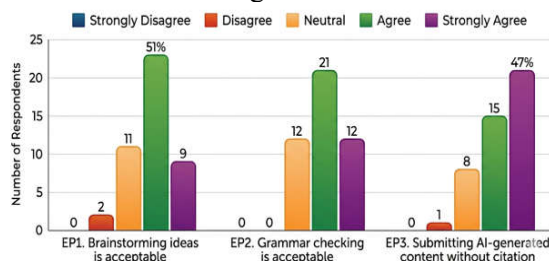


Figure 6. Students' Ethical Perceptions of AI Usage in Academic Writing (n=45)

For EP1 (Brainstorming) and EP2 (Grammar checking), the results show a high level of ethical acceptance. Specifically, over 71% of respondents (23 Agree, 9 Strongly Agree) consider using AI for idea generation as ethically acceptable. Similarly, for grammar checking, more than 73% (21 Agree, 12 Strongly Agree) support this application. Under the lens of the TPB, these positive "Subjective Norms" suggest that students view AI as a legitimate academic tool when it functions as an assistant to improve their original work.

However, a dramatic shift in ethical judgment is observed in EP3 (Submitting AI-generated content without citation). An overwhelming majority of students recognize this as an ethical violation, with 21 respondents "Strongly Agreeing" and 15 "Agreeing" that such behavior is unacceptable. The minimal presence of neutral or disagreeing voices indicates a robust collective awareness of Academic Integrity. This finding reveals a crucial paradox: while students are eager to embrace AI for its efficiency (PB3) and conceptual support (PB1), they maintain a strict moral boundary against plagiarism. This suggests that the "intent to use" AI is governed by a sophisticated ethical filtering process, where students distinguish between AI as a *collaborator* and AI as a *surrogate author*.

5.1.7. Behavioral Intentions: A Future Defined by AI Collaboration

To forecast the trajectory of AI integration, the survey concluded by exploring students' behavioral intentions. This section examined their intention to continue using AI for future academic writing (BI1), their willingness to recommend these tools to peers (BI2), and their plans to explore additional AI applications (BI3). As shown in Figure 6, the results indicate a strong and pervasive commitment to AI as a permanent fixture in their academic toolkit.

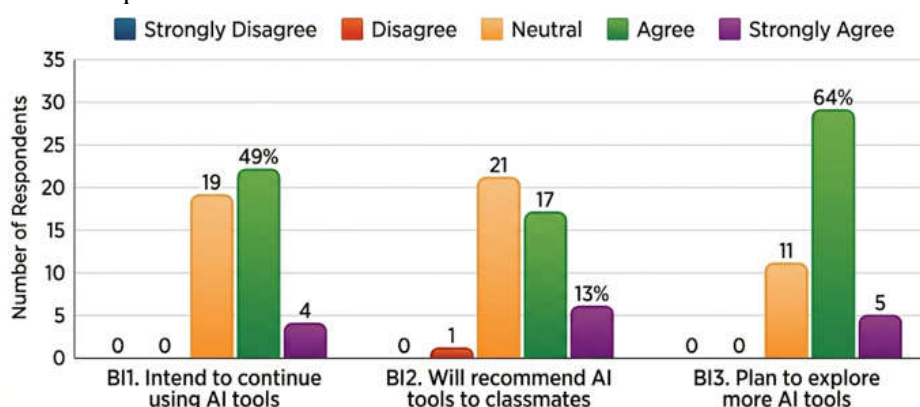


Figure 7. Students' Behavioral Intentions Regarding AI Tools in Academic Writing (n=45)

For BI1 (continued use), most students expressed positive intention (22 agree, 4 strongly agree), indicating that perceived usefulness translates into future use, consistent with TAM. However, a notable number of neutral responses (19) suggest that the students remain cautious, with their decisions influenced by perceived risks and ethical concerns.

The enthusiasm peaks at BI3 (Plan to explore), where 29 students agree and 5 strongly agree. This is the single highest "Agree" response across all survey groups. This finding reveals that students are not merely passive adapters; they are proactive in their desire to understand and harness AI. From a TPB perspective, this strong intent signifies a high level of "Perceived Behavioral Control," suggesting students feel empowered to master these technologies.

Finally, while BI2 (Recommend to classmates) still maintains a majority with 17 agreeing and 6 strongly agreeing, it also recorded the highest neutral response (21). This suggests that while students are personally committed to AI, they are more cautious about advocating for its use by others. This "peer-to-peer caution" may reflect an awareness of ethical complexities; they prefer that their peers make their own independent ethical judgments, rather than blindly adopting a tool based on a recommendation.

5.1.8. Qualitative Insights: Nuanced Student Perspectives on AI Utility and Ethics

Two open-ended questions were included to complement the quantitative data and capture students' motivations, concerns, and ethical perspectives that may not be reflected in Likert-scale responses. The following sections summarize the key themes emerging from these responses.

a. Thematic Analysis of Perceived AI Benefits

A manual thematic coding process was conducted to analyze the 45 qualitative responses. As many students mentioned multiple benefits, the analysis is based on 100 total mentions across categories.

Perceived Benefit Theme	Total Mentions	Example Keywords from Responses
1. Linguistic & Academic Refinement	38	<i>Fix grammar/spelling, upgrade vocabulary (C1-C2), academic tone, clearer, coherent, polished, professional expression, reduce frustration.</i>
2. Time Efficiency & Productivity	29	<i>Write faster, accelerate productivity, save time, quickly generate outlines, summarize research papers, handle multiple assignments.</i>
3. Idea Generation & Conceptual Support	25	<i>Brainstorming, new ideas, expand existing ideas, organize arguments, suggest approaches, alternative perspectives, writer's block.</i>
4. Psychological & Learning Support	8	<i>Increase confidence, reduce stress, learning tool, understand academic structure, independent verification.</i>

Table 3. Frequency Analysis of Qualitative Response Themes

Based on this frequency analysis, several dominant qualitative trends emerge, confirming that while students view AI as a multi-functional tool, their primary prioritization centers on *Linguistic Quality* and *Time Efficiency*.

Dominant Trend: This is the most pervasive theme, appearing in 38 mentions (mentioned by approximately 84% of respondents). Students do not merely perceive AI as a basic grammar checker; rather, they view it as a sophisticated academic surrogate for polishing their work. The feedback emphasizes AI's ability to "upgrade vocabulary to advanced levels (C1-C2)" and "transform expressions" from simple to highly professional. This high degree of focus clarifies the earlier high consensus on quantitative data for PB2 (Clarity and Coherence), proving that students deeply value AI for its capacity to ensure a coherent and refined academic voice. One student provided a precise summary of this thorough assistance: *"AI helps repair the paper thoroughly, giving useful advice or suggestions."*

Secondary Trend: This qualitative trend is the second most common, with 29 mentions, providing direct textual reinforcement for the earlier quantitative data on PB3 (Efficiency). Students view AI as a robust solution to "write faster" and more effectively manage their cumulative academic workload (PB3). Multiple responses highlighted AI's capacity to "quickly generate preliminary outlines" and "summarize complex research materials," enabling them to navigate the entire writing workflow with greater dexterity. An undergraduate student encapsulated this productivity gain: *"AI helps me generate outlines quickly, suggest better vocabulary, and check grammar mistakes."*

Tertiary Trend: AI as an *"Ideation Partner and Conceptual Support"* This theme appeared in 25 mentions, offering crucial nuance to the high quantitative results for PB1 (Generating Ideas). Rather than delegating all creative responsibility, students use AI to *"expand upon existing ideas"* and *"structure arguments logically"* when encountering writer's block (PB1). Students do not perceive AI as a total replacement; instead, they proactively engage it as a *"collaborative partner"* to *"suggest approaches"* and provide *"a multitude of alternative perspectives."* One student described this iterative relationship: *"AI supports me to expand upon my existing ideas... suggesting alternative perspectives, making my writing convincing."*

Finally, a distinct minor trend (8 mentions) suggests that AI also offers significant Psychological and Learning Support. Students reported that AI helps them *"reduce frustration"* and *"increase confidence,"* while also serving as a learning tool to help them *"understand the required structure of academic writing."* The synthesis of these dominant qualitative trends proves that students maintain a pragmatic, initiative-taking, and positive approach toward AI, viewing it as an indispensable partner for enhancing their overall academic writing capacity.

b. Thematic Analysis of Perceived AI Risks: Academic Dishonesty, Cognitive Erosion, and Factual Inaccuracy

To prioritize the specific ethical concerns and risks within the 45 qualitative responses, a manual thematic coding process was conducted. This method allowed for the categorization of complex sentiments that straightforward Likert scales may not fully capture.

Perceived Ethical Concern/Risk Theme	Total Mentions	Example Keywords from Responses
1. Academic Dishonesty & Plagiarism	45	<i>Copy/paste without editing, cheating, academic fraud, misrepresent authorship, steal brain matter, not personal research, Submit AI work as own, unfair advantage.</i>
2. Cognitive Erosion & Overreliance	37	<i>Loss of critical thinking, erosion of independent writing, weaker reasoning/problem-solving, reduced creativity, becoming passive, loss of personal voice, habit of relying.</i>
3. Factual Inaccuracy & Fabricated Info	25	<i>Information may be wrong/unreliable, false information, incorrect data, lack of proof/evidence, AI Hallucination, misleading, poor quality.</i>
4. Structural & Process Devaluation	8	<i>Article rambling/vague, lose essay structure skills, LOWER chances of experiencing failure/insightful lesson, using machine for personal voice.</i>

Table 4. Frequency Analysis of Qualitative Response Themes (Ethical Concerns & Risks)

Based on a content analysis of the 45 qualitative responses, the students' ethical concerns and risks regarding AI in academic writing can be categorized into three distinct core themes: (1) Academic Dishonesty and Misrepresented Authorship, (2) Erosion of Cognitive and Creative Skills, and (3) Factual Inaccuracy and AI Hallucination.

Theme 1: Academic Dishonesty and Misrepresented Authorship

This is the most pervasive risk, deeply reinforcing the earlier quantitative findings regarding students' profound fear of ethical violations. Students are strictly concerned about the act of *"copying AI-generated content without proper editing or citation"* (EP3), defining it definitively as plagiarism and cheating (academic fraud). Multiple responses highlighted the subsequent risk that students may submit work that does not reflect their genuine intellectual ability, thereby creating a profound lack of transparency concerning authorship. One student summarized this acute concern regarding authorship misrepresentation: *"A biggest ethical issue is plagiarism risk – students may submit AI-generated text as their own work."*

Theme 2: Erosion of Cognitive and Creative Skills

This qualitative theme provides crucial nuance to the high quantitative results for PR1 (Erosion of Critical Thinking) and PR2 (Overreliance). Students express significant concern that overreliance on AI will *"weaken analytical and critical thinking skills"* and cause them to *"lose their personal voice"* (personal voice/originality). Students demonstrate a distinct awareness of the *"cognitive cost"* of delegating the brainstorming and structuring workflow to AI, fearing that over time, they may become *"passive adapters"* and *"gradually lose their own thinking abilities."* One student encapsulated this paradox between efficiency and cognitive loss: *"Relying too much on AI can*

weaken critical thinking and writing skills, making them rely on a writing tool rather than a support tool."

Theme 3: Factual Inaccuracy and AI Hallucination

This qualitative theme provides crucial textual reinforcement for the earlier high consensus on quantitative data for the fear of PR3 (Factual Inaccuracy). Students are strictly concerned about the fundamental unreliability of information provided by AI, viewing it as a direct threat to overall academic quality. They are highly aware of the phenomenon where AI can "*fabricate incorrect data or citations*" (hallucination), which, if not independently verified, forces students to "*transfer false or misleading information*." This intense focus directly challenges the "*Perceived Usefulness*" of the tool; if the output is untrustworthy, the overall utility decreases. One student issued a clear warning about this delegation of trust: "*The biggest ethical concern... if not verified, the paper will be of poor quality*."

Finally, a distinct minor trend regarding Academic Transparency and Fairness was also mentioned. Students expressed concern that the pervasive use of AI without declaration (academic fairness), or the disparity in access to such tools, could create an unfair advantage, ultimately devaluing the integrity of the higher education system. The synthesis of these dominant qualitative trends proves that students maintain a profound, practical, and highly responsible awareness regarding the ethical pitfalls of AI, viewing them as a significant subjective barrier that mitigates the blind adoption of the technology.

5.2. Discussions

The integration of quantitative and qualitative data in this study provides a comprehensive and nuanced picture of how students navigate the integration of AI into academic writing. By referencing the survey findings against two foundational theoretical frameworks, the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB), we can further clarify the specific psychological factors and subjective barriers governing students' intentionality to adopt this technology.

5.2.1. The Role of Perceived AI Usefulness through the Lens of TAM

Both quantitative and qualitative data profoundly reinforce the TAM, specifically the core construct of Perceived Usefulness (PU), as a primary driver for technology adoption. According to TAM, PU is defined as the degree to which an individual believes that using a particular technology would enhance their performance.

The qualitative data from Table 3 further clarifies that students do not merely perceive AI as a basic grammar checker; rather, they view it as a sophisticated academic surrogate. Their feedback heavily emphasizes AI's ability to "upgrade vocabulary to advanced levels (C1-C2)" and "transform expressions" from simple to highly professional tones. This high degree of focus clarifies the earlier high consensus on quantitative data for PB3 (Efficiency) and PB2 (Clarity and Coherence) in Figure 4, proving that students deeply value AI for its proactive capacity to ensure a professional academic voice while managing their academic workload. The strong belief in the tool's PU directly and positively impacts behavioral intentions, explaining why the consensus regarding BI3 (Exploration Plans) peaks in Figure 7.

5.2.2. Moderating Use Intent: The Theory of Planned Behavior and Perceived Barriers

While TAM explains the initial adoption drive based on perceived gain, the TPB offers a more robust analytical framework to understand why students might remain hesitant despite immense benefits. TPB highlights the critical importance of Subjective Norms and Perceived Barriers as moderating factors.

The synthesis of data from Figure 5 (Perceived Risks) and Figure 6 (Ethical Perceptions) reveals a critical paradox: students possess a strong collective awareness that the "productivity gain" from AI delegation comes with a high potential "cognitive cost." The qualitative findings from Table 4 deepen

this barrier, proving that students are deeply concerned that overreliance will "weaken analytical and critical thinking skills" (PR1) and cause them to "lose their personal voice."

Fears regarding direct violations of academic integrity (plagiarism, fraud, and academic dishonesty in EP3) constitute the single highest subjective barrier. Concerns regarding PR1 (Cognitive Erosion) and the direct critical threat of PR3 (AI-Generated Factual Inaccuracy) function as robust cognitive barriers and strict subjective norms, mitigating the passive delegation of human reasoning to AI. This acute awareness explains why neutrality levels for BII (Sustain Use Intent) are high in Figure 7, proving that students maintain a profound, practical, and highly responsible ethical filtering process that mitigates blind adoption.

5.2.3. *Synthesizing Findings: The Student as a Responsible Co-Collaborator*

In synthesis, the comparison of quantitative and qualitative results reveals that students maintain a highly pragmatic and proactive approach to AI. They do not merely adopt the technology for immediate convenience (a simplistic TAM model); instead, they navigate this integration with greater sophistication, strictly constructed through a rigorous subjective ethical filter (the more complex TPB model).

The high polarization between high "Perceived Benefits" and high "Perceived Cognitive Barriers" proves that students have established definitive and stable moral boundaries regarding authorship delegation. Students proactively engage AI as a dynamic "collaborative partner" to "expand upon ideas" or "polish final expression," maintaining strict human oversight to preserve academic integrity. They strictly distinguish between acceptable collaboration (e.g., refining language, brainstorming) and unacceptable substitution of original thought. They reject AI as a definitive intellectual surrogate, defining it as a supportive co-collaborator that requires diligent human logic to mitigate hallucination and preserve original expression. This synthesis confirms that the intentionality to adopt AI is ultimately moderated by a strict, responsible cognitive filter, where students prioritize preserving their critical reasoning abilities over the gains of immediate convenience.

6. Conclusions and recommendations

6.1. *Conclusions*

This mixed-methods study (n= 45) provides a comprehensive analysis of the complex paradox between efficiency and ethics in undergraduate students' attitudes toward AI integration in academic writing. Grounded in the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB), this research successfully clarifies the psychological factors, behavioral drivers, and subjective barriers governing technology adoption intent among English-major students.

The empirical findings reinforce the pivotal role of Perceived Usefulness (PU) within the TAM framework as the primary adoption driver. Within the realm of specialized language production, students deeply value AI's utility in optimizing time efficiency, accelerating productivity, and refining linguistic quality- particularly in upgrading vocabulary to advanced levels (C1-C2) and ensuring rhetorical cohesion. Conversely, the lens of TPB reveals a critical cognitive and moral barrier. Students exhibit an acute awareness that immediate productivity gains carry a prohibitive "cognitive cost." They express significant concern regarding the erosion of independent linguistic processing skills and the potential loss of their unique academic voice and authorial identity.

Furthermore, threats to academic integrity- specifically the act of submitting AI-generated content without proper attribution- and the persistent risk of factual inaccuracy function as strict subjective moral boundaries. These ethical and accuracy concerns explain the high levels of neutrality and caution observed regarding sustained, long-term use intentions. Ultimately, the study concludes that undergraduate language learners do not mindlessly adopt AI for convenience; instead, they implement a responsible ethical and linguistic filtering process. While enthusiastically embracing AI as a dynamic co-collaborator for ideation and language polishing, they strictly construct behavioral boundaries against full cognitive delegation, redefining AI as a supportive assistant that necessitates rigorous human logic and critical stylistic oversight to preserve original expression.

6.2. Recommendations for Language and Literacy Studies

Based on the synthesized findings, higher education institutions and language departments must shift their focus toward fostering critical linguistic autonomy and protecting human authorship in the age of AI:

Cultivate AI-Assisted Rhetorical Awareness: Instead of treating AI as an automated corrector, language curricula should guide students to use these tools for rhetorical exploration. Instruction should emphasize how AI modifies syntax and vocabulary, encouraging students to critically analyze machine output against their own authorial choices to ensure that their unique academic "voice" is not erased by standardized algorithmic patterns.

Integrating Metacognitive Writing Practices: Writing programs should explicitly incorporate metacognitive strategies into the writing process. Language learners need to be trained in advanced prompt engineering and comparative text analysis, allowing them to evaluate the stylistic nuances, idiomatic accuracy, and structural coherence of AI-generated suggestions before integrating them into their original texts.

Establish Language-Specific Academic Boundaries: Language departments need to formulate clear, specific guidelines that distinguish between ethical linguistic scaffolding (e.g., lexical retrieval, structural brainstorming, grammar refinement) and unethical textual substitution (e.g., automated paragraph generation). This ensures that AI remains a tool for second language acquisition rather than a surrogate author.

6.3. Limitations and Future Research

Despite its theoretical and empirical contributions, several limitations of this study must be acknowledged to guide future inquiry. First, the sample size ($N = 45$) is relatively modest and was restricted to a specific cohort of English majors enrolled in a specialized academic writing course. While this purposive sampling approach limits the immediate statistical generalizability of the findings to a broader student population, it ensures that the gathered data are highly contextually relevant, reflecting a student demographic held strictly accountable for their linguistic accuracy, stylistic maturity, and academic integrity.

Second, while this exploratory research successfully utilized descriptive statistics and established measurement reliability via Cronbach's Alpha, the scope of the study did not extend to advanced multivariate causal modeling. Consequently, the predictive paths between the TAM and TPB constructs were not modeled simultaneously.

To extend the empirical reach of these findings, future research is highly recommended to employ larger, multi-institutional, and more diverse student samples across varied linguistic and cultural backgrounds in the South Asian context and beyond. Additionally, subsequent studies should utilize advanced statistical validation techniques, such as Exploratory Factor Analysis (EFA) and Structural Equation Modeling (SEM), to rigorously test structural relationships and validate the integrated conceptual model proposed in this research. Such longitudinal and large-scale endeavors will contribute to a more profound, generalizable understanding of the evolving dynamics of AI-assisted academic writing and literacy development in global higher education.

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Nhận thức và các quan ngại đạo đức của sinh viên đối với việc sử dụng trí tuệ nhân tạo trong viết học thuật ở bậc giáo dục đại học

Tóm tắt: Sự phát triển nhanh chóng của Trí tuệ nhân tạo (AI) đang ngày càng tái định hình việc thực hành viết học thuật trong giáo dục đại học. Mặc dù các công cụ hỗ trợ AI mang lại lợi ích trong việc nâng cao hiệu quả và chất lượng ngôn ngữ nhưng chúng cũng đặt ra các quan ngại đạo đức liên quan đến liêm chính học thuật và việc sử dụng có trách nhiệm. Nghiên cứu này xem xét nhận thức và mối lo ngại của sinh viên thông qua công cụ khảo sát hai lớp (n=45). Về mặt phương pháp luận, nghiên cứu tích hợp thang đo Likert 5 mức độ, được điều chỉnh từ Mô hình Chấp nhận Công nghệ (TAM) và Thuyết Hành vi Hoạch định (TPB), cùng với các câu hỏi mở định tính nhằm nắm bắt những phản hồi tâm huyết của sinh viên. Kết quả cho thấy sinh viên nhìn nhận AI như một công cụ hỗ trợ hữu ích, đồng thời bày tỏ quan ngại về sự phụ thuộc quá mức và các rủi ro đối với liêm chính học thuật. Những phát hiện này cung cấp cái nhìn mang tính bối cảnh và nhấn mạnh sự cần thiết của các hướng dẫn thể chế rõ ràng nhằm thúc đẩy việc tích hợp AI một cách có trách nhiệm trong giáo dục đại học.

Từ khóa: Trí tuệ nhân tạo (AI); viết học thuật; liêm chính học thuật; Mô hình Chấp nhận Công nghệ (TAM); Thuyết Hành vi Hoạch định (TPB).