



EFL Learners' Preferences and Needs for AI Writing Tools: A Systematic Literature Review

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Abstract

This Systematic Literature Review (SLR) aims to examine the preferences and perceived requirements of EFL/ESL students in managing the coexistence of Traditional AI (such as Grammarly) and Generative AI (such as ChatGPT) for academic writing purposes. Following the PRISMA protocol, 25 eligible empirical studies published between 2020 and 2025 were synthesized, with data identified from the Springer, ScienceDirect, and Taylor & Francis databases. The analysis employed a narrative thematic synthesis approach guided by abductive logic. The findings indicate that student preferences are driven by a "discriminative-functional" strategy, where Traditional AI is used for surface-level linguistic editing, while Generative AI is adopted as a cognitive "co-creator" and an emotional support to mitigate academic anxiety. Although the instrumental utility of AI is perceived to be high, a "metacognitive paradox" arises where over-reliance may hinder independent thinking. These results suggest that EFL learners require a hybrid pedagogical framework that balances mechanical accuracy with creative co-creation. This study provides evidence-based recommendations for ELT institutions to prioritize AI literacy and ethical accountability to ensure that dual-AI technologies empower rather than undermine learner autonomy.

Keywords: Traditional AI, Generative AI, EFL Writing, Learner Preferences.

INTRODUCTION

Academic The Landscape of Academic Writing in the Digital Era Academic writing competence has long been regarded as a fundamental "gatekeeper" for success within higher education, serving as the essential medium through which students demonstrate intellectual depth and disciplinary belonging. As Hyland (2019) notes, academic literacy transcends simple linguistic ability; it is a sophisticated social practice that requires students to manage professional identities and engage with specific community discourses. However, this established pedagogical environment is undergoing a radical transformation due to the global digital revolution. The transition toward digitally-mediated communication has redefined writing from a static exercise into a fluid, technology-driven process. In this modern context, digital literacies have moved from the periphery to the very core of academic achievement (Wingate, 2015). Recent empirical data indicates that the shift to digital formats has prompted a broader digitalization of writing practices, crossing institutional boundaries and encouraging novel collaborative interactions (Mospan, 2023; Bygstad et al., 2023). Furthermore, integrating technology into the curriculum has been shown to boost writing proficiency and teamwork skills, while simultaneously increasing student self-efficacy and engagement across various cultural and linguistic landscapes (Benabbes et al., 2025; Bekturova et al., 2024). For English as a Foreign Language (EFL) contexts, this digital shift necessitates a thorough re-evaluation of teaching strategies to ensure learners can meet the rigorous expectations of modern academic discourse.



Despite the widespread digitalization of academic life, EFL learners continue to face significant obstacles that hinder their mastery of formal writing. Leki, Cumming, and Silva (2021) document these challenges as multi-dimensional, arising from a complex mix of cognitive load, linguistic gaps, and the difficulty of conforming to disciplinary norms. Research suggests that students' progress is often complicated by conflicting perceptions of what academic tasks actually require (Rahnuma, 2025). These hurdles are frequently worsened by a lack of confidence, difficulties in utilizing academic jargon, and the complexities of citation systems (Itua et al., 2014). Recent surveys further indicate that many students still struggle with core issues like argument development, grammatical precision, and logical flow (Pitukwong & Saraiwang, 2024). These enduring linguistic difficulties at both the lexical and syntactic levels suggest that conventional teaching methods might be insufficient. Consequently, there is an urgent need for targeted technological interventions to bridge the proficiency gap and help educators identify the most effective tools for mitigating these barriers (Al Mahmud, 2023).

The evolution of technology in academic writing has transitioned from Traditional AI (e.g., Grammarly/AWE), which functions as an "automated editor" for mechanical and syntactic corrections (Chappelle & Sauro, 2017; Warschauer & Grimes, 2018; Kao & Reynolds, 2024), toward Generative AI (LLMs) that serves as a sophisticated "co-creator" of coherent text (Holmes & Tuomi, 2022). While Traditional AI effectively enhances formal accuracy and vocabulary enrichment (Sanosi, 2022; Dizon & Gayed, 2021; Yousofi, 2022; Yusuf et al., 2025), it often falls short in addressing higher-order concerns such as logical organization and substantive content development (Ding et al., 2025; Thomas et al., 2026). In contrast, Generative AI facilitates more complex writing stages, including brainstorming, logical structuring, and translanguaging practices (Sabzalieva & Cassiano, 2023; Tanharat, 2025; Lee et al., 2025; Yang & Lin, 2025). However, the success of this collaboration is heavily mediated by students' AI literacy (Kim et al., 2025; Yeung, 2025) and introduces significant concerns regarding over-reliance and ethics, necessitating targeted training in prompt engineering and ethical pedagogy within academic environments (Wibowo, 2025; Sawair & Ghazzawi, 2025; Kerr & Kim, 2025).

To understand how these two AI waves are actually adopted, we must distinguish between "preference" and "perceived necessity." Preference refers to a learner's subjective choice, shaped by their comfort, satisfaction, and attitude toward a tool's features (Dörnyei & Ryan, 2015). In contrast, "perceived necessity" often linked to the Technology Acceptance Model (TAM) is the pragmatic belief that a tool is indispensable for completing a difficult task (Venkatesh, 2022). While preference is often driven by ease of use, necessity is rooted in practical demands like time constraints or skill gaps. In EFL writing, a student might prefer Traditional AI for its simplicity but feel a growing necessity to use Generative AI to stay competitive. Differentiating these two concepts is vital to determining whether students adopt AI for genuine learning needs or simply for convenience.

While several Systematic Literature Reviews (SLRs) have explored AI in education, significant gaps remain. For instance, Naznin et al. (2025) looked at ChatGPT's role in higher education but did not examine the transition from traditional tools. Feng et al. (2025) tracked the evolution of AI in L2 writing over a decade but lacked a deep synthesis of student perceptions. Similarly, Slamet and Basthomi (2025) focused on ChatGPT's impact on learner autonomy without comparing it to traditional corrective tools. Currently, there is a lack of



student-centric comparative research on how EFL/ESL learners navigate the coexistence of Traditional AI (editors) and Generative AI (co-creators). This study aims to fill that gap by synthesizing empirical findings on student preferences and needs regarding these two categories of technology. This general objective is further broken down into the following three specific Research Questions:

1. What factors influence EFL/ESL students' choice between Traditional AI (Grammarly/AWE) and Generative AI (ChatGPT/LLM) for academic writing?
2. How do these students perceive the necessity and utility of Traditional AI compared to Generative AI in achieving successful writing outcomes?
3. What are the pedagogical implications of this AI coexistence that ELT institutions should consider?

METHOD

This Systematic Literature Review (SLR) follows the PRISMA guidelines to ensure a transparent, replicable, and unbiased synthesis of evidence (Gough et al., 2017). To gather high-quality literature, a search was conducted across ScienceDirect, SpringerLink, and Taylor & Francis Online using Boolean operators (AND/OR) to link AI technologies with student perceptions (Booth et al., 2021). The search string used was: (“Grammarly” OR “AWE”) AND (“preference” OR “necessity”) AND (“ChatGPT” OR “LLM” OR “Generative AI”). This review focuses on journal articles (2020–2025) involving university-level L2 learners producing advanced academic writing, such as theses or research publications.

Figure 2. Table of Inclusion and Exclusion Criteria

No	Inclusion Criteria	Exclusion Criteria
1.	Research article with empirical data	Conceptual paper, review article, book, etc.
2.	The topics include students' perception of preferences and necessities in utilizing AI tools.	Focusing on teachers not students
3.	AI tools about Traditional AI of AWE such as Grammarly or Generative AI such as ChatGPT	General technology or non-AI software.
4.	The participants focus on students in higher education	Non-student participants or K-12 education levels.
5.	Publication year between 2020-2025	Before 2020

The article selection process through four systematic stages based on PRISMA 2020 elements: identification, screening, eligibility, and inclusion. In the identification stage, Article author conducted searches in three main databases The entire selection process is summarized in PRISMA 2020 Flow Diagram (Figure 3).

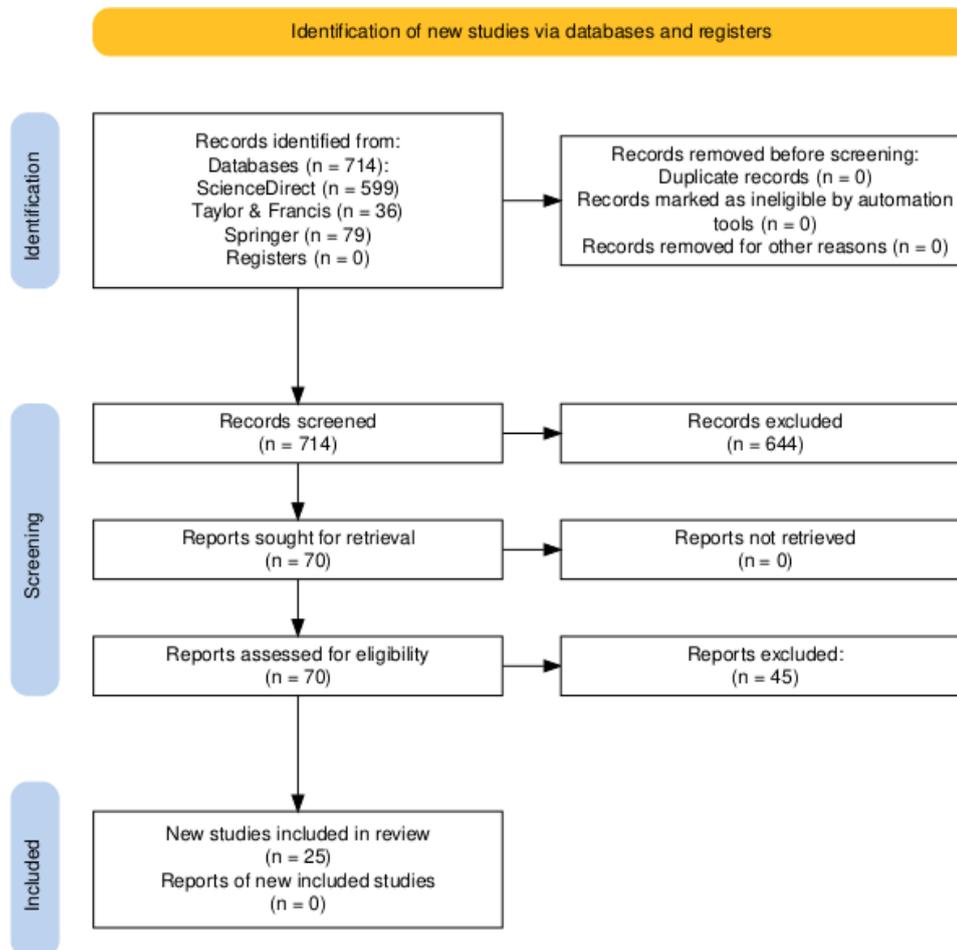


Figure 3. PRISMA Flow Diagram of the Article Selection Process Based on the PRISMA 2020 Guidelines

As shown in the PRISMA 2020 diagram (Figure 1), we identified 714 records from ScienceDirect (599), SpringerLink (79), and Taylor & Francis (36). After screening titles and abstracts, 644 records were excluded. Of the 70 remaining reports assessed for eligibility, 45 were excluded for not meeting specific thematic or participant criteria. Ultimately, 25 studies were selected for qualitative synthesis. This transparent selection process ensures research rigor and replicability (Booth et al., 2021). Data were analyzed using Thematic Narrative Synthesis to integrate diverse findings, allowing for a systematic comparison of student needs across different geographical contexts.

FINDINGS AND DISCUSSION

The following figures illustrate the trend of 25 analysis paper included regrading to the necessities and preference of students used in AI:

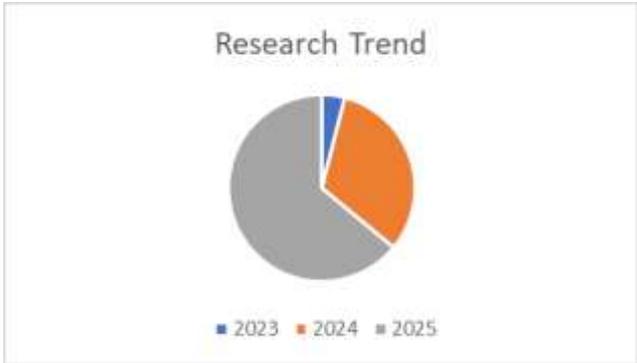


Figure 4. Distribution of cumulative paper published 2020-2025

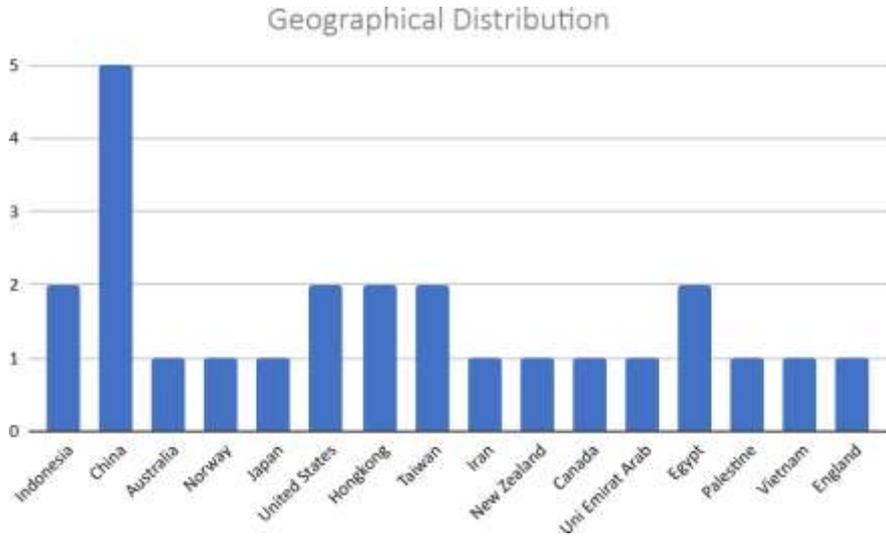


Figure 5: Geographical Distribution

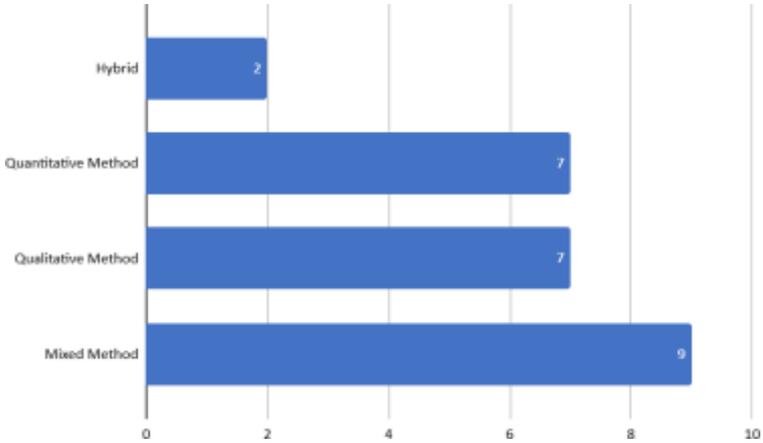


Figure 6. Methodological Trends of Paper Published 2020-2025



General Trends of Selected Studies (2020-2025)

An analysis of the 25 selected articles reveals a significant upward trend in research concerning AI integration within EFL/ESL academic writing, covering publication timelines, methodologies, and geographical distribution. As illustrated in Figure 4, there is a sharp surge in scholarly interest toward the middle of this decade; the majority of publications are concentrated in 2024, reaching a peak in 2025. This peak indicates that the comparative discourse between Traditional AI and Generative AI has become a cutting-edge topic, coinciding with the widespread adoption of Large Language Models (LLMs).

The methodological diversity shown in Figure 6 further strengthens the validity of this review. The Mixed-Method approach emerged as the most dominant (9 papers), followed by Qualitative Methods (7 papers), Quantitative Methods (7 papers), and Hybrid methods (2 papers). This variety reflects an effort within the field to capture student perceptions comprehensively. Geographically, as shown in Figure 5, this research represents a global phenomenon that spans multiple continents. China stands as the largest contributor (5 publications), followed by Indonesia, the United States, Hong Kong, Taiwan, and Egypt (2 publications each). Contributions were also identified from various other countries, including Australia, Norway, Japan, and the United Kingdom. This broad distribution confirms that the challenges and adaptations regarding AI technology in academic writing are shared by EFL communities across diverse cultural and institutional contexts worldwide.

Factors Influencing EFL/ESL Students' Choice Between Traditional and Generative AI (RQ1)

Functional Choice and Task Requirements

Data analysis indicates that students tend to employ various AI/MT tools based on the specific objectives they aim to achieve (Wang, 2024). Traditional AI (Grammarly/AWE) is predominantly selected for its efficient corrective role; specifically, the use of Grammarly contributes significantly to revision efficiency and the enhancement of student self-confidence (Mekheimer, 2025). In contrast, Generative AI (GenAI) is favored to support co-creative roles and fulfill the need for more comprehensive assistance. GenAI is chosen due to its robust capabilities in handling complex academic tasks, such as essays and literature reviews, offering efficiency throughout the writing process from initial brainstorming to final proofreading (Nguyen Thi, 2025). This preference also reflects a desire for more profound feedback, as GenAI (ChatGPT) is perceived as more instructive, providing logical explanations that traditional tools often lack (Kohnke, 2024). A pivotal factor in the adoption of these advanced AI systems is their capacity to improve logical coherence and provide high-speed feedback (Zheng, 2025).

These findings directly validate the propositions of Venkatesh (2022) regarding Perceived Usefulness within the TAM framework, where tool selection is driven by the instrumental belief that the technology will facilitate task success. Furthermore, the shift in student interest toward GenAI for complex assignments corroborates the limitations of Traditional AI identified by Ding et al. (2025), who argued that mechanical corrective tools often fail to address higher-order concerns, such as logical organization and substantive content development. This also extends the arguments made by Sabzalieva & Cassiano (2023) concerning the emerging role of AI as a "co-creator," enabling student engagement during the formative stages of writing. This suggests that contemporary student preferences demonstrate a highly conscious "task-tool alignment" strategy. Rather than viewing AI as a monolithic solution, students tactically divide roles: Traditional AI serves as an "automated editor" for surface-level linguistic accuracy (lexical/syntactic), while GenAI is



adopted as a "cognitive partner" to navigate the complexities of argumentation that remain beyond the reach of mechanical correction algorithms.

Affective Factors and Comparative Feedback Quality

Affective and motivational factors play a dominant role in the preference for Generative AI (GenAI). The primary drivers of this choice include intrinsic motivation (enjoyment and fun) and perceived usefulness (Lai, 2023). Students are motivated by an increase in self-efficacy and a pressing need to alleviate anxiety regarding academic difficulties (Hysaj, 2025). Furthermore, there is a discernible need for emotional support, where AI is perceived as a "companion" throughout the writing process (Teng, 2024), alongside a desire for autonomy to surpass one's own perceived limitations (Moorhouse, 2025). Although AI excels in terms of specificity and 24/7 availability, human instructors are still rated higher for affective interaction (Escalante, 2023) and contextual depth (Olga, 2024). These preferences are also influenced by the transparency of sources in specific tools (Liu, 2024) and the level of students' feedback literacy (Weidlich, 2025).

The finding of "AI as a companion" aligns with the conceptual framework of Dörnyei & Ryan (2015) regarding the affective dimensions of subjective learner choices. Moreover, the utilization of AI to overcome "shame" and academic anxiety validates the challenges documented by Leki et al. (2021) concerning the cognitive load and linguistic barriers that frequently undermine the confidence of EFL writers. Student preference for the 24/7 availability of AI further supports the argument by Warschauer & Grimes (2018) that instantaneous feedback is often more trusted for urgent grammatical navigation compared to waiting for time-constrained human guidance.

Consequently, the shift toward GenAI is triggered by the requirement for a "psychologically safe learning space." While human teachers provide unparalleled contextual depth, AI offers judgment-free interaction, which significantly mitigates academic anxiety. Thus, students do not select GenAI merely for technical efficiency; rather, they adopt it to satisfy affective needs and achieve a level of autonomy that is often difficult to attain within the rigid structures of traditional classroom instruction.

Students' Perceived Necessity and Instrumental Utility of Traditional vs. Generative AI (RQ2)

High Utility as an Instrumental Factor and Comparative Utility Students' perceptions regarding the necessity and instrumental utility of AI are rated exceptionally high, driven primarily by pragmatic factors such as task demands and time constraints. Learners regard AI as an essential instrument for enhancing grammatical precision and accelerating the brainstorming process (Werdiningsih, 2024), where such utility directly contributes to the efficiency of task completion (Hsu, 2024; Hysaj, 2025). Comparatively, the utility of Traditional AI is deemed highest in aspects of language usage and structural organization, (Mekheimer, 2025). Conversely, the utility of GenAI is considered superior due to its multidimensional support and its accuracy in simplifying complex ideas (Zheng, 2025; Annamalai, 2025). Furthermore, a positive perception of AI utility serves as a robust predictor of student engagement and overall academic performance (Mehrvarz, 2025).

These findings reinforce the theoretical foundations of the Technology Acceptance Model (TAM) proposed by Venkatesh (2022), which defines perceived necessity as the instrumental belief that a tool is vital for academic success. Moreover, the high perceived usefulness of AI in overcoming linguistic barriers validates the tangible challenges documented by Leki, Cumming, and Silva (2021) concerning the difficulties L2 writers face in managing cognitive load and linguistic deficiencies. This indicates that technology is no



longer merely a supplementary aid but a crucial "bridging" instrument for students' digital literacy success (Wingate, 2015).

Consequently, it is evident that students' instrumental need for AI has reached a state of "functional dependency." This high level of perceived necessity does not stem from academic indolence; rather, it arises from increasingly stringent academic standards that compel students to use AI to bridge the gap between their current linguistic proficiency and the demanding professional discourses emphasized by Hyland (2019).

Pedagogical Implications of the Coexistence of Traditional and Generative AI (RQ3)

The Necessity of Hybrid Models and the Shift in Teacher Roles

The coexistence of Traditional and Generative AI necessitates the adoption of a Hybrid or Blended feedback model, where the distinct strengths of both AI types are integrated to support high-level cognitive tasks (Escalante, 2023; Zhang, 2025). Implementing hybrid policies is also vital for fostering students' AI literacy (Olga, 2024). Consequently, a fundamental shift in the teacher's role occurs: AI liberates educators from the burden of mechanical correction, allowing them to focus more intensely on content substance and communicative fluency (Mekheimer, 2025). Teacher interventions must now pivot toward active learning strategies designed to rectify students' misconceptions regarding AI utility (van Niekerk, 2025). This includes utilizing explicit argumentation frameworks, such as the Toulmin model, to fill the metacognitive gaps left by AI (Stoyanov, 2025).

These findings echo the perspective of Holmes & Tuomi (2022) regarding AI's transition from a mere mechanical editor to a "co-creator." By shifting pedagogical focus toward higher-order concerns (content and argumentation), educators directly address the weaknesses of Traditional AI documented by Ding et al. (2025), who noted that corrective tools often fail to provide substantive improvements in content development. This reinforces the notion that digital literacy is no longer a peripheral skill but a core competence defining academic success in the digital revolution era (Wingate, 2015). In essence, the coexistence of AI compels a "redefinition of pedagogical authority." Teachers no longer function as the primary source of linguistic correction; instead, they serve as "cognitive architects" responsible for ensuring that the generative efficiency of AI remains grounded in student's logical reasoning and intellectual integrity.

Critical Literacy Training and Professional Development

Integrating AI into the EFL classroom demands explicit instruction on when and why specific tools should be utilized (Wang, 2024). Students require the development of feedback literacy to critically evaluate AI outputs (Weidlich, 2025), including visual literacy to critique AI-generated imagery (Liu, 2024). Institutions bear a significant responsibility to invest in the professional development of teachers to bridge the readiness gap and navigate the ethical complexities of AI usage (Kit Ng, 2025).

The urgent need for systematic training validates the warnings of Kerr & Kim (2025) concerning the importance of prompt engineering and ethical pedagogy. Given that the quality of AI collaboration is heavily mediated by student literacy (Kim et al., 2025; Yeung, 2025), this implication underscores that without adequate training, AI usage risks widening the achievement gap for students lacking digital proficiency (Al Mahmud, 2023). Therefore, AI literacy must not be taught in isolation but should be integrated into the writing curriculum as



a component of "critical academic literacy." Institutions should view AI literacy as a fundamental student right, ensuring they become discerning curators of feedback rather than passive technology users.

Institutional Policy: Ethics, Accountability, and Equity

Institutions must formulate policies that guarantee accountability through mandatory AI disclosure systems, rather than imposing ineffective total bans (Moorhouse, 2025). Issues of equity regarding premium access costs must also be addressed to ensure that AI serves as a fair adaptive technology for all (K. Hatz, 2025). Policies should be contextual and capable of addressing local challenges, moving beyond generalized plagiarism concerns (Rafidi, 2025). The necessity for such policies is highly relevant to the ethical concerns raised by Wibowo (2025) and Sawair & Ghazzawi (2025) regarding copyright ambiguity and potential overreliance. This emphasis on accountability and equity aligns with the efforts of Slamet & Basthomi (2025) in exploring learner autonomy, proving that institutional policy is the cornerstone of an ethical and inclusive digital learning ecosystem. It can be concluded that the failure of institutions to establish clear and equitable AI policies will create a new "digital divide" within the EFL classroom. Mandatory declaration policies are not merely a matter of academic honesty; they represent transparency in the thinking process, where students retain full accountability for every word produced with AI assistance.

CONCLUSION AND SUGGESTION

Conclusion This study concludes that the coexistence of Traditional and Generative AI has established a new paradigm in the academic writing practices of EFL/ESL students, where technology adoption is no longer monolithic but rather strategic and functional. The findings demonstrate that student preferences are driven by the need to balance surface-level linguistic efficiency, achieved through traditional tools, with the higher-order cognitive requirements and affective support offered by Generative AI. Conceptually, this phenomenon proves that AI has transformed from a mere mechanical correction tool into an instructional assistant and emotional companion capable of mitigating psychological barriers, such as shame and academic anxiety. However, the high utility of these technologies introduces a metacognitive paradox that necessitates hybrid human engagement to safeguard intellectual integrity. Consequently, the integration of AI in language education is no longer a matter of choosing one tool over another; instead, it is about synergizing the strengths of both within an ethical, transparent, and equitable institutional policy framework to ensure that learner autonomy remains intact amidst digital disruption.

Suggestions for Future Research Based on these findings, it is suggested that future research conduct longitudinal investigations to observe the long-term impact of Generative AI reliance on the development of critical thinking and the authorial voice of EFL students. Furthermore, more in-depth experimental studies are required to examine the effectiveness of various prompt engineering training models specifically tailored to diverse disciplinary contexts. Given the equity issues identified in this review, subsequent research should explore the access gap between free and premium AI tools and how this disparity influences the academic achievement of students from different socio-economic backgrounds. Finally, the development of new evaluation frameworks capable of distinguishing between a student's original cognitive ability and AI-assisted output has become an urgent necessity for researchers in the field of language assessment.



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Vol.01 No.01, February 2026

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