

Enhancing Academic Writing in Tertiary English Education: A Review of ChatGPT's Impact on Students' Performance

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Abstract

The current research scrutinizes the transformative role of generative Artificial Intelligence (AI), predominantly ChatGPT, in academic writing enhancement at tertiary stage of English education. As the various technologies of AI increasingly stimulate higher education, their influence on writing processes, starting from structural assistance through brainstorming and ending with language refinement, has been reflective. This study investigates recent literature, concentrating on the linguistic benefits of ChatGPT that can enhance academic writing focusing on ethical challenges, cognitive outcomes and pedagogical implications. Although studies approve the efficacy of ChatGPT's in enhancing language fluency, including grammar and coherence, concerns about its impact on academic integrity and original thinking persist. The findings of this review paper maintain that human cognitive effort should not be replaced by ChatGPT, but it should be integrated, in a well-rounded pedagogical framework, as a supplementary tool. The study has come up with recommendations for educators, institutions, and students to positively exploit both the opportunities and challenges offered by this sophisticated technology, ensuring its effective and ethical use in the field of academic writing.

Keywords: Academic Integrity; Academic Writing; AI; ChatGPT; Language Enhancement; Pedagogy; Tertiary Education.

Received: May 15, 2025

Revised: June 18, 2025

Accepted: June 22, 2025

Published: July 2, 2025

Citation:

Yayeb, Y.A. (2025). Enhancing Academic Writing in Tertiary English Education: A Review of ChatGPT's Impact on Students' Performance. *S3R Academia*, 2(1), 39-54.
<https://doi.org/10.70682/s3r.2025.03>

1. Introduction

Academic writing is the cornerstone of success in the stage of tertiary education, mainly for students in English-medium programs. It involves not only linguistic competence but also the ability to engage with sources critically, structure arguments, and maintain academic integrity. In spite of its supremacy, academic writing poses significant challenges for many students, particularly those who use English as a foreign or second language. These students often struggle with grammar, coherence, argumentation, and the conventions of academic discourse (Hyland, 2019). In response to these challenges, educators and researchers have long sought innovative strategies and tools to support writing instruction in higher education.

By the emergence of the 21st century, advances of technology have reshaped educational practices, one of which is writing instruction. Automated feedback systems, language learning software, and online grammar checkers have become common. Nevertheless, the advent of advanced AI models, specifically Open AI's ChatGPT, is determined as a significant turning point. Unlike earlier writing aids, ChatGPT is dealt with as a generative AI that can rephrase, produce, and evaluate text with a degree of relevance and coherence that imitates human output. This potentiality has situated ChatGPT as a latent game-changer in academic writing progress, capable of acting as a brainstorming partner, tutor, and editor (Kasneji et al., 2023).

Given the distinction of writing in tertiary education and the quick incorporation of AI tools into academic contexts, understanding the consequences of ChatGPT's use is vital. While scholars celebrate AI's ability to democratize writing support and improve learner autonomy, others express concerns about over-reliance, plagiarism, and the erosion of critical thinking skills. The challenge for educators lies in discerning how such tools can be integrated ethically and effectively into academic writing instruction without compromising learning outcomes or academic integrity.

The growth of ChatGPT in educational situations has reflected both excitement and controversy. On the contrary, it offers promising support for students who struggle with various aspects of writing, including vocabulary choice, grammar, and organization. However, the tool's generative nature raises questions about originality, ethical use, and the role of human judgment in academic work. Despite this growing curiosity, there remains a lack of comprehensive, synthesized analysis on how ChatGPT is being used in tertiary English education and the ways its long-term pedagogical implications could be considered.

This review is timely for several reasons. First, the COVID-19 pandemic accelerated the adoption of digital tools in education, creating fertile ground for AI applications to flourish. Second, as tertiary institutions are globally associated with integrating AI into curricula, it is critical to assess its real-world influence on student learning, particularly in a skill as foundational and nuanced as academic writing. Finally, students themselves are already using ChatGPT, often outside formal instruction, which compels educators to understand and respond to these practices in a structured, informed way (Zou et al., 2023). Given these developments, this review aims to evaluate existing literature on the impact of ChatGPT on academic writing among tertiary English students. It intends to bridge the gap between pedagogical practice and technological innovation by offering a nuanced assessment of the opportunities and limitations that ChatGPT presents.

Technology integration in writing instruction has a long history, from early word processors and digital libraries to sophisticated platforms offering grammar correction, style analysis, and plagiarism detection (Talib, et al., 2018). Tools such as Turnitin, Grammarly, and Hemingway Editor have become standard in many institutions, assisting learners in refining their language. However, these tools are limited in their interactivity; they primarily focus on surface-level issues

and lack the capacity to understand context (Wang et al., 2022).

Recently, AI-driven chatbots and digital tutors have emerged as the next step in writing support technologies. These systems can simulate human-like dialogue, generate responses, and provide feedback in real time. Unlike rule-based systems, they use machine learning to progress over time and adapt to user inputs. Hence, the progression of these tools culminated in the release of ChatGPT, a language model capable of not only investigating but also constructing high-level academic text. This shift from reactive correction to generative assistance marks a paradigm change in how technology engages with academic writing instruction.

1.2 Literature Review

Enhancing students' academic writing skills has become both a challenge and an opportunity in the evolving era of tertiary English education, especially with the rise of AI tools like ChatGPT. However, theoretical frameworks such as Vygotsky's Zone of Proximal Development (ZPD) and constructivist learning models remain highly appropriate in this context. In other words, ZPD, which emphasizes education through guided interaction, supports the AI use as a form of mediated assistance where students obtain dynamic input just beyond their existing competence level (Ni, 2022; Rahman, 2024). With ChatGPT, students can be engaged in to receive real-time feedback, clarify writing uncertainties, generate ideas collaboratively in response to Vygotsky's principles of scaffolded learning. Additionally, the constructivist approach aligns appropriately with these AI-powered writing settings by inspiring students to actively shape their learning experiences through interactive elements such as dialogues, exploration and reflection that AI can support simulation or enhancement in asynchronous learning settings (Wei, 2024).

In the same vein, writing process theory proposes a valuable lens through which ChatGPT's role can be evaluated to maintain academic writing improvement because it considers writing as developmental, recursive, and revision-oriented processes. Recent studies reveal that students using adaptive AI tools display more confident and strategic revision behaviors, engross deeper planning and show improvement in fluency and coherence over time (Lo Sardo et al., 2023; Mouchel et al., 2023). Remarkably, Jacob et al. (2023) show how second-language learners sustain an agency while using ChatGPT, dealing with it not as support but as a collaborative writing partner. These results suggest that when carefully integrated, tools like ChatGPT can support not just for corrections of surface-level but also metacognitive awareness and higher-order thinking, the key goals of academic writing pedagogy. Consequently, by situating AI within conventional educational theories, ChatGPT can be more clearly understood and joined with potential transformation of writing instruction in tertiary education.

According to Sharma (2021), language is dealt with as a system of spoken sounds or written symbols used by people to express themselves during communication in a specific social group or

cultural setting. Yet, academic writing is not merely a skill but a multifaceted social practice central to knowledge construction in higher education. It incorporates a range of abilities including critical thinking, argumentation, cohesion, citation, and linguistic accuracy. In English-medium tertiary institutions, these skills are often taken as indicators of students' academic maturity and intellectual rigor (Wingate, 2012; Hyland, 2019). Thus, writing is a complex social practice central to knowledge construction in higher education (Lea & Street, 2006).

1.3 The Rise of ChatGPT in Education

ChatGPT has been developed by Open AI as a large-scale generative language model trained on extensive Internet text. It develops deep learning and transformer architecture to generate coherent, contextually applicable responses based on user prompts. Unlike previous educational technologies, ChatGPT does not merely correct or analyze language. Additionally, it can produce full essays, paraphrase complex ideas, simulate peer feedback, and respond to follow-up questions. Accordingly, AI supports interactive and iterative learning experiences (Kasneci et al., 2023). This ability to generate academic-like discourse has situated it as a promising, yet controversial, tool in higher education.

In writing instruction and language learning, early studies on ChatGPT advocate **that** it can be a valuable aid for brainstorming, refining sentence structure, improving clarity, and exploring alternative expressions (Zou et al., 2023). For students struggling with writer's block or limited vocabulary, ChatGPT offers a nonjudgmental, always-available partner that can scaffold writing processes in real time. Furthermore, it can be used to simulate various rhetorical situations or discourse types, allowing students to practice writing across genres and audiences, a key skill in academic settings (Bai & Wang, 2023).

Nevertheless, the use of ChatGPT also raises significant pedagogical and ethical concerns. Critics worry that students may become overly reliant on the tool, using it to generate entire assignments without genuine engagement with the material. Yet, while ChatGPT can produce text that appears scholarly, it does not truly understand the concepts it generates, which can lead to plausible but inaccurate or misleading outputs (Elmahdi & Al-Hattami, 2023). Consequently, these challenges have prompted calls for more research into responsible usage guidelines, students and instructors training, and institutional policies regarding AI integration.

1.4 ChatGPT and Writing Development

Initial empirical research and case studies offer mixed but insightful findings on ChatGPT's effectiveness in developing students' academic writing. On the positive side, students using ChatGPT report improved confidence in writing tasks, greater lexical variety, and enhanced awareness of sentence structure (Chang, 2023). The model's ability to generate multiple versions

of a response allows students to compare and critique different writing styles, fostering metalinguistic and rhetorical awareness. In some cases, instructors have used ChatGPT to model thesis statements, outline essays, or analyze argument structures. Some studies indicate that while ChatGPT expands superficial writing features, such as grammar and syntax, it does not significantly support originality, critical thinking, or complex argumentation (Zhai, 2022).

Moreover, educators express mixed feelings about integrating ChatGPT into writing pedagogy. While some perceive it as an innovative resource for formative assessment and drafting support, others fear it may undermine the developmental process of writing as a form of reflection and inquiry (Mollick & Mollick, 2023). Table 1 makes it obvious that the educational value of ChatGPT relies mainly on how it is framed and used within the curriculum. When positioned as a co-writing partner rather than a substitute writer. In other words, ChatGPT has the potential to enhance writing instruction, especially when paired with critical evaluation and reflective tasks.

Table 1. Summary of Key Reviewed Studies on Academic Writing and ChatGPT in Higher Education

Author(s)	Year	Topic	Context / Participants	Methodology	Key Findings	Implications
Zou, Xie & Wang	2023	Future Directions of AI in Education: A Review of ChatGPT's Applications in Language Learning	Higher education language learners (Asia)	Systematic literature review	ChatGPT enhances linguistic input, writing fluency, and learner engagement, but lacks depth in reasoning	AI tools must be supplemented with critical thinking instruction and reflective writing strategies
Bai & Wang	2023	Exploring Students' Use of ChatGPT for Academic Writing	Chinese university students (N = 48)	Qualitative interviews	Students use ChatGPT for idea generation, grammar correction, and structure modeling; risk of over-reliance	Need for AI-integrated pedagogy emphasizing metacognitive control and authorship ethics
Kasneji et al.	2023	ChatGPT for Good? On Opportunities and Challenges of Large Language Models for Education	University-level STEM and humanities courses (Germany)	Mixed methods (survey + classroom observation)	Students improved writing clarity and coherence; educators felt unprepared for AI integration	Urgent need for faculty training and institutional AI policies
Elmahdi & Al-Hattami	2023	ChatGPT's Capabilities and Limitations in Academic Writing	Tertiary ESL learners in the Gulf region	Experimental study	ChatGPT helped learners organize arguments and paraphrase effectively; critical analysis remained weak	ChatGPT effective for support, not substitution; scaffolded use is essential
Chang	2023	Perceived Benefits and Risks of Using ChatGPT for Academic Writing: A Student Survey	Undergraduate English majors (Taiwan)	Quantitative survey (N = 102)	Students felt more confident but unsure of academic integrity; 41% admitted heavy AI dependence	Instruction on responsible use and AI literacy is critical
Mollick & Mollick	2023	Using AI to Level the Playing Field in Education	Business school students (USA)	Classroom-based intervention study	Marginalized students benefited most; ChatGPT reduced writing anxiety and improved participation	AI can support equity if access and training are provided
Zhai	2022	ChatGPT and Academic Writing: Opportunities, Limitations, and Pedagogical Strategies	Theoretical and pedagogical exploration	Conceptual analysis	ChatGPT cannot replicate disciplinary thinking; text may be fluent but intellectually hollow	Writing tasks should be redesigned to prioritize cognitive depth and originality

Based on the above-mentioned Table 1, it is important to consider the following:

1. **Contextual Breadth:** Studies span diverse linguistic and cultural contexts (e.g., USA, Europe, Asia, Gulf), reinforcing the ChatGPT global relevance in academic writing.
2. **Recurring Themes:** Across contexts, ChatGPT is consistently praised for enhancing language-level competencies (coherence, grammar, structure) but criticized for its limitations in critical engagement and deep learning.
3. **Methodological Diversity:** The studies utilize a range of methods, from experimental designs and interviews to theoretical analyses, adding validity to recurring findings.
4. **Educational Imperatives:** Almost all reviewed works call for more thoughtful integration of AI into pedagogy, highlighting the need for digital literacy and ethical awareness.

1.5 Thematic Categorization of Reviewed Studies

The reviewed literature on the influence of ChatGPT in tertiary-level academic writing reveals numerous recurring themes that jointly underscore both the challenges and potentiality of integrating the tools of AI into educational contexts. These themes, including ethical implications, linguistic enhancement, cognitive and critical thinking development, and pedagogical integration, form the foundation for understanding how ChatGPT is determining students' learning behaviors, writing practices, and academic responsibilities in university settings.

In contrast, the cognitive dimensions of using ChatGPT introduce more complex dynamics. While the AI can generate coherent text, its use may inadvertently hinder critical thinking and original idea generation, which are essential competencies in higher education. Zhai (2022) and Kasneci et al. (2023) caution that students might rely seriously on AI to organize essays or construct arguments, thereby bypassing the intellectual engagement necessary for deep learning. The concern here is not that students are cheating, per se, but that they may miss opportunities to cope with course material, form their own viewpoints, and develop analytical rigor, skills that are central to academic maturity and scholarly inquiry. The thematic categorization has been conceptualized in Table 2.

Table 2. Thematic Categorization of Reviewed Studies on ChatGPT in Academic Writing

Theme	Study	Focus Area	Key Contributions
Linguistic Enhancement	Zou, Xie & Wang (2023)	Fluency, coherence, vocabulary support	ChatGPT improves fluency and syntactic range; facilitates real-time feedback on grammar and coherence
	Elmahdi & Al-Hattami (2023)	Organization, paraphrasing	Demonstrated gains in logical structure, lexical variety, and sentence-level corrections
	Bai & Wang (2023)	Grammar and structure support	Students used ChatGPT as a grammar checker and model for academic tone
Cognitive and Critical Thinking Development	Zhai (2022)	Deep learning, originality	Warns against superficiality; AI cannot replicate human critical insight or disciplinary thinking
	Kasneci et al. (2023)	Depth of reasoning	Highlights mismatch between AI output fluency and genuine intellectual argumentation
Ethical and Integrity Issues	Chang (2023)	Student trust, dependency	Survey reveals anxiety around originality, citation, and over-dependence on AI for writing tasks

Theme	Study	Focus Area	Key Contributions
Pedagogical Design and Curriculum Integration	Bai & Wang (2023)	Ghostwriting concerns	Some students relied too heavily on AI, potentially undermining independent thinking
	Mollick & Mollick (2023)	Instructional strategies, student empowerment	ChatGPT can level educational playing fields when paired with human-led critical instruction
	Kasneji et al. (2023)	Teacher preparedness	Educators lacked training to scaffold effective AI use; need for institutional guidance
	Zhai (2022)	Redesigning writing tasks	Recommends task types that promote reflection, originality, and iterative writing processes

Inextricably tied to the cognitive concerns are the ethical implications of using AI in academic writing. Several scholars have raised alarms about potential plagiarism, both intentional and inadvertent, as students may submit AI-generated content without adequate modification or attribution (Chang, 2023; Mollick & Mollick, 2023). These studies emphasize the importance of distinguishing between AI-authored and AI-assisted content, in addition to the urgent need for institutions to formulate clear ethical guidelines on acceptable AI use.

However, one of the most consistently noted benefits of ChatGPT in literature is its role in linguistic improvement. Studies have shown that ChatGPT aids students in refining their academic tone, grammar and sentence structure (Elmahdi & Al-Hattami, 2023; Zou; Xie & Wang, 2023). For students who are non-native English speakers, the tool mainly offers real-time scaffolding that enhances fluency and clarity. This type of support allows students to produce writing that is more coherent and polished, even if they lack strong foundational language skills. Researchers have also noted that ChatGPT can function as a personalized writing assistant, reflecting academic writing as more accessible to various student populations.

Relatively, the final theme revolves around pedagogical integration and curriculum design. Researchers argue that rather than banning ChatGPT, educators should focus on integrating it strategically into writing instruction. For example, Kasneji et al. (2023) advocate for assignments that require students to criticize or reflect on AI-generated content, while Zhai (2022) recommends redesigning writing tasks to emphasize iterative thinking and revision. This approach allows educators to capitalize on the tool's strengths, such as language support, while simultaneously developing students' capacity for self-editing and critical evaluation.

In sum, the thematic findings from the reviewed studies demonstrate a nuanced picture of ChatGPT's impact. The tool offers undeniable benefits in enhancing writing fluency and accessibility, especially for linguistically marginalized students. Yet, it also introduces risks of intellectual passivity and ethical ambiguity. These themes, while distinct, are deeply interrelated, suggesting that any future use of ChatGPT in tertiary academic writing must be guided by a holistic educational philosophy. However, from the above Table 2, it could be noted that most studies span multiple themes, indicating the multifaceted impact of ChatGPT on academic writing.

2. Methodology

This study brings together insights from several disciplines to build a well-structured framework for understanding how academic writing is learned today. It draws on recent theories of language acquisition, explores the growing use of educational technology, and considers the changing function of libraries in supporting learning. A key focus is on the value of diverse learning experiences, engaging environments, and the use of tools like Computer-Assisted Language Learning (CALL) to create fresh, effective teaching approaches. The research also looks closely at how AI is currently being used in education, and how it might be used in the future, to make language learning more dynamic and accessible (Devi & Sharma, 2024). This study adopts a systematic literature review design to assess the influence of ChatGPT on enhancing academic writing in tertiary education. A systematic approach was selected to ensure a comprehensive, transparent, and replicable synthesis of existing studies. The review was conducted by first identifying a broad range of research articles, reports, and case studies that explore the use of ChatGPT in the context of tertiary education, particularly in relation to academic writing. The goal was to gather insights into various aspects of ChatGPT's impact, including cognitive development, linguistic improvement, ethical concerns, and pedagogical integration.

The study focused specifically on studies published in peer-reviewed journals, conference proceedings, and grey literature from 2022 onward to ensure the inclusion of the most current research. Articles were selected based on their relevance to the research questions, the rigor of their methodology, and their contribution to understanding ChatGPT's role in academic writing processes. Only studies that directly examined the use of ChatGPT in academic writing contexts within tertiary education settings were considered, excluding studies on other generative AI tools or research outside the scope of academic writing.

2.1 Data Collection and Selection Criteria

The data collection process involved searching several academic databases, including Google Scholar, JSTOR, ERIC, and Scopus, using keywords such as 'ChatGPT,' 'academic writing,' 'AI in education,' and 'tertiary writing skills.' These databases were selected based on their extensive coverage of educational research and technology in higher education. The search was restricted to articles published in English to ensure consistency in the reviewed texts. After an initial selection of studies based on titles and abstracts, full-text articles were retrieved and assessed for relevance.

To ensure a rigorous selection process, studies were screened against specific inclusion criteria. These included: 1) being published within the last two years (2022-2025); 2) being empirical studies or comprehensive theoretical analyses; 3) focusing on ChatGPT's use in academic writing in higher education, and 4) reporting on at least one of the following: linguistic enhancement, cognitive development, pedagogical applications or ethical concerns. Studies that did not directly

explore these areas or those with indistinct methodological approaches were excluded from the final review. This rigorous selection process ensured that only the most pertinent and methodologically sound studies were included in this study.

2.2 Data Synthesis and Analysis

Once the relevant studies were identified and selected, the next step in the methodology was data synthesis. A qualitative synthesis approach was employed to integrate findings from diverse studies and draw overarching conclusions about the role of ChatGPT in academic writing. This process involved categorizing and thematically analyzing the content of each study to identify common themes, trends, and patterns. Studies were first grouped based on their focus; linguistic enhancement, cognitive development, ethical considerations, or pedagogical implications, before conducting a deeper thematic analysis to identify sub-themes within each category.

The synthesis process also included a comparison of methodologies across studies. Given the varied approaches (e.g., qualitative, experimental, mixed methods), this analysis highlighted the strengths and limitations of each method and its contribution to understanding the impact of ChatGPT. For example, studies using surveys or interviews provided valuable insights into student perceptions and behaviors, while experimental studies offered more objective measures of the tool's effectiveness. By triangulating results from these diverse studies, the review sought to provide a holistic view of ChatGPT's influence on academic writing in tertiary education.

2.3 Limitations of Methodology

While the systematic review methodology provides a structured and rigorous approach to data analysis, it is important to acknowledge several limitations in the process. First, the review is constrained by the available literature, which may be limited in scope or skewed by the relatively recent emergence of ChatGPT in educational contexts. Consequently, studies included in this review may not fully capture the long-term effects or broader implications of ChatGPT's use in academic writing.

Another restriction emerges from the exclusion of grey literature that could offer valuable insights, such as industry reports, conference papers, and educational policy documents. While peer-reviewed articles were prioritized to ensure methodological rigor, grey literature could provide practical, real-world examples of how ChatGPT is being used in classrooms, principally in less formal educational settings. Finally, the rapid growth of AI tools like ChatGPT means that the body of research on this topic is still developing. This review captures a snapshot of the current state of knowledge but cannot account for future developments in the capabilities of ChatGPT or its assimilation with higher education.

3. Findings and Discussion

ChatGPT can serve as an influential supportive assistant in academic writing progress especially when appropriately integrated with tertiary English Education. This could be the essential finding emerging from this review paper where AI seems to offer significant scaffolding in areas such as idea generation, grammatical correction, vocabulary expansion, and syntactic variation. For students struggling with linguistic fluency, mainly when English is studied as a Second Language (ESL), ChatGPT affords real-time feedback and models of academic prose that can illuminate complex writing conventions (Zou et al., 2023).

Students have reported increased confidence and motivation when using ChatGPT for paraphrasing, brainstorming, or drafting introductory paragraphs, tasks that traditionally induce high levels of writing anxiety (Chang, 2023). The skill of interacting conversationally with the AI, and receiving non-judgmental or immediate responses, creates a low-stakes environment for learning and experimentation. Additionally, ChatGPT can expose students to a range of rhetorical strategies, enabling comparative learning when multiple prompts are explored.

On the contrary, the effectiveness of ChatGPT is not uniform where the findings suggest that ChatGPT excels more at surface-level language support compared to fostering higher-order cognitive skills such as synthesis, critical analysis, or argument development. Whereas it can mimic the structure of academic arguments, it lacks the capacity to engage in complex reasoning or the true epistemological awareness. Accordingly, students seem to produce text that sounds sophisticated but lacks coherence, depth, or original insight. This leads to increasing concerns about ‘fluency illusions’ (Zhai, 2022). In other words, ChatGPT addresses an essential pedagogical truth because it is not a thinking partner but a capable language model.

3.1 Pedagogical Tensions

A dominant theme throughout literature is the tension between the risk of ChatGPT becoming an intellectual support and using it as an educational aid. While numerous educators realize the tool’s potential to democratize access to writing support, especially in resource-constrained contexts, others express fears about over-reliance. The line between substitution and support is often blurred. Many students report using ChatGPT to generate entire drafts with minimal revision or personal input, undermining the learning process (Bai & Wang, 2023).

This pressure is mainly pronounced in the realm of academic integrity. Although ChatGPT does not plagiarize in the traditional sense, it raises new forms of authorship ambiguity. Hence, some significant questions might arise such as: can learning outcomes be considered achieved if students outsource cognitive tasks to a machine? Who owns a text that is co-constructed with an algorithm? These questions remain contested where several institutions are only commencing to draft the usage policies of AI, leaving educators in a grey area where guidance and enforcement

are inconsistently applied (Mollick & Mollick, 2023).

Moreover, there is an increasing concern that ChatGPT might compress intellectual diversity by encouraging formulaic and standardized writing. The model tends to create generic responses unless prompted with creativity and precision which novice writers mostly lack. This can lead to academic expression homogenization, where essays across disciplines begin to resemble one another in structure and tone. Such patterns not only undermine individuality but may also disadvantage students who do not critically revise or evaluate the output they receive.

3.2 Pedagogical Shifting Roles of Teachers and Students

The amalgamation of ChatGPT is quietly but profoundly reshaping the roles of both teachers and students in writing instruction. Teachers are no longer the sole source of linguistic input or feedback. In other words, students can now bypass traditional channels and seek instant answers from AI. However, this shift can free up classroom time for more collaborative, dialogic, and reflective tasks, it also demands a pedagogical rethinking. Now, instructors must focus more on teaching judgment and less on teaching rules. In other words, the need to consider how to question, evaluate, refine, and contextualize machine-generated text (Kasneci et al., 2023).

This development requires AI literacy, which incorporates critical awareness of how tools like ChatGPT operate, their limitations, biases, and ethical implications. Hence, students are required to recognize not just how to use the tool but how to use it well and wisely. For instance, a student might use ChatGPT to rephrase a complex idea, but should be taught to cross-check its accuracy, reflect on the tone, and ensure the meaning aligns with their intended argument. In this case, ChatGPT becomes a mirror for metacognitive development.

For instructors, this also indicates rethinking assessment where traditional writing tasks that focus on grammar and organization may no longer reflect a student's authentic skill (Tayeb, 2023). In this regard, Sharma and Holbah (2022) conclude that evaluating students' language skills require an appropriate revisit, redesign, and revision of assessment techniques to compromise construct representation. It is also important to mention that there is a growing encouragement for reflective and process-based assessment and models, such as writing journals, annotated drafts, or oral defenses which reveal the thinking behind writing. Such significant approaches may be more labor-intensive, but they offer a more accurate picture of student learning in an AI-augmented era.

3.3 The Road towards Responsible Integration

Taken together, the findings of this review paper suggest that the most fruitful approach to integrating ChatGPT in tertiary English education is not to blindly ban or embrace it, but to relocate it as a pedagogical partner. Once framed as a tool for scaffolding rather than substitution, ChatGPT can enhance the development of academic writing in powerful ways. Nevertheless, this

necessitates intentional design of tasks, clear ethical guidelines, and a strong emphasis on reflection and revision.

Hence, institutions need to develop policies that balance academic integrity with innovation, offering frameworks that encourage responsible usage. Furthermore, faculty development is critical where instructors should actively participate in designing AI-informed assignments, adapting curricula, and modeling critical engagement with machine-generated texts.

Most significantly, students should not be seen as passive recipients of AI output, but as critical thinkers and co-authors. The educational goal should not be perfect prose produced by machines, but a writing process enriched by tools that foster independence, confidence, and a deeper understanding of language.

4 Conclusion and Recommendations

The incorporation of generative AI, particularly ChatGPT, into tertiary-level of English academic writing represents a paradigm shift that is both complex and promising. This review has revealed a dynamic landscape where students, educators, and institutions are renegotiating traditional roles in the writing process. ChatGPT emerges not merely as a digital tool, but as an interactive writing partner with the potential to democratize access to academic support, enhance linguistic fluency, and alleviate the anxiety often associated with producing scholarly texts.

Yet, the review also highlights the nuanced boundaries of this potential. Although ChatGPT can effectively support surface-level competencies, such as vocabulary, grammar, and coherence, it remains limited in fostering original, deep, and critical thinking. Students who rely exclusively on AI-generated outputs may unwittingly trade authenticity for efficiency, producing content that appears academically sound but lacks intellectual rigor. This paradox, where writing becomes more fluid but less thoughtful, underscores the necessity for a human-centered, critically informed approach to AI integration.

Additionally, the evolving nature of integrity, authorship, and learning calls for a reevaluation of assessment methods and pedagogical practices makes it important to consider the traditional binary between cheating and learning (Tayeb & Al-Jaro, 2022). This seems to be insufficient to navigate this new landscape, because ChatGPT does not replace human cognition. Rather, it reshapes the learning journey, making it more iterative, dialogic, and arguably more personalized. It becomes fruitful only when guided by ethical awareness and thoughtful instructional design. The question is no longer whether ChatGPT should be used in academic writing, but how it should be used. In other words, the challenge lies not in resisting the tool but in reclaiming the educational purpose it should serve. It should not be devoted to writing for students, but to write with them, helping them improve their fluency, find their voice, and deepen their engagement with the academic world.

Drawing upon the findings of this review, several actionable recommendations are proposed to support the ChatGPT's ethical and effective integration into academic writing instruction. These recommendations target three primary stakeholder groups namely: educators, institutions, and students, each of whom plays a vital role in shaping how artificial AI tools like ChatGPT are adopted within tertiary English education. The aim is not merely to accommodate technological change, but to use it to enhance students' learning, enrich pedagogical practice, and uphold academic integrity.

Educators stand at the frontlines of implementation, and their pedagogical strategies are crucial in shaping how students interact with AI tools. First and foremost, there is a pressing need to incorporate AI literacy into the writing curriculum where students should not be passive users of ChatGPT. Instead, they should understand its ethical risks, embedded biases, limitations, and how it works. As Kasneci et al. (2023) maintain, fostering critical digital literacy empowers students to approach AI-generated content reflectively, rather than dependently. Such literacy equips students to distinguish between helpful support and biased output or potentially misleading.

Moreover, educators are encouraged to design writing assignments that explicitly integrate AI tools like ChatGPT. This might include exercises where students compare their own drafts with those generated by ChatGPT, followed by critical reflections on differences in tone, argumentation, and clarity (Zou et al., 2023). This comparative model deepens understanding of stylistic conventions and encourages awareness of authorial voice. In addition, teaching should emphasize writing as a process rather than a product. Instead of evaluating final submissions alone, instructors should consider using draft revisions, portfolios, oral defenses of writing choices, and reflective annotations. As Mollick and Mollick (2023) suggest, such approaches provide more authentic insights into student learning and discourage superficial reliance on AI.

At the institutional level, training, resource allocation and policy development are the cornerstone of ensuring equitable and consistent practices. Developing clear and transparent policies regarding AI usage is considered as one of the foremost recommendations of the current review paper. These policies must outline acceptable uses of tools like ChatGPT in academic writing and clearly differentiate between academic dishonesty and ethical assistance. Including guidelines, examples, and potential consequences will help establish a shared understanding among students and faculty (Elmahdi & Al-Hattami, 2023). Clarity is especially critical given the blurred boundaries between plagiarism and AI-enhanced writing.

In relation to policy development, institutions should invest in professional development for faculty, equipping them with the knowledge and skills necessary to integrate AI meaningfully into pedagogy. Workshops on critical evaluation of AI-generated texts, prompt engineering, AI bias, and assessment strategies for hybrid work can empower educators to maintain high standards while embracing innovation. As Zhai (2022) points out, unequal access to technology risks widens

existing educational discrepancies. Hence, it could be argued that institutions must provide device access, reliable Internet, and digital literacy support for students to maximize the benefits of ChatGPT and similar tools.

To put it in a nutshell, institutions are encouraged to foster interdisciplinary collaboration. In other words, the use of AI in education spans beyond language departments and into instructional design, ethics, computer science, and educational psychology. Creating research communities or cross-disciplinary teams can enrich understanding of ChatGPT's pedagogical effects and lead to more adaptable approaches. Additionally, these collaborations can guide ongoing evaluation and iteration of curriculum models that incorporate AI meaningfully.

As the ultimate users of ChatGPT, students carry the responsibility of using it ethically and thoughtfully. More significantly, it is recommended that students view ChatGPT as a mentor rather than a ghostwriter. The tool should be used for linguistic enhancement, idea generation, and clarification, however, the core intellectual work, synthesis of sources, argument development, and analytical thinking, must remain the student's own. This ensures that the use of AI remains a support to, not a substitute for, critical academic engagement.

In addition, students should be engaged in reflective writing practices after using AI tools. In other words, they might be encouraged to document what suggestions they used from ChatGPT, which they modified or rejected, and provide reasons for that. This kind of metacognitive activity not only enhances learning but also promotes awareness of the decision-making process that underlies good writing. As AI becomes more integrated into educational environments, reflective use will serve as a critical safeguard against cognitive passivity.

Most significantly, students must be committed to upholding academic integrity. Hence, it becomes essential to understand the boundaries of acceptable AI use. Submitting AI-generated content as one's own work without meaningful transformation or attribution violates academic standards and diminishes the educational value of writing assignments. Both instructors and institutions should reinforce these values through modeling, discussions, and assessment strategies that prioritize intellectual ownership and transparency.

In summary, the emergence of ChatGPT marks not the end of academic writing, but the beginning of a new, hybrid form of authorship, where humans and machines collaborate in meaningful, albeit imperfect, ways. Like any transformative educational technology, the value of ChatGPT depends not on the tool itself, but on the pedagogical vision behind its use. If harnessed thoughtfully, ChatGPT can move students closer to what all good writing demands include clarity of thought, precision of language, and depth of understanding. As this new frontier has been navigated, the controlling concept should remain addressing students to be prepared not just to use such powerful tools, but to think on how to be more persuasive, innovative and creative.

Acknowledgments: The author would like to extend profound thanks and gratitude to Seiyun University and Hodeidah University for unlimited support and encouragement. The author confirms that this work is original, free from plagiarism, and has not involved the use of AI-generated content.

Conflicts of Interest: The author declares that there are no competing interests.

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