

The Role of ChatGPT in Enhancing Critical Thinking in EFL Writing: A Systematic Literature Review

Nazwa Slasabila^{1*}, Sirajul Munir², Rahmalia Safitri³, Viona Sri Indayani⁴

[¹nazwasalsabilla1812@gmail.com](mailto:nazwasalsabilla1812@gmail.com), [²sirajulmunir@uinmybatusangkar.ac.id](mailto:sirajulmunir@uinmybatusangkar.ac.id),
[³rahmaliasafitri1294@gmail.com](mailto:rahmaliasafitri1294@gmail.com), [⁴sriindayaniviona@gmail.com](mailto:sriindayaniviona@gmail.com)

Universitas Islam Negeri Mahmud Yunus Batusangkar, West Sumatra, Indonesia

*Corresponding Author: nazwasalsabilla1812@gmail.com

Received: 07/05/2026

Accepted: 10/06/2026

Published: 15/07/2026

ABSTRACT

Critical thinking is an essential skill in EFL writing, yet many learners still struggle in develop arguments, evaluate evidence, and reflect on their reasoning. The increasing use of ChatGPT in language education has created new opportunities to support these skills, although its impact on critical thinking remains debated. This study systematically reviews the literature on the role of ChatGPT in promoting critical thinking in EFL writing. Using the PRISMA 2020 framework, relevant studies published between 2021 and 2026 were collected from Scopus, Web of Science, Google Scholar, ERIC, and SINTA-indexed sources. After a screening process, 18 articles met the inclusion criteria and were analyzed thematically. The findings show that ChatGPT can enhance critical thinking by supporting argumentative reasoning, encouraging learners to consider multiple perspectives, and providing feedback that facilitates revision. However, challenges such as over-reliance on AI, superficial engagement with generated content, and reduced independent reasoning were also identified. The review suggests that ChatGPT can positively contribute to the development of critical thinking when its use is supported by appropriate pedagogical guidance. Therefore, teachers play a crucial role in designing activities that encourage students to evaluate, question, and critically engage with AI-generated responses.

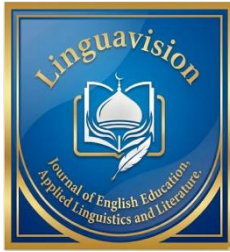
Keywords: *artificial intelligence in language education; ChatGPT; critical thinking; EFL writing; systematic literature review*

DOI: 000

INTRODUCTION

Writing in a foreign language has long been recognised as one of the most cognitively demanding skills that learners must acquire, precisely because it requires far more than grammatical accuracy or lexical range. A writer composing in English as a Foreign Language is simultaneously expected to generate ideas, organise them logically, weigh competing claims, and anticipate how a reader might respond to the argument being advanced (Jiang et al., 2023). These demands place critical thinking at the very heart of EFL writing pedagogy,

Nazwa Slasabila, Sirajul Munir, Rahmalia Safitri, Viona Sri Indayani (2026)



Linguavision: Journal of English Education, Linguistics, and Literature

Vol. 1 No.1 2026

E-ISSN:XXXX-XXXX

UIN Mahmud Yunus Batusangkar

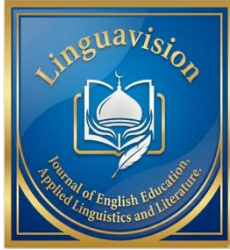


since the capacity to analyse, evaluate, and synthesise information is what ultimately distinguishes a well-reasoned essay from a string of grammatically correct but shallow sentences. Despite decades of curricular emphasis on this competency, classroom observation and empirical research alike continue to report that EFL learners frequently produce writing that is descriptive rather than analytical, and that many struggle to substantiate claims with adequate reasoning or evidence.

Against this backdrop, the emergence of ChatGPT and comparable generative artificial intelligence tools has introduced a markedly new variable into the writing classroom. Since its public release at the end of 2022, ChatGPT has been adopted at a remarkable speed across higher education contexts, including EFL programmes, where it is now used for purposes ranging from idea generation and grammar correction to the simulation of argumentative dialogue (Kasneci et al., 2023). Several scholars have argued that this technology holds genuine pedagogical promise for the development of critical thinking, since it can expose learners to alternative viewpoints, model the structure of sound argumentation, and provide immediate feedback on the logical coherence of a draft (Su et al., 2023). Other researchers, however, have cautioned that the same convenience that makes ChatGPT attractive may also encourage learners to outsource the very cognitive labour that writing instruction is meant to build, thereby weakening rather than strengthening independent reasoning (Barrot, 2023).

This tension between opportunity and risk has generated a fast-growing but fragmented body of literature. Individual studies have examined ChatGPT's effect on argumentative essay quality, learners' perceptions of AI-assisted feedback, and the cognitive processes activated during AI-supported revision, yet these investigations have rarely been synthesised with explicit attention to critical thinking as the central construct of interest. Several prior reviews have addressed ChatGPT in EFL writing more broadly, cataloguing benefits such as personalised feedback and challenges such as academic integrity violations (Albadarin et al., 2024), but the specific question of how and under what conditions ChatGPT shapes learners' critical thinking has not yet received a dedicated, systematic treatment. This gap is consequential because critical thinking is not merely one among many writing subskills; it is widely regarded as the cognitive engine that drives the quality of arguments, and a clearer understanding of how AI tools interact with this engine is essential for informed pedagogical decision-making.

The present study addresses this gap by conducting a systematic literature review focused specifically on the intersection of ChatGPT, critical thinking, and EFL writing. Rather than treating critical thinking as an incidental outcome mentioned in passing, this review treats it as the primary lens through which the literature is screened, coded, and



Linguavision: Journal of English Education, Linguistics, and Literature

Vol. 1 No.1 2026

E-ISSN:XXXX- XXXX

UIN Mahmud Yunus Batusangkar



synthesised. In doing so, the study seeks to clarify which pedagogical mechanisms appear to support critical thinking when ChatGPT is integrated into writing instruction, which conditions appear to undermine it, and what this pattern of findings implies for the design of EFL writing curricula in an era where generative AI is no longer a novelty but an entrenched feature of student life. The following research questions guide this review.

1. What opportunities does ChatGPT offer for the development of critical thinking skills among EFL writing learners?
2. What challenges are associated with ChatGPT's integration into EFL writing instruction in relation to critical thinking?
3. What pedagogical and contextual factors mediate whether ChatGPT use strengthens or weakens critical thinking in EFL writing?

Critical Thinking as a Construct in EFL Writing

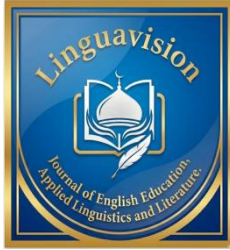
Critical thinking in the context of second language writing is generally understood as the ability to analyse a problem, weigh evidence from multiple angles, anticipate counterarguments, and arrive at a justified position rather than a merely asserted one. Jiang et al. (2023) demonstrate that structured opportunities for evaluative engagement, such as peer assessment within a knowledge-building community, can measurably strengthen college students' critical thinking, suggesting that this capacity is not fixed but responsive to instructional design. Within EFL writing specifically, critical thinking has traditionally been cultivated through genre-based pedagogy, in which learners are explicitly taught the rhetorical moves associated with argumentation, including claim construction, evidential support, and rebuttal (Zhang & Zhang, 2021). This body of work establishes that critical thinking is best understood not as an innate trait that learners either possess or lack, but as a teachable disposition that depends heavily on the scaffolding embedded in classroom tasks.

A persistent finding in this literature is that EFL learners often experience particular difficulty translating critical thinking into the linguistic structures required for persuasive English prose, since the cognitive demand of reasoning is compounded by the additional burden of expressing that reasoning in a non-native language. This dual burden has long motivated language educators to search for tools and techniques capable of reducing the linguistic load so that learners can devote more attention to the quality of their reasoning, which is precisely the niche into which generative AI tools have positioned themselves.

ChatGPT as a Pedagogical Tool in Language Education

ChatGPT belongs to a class of large language models capable of producing fluent, contextually appropriate text in response to natural language prompts, and its conversational

Nazwa Slasabila, Sirajul Munir, Rahmalia Safitri, Viona Sri Indayani (2026)



Linguavision: Journal of English Education, Linguistics, and Literature

Vol. 1 No.1 2026

E-ISSN:XXXX-XXXX

UIN Mahmud Yunus Batusangkar

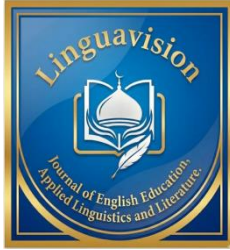


interface has made it particularly accessible to language learners who might otherwise find earlier computer-assisted language learning tools cumbersome. Kasneci et al. (2023) outline a broad set of opportunities that large language models offer education in general, including personalised explanation, on-demand practice, and scaffolded feedback, while simultaneously flagging risks such as factual inaccuracy and the potential erosion of independent skill development. Within EFL writing specifically, ChatGPT has been documented as a tool for generating outlines, suggesting counterarguments, correcting grammar, and rephrasing unclear sentences, functions that intersect directly with the cognitive operations associated with critical thinking (Barrot, 2023).

Empirical investigations published since 2023 have begun to test these claims directly. Han et al. (2023) describe a system named RECIPE that integrates ChatGPT into EFL writing education through a structured revision workflow and report that learners valued the tool's capacity to provide rapid, specific feedback on their drafts. Su, Lin, and Lai (2023) similarly find that collaborating with ChatGPT in an argumentative writing classroom helped students generate a wider range of supporting ideas than they had produced independently. However, the same study cautions that the depth of engagement with those ideas varied considerably across learners. These findings collectively suggest that ChatGPT's pedagogical value for critical thinking is conditional rather than automatic, depending on how the tool is incorporated into the broader instructional sequence.

The Contested Relationship Between Generative AI and Critical Thinking

A separate strand of literature has examined the relationship between generative AI and critical thinking more generally, beyond the specific domain of EFL writing. Jia and Tu (2024) propose a conceptual model linking AI-enhanced learning capabilities to critical-thinking awareness among college students, finding that self-efficacy and learning motivation serve as significant mediators in this relationship. This work implies that the mere availability of an AI tool such as ChatGPT does not, by itself, guarantee gains in critical thinking; rather, learners' motivational orientation and confidence in evaluating AI output appear to determine whether the tool is used reflectively or merely as a shortcut. Complementing this view, Shen and Teng (2024) report a three-wave cross-lagged study showing that critical thinking skills and self-directed learning competency are reciprocally related to AI-assisted writing behaviour over time, indicating that the relationship between AI use and critical thinking is dynamic and bidirectional rather than a simple one-way causal effect.



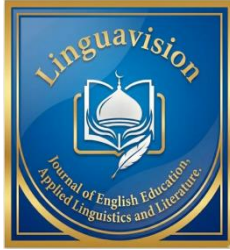
At the same time, several studies sound a more cautionary note. Van Rensburg (2024) explores whether ChatGPT can function as a model for critical thinking when learners are prompted with problem-based writing activities, concluding that the tool can demonstrate surface-level reasoning patterns but cannot substitute for the learner's own evaluative judgement, particularly when nuanced contextual interpretation is required. Wang et al. (2024) similarly observe, in a case study examining ChatGPT's feedback on undergraduate argumentation, that the tool tends to provide directive rather than reflective feedback, meaning that it often supplies a corrected version of an argument rather than prompting the student to reconsider the underlying reasoning independently. Taken together, this literature frames ChatGPT as a double-edged instrument whose effect on critical thinking hinges on the pedagogical scaffolding surrounding its use. This tension motivates the systematic synthesis undertaken in this review.

RESEARCH METHOD

This study employed a systematic literature review design, chosen because it enables a transparent, replicable, and comprehensive synthesis of dispersed empirical findings addressing a clearly defined research question. The review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses 2020 statement, which provides an updated and methodologically rigorous framework for identifying, screening, and reporting eligible studies (Page et al., 2021; Galvao et al., 2022). Adherence to this protocol was intended to minimise selection bias and to ensure that the review process could be audited and reproduced by other researchers.

Search Strategy

A systematic search was conducted across three primary databases, namely Scopus, Web of Science, and Google Scholar, with supplementary searching performed in the Education Resources Information Center and in journals indexed by the Indonesian Science and Technology Index. These databases were selected jointly because Scopus and Web of Science represent the principal international citation indices used to gauge journal quality. At the same time, ERIC and SINTA were included to capture relevant education-focused and regionally significant scholarship that might otherwise be underrepresented in purely international indices. The search was limited to publications appearing between January 2021 and June 2026, a window chosen to capture both the foundational literature on critical thinking in EFL writing that predates ChatGPT's release and the rapidly expanding body of work published after the tool became widely available at the end of 2022.



Linguavision: Journal of English Education, Linguistics, and Literature

Vol. 1 No.1 2026

E-ISSN:XXXX-XXXX

UIN Mahmud Yunus Batusangkar



The search string combined three conceptual clusters using Boolean operators, namely terms related to the technology (“ChatGPT” OR “generative artificial intelligence” OR “large language model”), terms related to the cognitive construct (“critical thinking” OR “higher order thinking” OR “argumentative reasoning”), and terms related to the educational context (“EFL writing” OR “English as a foreign language” OR “second language writing”). These clusters were joined with the AND operator to ensure that retrieved records addressed all three dimensions simultaneously, rather than treating the search as a query for ChatGPT in education generally.

Eligibility Criteria

Studies were included if they satisfied the following criteria: the study examined ChatGPT or a closely related generative AI writing tool, the study was situated within an EFL or comparable second language writing context, the study reported empirical findings or a substantive conceptual analysis relevant to critical thinking, the study was published in a peer-reviewed journal or conference proceeding between 2021 and 2026, and the full text was available in English. Studies were excluded if they focused exclusively on language skills unrelated to writing, such as listening or pronunciation, if they addressed generative AI in disciplines unrelated to language education, if they were not peer-reviewed, such as blog posts or opinion pieces without an empirical or scholarly basis, or if the full text could not be retrieved despite reasonable efforts.

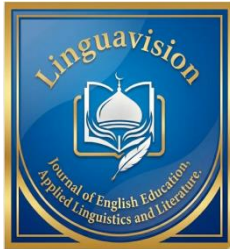
Study Selection and PRISMA Flow

The initial search across all databases yielded a combined total of 312 records. After removing 64 duplicate records using reference management software, 248 records remained for title and abstract screening. During this stage, 187 records were excluded because they did not address the intersection of ChatGPT, critical thinking, and EFL writing, leaving 61 records for full-text retrieval and assessment. Of these, 43 records were excluded for the following reasons: 19 did not report findings specific to critical thinking, 14 were situated outside an EFL or comparable second language writing context, 6 were not peer-reviewed, and 4 could not be retrieved in full text. This process resulted in a final set of eighteen studies that satisfied all eligibility criteria and were retained for thematic synthesis.

Data Extraction and Synthesis

For each included study, the following information was extracted into a standardised matrix: authorship and year of publication, country and participants' educational level, research design, the specific ChatGPT-related intervention or focus, and the principal findings

Nazwa Slasabila, Sirajul Munir, Rahmalia Safitri, Viona Sri Indayani (2026)



relevant to critical thinking. Following extraction, the data were analysed using a thematic synthesis approach, in which findings across studies were inductively coded, grouped into descriptive themes, and subsequently interpreted to generate higher-order analytical themes that address the review's three research questions. Two broad analytical categories emerged from this process, namely opportunities for critical thinking enhancement and challenges or risks to critical thinking, with a third cross-cutting theme capturing the mediating pedagogical factors that appeared to determine which of these two outcomes prevailed in a given context.

FINDING AND DISCUSSION

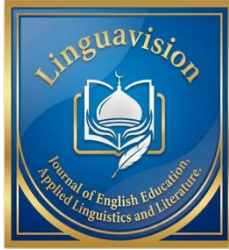
Finding

Overview of Included Studies

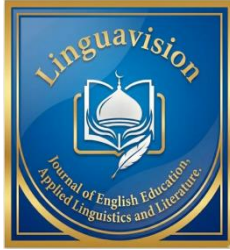
The eighteen studies included in this review were published between 2021 and 2026, with the overwhelming majority appearing after 2023, reflecting the rapid acceleration of scholarly interest following ChatGPT's public release. The included studies originated from a geographically diverse set of contexts, including Indonesia, China, Taiwan, Vietnam, Thailand, and several Western European and North American settings. They employed a mixture of quasi-experimental designs, mixed-methods studies, qualitative case studies, and conceptual or review-based analyses. Table 1 summarises the key characteristics of the included studies.

Table 1. Summary of Included Studies

No	Author(s) & Year	Focus of Study	Relevant Finding on Critical Thinking
1	Su, Lin, & Lai (2023)	Collaborative ChatGPT use in argumentative writing classrooms	ChatGPT broadened the range of supporting ideas generated, though the depth of evaluative engagement varied across students
2	Han et al. (2023).	RECIPE system integrating ChatGPT into EFL writing revision	Structured revision cycles with ChatGPT feedback supported iterative reasoning, but unguided use risked passive acceptance of suggestions
3	Guo, Wang, & Chu (2022)	Chatbot scaffolding of EFL argumentative writing	Chatbot prompts helped learners articulate claims and counterclaims



No	Author(s) & Year	Focus of Study	Relevant Finding on Critical Thinking
			more explicitly than unscaffolded writing
4	Darmawansah et al. (2024).	ChatGPT-supported collaborative argumentation with argument mapping	Combining argument mapping with ChatGPT enhanced students' ability to structure and visualise reasoning chains
5	Wang et al. (2024).	Case study of ChatGPT feedback on undergraduate argumentation	Feedback was largely directive rather than reflective, limiting opportunities for independent evaluative reasoning
6	Barrot (2023)	Conceptual analysis of ChatGPT in second language writing	Identifies overreliance as a key risk that may displace learners' independent analytical effort
7	Van Rensburg (2024)	ChatGPT as a model for critical thinking in problem-based writing tasks	ChatGPT exhibited surface-level reasoning but could not substitute for learners' contextual evaluative judgement
8	Jia & Tu (2024)	Conceptual model of AI-enhanced learning and critical thinking awareness	Self-efficacy and motivation mediate whether AI capability translates into critical thinking gains
9	Shen & Teng (2024)	Cross-lagged study of critical thinking and AI-assisted writing	Critical thinking and AI-assisted writing behaviour are reciprocally related over time rather than unidirectional
10	Steiss et al. (2024).	Comparison of human and ChatGPT feedback quality	ChatGPT feedback was comparably specific to human feedback but less attentive to higher-order argument quality
11	Escalante, Pack, & Barrett (2023)	AI-generated feedback efficacy and student preference	Students appreciated the speed of feedback, but expressed uncertainty about evaluating feedback accuracy critically



Linguavision: Journal of English Education, Linguistics, and Literature

Vol. 1 No.1 2026

E-ISSN:XXXX- XXXX

UIN Mahmud Yunus Batusangkar

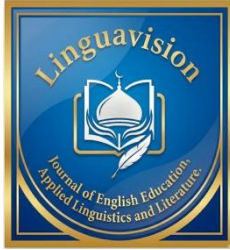


No	Author(s) & Year	Focus of Study	Relevant Finding on Critical Thinking
12	Boudouaia, Mouas, & Kouider (2024)	ChatGPT-4 in EFL writing learning	Reports gains in organisation and coherence, with some evidence of improved argument elaboration
13	Guo & Wang (2024)	Teacher perspectives on ChatGPT support for EFL writing feedback	Teachers viewed ChatGPT as useful for efficiency, but stressed the need to safeguard students' independent reasoning
14	Tai, Lin, & Chen (2026)	ChatGPT in genre-based instruction for argumentative writing	Genre-based scaffolding combined with ChatGPT improved organisation, but not significantly the willingness to think independently
15	Teng (2025)	Metacognitive awareness in ChatGPT-assisted writing feedback	Higher metacognitive awareness was associated with more critical, evaluative use of ChatGPT feedback
16	Teng & Huang (2026)	Comparing peer feedback and ChatGPT feedback on EFL writing engagement	ChatGPT feedback boosted behavioural engagement, but peer feedback elicited deeper cognitive engagement
17	Tran (2025)	Sequencing AI- and teacher-generated feedback in EFL revision	Sequencing ChatGPT feedback before teacher feedback encouraged more substantive revision than either source alone
18	Yan (2023)	Exploratory study of ChatGPT's text generation in L2 writing practicum	Some learners used ChatGPT output as a stimulus for further reasoning, while others copied content with minimal evaluation

Opportunities for Critical Thinking Enhancement

The first analytical theme to emerge from the synthesis concerns the range of opportunities that ChatGPT appears to create for the development of critical thinking in EFL writing. The most frequently reported mechanism was the scaffolding of argumentative structure, in which ChatGPT was used to generate or refine claims, counterclaims, and supporting

Nazwa Slasabila, Sirajul Munir, Rahmalia Safitri, Viona Sri Indayani (2026)



Linguavision: Journal of English Education, Linguistics, and Literature

Vol. 1 No.1 2026

E-ISSN:XXXX- XXXX

UIN Mahmud Yunus Batusangkar



evidence that learners could then evaluate and adapt. Guo, Wang, and Chu (2022) report that chatbot-based scaffolding helped EFL students articulate counterarguments more explicitly than in unscaffolded writing, suggesting that the tool can serve as a cognitive prompt that nudges learners toward more deliberate argumentative reasoning rather than directly performing that reasoning on their behalf. This finding is reinforced by Darmawansah et al. (2024), who combine ChatGPT with explicit argument mapping and find that the visual representation of reasoning chains generated in dialogue with the chatbot enhances students' capacity to organise and interrogate their own arguments.

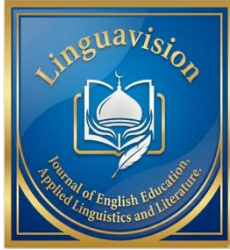
The second recurring opportunity is the exposure to multiple perspectives that ChatGPT can provide in a single interaction. Because the tool can generate alternative formulations of an argument on request, several studies note that students used this capacity to compare competing lines of reasoning before settling on their own position. This process closely mirrors the evaluative comparison at the heart of critical thinking. Su, Lin, and Lai (2023) document this pattern directly, observing that students engaging with ChatGPT in an argumentative writing classroom produced a noticeably wider range of supporting ideas than comparable students working without the tool, even though the depth of critical engagement with those ideas was not uniform across the sample.

The third opportunity identified in the literature concerns the iterative feedback cycle enabled by ChatGPT. Several studies frame this iterative quality as pedagogically significant precisely because critical thinking is rarely achieved in a single pass; rather, it tends to develop through repeated cycles of drafting, receiving feedback, and revising. Han et al. (2023) describe how a structured revision workflow built around ChatGPT feedback supported students in repeatedly reconsidering the logical coherence of their drafts, while Tran (2025) finds that sequencing ChatGPT feedback before teacher feedback produced more substantive revision than either feedback source used alone, implying that the AI tool can serve a productive scaffolding function when it precedes rather than replaces human evaluative input.

Challenges to Critical Thinking

Set against these opportunities, the second major theme to emerge from the synthesis concerns the challenges and risks posed by ChatGPT integration for critical thinking in EFL writing. The most consistently reported concern was overreliance, in which learners came to depend on ChatGPT-generated content to such an extent that their own analytical effort was displaced rather than supported. Barrot (2023) frames this risk as a fundamental pitfall of AI-assisted second language writing, arguing that the convenience of receiving a polished argument on demand may discourage learners from engaging in the effortful reasoning that

Nazwa Slasabila, Sirajul Munir, Rahmalia Safitri, Viona Sri Indayani (2026)



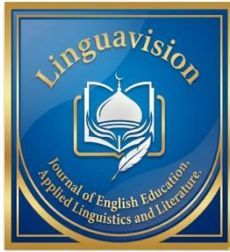
critical thinking requires. Yan (2023) provides empirical texture to this concern, reporting that while some learners treated ChatGPT output as a stimulus for further independent reasoning, a substantial proportion of students in the same exploratory study incorporated AI-generated content into their drafts with minimal evaluation or modification.

A related but distinct risk identified in the literature concerns the directive rather than reflective nature of much ChatGPT feedback. Wang et al. (2024) observe in their case study that ChatGPT tends to supply a corrected or improved version of an argument rather than posing questions that would prompt students to reconsider their reasoning independently. This pattern risks reducing the development of critical thinking to the passive acceptance of machine-generated conclusions. Steiss et al. (2024) reach a related conclusion in their comparison of human and ChatGPT feedback, finding that although ChatGPT feedback was comparably specific to feedback from human raters in addressing surface-level concerns, it was less attentive to higher-order dimensions of argument quality, such as the logical soundness of a claim or the sufficiency of supporting evidence.

A third risk concerns learners' uncertainty about how to evaluate the accuracy and trustworthiness of ChatGPT-generated content, a capacity that is itself a component of critical thinking but one that many learners appear not to possess by default. Escalante, Pack, and Barrett (2023) report that while students valued the speed of AI-generated feedback, they frequently struggled to assess whether the feedback was sound, suggesting a meta-level gap in critical evaluation that compounds the well-known risk of overreliance. Van Rensburg (2024) frames this limitation as inherent to the technology itself, arguing that ChatGPT can model surface features of critical reasoning convincingly enough to be mistaken for genuine evaluative judgement, even though it cannot replicate the contextual sensitivity that authentic critical thinking demands.

Mediating Pedagogical and Contextual Factors

The third analytical theme cuts across the opportunities and challenges identified above, capturing the conditions under which the use of ChatGPT appears more likely to strengthen rather than weaken critical thinking. The clearest mediating factor to emerge from the synthesis is the presence or absence of explicit pedagogical scaffolding surrounding ChatGPT use. Studies that embedded the tool within a structured task design, such as the genre-based instruction examined by Tai, Lin, and Chen (2026) or the argument-mapping approach used by Darmawansah et al. (2024), tended to report more favourable outcomes than studies in which students were left to use ChatGPT without explicit guidance on how to evaluate or build upon its output.



Linguavision: Journal of English Education, Linguistics, and Literature

Vol. 1 No.1 2026

E-ISSN:XXXX-XXXX

UIN Mahmud Yunus Batusangkar



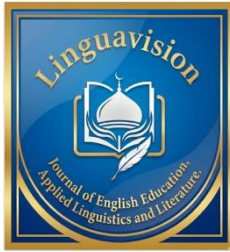
A second mediating factor concerns learners' metacognitive awareness, understood as their capacity to monitor and reflect on their own thinking processes as they interact with the tool. Teng (2025) finds that students with higher metacognitive awareness engaged with ChatGPT feedback in a markedly more critical and evaluative manner than students with lower awareness, who tended toward more uncritical acceptance of the tool's suggestions. This finding resonates with the conceptual model proposed by Jia and Tu (2024), in which learning motivation and self-efficacy are positioned as mediators between AI capability and critical thinking awareness, reinforcing the broader pattern that the cognitive disposition learners bring to the interaction matters as much as the technological affordances of the tool itself.

A third mediating factor relates to the sequencing and combination of feedback sources. Tran (2025) and Teng and Huang (2026) both report that ChatGPT feedback produced different effects depending on whether it was used in isolation or in conjunction with peer or teacher feedback, with combined or sequenced approaches generally associated with deeper cognitive engagement than reliance on ChatGPT alone. This pattern suggests that the question of whether ChatGPT helps or harms critical thinking is best understood not as a property of the tool in isolation, but as an emergent outcome of the broader feedback ecology within which the tool is situated.

Discussion

The findings synthesised in this review point toward a more nuanced conclusion than either the techno-optimist or techno-sceptic positions that have often characterised public debate about ChatGPT in education. Rather than functioning as a uniformly beneficial or uniformly harmful presence in the EFL writing classroom, ChatGPT appears to act as an amplifier of existing pedagogical conditions: when its use is embedded within deliberately scaffolded tasks that require learners to evaluate, question, and build upon its output, the tool appears capable of genuinely supporting critical thinking, particularly through the mechanisms of argumentative scaffolding, exposure to multiple perspectives, and iterative feedback. When its use is left unscaffolded, however, the same convenience that makes the tool attractive appears to create fertile conditions for overreliance and passive acceptance of machine-generated reasoning.

This pattern aligns closely with the broader literature on generative AI and critical thinking in higher education, which similarly emphasises that AI tools function as double-edged instruments whose ultimate effect depends heavily on surrounding instructional design (Kasneci et al., 2023). It also resonates with longstanding research on feedback in second language writing more generally, which has consistently found that the value of feedback, whether from a teacher, a peer, or now an AI system, depends less on the source itself than on whether learners are equipped and motivated to



Linguavision: Journal of English Education, Linguistics, and Literature

Vol. 1 No.1 2026

E-ISSN:XXXX- XXXX

UIN Mahmud Yunus Batusangkar



engage with that feedback reflectively rather than mechanically (Jiang et al., 2023; Mulyani et al., 2023). The present review extends this established principle into the specific domain of generative AI, suggesting that the same conditions that have long been known to matter for human feedback, namely explicit scaffolding, metacognitive support, and combination with other feedback sources, continue to matter, and perhaps matter even more, when the feedback source is an AI system capable of producing fluent and superficially convincing text.

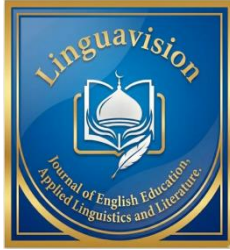
An important implication of this pattern concerns the directive quality of much ChatGPT feedback identified across several included studies. The tendency of the tool to supply corrected arguments rather than provocative questions suggests that, left to its default behaviour, ChatGPT may be poorly aligned with the pedagogical philosophy underlying critical-thinking instruction, which typically privileges Socratic questioning and guided discovery over the direct provision of answers. This finding suggests that instructors who wish to harness ChatGPT for critical thinking development cannot simply introduce the tool and expect beneficial outcomes to follow automatically; rather, they may need to actively redirect the tool's default mode of interaction, for instance by prompting it to ask evaluative questions rather than supply finished arguments, or by pairing AI-generated content with explicit instructions for students to critique rather than adopt that content.

The review also highlights that metacognitive awareness is a critical, currently underexplored variable in this relationship. If, as Teng (2025) and Jia and Tu (2024) suggest, learners with stronger metacognitive awareness are more likely to engage critically with ChatGPT output. Interventions aimed at strengthening metacognitive skills may be an underappreciated lever for maximising the critical-thinking benefits of AI integration, potentially more impactful than interventions focused solely on the AI tool's technical features. This observation suggests a productive direction for future pedagogical innovation: the deliberate pairing of AI literacy instruction with explicit metacognitive strategy training, rather than treating them as separate strands of curriculum development.

Finally, the mixed evidence regarding feedback sequencing, particularly the finding by Tran (2025) that ChatGPT feedback preceding teacher feedback produced more substantive revision than either source alone, points toward a promising hybrid model in which AI and human feedback are deliberately combined rather than treated as substitutes for one another. Such a model would position ChatGPT as a first-pass tool that helps learners surface and externalise their initial reasoning, leaving the more demanding work of deep evaluative critique to subsequent human feedback, whether from teachers or peers. This division of labour may represent a pragmatic way of capturing the efficiency benefits of generative AI while preserving the evaluative depth that human feedback has traditionally provided.

CONCLUSION AND SUGGESTION

This systematic literature review examined how ChatGPT shapes the development of critical thinking in EFL writing instruction, synthesising 18 studies published between 2021 and 2026 that met rigorous eligibility criteria in accordance with the PRISMA 2020 protocol. The synthesis indicates that ChatGPT carries genuine potential to support critical thinking through argumentative



Linguavision: Journal of English Education, Linguistics, and Literature

Vol. 1 No.1 2026

E-ISSN:XXXX-XXXX

UIN Mahmud Yunus Batusangkar



scaffolding, exposure to multiple perspectives, and iterative feedback cycles. However, this potential is consistently shadowed by risks of overreliance, directive rather than reflective feedback, and learners' difficulty in critically evaluating AI-generated content. The review further identifies pedagogical scaffolding, learners' metacognitive awareness, and the sequencing of feedback sources as the principal factors mediating whether ChatGPT integration ultimately strengthens or weakens critical thinking in a given instructional context.

This review is not without limitations. The search was restricted to publications available in English, which may have excluded relevant scholarship published in other languages, particularly research conducted in non-English-speaking EFL contexts where findings might be reported in the local language. The relatively short timeframe since ChatGPT's release also means that longitudinal evidence on the long-term effects of sustained AI use on the development of critical thinking remains limited, and most included studies report findings from interventions lasting a single semester or less. Future research would benefit from longitudinal designs that track critical thinking trajectories across multiple academic terms, as well as from more fine-grained investigation of the prompting strategies and scaffolding techniques that are most effective at translating ChatGPT's conversational fluency into genuine critical thinking gains rather than superficial task completion.

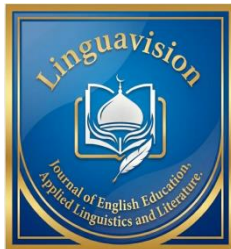
Notwithstanding these limitations, this review offers a focused synthesis of a body of literature that has, until now, treated critical thinking as a secondary or implicit concern within the broader study of ChatGPT in EFL writing. By foregrounding critical thinking as the central analytical lens, the review offers EFL educators and researchers a clearer evidentiary basis for designing AI-integrated writing instruction that protects and cultivates, rather than inadvertently displaces, the evaluative and analytical capacities that remain central to the purpose of writing instruction itself.

These findings carry several practical implications and suggestions for EFL writing instructors and curriculum designers. First, ChatGPT should not be introduced into the writing classroom as a stand-alone resource but should instead be embedded within explicitly scaffolded tasks that require learners to evaluate, question, and revise AI-generated content rather than passively accept it. Second, instructors may benefit from pairing ChatGPT integration with deliberate instruction in metacognitive strategies, helping learners develop the reflective capacity needed to engage critically with machine-generated text. Third, rather than treating ChatGPT feedback as a replacement for teacher or peer feedback, instructors might consider deliberately sequencing these sources, using ChatGPT to support an initial pass at idea generation or surface-level correction before directing learners toward deeper, human-mediated evaluative feedback.

REFERENCES

- Albadarin, Y., Saqr, M., Pope, N., & Tukiainen, M. (2024). A systematic literature review of empirical research on ChatGPT in education. *Discover Education*, 3(1), 60. <https://doi.org/10.1007/s44217-024-00138-2>

Nazwa Slasabila, Sirajul Munir, Rahmalia Safitri, Viona Sri Indayani (2026)



Linguavision: Journal of English Education, Linguistics, and Literature

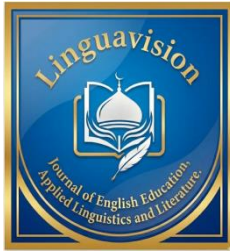
Vol. 1 No.1 2026

E-ISSN:XXXX- XXXX

UIN Mahmud Yunus Batusangkar



- Baidoo-Anu, D., & Owusu Ansah, L. (2023). Education in the era of generative artificial intelligence (AI): Understanding the potential benefits of ChatGPT in promoting teaching and learning. *Journal of AI*, 7(1), 52–62. <https://doi.org/10.2139/ssrn.4337484>
- Barrot, J. S. (2023). Using ChatGPT for second language writing: Pitfalls and potentials. *Assessing Writing*, 57, 100745. <https://doi.org/10.1016/j.asw.2023.100745>
- Bearman, M., Ryan, J., & Ajjawi, R. (2023). Discourses of artificial intelligence in higher education: A critical literature review. *Higher Education*, 86(2), 369–385. <https://doi.org/10.1007/s10734-022-00937-2>
- Boudouaia, A., Mouas, S., & Kouider, B. (2024). A study on ChatGPT-4 as an innovative approach to enhancing English as a foreign language writing learning. *Journal of Educational Computing Research*, 62(7), 1–29. <https://doi.org/10.1177/07356331241247465>
- Chen, S., Shi, P., Guo, J., Xu, S., & Tian, J. (2023). From process to product: Writing engagement and performance of EFL learners under computer-generated feedback instruction. *Frontiers in Psychology*, 14, 1258286. <https://doi.org/10.3389/fpsyg.2023.1258286>
- Darmawansah, D., Rachman, D., Febiyani, F., & Hwang, G.-J. (2024). ChatGPT-supported collaborative argumentation: Integrating collaboration script and argument mapping to enhance EFL students' argumentation skills. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-024-12986-4>
- Escalante, J., Pack, A., & Barrett, A. (2023). AI-generated feedback on writing: Insights into efficacy and ENL student preference. *International Journal of Educational Technology in Higher Education*, 20(1), 57. <https://doi.org/10.1186/s41239-023-00425-2>
- Essien, A., Bukoye, O. T., O'Dea, X., & Kremantzis, M. (2024). The influence of AI text generators on critical thinking skills in UK business schools. *Studies in Higher Education*, 49(5), 865–882. <https://doi.org/10.1080/03075079.2024.2316881>
- Galvao, T. F., Tiguman, G. M. B., & Sarkis-Onofre, R. (2022). The PRISMA 2020 statement in Portuguese: Updated recommendations for reporting systematic reviews. *Cadernos de Saude Publica*, 38(6). <https://doi.org/10.1590/SS2237-9622202200011>
- Guo, K., & Wang, D. (2024). To resist it or to embrace it? Examining ChatGPT's potential to support teacher feedback in EFL writing. *Education and Information Technologies*, 29(7), 8435–8463. <https://doi.org/10.1007/s10639-023-12146-0>
- Guo, K., Wang, J., & Chu, S. K. W. (2022). Using chatbots to scaffold EFL students' argumentative writing. *Assessing Writing*, 54, 100666. <https://doi.org/10.1016/j.asw.2022.100666>
- Han, J., Yoo, H., Myung, J., Kim, M., Lim, H., Kim, Y., Kim, J., Lee, T. Y., Hong, H., Ahn, S.-Y., & Oh, A. (2023). RECIPE: How to integrate ChatGPT into EFL writing education. *Proceedings of the Tenth ACM Conference on Learning @ Scale*. <https://doi.org/10.1145/3573051.3596200>
- Jia, X.-H., & Tu, J.-C. (2024). Towards a new conceptual model of AI-enhanced learning for college students: The roles of AI capabilities, general self-efficacy, learning motivation, and critical-thinking awareness. *Systems*, 12(3), 74. <https://doi.org/10.3390/systems12030074>
- Jiang, J. P., Hu, J. Y., Zhang, Y. B., & Yin, X. C. (2023). Fostering college students' critical-thinking skills through peer assessment in a knowledge-building community. *Interactive Learning Environments*, 31(10), 6480–6496. <https://doi.org/10.1080/10494820.2022.2039949>
- Kasneci, E., Sessler, K., Kuchemann, S., Bannert, M., Dementieva, D., Fischer, F., Gasser, U., Groh, G., Gunnemann, S., Hullermeier, E., Krusche, S., Kutyniok, G., Michaeli, T., Nerdel, C., Pfeffer, J., Poquet, O., Sailer, M., Schmidt, A., Seidel, T., & Kasneci, G. (2023). ChatGPT for



Linguavision: Journal of English Education, Linguistics, and Literature

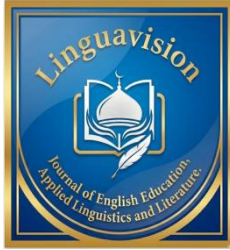
Vol. 1 No.1 2026

E-ISSN:XXXX- XXXX

UIN Mahmud Yunus Batusangkar



- good? On opportunities and challenges of large language models for education. *Learning and Individual Differences*, 103, 102274. <https://doi.org/10.1016/j.lindif.2023.102274>
- Khampusaen, D. (2025). The impact of ChatGPT on academic writing skills and knowledge: An investigation of its use in argumentative essays. *LEARN Journal: Language Education and Acquisition Research Network*, 18(1), 963–988. <https://doi.org/10.70730/PGCQ9242>
- Khoo, E., & Kang, S. (2022). Proactive learner empowerment: Towards a transformative approach to academic integrity for English language learners. *International Journal for Educational Integrity*, 18(1), 19. <https://doi.org/10.1007/s40979-022-00111-2>
- Kofinas, A. (2025). The impact of generative AI on the academic integrity of authentic assessments in higher education. *British Journal of Educational Technology*. <https://doi.org/10.1111/bjet.13585>
- Mulyani, M., Bakhtawar, P., & Munir, S. (2023). Integrating Group Investigation Method and Local Wisdom to Enhance Students' Writing Skill. *Ta'dib*, 26(1), 125-136. <https://doi.org/10.31958/jt.v26i1.8610>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hrobjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., McGuinness, L. A., Stewart, L. A., Thomas, J., Tricco, A. C., Welch, V. A., Whiting, P., & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- Shen, X., & Teng, M. F. (2024). Three-wave cross-lagged model on the correlations between critical thinking skills, self-directed learning competency, and AI-assisted writing. *Thinking Skills and Creativity*, 52, 101524. <https://doi.org/10.1016/j.tsc.2024.101524>
- Steiss, J., Tate, T., Graham, S., Cruz, J., Hebert, M., Wang, J., Moon, Y., Tseng, W., Warschauer, M., & Olson, C. (2024). Comparing the quality of human and ChatGPT feedback on students' writing. *Learning and Instruction*, 91, 101894. <https://doi.org/10.1016/j.learninstruc.2024.101894>
- Su, Y., Lin, Y., & Lai, C. (2023). Collaborating with ChatGPT in argumentative writing classrooms. *Assessing Writing*, 57, 100752. <https://doi.org/10.1016/j.asw.2023.100752>
- Szabo, F., & Szoke, J. (2024). How does generative AI promote autonomy and inclusivity in language teaching? *ELT Journal*, 78(4), 478–488. <https://doi.org/10.1093/elt/ccae052>
- Tai, H.-Y., Lin, M.-F., & Chen, Y. (2026). Incorporating ChatGPT into genre-based instruction for argumentative writing among EFL college students. *International Journal of Applied Linguistics*, 36(1), 767–781. <https://doi.org/10.1111/ijal.12777>
- Teng, M. F. (2025). Metacognitive awareness and EFL learners' perceptions and experiences in utilising ChatGPT for writing feedback. *European Journal of Education*. <https://doi.org/10.1111/ejed.12811>
- Teng, M. F., & Huang, J. (2026). Assessing ChatGPT feedback for EFL learners' engagement and writing performance. *International Journal of Applied Linguistics*. <https://doi.org/10.1111/ijal.70155>
- Tran, T. T. T. (2025). Enhancing EFL writing revision practices: The impact of AI- and teacher-generated feedback and their sequences. *Education Sciences*, 15(2), 232. <https://doi.org/10.3390/educsci15020232>



Linguavision: Journal of English Education, Linguistics, and Literature

Vol. 1 No.1 2026

E-ISSN:XXXX- XXXX

UIN Mahmud Yunus Batusangkar



- Van Rensburg, J. J. (2024). Artificial human thinking: ChatGPT's capacity to be a model for critical thinking when prompted with problem-based writing activities. *Discover Education*, 3(1), 91. <https://doi.org/10.1007/s44217-024-00113-x>
- Wang, L., Chen, X., Wang, C., Xu, L., Shadiev, R., & Li, Y. (2024). ChatGPT's capabilities in providing feedback on undergraduate students' argumentation: A case study. *Thinking Skills and Creativity*, 51, 101440. <https://doi.org/10.1016/j.tsc.2023.101440>
- Yan, D. (2023). Impact of ChatGPT on learners in a L2 writing practicum: An exploratory investigation. *Education and Information Technologies*, 28(11), 13943–13967. <https://doi.org/10.1007/s10639-023-11742-4>
- Zhang, T., & Zhang, L. J. (2021). Taking stock of a genre-based pedagogy: Sustaining the development of EFL students' knowledge of the elements in argumentation and writing improvement. *Sustainability*, 13(21), 11616. <https://doi.org/10.3390/su132111616>