British Journal of Applied Linguistics
ISSN: 2754-5253
DOI: 10.32996/bjal
Journal Homepage: www.al-kindipublisher.com/index.php/bjal

BJAL
AL-KINDI CENTER FOR RESEARCH AND DEVELOPMENT

| RESEARCH ARTICLE

AI in EFL Writing Instruction: A Systematic Review of Writing Conceptualizations and Learner Agency

Hani Hamad M Albelihi[1] and Mary F. Rice[2]

[1] Associate Professor, Department of English Language and Literature, College of Languages and Humanities, Qassim University, Saudi Arabia
[2] Department of Language Literacy and Sociocultural Studies, University of New Mexico, Albuquerque, New Mexico, USA
Corresponding Author: Hani Hamad M Albeihi**, E-mail**: h.albelihi@qu.edu.sa

Recent research has increasingly focused on the application of generative artificial intelligence (genAI) in English as a Foreign Language (EFL) writing instruction, prompted by rapid technological advancements and growing pedagogical interest. Despite this trend, systematic reviews have not yet examined how learners are conceptualized within this field. To address this gap, the present study systematically reviewed 17 empirical studies, selected from an initial pool of 316, in accordance with PRISMA guidelines. The analysis identified three primary conceptualizations of writing: accuracy-oriented, process-oriented, and generative, each linked to distinct learner roles that range from active participants to more passive or dependent users. The findings revealed that learner agency is influenced more by pedagogical integration than by the technology itself. Structured uses of AI promoted engagement and higher-order thinking, whereas generative uses may lead to over-reliance and partial delegation of authorship. This review underlined the importance of teaching EFL writing through theoretically informed, process-oriented approaches that empower learners and incorporate effective AI use.

| Keywords:

Artificial intelligence; EFL writing; ChatGPT; automated writing evaluation; second language learning; Learner Agency

| ARTICLE INFORMATION

ACCEPTED: 20 June 2026 **PUBLISHED:** 03 July 2026 **DOI:** 10.32996/bjal.2025.6.3.4

1. Introduction

Integrating artificial intelligence (AI) into English as a foreign language (EFL) instruction has recently drawn increasing scholarly attention (Albedah, 2025; Zhu & Wang, 2025). AI in language education is utilized to deliver personalized learning content and tutoring tailored to each student's needs and pace (Pokrivcakova, 2019). This emerging field of AI integration in EFL writing, which draws on applied linguistics, educational technology, and cognitive science, is reshaping conceptions and practices of writing instruction. Generative AI (genAI) agents are some of what is newly available and promising to support all stages of the writing process, including idea generation, drafting, revision, and feedback (Sharifuddin & Hashim, 2024). By automating labor-intensive tasks and providing quick, adaptive support, these technologies reduce teachers' workloads and improve the quantity and quality of feedback students receive. As a result, genAI is positioned to become an essential part of writing classrooms rather than just a supplementary tool (Zhang et al., 2025).

A prominent example of this shift is ChatGPT (OpenAI, 2023), a large language model (LLM) capable of generating detailed and relevant text and interacting in a human-like manner. In contrast to earlier tools that primarily corrected grammar or assigned scores, the genAI of LLM such as ChatGPT is marketed to offer more complex writing tasks, including argument development, idea refinement, and draft revision. Due to these capabilities, LLMs are increasingly regarded as a potentially

transformative tool in writing instruction, leading to a growing body of research on its pedagogical integration (Holmes & Miao, 2023; Zheldibayeva et al., 2025).

As research on this topic expands, a wide range of studies have systematically reviewed AI in EFL writing from various perspectives (e.g., Alhusaiyan, 2025; Zhu & Wang, 2025). However, most of these reviews focused on specific outcomes, such as improved grammar, writing that better aligns to rubrics, more effective feedback, and students' feelings about using genAI. For instance, recent reviews acknowledged that AI could enhance writing quality and motivation but also raise concerns about students becoming overly dependent on genAI and issues related to academic honesty (Rahman, 2026; Teng, 2024; Xiao et al., 2025). Even when examining how students use genAI, most studies focus on usage frequency and proficiency rather than exploring deeper concepts related to writing and learning (Xiao et al., 2025). Although some reviews mentioned process-oriented and cognitive aspects, such as writing stages and student engagement (Rahman, 2026), these points often lack a solid theoretical foundation.

A considerable amount of literature has been published on what genAI enhances rather than how it alters the fundamentals of writing, learning, or the learner's role. This is important because writing is more than a technical skill; it is a social activity where people create meaning and build identity (Ivanič, 1998). Various frameworks shift the possibilities for how genAI is perceived. For example, positioning theory suggests that learners are seen as either active agents or passive participants in creating knowledge (Harré et al., 2003). In classrooms that use genAI, these roles become more complicated, as generative tools introduce new ways of sharing authorship and thinking. Additionally, critical discourse analysts offer perspectives how learners—as users, recipients, or co-creators—are described, which reflects deeper beliefs about knowledges, agencies, and learning (van Dijk, 1998).

Existing reviews have not had deep consideration for theoretical concerns. Specifically, no systematic review has examined how learners are discursively positioned in AI-EFL writing research, nor how framed how agency and authorship might be theorized across studies. To fill this gap, this study goes beyond merely examining outcomes and presents a theory-based systematic review of recent research on AI in EFL writing. Using PRISMA 2020 guidelines (Page et al., 2021), this systematic review attempted to review recent research published from November 2022 to March 2026 to answer the following questions:

RQ1: How are learners positioned in genAI-supported EFL writing research, and what assumptions are embedded regarding writing as a developmental process?

RQ2: Which learner populations are represented in existing studies, and what insights do these patterns provide concerning issues of access, inclusion, and global equity?

RQ3: To what extent is genAI-assisted writing conceptualized as enhancing learner agency versus fostering dependency?

By exploring these questions, this review considers AI-assisted writing in EFL as more than just a neutral teaching tool. Instead, it views it as a space where ideas about learning, agency, and authorship are formed and debated—analytical lenses grounded in positioning theory (Harré et al., 2003) and critical discourse analysis (van Dijk, 1998). This approach insight into how genAI is perceived as an agentive application for learning.

2 Review of Literature

The following subsections outline the key concepts of this review of literature. Section 2.1 traces the development of genAI in EFL writing instruction; Section 2.2 reviews documented benefits and concerns; Section 2.3 introduces the theoretical frameworks of agency and authorship that support this review; and Section 2.4 explains the need for a systematic, theoretically informed synthesis.

2.1 | AI and the Transformation of EFL Writing Instruction

GenAI has undergone rapid development over the past decade, expanding its role across educational contexts (Zhang & Aslan, 2021). In language education, genAI tools range from automated writing evaluation (AWE) systems and intelligent tutoring platforms to conversational agents and large language models. Within EFL writing, this trajectory has shifted from tools focused on surface-level correction (e.g., grammar and spelling) toward systems capable of engaging with discourse-level features such as organization, argumentation, and stylistic coherence (Hwang, 2021). These advances reflect broader progress in Natural Language Processing (NLP), enabling genAI to generate increasingly fluent and contextually appropriate language.

The emergence of genAI, including ChatGPT, represents a substantial shift in this trajectory. As a transformer-based large language model trained on extensive textual data, ChatGPT can generate extended discourse, respond to open-ended prompts, and support multiple stages of the writing process, including idea generation, drafting, and revision (Bengesi et al., 2024). Unlike earlier tools operating at sentence level, it enables dialogic interaction and iterative feedback, positioning genAI as

an active participant in writing practices. This shift is not merely technical; it reconfigures how writing is produced, mediated, and attributed, raising fundamental questions about learner agency and authorship.

However, as Bender et al. (2021) cautioned, the apparent fluency of such systems does not reflect genuine understanding. Their characterization of large language models as "stochastic parrots" underscores the risk of equating textual output with meaningful learning. In EFL writing contexts—where communicative competence, critical thinking, and voice are central (Ivanič, 1998; Norton, 2013)—this distinction becomes pedagogically consequential.

2.2 AI-Assisted Writing: Benefits and Concerns

A growing body of empirical research documents the pedagogical affordances of AI in EFL writing. Among the most consistent findings is the provision of immediate, individualized feedback, which supports improvements in grammatical accuracy, fluency, and structural coherence (Asadi et al., 2025; Bahari, 2026; Hao et al., 2026). GenAI tools have also been associated with increased learner engagement and motivation, particularly when embedded within structured instructional designs (Wang & Xue, 2024; Woo et al., 2024). In some cases, scaffolded use of genAI has been linked to gains in higher-order skills such as revision depth, feedback literacy, and argument development (Shafiee Rad et al., 2023; Hao et al., 2026).

From an equity perspective, GenAI has been framed as expanding access to writing support, particularly in resource-constrained EFL contexts where individualized feedback is limited (Jaramillo et al., 2025). Studies conducted in settings such as Saudi Arabia, Iran, and China broadly support this optimistic view of genAI as a tool for enhancing participation and reducing instructional inequalities (Jmaiel et al., 2025; Alnemrat et al., 2025; Asadi et al., 2025).

However, this positive framing is increasingly contested. A growing body of research highlights tensions between improved textual outcomes and diminished learner agency. When genAI is used to generate or substantially revise texts, gains in fluency are often accompanied by reduced originality, weaker argumentation, and loss of individual voice (AbdAlgane et al., 2026; Tekir, 2026). Patterns of overreliance have been widely reported, with learners deferring to genAI-generated outputs rather than actively constructing meaning (Song & Song, 2023; Werdiningsih et al., 2024). As Zhao (2025) pointed out, equating textual development with learning involves risks—this assumption needs careful examination. Taken together, these findings foreground a central tension: whether genAI supports or substitutes for learner agentive development.

2.3 Learner Agency, Authorship, and Writing Development

Central to this review is the concept of learner agency—the capacity to act purposefully, make choices, and exercise control over learning and writing processes (Norton, 2013). Within writing studies, agency is not an individual trait but a socially and discursively constructed position shaped by pedagogical practices and available tools (Prior, 2006). Writing, therefore, is not merely a technical activity but a process of meaning-making, identity construction, and voice development (Ivanič, 1998).

Positioning theory (Harré et al., 2003) provides a framework for examining how agency is constructed within genAI-supported writing. It focuses on how rights and responsibilities are distributed in interaction—who acts, who decides, and who controls meaning. Applied to research discourse, this perspective enables analysis of whether learners are represented as active agents directing genAI use or as passive recipients shaped by genAI outputs.

This analysis is further supported by narratological perspectives (Bal & Van Boheemen, 2009), which attend to how agency is assigned within research narratives—who is depicted as acting and who is acted upon. Together, these frameworks allow this review to move beyond functional accounts of genAI use toward a critical examination of how writing, authorship, and learning are conceptualized in genAI-mediated contexts.

2.4 The Need for a Systematic Review

Despite the rapid expansion of research on AI in EFL writing, the field remains conceptually fragmented. Studies vary widely in tools, populations, and outcomes, and existing reviews have largely focused on cataloging benefits and challenges without systematically interrogating the assumptions underlying AI-supported writing (Alhusaiyan, 2025; Albedah, 2025, 2023). Notably, no prior review has examined how learners are discursively positioned across the literature, how authorship is theorized in genAI-mediated contexts, or whether findings are grounded in coherent frameworks of agency and writing development. These omissions are particularly consequential given that such reviews shape how educators and researchers conceptualize the role of genAI in learning.

The emergence of genAI further intensifies this need. Since late 2022, research has expanded rapidly yet remains theoretically underdeveloped in its treatment of how learners are positioned within genAI-mediated writing environments. Addressing this gap, the present study conducts a theoretically informed systematic review of empirical research on AI in EFL writing. Guided by positioning theory (Harré et al., 2003) and critical discourse analysis (van Dijk, 1998), this review interrogates how learners are constructed within the literature, which populations are represented, and whether genAI is framed as

supporting or constraining learner agency. In doing so, it contributes to a more critical and conceptually grounded understanding of genAI integration in EFL writing instruction.

3. Method

3.1 Research Design

This study adopts a systematic review design to examine recent empirical research on the integration of genAI into EFL writing instruction. Systematic reviews provide comprehensive and structured syntheses of existing research, enabling the identification of trends, gaps, and methodological limitations within a field (Higgins et al., 2019). Given the rapid emergence of genAI technologies, a systematic approach was particularly appropriate for capturing current developments and critically evaluating their pedagogical implications.

To guarantee the accuracy and clarity of our review, we followed the protocol of the Preferred Reporting Items for Systematic reviews and Meta-Analysis (PRISMA) guidelines (Page et al., 2021). The PRISMA guidelines were created to assist authors in better reporting systematic reviews and meta-analyses (Page et al, 2021), which guided the identification, screening, eligibility assessment, and selection of studies. The review was restricted to studies published between November 1, 2022, and March 1, 2026—a timeframe deliberately selected to capture the emergence and rapid expansion of genAI, particularly LLMs such as ChatGPT, which marked a significant shift in writing pedagogy and research focus.

3.2 Search Strategy

Empirical studies were retrieved from two major academic databases: Web of Science (WoS) and Scopus. These databases were selected for their comprehensive coverage of high-quality, peer-reviewed journals in education, applied linguistics, and related fields (Falagas et al., 2008; Mongeon & Paul-Hus, 2016). Additional databases,including ERIC, PsycINFO, and Google Scholar, were considered during the scoping phase. Although ERIC is widely used in education-focused reviews, it was ultimately excluded because its coverage of the specific intersection of genAI and EFL writing during the target period was substantially subsumed by WoS and Scopus indexing. This decision is acknowledged as a potential limitation, discussed further in Section 5.

The search was conducted across titles, abstracts, and keywords using a Boolean strategy requiring the co-occurrence of at least one genAI-related term and one writing-related term. The keyword selection process began with core terms (e.g., "artificial intelligence," "machine learning," "natural language processing," "large language model") and was iteratively refined to include emerging terminology such as "ChatGPT," "generative AI," and "GAI," alongside writing-related terms including "EFL," "L2 writing," "essay," "feedback," and "writing instruction." A third set of contextual filters was applied to narrow results to educational settings relevant to the review's scope. Table 1 presents the complete set of search terms and filters.

Table 1

Search terms and contextual filters used in the database queries.

AI Terms	Writing Instruction Terms	Context Terms (Filters)
Artificial intelligence	English language	L2 learners
AI	L2 language	EFL students
Machine learning	Essay	Teachers
Natural language processing (NLP)	Feedback	Writing classrooms
Large language model (LLM)	Writing instruction	Academic writing
ChatGPT	Teaching writing	Educational setting
GAI		

AI Terms	Writing Instruction Terms	Context Terms (Filters)
Generative AI		

3.3 Inclusion and Exclusion Criteria

Study selection followed the PRISMA 2020 framework and was conducted in two sequential phases: an initial screening phase based on predefined inclusion criteria, followed by a full-text eligibility assessment aligned with the research objectives. Table 2 summarizes the operational criteria applied in both phases.

Three primary criteria guided the initial screening. First, only peer-reviewed journal articles indexed in WoS or Scopus were included, consistent with established systematic review practices that prioritize curated, high-impact sources (Falagas et al., 2008; Mongeon & Paul-Hus, 2016). Second, publications were restricted to the November 2022–March 2026 timeframe to ensure relevance to contemporary generativeAI developments. Third, only English-language publications were included, as English is the dominant language of scholarly communication in both AI and EFL research.

During full-text assessment, additional criteria were applied. Only empirical studies were retained; conceptual, theoretical, and opinion-based papers were excluded to ground the review in systematically collected evidence. Studies were further required to be situated within EFL writing contexts—those addressing genAI in general education without explicit application to EFL writing were excluded, reflecting the domain-specific nature of writing development. Studies were also required to provide substantive engagement with genAI writing tools; those that merely mentioned genAI peripherally or focused solely on technical aspects were excluded. Finally, only studies offering direct insight into how or why genAI tools are used in EFL writing instruction were retained, ensuring alignment with the review's analytical goals. We also realized that some researchers used AI when they meant genAI and so we were careful to study the paper to try to determine whether they used genAI or some other form of AI.

Table 2

Inclusion and exclusion criteria applied during screening and full-text eligibility assessment.

Category	Inclusion Criteria	Exclusion Criteria
Publication Type	Peer-reviewed journal articles (WoS/Scopus indexed)	Non-peer-reviewed sources (e.g., conference abstracts, opinion papers, commercial content)
Timeframe	Published between Nov 2022 – Mar 2026	Published outside the defined timeframe
Language	English	Non-English publications
Study Type	Empirical studies (quantitative, qualitative, mixed methods)	Conceptual, theoretical, or review papers
Context	EFL/ESL writing instruction	General education or non-writing contexts
Focus on genAI	Substantive analysis of genAI tools in writing (e.g., feedback, drafting, assessment)	Superficial mention of AI or purely technical focus
Relevance to RQs	Directly addresses genAI use or purpose in writing instruction (what/how/why)	Does not contribute to research questions

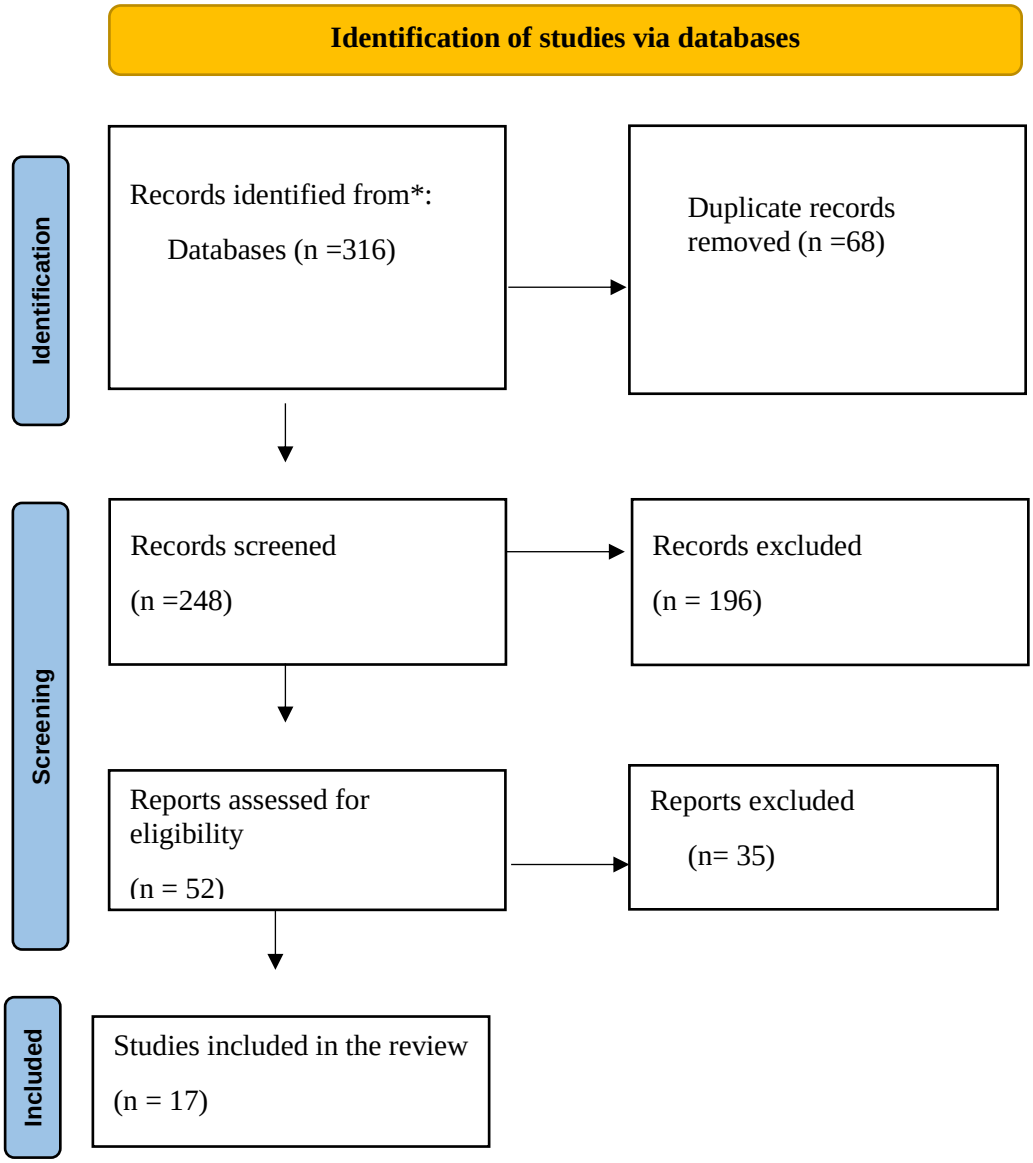
3.4 Study Selection and PRISMA Flow

The database search yielded a total of 316 records (WoS = 178; Scopus = 138). After removing 68 duplicate entries, 248 unique records remained for title and abstract screening. Applying the predefined inclusion criteria, 196 records were excluded

at this stage, leaving 52 articles for full-text assessment. Full-text review resulted in the exclusion of 35 articles: 12 were excluded for not being empirical studies, 9 for lacking a specific EFL writing focus, 8 for insufficient engagement with genAI tools, and 6 for not addressing the research questions. The remaining 17 articles met all eligibility criteria and were included in the final synthesis. Figure 1 presents a PRISMA 2020 flow diagram illustrating the complete selection process.

Figure 1

Overview of the search and exclusion process.



3.5 Data Analysis

The 17 included articles were analyzed in two sequential, complementary steps directly aligned with the research questions: a descriptive–interpretive analysis followed by a critical discourse analysis. We adhered to the procedures outlined by Higgins et al. (2019), with two researchers independently coding data extracted from each article. Each article was coded against a shared coding framework covering: (a) genAI tool type and function, (b) conceptualization of writing (accuracy-oriented, process-oriented, or generative), (c) learner population and context, and (d) discursive construction of learner agency. Initial disagreements arose primarily around borderline cases in the writing conceptualization category—particularly studies that combined accuracy-focused outcome measures with process-oriented instructional designs. These were resolved through three iterative consensus meetings in which coders discussed their reasoning and negotiated shared interpretations. A small number of studies (n = 3) were assigned dual-category codes to reflect genuine conceptual ambiguity. Coding results were then

compared and reconciled through this iterative discussion and consensual validation process. Inter-rater reliability was assessed using Cohen's *Kappa*, yielding a score of 0.95, indicating excellent agreement (McHugh, 2012).

For RQ1, a descriptive–interpretive analysis was conducted to identify dominant categories of genAI tools and to examine the pedagogical assumptions underlying their use. The analysis extended beyond simple categorization to consider how writing was framed across studies—for instance, as accuracy-oriented, process-oriented, or generative. Some studies emphasized grammatical correctness and error reduction, while others positioned writing as a creative or iterative process supported by genAI.

With respect to RQ2, learner-related variables—including educational level, geographical context, and participant characteristics—were systematically mapped to construct a demographic profile of the field. This enabled a critical examination of patterns of representation and exclusion, particularly regarding access and global equity in AI-supported writing research.

To address RQ3, a critical discourse-analytical approach was employed, drawing on Van Dijk (1998). Research paid attention to evaluative language, lexical choices, and framing strategies used across the articles. These linguistic patterns were analyzed to determine whether AI was positioned as augmenting or constraining learner agency. Additionally, concepts of positioning, narrativity, and agency guided the analysis. Following Harré et al. (2003), positioning was understood as a set of rights and responsibilities that shape possible actions, while narratological concepts (Bal & Lewin, 1983; Bal & Van Boheemen, 2009) were used to analyze who was depicted as acting—learners, genAI tools, or researchers—and how these roles reflected underlying power dynamics. Interpretations were refined through iterative discussion across multiple analytical sessions until consensus was reached on the main discursive orientations across the 17 articles.

4. Results

This section presents the findings of the 17 studies included in this systematic review, organized in direct alignment with the research questions. Following the analytical procedures outlined in Section 3.5, the results are reported across three sections: (1) conceptualizations of writing and learner positioning (RQ1), (2) representation of learner populations and contexts (RQ2), and (3) discursive constructions of genAI in relation to learner agency (RQ3).

4.1 GenAI Tools, Conceptualizations of Writing, and Learner Positioning (RQ1)

Among the 17 studies included in this review, ChatGPT emerged as the most prominent tool, appearing in 14 studies either as a standalone system or in combination with automated writing evaluation (AWE) tools (e.g., Pigai) and grammar-based applications (e.g., Grammarly, Wordtune). Across the dataset, AI tools were used in three primary ways: generating written content, providing feedback, and supporting idea development and revision. These uses reflect a broader shift from earlier genAI applications focused primarily on surface-level language correction toward more interactive and generative roles in the writing process. As summarized in Table 3, the studies cluster around three main conceptualizations of writing—accuracy-oriented, process-oriented, and generative—each associated with distinct forms of learner positioning.

First, a substantial group of studies conceptualized writing as an accuracy-oriented activity, emphasizing improvements in textual quality, including fluency, organization, and overall performance. For example, AbdAlgane et al. (2026) found that frequent use of genAI tools enhanced fluency and organization, although it reduced originality and the depth of arguments. Similarly, Tekir (2026) reported gains in fluency and organization alongside declines in argument quality and authorial control. Regarding feedback, Alnemrat et al. (2025) found that genAI-generated feedback was as effective as teacher feedback in improving argumentative writing, particularly among lower-proficiency learners. Relatedly, Shafiee Rad et al. (2023) and Song and Song (2023) documented improvements in writing quality, feedback literacy, and motivation, while Bahari (2026) highlighted the effectiveness of strategically implemented AI-supported interventions in enhancing expository writing. Across these studies, improvements in textual performance were consistently accompanied by concerns related to originality, argumentation, and authorial control. Within this perspective, learners are primarily constructed as skill developers engaged in refining the surface-level quality of their texts.

Second, a smaller but significant group of studies adopted a process-oriented perspective, foregrounding drafting, revision, and engagement with feedback. For instance, Asadi et al. (2025) demonstrated that combining genAI-generated feedback, specifically with ChatGPT, with teacher feedback led to greater improvements than teacher feedback alone, highlighting genAI's role in supporting iterative revision. Similarly, Hao et al. (2026) found that integrating Pigai with ChatGPT resulted in substantial gains in higher-order thinking, suggesting that AI can facilitate deeper engagement with writing processes beyond surface correction. Shafiee Rad et al. (2023) further reported increased feedback literacy and active engagement, indicating that learners did not merely accept genAI input but interacted with it critically. In addition, Wiboolyasarin et al. (2024) showed that structured, collaborative genAI-supported interventions led to significantly improved outcomes, underscoring the

importance of guided use. Within this perspective, learners assume a more agentive role as active participants in meaning-making, using genAI to support drafting, revising, and refining their ideas.

Third, several studies framed writing as a generative activity mediated by genAI, where the boundary between human-authored and genAI-generated text becomes increasingly blurred. For example, Ali (2024) found that ChatGPT-generated texts were more informational and explicit than human-written texts, pointing to shifts in authorship and textual construction. Similarly, AbdAlgane et al. (2026) and Tekir (2026) reported that while genAI use improved fluency, it also coincided with reductions in originality and argument depth, suggesting partial reliance on AI-generated content. Werdiningsih et al. (2024) showed that students used ChatGPT for idea generation, language support, and organization, while also raising concerns about overreliance. Likewise, Song and Song (2023) and Zare et al. (2025) reported increased motivation and engagement, though these gains were often linked to dependence on genAI assistance. Within this framing, learner roles become more ambiguous, oscillating between co-construction of text and passive reliance on genAI output.

Taken together, these findings indicate that conceptualizations of writing actively shape how learners are positioned within genAI-supported environments. As illustrated in Table 3, learner roles can be understood along a continuum, ranging from skill-focused refinement to agentive meaning-making and, in some cases, partial delegation of authorship to AI systems.

4.2 Learner Populations (RQ2)

As shown in Table 3, the 17 studies included were conducted in a limited range of geographical areas, including Saudi Arabia, Iran, China, Jordan, Turkey, Indonesia, Thailand, and Hong Kong. The most studies were in Iran and China, with four each, followed by Saudi Arabia with three, and Jordan with two, while the remaining locations had only one study each.

Consistent with the inclusion criteria in the previous section, all studies were conducted in formal educational settings. Most participants were university-level students enrolled in academic or English-related courses. Sample sizes varied considerably, ranging from small-scale studies with fewer than 20 participants to larger studies involving over 200 learners. One study (Ali, 2024) focused on text analysis rather than on learner participants.

In terms of learner characteristics, only a limited number of studies reported incongruous findings. For example, Alnemrat et al. (2025) noted stronger effects of genAI-generated feedback for lower-proficiency learners, while Jmaiel et al. (2025) reported variation in outcomes by gender, with higher gains observed among female students. Beyond these instances, most studies did not provide detailed distinctions based on proficiency level or other learner variables.

4.3 AI and Learner Agency (RQ3)

As summarized in Table 3, learner roles in AI-assisted writing are categorized into several types, including skill developers, active participants, co-authors, passive or dependent users, and mixed roles. These roles are linked to different groups of studies and genAI usage patterns.

A significant number of studies describe learners as skill builders, especially in accuracy-focused settings. This role is noted in AbdAlgane et al. (2026), Alnemrat et al. (2025), Bahari (2026), Jmaiel et al. (2025), and Tekir (2026), where genAI use is associated with enhancements in writing performance, fluency, and organization. These studies show that learners mainly focus on improving the quality of their writing, with AI aiding in achieving performance goals.

In contrast, studies that adopt a process-oriented perspective consistently see learners as active participants. This pattern is clear in Asadi et al. (2025), Guo and Wang (2023), Hao et al. (2026), Shafiee Rad et al. (2023), Wang and Xue (2024), and Wiboolyasarin et al. (2024). In these studies, learners are described as engaging in drafting, revising, using feedback, and higher-order thinking processes, with AI incorporated into iterative writing activities.

Studies framed within a generative perspective more often describe learners as co-authors or users of AI-generated content. This role is documented in Ali (2024), Song and Song (2023), and Werdiningsih et al. (2024), where genAI is used for idea development, language support (e.g., formal style, grammar, spelling), and text creation. In these cases, learner involvement includes working with AI-generated output during the writing process.

At the same time, several studies identify learners as passive or dependent users, either explicitly or alongside other roles. This pattern appears in Alshurafat et al. (2023) and Zare et al. (2025), and is also seen in studies reporting mixed roles, such as Song and Song (2023) and Woo et al. (2024), where learners are described as both active and passive in their engagement with genAI tools.

Across the dataset of articles, reported risks associated with these roles include over-reliance on genAI tools, reduced originality and argument depth, diminished authorial control, academic integrity concerns, and increased cognitive load.

Analyzed through van Dijk's (1998) critical discourse framework, these patterns reveal consistent ideological tendencies in how genAI-mediated writing is narrated. Studies naming genAI as "enhancing," "supporting," or "scaffolding" learner writing activate what van Dijk terms a positive self-presentation strategy, positioning genAI tools as benign and facilitative actors while backgrounding questions of intellectual ownership and cognitive displacement. By contrast, studies employing terms such as "reliance," "dependence," and "overreliance" invoke a negative other-presentation strategy directed not at the technology itself but at the learner, who is implicitly framed as susceptible or passive. This asymmetry is theoretically significant: it reproduces a technocentric discourse in which AI is positioned as an agent with pedagogical affordances, while learners are positioned as either beneficiaries or victims of those affordances, rarely as purposive agents. For example, which using genAI to organize ideas, the genAI might actually giving ideas outright, subtly prompting the writer towards or away from certain topics. Applying Harré et al.'s (2003) positioning theory, these discursive patterns distribute rights and responsibilities unevenly: genAI tools are afforded the right to evaluate, generate, and revise, while learners are assigned the responsibility of using AI "correctly" or risking dependency. Only in process-oriented studies are learners positioned as having genuine epistemic rights—the right to interpret, question, and reject genAI-generated input as part of the writing process.

Table 3. Analyzed studies and key ideas

Study	Context	AI Tool(s)	Key Findings	Writing View	Learner Role
AbdAlgane et al. (2026)	Saudi, 52 EFL students	ChatGPT, Grammarly, QuillBot	Improved fluency & organization; reduced originality	Accuracy-oriented	Skill developer
Ali (2024)	Saudi, 40 texts	ChatGPT	AI texts more explicit; human texts more abstract	Generative	Co-author / passive
Alnemrat et al. (2025)	Jordan, 120 EFL students	ChatGPT	AI = teacher feedback; stronger for low-level learners	Accuracy-oriented	Skill developer
Alshurafat et al. (2023)	Jordan, 279 students	ChatGPT	Misuse predicted by pressure & opportunity	Generative	Passive / misuse-oriented
Asadi et al. (2025)	Iran, 68 students	ChatGPT	AI + teacher > teacher alone	Process-oriented	Active participant
Bahari (2026)	Iran, 291 students	Grammarly etc.	Improved writing performance (when guided)	Accuracy-oriented	Skill developer
Guo & Wang (2023)	China, essays + teachers	ChatGPT	AI feedback differs from teachers	Process-oriented	Active participant
Hao et al. (2026)	China, 64 students	Pigai + ChatGPT	Gains in higher-order thinking	Process-oriented	Active participant

Jmaiel et al. (2025)	Saudi, 117 students	ChatGPT	Improved ESP writing, especially females	Accuracy-oriented	Skill developer
Shafiee Rad et al. (2023)	Iran, 46 students	Wordtune	Improved writing, engagement, feedback literacy	Process-oriented	Active participant
Song & Song (2023)	China, 50 students	ChatGPT	Improved writing & motivation	Generative/mixed	Co-author / passive
Tekir (2026)	Turkey, 78 students	ChatGPT etc.	Improved fluency; weaker argument & control	Accuracy-oriented	Skill developer
Wang & Xue (2024)	China, 113 students	Chatbots	Increased engagement (behavioral, cognitive)	Process-oriented	Active participant
Werdiningsih et al. (2024)	Indonesia, 16 students	ChatGPT	Supports ideas & organization	Generative	Co-author
Wiboolyasarin et al. (2024)	Thailand, 39 students	ChatGPT	Higher posttest scores	Process-oriented	Active participant
Woo et al. (2024)	Hong Kong, 21 students	ChatGPT	Increased motivation; high cognitive load	Generative	Mixed (active/passive)
Zare et al. (2025)	Iran, 69 students	ChatGPT	Increased motivation (short-term)	Generative	Passive/dependent

5. Discussion

5.1 Reframing Writing Development in AI-Mediated Context

The findings of this study demonstrate that genAI integration is not merely a pedagogical enhancement but a conceptual shift in how writing development is understood. As shown in Section 4.1, a substantial proportion of studies operationalized writing in terms of observable textual improvements, particularly fluency, grammatical accuracy, and structural organization (e.g., AbdAlgane et al., 2026; Bahari, 2026; Jmaiel et al., 2025; Tekir, 2026). However, these improvements were frequently accompanied by trade-offs, including reduced originality, weaker argumentation, and diminished authorial control (AbdAlgane et al., 2026; Tekir, 2026; Song & Song, 2023). This recurring pattern reveals a fundamental tension: the same genAI-supported practices that enhance textual performance may also displace the cognitive and rhetorical processes central to the development of writing. In several studies, genAI-generated or genAI-supported texts were found to be more explicit and structurally coherent, yet less abstract and conceptually rich than human-produced texts (Ali, 2024), further reinforcing concerns about depth of learning.

From a theoretical perspective, this narrow operationalization contrasts with established views of writing as a cognitive, social, and identity-driven process (Ivanič, 1998), in which meaning-making, voice, and critical engagement are central. The three conceptualizations identified in the results—accuracy-oriented, process-oriented, and generative—can therefore be understood as reflecting competing epistemologies of writing. In accuracy-oriented studies, writing is treated as a product to be optimized (AbdAlgane et al., 2026; Bahari, 2026; Jmaiel et al., 2025), whereas in text-generating contexts, it becomes partially co-constructed or

outsourced through AI (Ali, 2024; Werdiningsih et al., 2024; Zare et al., 2025). This shift introduces a conceptual ambiguity: whether writing development reflects learners' internalized competence or their ability to effectively leverage genAI-generated output. As such, genAI seems to be challenging not only *how* writing is taught, but *what* counts as writing development itself in EFL contexts.

5.2 Learner Agency as a Conditional Construct

A second key insight emerging from the findings is that learner agency in genAI-assisted writing is conditional rather than fixed. In the reviewed studies, learners were positioned along a continuum ranging from active participants and skill developers to co-authors and, in some cases, passive or dependent users. Some of these positioning decisions might have been more reasoned and strategic than others when the researchers were deciding what term to use. Even so, it is revealing what these positionings suggest about researchers intended relationships between genAI and the writer/user.

To be more specific, in process-oriented contexts, where genAI use was structured and pedagogically supported, learners actively engaged in drafting, revising, and interpreting feedback (Asadi et al., 2025; Hao et al., 2026; Shafiee Rad et al., 2023; Wiboolyasarin et al., 2024). In these studies, genAI functioned as a scaffold that supported iterative meaning-making, engagement, and even higher-order thinking (Hao et al., 2026). Similarly, increased engagement across behavioral and cognitive dimensions was observed when genAI tools were integrated into structured learning environments (Wang & Xue, 2024).

By contrast, in generative or less structured contexts, learners were more frequently positioned as co-authors or passive users, often relying on AI to generate or substantially shape their texts (Ali, 2024; Werdiningsih et al., 2024; Zare et al., 2025). These contexts were associated with over-reliance, dependency, and reduced authorial control, as well as concerns about academic integrity and misuse (Alshurafat et al., 2023; Zare et al., 2025). Even in studies reporting improved motivation and performance, such as Song and Song (2023), these gains were accompanied by risks of overreliance and reduced critical engagement.

Overall, these findings indicate that genAI's effect on learner agency seems to depend more on how it is integrated pedagogically than on the technology itself. The same tool is positioned as enhancing or diminish agency based on whether it is used to expand learners' thinking or to replace it. There seems to be some suggestion overall that learners can have a relationship with genAI that expands thinking, depending on task design, guidance, and critical engagement with genAI-generated content.

5.3 The Outcome–Process Gap in Current Research

A further contribution of this review is the identification of a systematic imbalance between outcome-focused and process-oriented research. Across the reviewed studies, most evaluations of genAI effectiveness relied on improvements in writing performance, post-test scores, or learner perceptions (e.g., AbdAlgane et al., 2026; Bahari, 2026; Jmaiel et al., 2025; Wiboolyasarin et al., 2024). While these measures consistently indicate positive outcomes, they provide limited insight into learning processes. An emphasis on outcomes risks conflating improved textual quality with genuine development. This is especially important since genAI can produce text without much learning. As observed in several studies, learners produced more fluent and organized texts with genAI support without demonstrating deeper conceptual understanding or independent argumentation (Tekir, 2026; Ali, 2024). In some cases, short-term motivational gains were also reported without sustained long-term effects (Zare et al., 2025).

Few studies in the corpus explored interactional processes, such as how learners interpreted genAI feedback, revised genAI-generated content, or engaged in meaning-making during writing. Although some process-oriented research exists (e.g., Asadi et al., 2025; Hao et al., 2026), it remains limited in scope. Consequently, little evidence to distinguishes between assisted performance with genAI and any conceptualizing of learning to write. Closing this gap requires a shift toward process-tracing and longitudinal approaches that capture how learners interact with genAI over time.

5.4 Fragmentation, Context, and the Role of AI Literacy

The review highlights considerable fragmentation across studies in terms of tools, contexts, and participant characteristics. The evidence base spans a range of geographical settings—including Saudi Arabia, Iran, China, Jordan, Turkey, Indonesia, Thailand, and Hong Kong—yet remains heavily concentrated in a small number of East Asian and Middle Eastern contexts, with no representation of Africa, Latin America, South Asia beyond individual cases, or other regions where EFL education is widespread. This geographic skew carries important theoretical implications. The research questions explicitly invoke global equity and access (RQ2), yet the evidence base cannot support broad claims about equity implications for genAI without more geographically diverse representation. Furthermore, the concentration of studies in specific national contexts may reflect the availability of institutional funding, journal access, and researcher capacity rather than the actual distribution of genAI use in EFL classrooms globally. Future reviews could incorporate grey literature, regional journals, and non-English language

studies to broaden the representational scope of this field. The present review's claims about equity should be read as tentative and context-specific rather than globally generalized.

Outcome differences may also be linked to variation in learner proficiency and instructional conditions. For instance, genAI feedback was found to be particularly beneficial for lower-proficiency learners (Alnemrat et al., 2025), while other studies reported differential effects based on gender or engagement patterns (Jmaiel et al., 2025; Woo et al., 2024). However, such variations are rarely theorized or systematically examined. A particularly important yet underexplored factor is genAI literacies—knowledges, skills, and dispositions to use genAI tools critically and effectively (citation). While several studies found differences in how learners engaged with genAI, few explicitly conceptualize or measure genAI literacies. This omission is significant, as misuse, over-reliance, and dependency were repeatedly identified as risks (Alshurafat et al., 2023; Zare et al., 2025). The discipline thus remains in an emergent stage, characterized by rapid technological adoption but limited theoretical and methodological consolidation.

5.5 Pedagogical Implications: Designing for Agency and Engagement

Taken together, the findings point to the need for a pedagogical reorientation in genAI-assisted EFL writing. Rather than treating genAI as an ideologically neutral tool for improving efficiency, educators must intentionally design learning environments that promote learner agency, engagement, and critical interaction. Evidence from process-oriented studies suggests that structured integration of genAI—combined with teacher guidance—can enhance both engagement and higher-order thinking (Asadi et al., 2025; Hao et al., 2026). Accordingly, tasks should require learners to critically evaluate, adapt, and justify genAI-generated content, rather than passively accept it. For example, asking students to compare genAI outputs with their own writing or explain revision decisions can shift the focus from product to process. At the same time, developing genAI literacy should be treated as a core instructional goal. Without explicit guidance, learners may default to dependencies or misuses, as observed in several studies (Alshurafat et al., 2023; Zare et al., 2025). Pedagogical approaches must balance the affordances of AI with the need to sustain independent writing development.

5.6 Contributions, Limitations, and Future Research

This review makes three key contributions. First, it reconceptualizes writing development in genAI-mediated contexts as a contested construct shaped by competing assumptions about what writing is and how it develops. Second, it introduces learner agency as conditional, demonstrating that genAI can both support and constrain engagement depending on its pedagogical use. Third, it identifie a systematic outcome–process gap in the literature, highlighting the need for more process-oriented and longitudinal research.

These contributions are couched in several limitations. First, the review was restricted to WoS- and Scopus-indexed studies. While this ensures methodological quality, it likely excluded relevant research published in ERIC-indexed journals, regional outlets, and non-English language venues. ERIC has been considered an important database for education research, and its exclusion may have introduced a bias toward higher-impact, more quantitatively oriented studies, potentially underrepresenting qualitative, practitioner-focused, and context-specific work. Future reviews should prioritize multi-database searches that include ERIC and other specialist education databases. Second, only 17 studies met the eligibility criteria. While this relatively small corpus reflects the recency of genAI technologies in EFL writing research, it cautions against overgeneralizing the review's findings. The three conceptualizations of writing and the conditional agency framework proposed here represent preliminary theoretical contributions that require validation across a larger and more diverse evidence base. Third, several included studies carry 2026 publication dates, which fall at the edge of the review's timeframe; readers should verify that these sources were formally published. Future research should prioritize longitudinal and process-oriented designs, examine diverse learner populations and contexts, and explicitly investigate the role of genAI literacy in shaping learning outcomes. Further theoretical work might also clarify how authorship, agency, and development should be understood in genAI-mediated writing environments.

6. Conclusion

This systematic review examined 17 empirical studies on genAI integration in EFL writing instruction, guided by PRISMA 2020 guidelines and theoretically grounded in positioning theory and critical discourse analysis. Addressing RQ1, the review identified three dominant conceptualizations of writing across the literature—accuracy-oriented, process-oriented, and generative—each associated with distinct learner roles ranging from a skilled developer to active participant to co-author or passive user. Addressing RQ2, the review found that the evidence base is geographically concentrated, primarily in Iran, China, Saudi Arabia, and Jordan, with limited representation of other Global South contexts, raising unresolved questions about equity and generalizability.

Addressing RQ3, the review demonstrated that learner agency in genAI-mediated writing is conditional rather than fixed: structured, pedagogically scaffolded integration supports higher-order thinking and active meaning-making, while unstructured generative use is associated with over-reliance, diminished authorial control, and academic integrity risks. Taken together, these findings make three contributions to the field. First, they reconceptualize writing development in AI-mediated contexts as a contested construct shaped by competing epistemological assumptions. Second, they introduce learner agency as a dynamic and contextually produced outcome rather than an inherent property of learners or technologies. Third, they identify a systematic outcome–process gap in the literature and call for more longitudinal, process-oriented, and theoretically grounded research designs. As the field continues to grow, researchers, educators, and policymakers must move beyond cataloguing benefits of genAI and engage more critically with what it means to write, learn to write, and develop as a writer for genAI-mediated tasks. We look forward to the ongoing possibilities in this field for more thoughtful, ethical, and pedagogically grounded practice.

Funding: This research received no external funding.
Conflicts of Interest: The authors declare no conflict of interest.
Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.

References

AbdAlgane, M., Ali, R., Othman, K., Ibrahim, I. Z. A., Alhaj, M. K. M., MT, E., & Ali, F. S. A. (2026). Exploring AI-generated texts vs. human-written texts in EFL academic writing: A case study of Qassim University in Saudi Arabia. *World, 16*(2), 114-131. https://doi.org/10.5430/wjel.v16n2p114

Albedah, F. (2025). *Artificial intelligence in language education: A systematic review of multilingual applications, large language models, and emerging challenges*. Language Teaching Research Quarterly, 49, 247–268. https://doi.org/10.32038/ltrq.2025.49.13

Alhusaiyan, E. (2025). A systematic review of current trends in artificial intelligence in foreign language learning. *Saudi Journal of Language Studies*, *5*(1), 1-16.

Ali, S. (2024). Locating the intersection of generative artificial intelligence and human English writing skills: A comparative study. *Arab World English Journal (AWEJ) Special Issue on ChatGPT*. https://dx.doi.org/10.24093/awej/ChatGPT.7

Alnemrat, A., Aldamen, H., Almashour, M., Al-Deaibes, M., & AlSharefeen, R. (2025, July). AI vs. teacher feedback on EFL argumentative writing: a quantitative study. *Frontiers in* Education, 10, 1614673. https://doi.org/10.3389/feduc.2025.1614673

Alshurafat, H., Al Shbail, M. O., Hamdan, A., Al-Dmour, A., & Ensour, W. (2024). Factors affecting accounting students' misuse of chatgpt: an application of the fraud triangle theory. *Journal of Financial Reporting and Accounting*, *22*(2), 274-288. https://doi.org/10.1108/JFRA-04-2023-0182

Asadi, M., Ebadi, S., & Mohammadi, L. (2025). The impact of integrating ChatGPT with teachers' feedback on EFL writing skills. *Thinking Skills and Creativity*, *56*, 101766. https://doi.org/10.1016/j.tsc.2025.101766

Bahari, A. (2026). Evaluating the Effectiveness of AI-Driven Approaches on EFL Learners' Expository Writing Skills. *TESOL Journal*, *17*(1), 70099. https://doi.org/10.1002/tesj.70099

Bal, M. (2009). *Narratology: Introduction to the theory of narrative* (3rd ed.). University of Toronto Press.

Baskara, F. R. (2023). Integrating ChatGPT into EFL writing instruction: Benefits and challenges. *International Journal of Education and Learning*, *5*(1), 44-55. https://doi.org/10.31763/ijele.v5i1.858

Bender, E. M., Gebru, T., McMillan-Major, A., & Shmitchell, S. (2021). On the dangers of stochastic parrots: Can language models be too big? In *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency (FAccT '21)* (pp. 610–623). ACM. https://doi.org/10.1145/3442188.3445922

Bengesi, S., El-Sayed, H., Sarker, M. K., Houkpati, Y., Irungu, J., & Oladunni, T. (2024). Advancements in generative AI: A comprehensive review of GANs, GPT, autoencoders, diffusion models, and transformers. *IEEE Access, 12*, 69812–69837. https://doi.org/10.1109/ACCESS.2024.3397775

Falagas, M. E., Pitsouni, E. I., Malietzis, G. A., & Pappas, G. (2008). Comparison of PubMed, Scopus, Web of Science, and Google Scholar: Strengths and weaknesses. *The FASEB Journal, 22*(2), 338–342. https://doi.org/10.1096/fj.07-9492LSF

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

Harré, R., Moghaddam, F. M., Cairnie, T. P., Rothbart, D., & Sabat, S. R. (2003). Recent advances in positioning theory. *Theory & Psychology, 13*(1), 5–31. https://doi.org/10.1177/0959354308101417

Hao, H., Razali, A. B., & Zuo, R. (2026). Exploring the impact of integrated AWE and generative AI feedback on Chinese EFL undergraduates' higher-order thinking in argumentative writing. *Sage Open*, *16*(1), 21582440251413884. https://doi.org/10.1177/21582440251413884

Higgins, J. P. T., Thomas, J., Chandler, J., Cumpston, M., Li, T., Page, M. J., & Welch, V. A. (Eds.). (2019). *Cochrane handbook for systematic reviews of interventions* (2nd ed.). Wiley. https://dariososafoula.wordpress.com/wp-content/uploads/2017/01/cochrane-handbook-for-systematic-reviews-of-interventions-2019-1.pdf

Holmes, W., & Miao, F. (2023). *Guidance for generative AI in education and research*. UNESCO Publishing.

Holzner, N., Maier, S., & Feuerriegel, S. (2025). Generative AI and creativity: A systematic literature review and meta-analysis. *arXiv*. https://arxiv.org/abs/2505.17241

Hwang, G. J., Tu, Y. F., & Lin, C. J. (2021). Advancements and hot research topics of artificial intelligence in mobile learning: A review of journal publications from 1995 to 2019. *International Journal of Mobile Learning and Organisation, 15*(4), 427–447. https://doi.org/10.1504/IJMLO.2021.118444

Ivanič, R. (1998). *Writing and identity: The discoursal construction of identity in academic writing*. John Benjamins. https://doi.org/10.1075/swll.5

Jaramillo, J. J., Chiappe, A., & Delgado, F. S. (2025). From struggle to mastery: AI-powered writing skills in ESL education. *Applied Sciences, 15*(14), 8079. https://doi.org/10.3390/app15148079

Jmaiel, H. A., Abukhait, R. O., Mohamed, A. M., Shaaban, T. S., Al-khresheh, M. H., & AL-Qadri, A. H. (2025). The role of ChatGPT in enhancing EFL students' ESP writing skills: an experimental study of gender and major differences. *Discover Education*, *4*(1), 240. https://doi.org/10.1007/s44217-025-00700-6

Kofinas, A. K., Tsay, C. H. H., & Pike, D. (2025). The impact of generative AI on academic integrity of authentic assessments within a higher education context. *British Journal of Educational Technology*. Advance online publication. https://doi.org/10.1111/bjet.13585

Lewin, K. (1951). *Field theory in social science: Selected theoretical papers*. Harper & Row.

Li, H. (2023). Effects of a ChatGPT-based flipped learning guiding approach on learners' courseware project performances and perceptions. *Australasian Journal of Educational Technology, 39*(5), 40–58. https://doi.org/10.14742/ajet.8923

Lin, H. C., Ho, C. F., & Yang, H. (2022). Understanding adoption of artificial intelligence-enabled language e-learning systems: An empirical study of the UTAUT model. *International Journal of Mobile Learning and Organisation, 16*(1), 74–99. https://doi.org/10.1504/IJMLO.2022.119966

McHugh, M. L. (2012). Interrater reliability: The kappa statistics. *Biochemia Medica, 22*(3), 276–282. https://doi.org/10.11613/BM.2012.031

Mongeon, P., & Paul-Hus, A. (2016). Journal coverage of Web of Science and Scopus: A comparative analysis. *Scientometrics, 106*(1), 213–228. https://doi.org/10.1007/s11192-015-1765-5

Norton, B. (2013). *Identity and language learning: Extending the conversation* (2nd ed.). Multilingual Matters. https://doi.org/10.21832/9781783090563

OpenAI. (2023). *ChatGPT* (Mar 14 version) [Large language model]. https://chat.openai.com/chat

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., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ, 372*, n71. https://doi.org/10.1136/bmj.n71

Prior, P. (2006). A sociocultural theory of writing. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 54–66). Guilford Press.

Pokrivcakova, S. (2019). Preparing teachers for the application of AI-powered technologies in foreign language education. *Journal of Language and Cultural Education, 7*(3), 135–153. https://doi.org/10.2478/jolace-2019-0025

Rahman, W. Z. (2026). Artificial intelligence (AI) in English writing skills learning: A systematic review. *Indonesian Journal of Research and Educational Review, 5*(2), 981–994. https://doi.org/10.51574/ijrer.v5i2.4727

Rice, M. F., & Dunn, S. (2023). The use of artificial intelligence with students with identified disabilities: A systematic review with critique. *Computers in the Schools, 40*(4), 370–390. https://doi.org/10.1080/07380569.2023.2244935

Sharifuddin, N. S., & Hashim, H. (2024). Benefits and challenges of implementing artificial intelligence in education (AIED) in ESL classrooms: A systematic review (2019–2022). *International Journal of Academic Research in Business and Social Sciences, 14*(1), 146–164. https://doi.org/10.6007/IJARBSS/v14-i1/20422

Song, C., & Song, Y. (2023). Enhancing academic writing skills and motivation: assessing the efficacy of ChatGPT in AI-assisted language learning for EFL students. *Frontiers in psychology*, *14*, 1260843.https://doi.org/10.3389/fpsyg.2023.1260843

Tan, X., Cheng, G., & Ling, M. H. (2024). Artificial intelligence in teaching and teacher professional development: A systematic review. *Computers and Education: Artificial Intelligence*, Article 100355. https://doi.org/10.1016/j.caeai.2024.100355

Tekir, S. (2026). Generative AI use in EFL writing: associations with originality, critical

reasoning, and metacognitive engagement in a Turkish higher education context. *Computer Assisted Language Learning*, 1-22. https://doi.org/10.1080/09588221.2026.2617399

Feng Teng, M. (2024). A systematic review of ChatGPT for English as a foreign language writing: Opportunities, challenges, and recommendations. *International Journal of TESOL Studies*, *6*(3). https://doi.org/10.58304/ijts.20240304

Van Dijk, T. A. (1998). *Ideology: A multidisciplinary approach*. Sage.

Wang, Y., & Xu, Z. (2024). ChatGPT in second language writing instruction: Opportunities and challenges. *Journal of English Language Teaching and Learning, 15*(3), 45–61. https://doi.org/10.1016/j.caeai.2024.100313

Wang, Y., & Xue, L. (2024). Using AI-driven chatbots to foster Chinese EFL students' academic engagement: An intervention study. *Computers in Human Behavior*, *159*, 108353. https://doi.org/10.1016/j.chb.2024.108353

Warschauer, M. (2003). *Technology and social inclusion: Rethinking the digital divide*. MIT Press.

Werdiningsih, I., Marzuki, Indrawati, I., Rusdin, D., Ivone, F. M., Basthomi, Y., & Zulfahreza. (2024). Revolutionizing EFL writing: unveiling the strategic use of ChatGPT by Indonesian master's students. *Cogent Education*, *11*(1), 2399431. https://doi.org/10.1080/2331186X.2024.2399431

Woo, D. J., Wang, D., Guo, K., & Susanto, H. (2024). Teaching EFL students to write with ChatGPT: Students' motivation to learn, cognitive load, and satisfaction with the learning process. *Education and Information Technologies*, *29*(18), 24963-24990. https://link.springer.com/article/10.1007/s10639-024-12819-4

Xiao, F., Zhu, S., & Xin, W. (2026). Exploring the landscape of generative AI (ChatGPT)-powered writing instruction in English as a foreign language education: A scoping review. *ECNU Review of Education, 9*(1), 1–19. https://doi.org/10.1177/20965311241310881

Zare, J., Al-Issa, A., & Madiseh, F. R. (2025). Interacting with ChatGPT in essay writing: A study of L2 learners' task motivation. *ReCALL*, *37*(3), 385-402. https://doi.org/10.1017/S0958344025000035

Zhai, C., Wibowo, S., & Li, L. D. (2024). The effects of over-reliance on AI dialogue systems on students' cognitive abilities: A systematic review. *Smart Learning Environments, 11*, 28. https://doi.org/10.1186/s40561-024-00316-7

Zhang, N., Wong, W. L. & Barrot, J. (2025). *Primary teachers' acceptance and sustained adoption of AI powered learner corpora for writing instruction through TAM and ECM perspectives*. *Scientific Reports 15*(1), 37399. https://doi.org/10.1038/s41598-025-21205-0

Zhang, X., & Aslan, A. B. (2021). AI technologies for education: Recent research and future directions. *Computers and Education: Artificial Intelligence, 2*, 100025. https://doi.org/10.1016/j.caeai.2021.100025

Zhao, X. (2025). Beyond efficiency: Rethinking generative AI's role in developing critical thinking in L2 writing. *Language Learning & Technology, 29*(1), 55–74. https://doi.org/10.1080/17501229.2025.2503890

Zheldibayeva, R., Nascimento, A. K. D. O., Castro, V., Kalantzis, M., & Cope, B. (2025). The impact of AI-driven tools on student writing development: A case study. *Online Journal of Communication and Media Technologies*, *15*(3), e202526. https://doi.org/10.30935/ojcmt/16738

Zhu, M., & Wang, C. (2025). A systematic review of research on AI in language education: Current status and future implications. *Language Learning & Technology, 29*(1), 1–29. https://doi.org/10.64152/10125/73606