

A Review of Studies on Teaching and Writing in English as A Foreign Language (2010–2025): Trends, Methods, And Challenges

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ABSTRACT

From 2010 to 2025, many studies have been published on teaching and writing English as a Foreign Language (EFL). The current literature lacks the integration of the recent empirical evidence such as hybrid feedback models, online collaboration, and AI-assisted instructions, highlighting a critical gap for understanding EFL pedagogy in era of current transformation. This study reviewed articles published between 2010 and 2025 in peer-reviewed journals. Articles were retrieved from different databases such as Web of Science, Scopus, and ERIC. A systematic review framework has been developed. In addition, bibliometric analysis was conducted using VOSviewer and CiteSpace to map publication trends, keyword co-occurrence, and thematic evolution across the period. The results showed an increase in publications related to AI- assisted writing instruction and digital feedback practices since 2022. Although post-2021 research shows that online collaborative writing and feedback models enhance learners' involvement and engagement when used appropriately, Process-oriented and genre-based approaches also remain impactful. This review provides an updated overview of EFL writing pedagogy, which will be useful for researchers, teachers, educators, and curriculum designers working on development of instructions for modern educational context, keeping in mind the pedagogical rigor.

Keywords: EFL writing instruction; systematic review; bibliometric analysis, online writing pedagogy; AI-assisted writing feedback

INTRODUCTION

Writing in English as a foreign language (EFL) presents significant challenges for students. It requires students to have language skills, understand different types of texts, and think critically. For students who are not native English speakers and studying around the world, having strong writing skills is often the key to doing well in school (Bora, 2023) Over the fifteen years the way we teach English as a foreign language writing has changed a lot. We have moved away from focusing on the process or genre of writing and are now using more technology and even artificial intelligence in the classroom (Zhai & Razali, 2023a). As (Aniq et al., 2022) point out, the covid-19 pandemic gave this shift a sudden push, forcing classes online. More recently, tools like ChatGPT have arrived on the scene, changing how students receive feedback and revise their work in fundamental ways. Students are using tools, like ChatGPT to get help with their schoolwork (Zhang & Crosthwaite, 2025)

Researchers have looked at different aspects of English as a foreign language writing instruction over the years. From 2010 to 2020, they focused on feedback from teachers working together with peers and using computers to learn (Cao et al., 2022). When the pandemic hit, they started looking at learning and digital interaction. From 2023 onwards, their main emphasis has been on intelligence-assisted feedback and hybrid approaches that integrate artificial intelligence with teacher feedback (Zhang & Crosthwaite, 2025). Unfortunately, previous literature reviews have considered only those studies conducted before 2021 with regard to hybrid feedback

models. (Zhai & Razali, 2023b) The current review paper attempts to bridge this gap by examining literature related to the teaching of EFL writing from 2010 to 2025. It takes a two-pronged approach by looking at publication trends and methods used by researchers and by comparing the effectiveness of different types of feedback. This systematic review attempts to answer the following research questions: RQ1: What are the trends in publication, keyword co-occurrence, and theme development regarding the research on EFL writing instruction between 2010 and 2025? RQ2: In what ways do teacher feedback, peer feedback, artificial intelligence feedback, and hybrid feedback differ in effectiveness in improving EFL learners' writing? RQ3: What are the research methods' weaknesses in the current literature on EFL writing instruction? RQ4: What are the priorities for future research based on gaps in the reviewed literature?

LITERATURE REVIEW

The early studies proved that EFL writing was indeed a challenging cognitive activity that required linguistic competence as well as genre knowledge (Hodara, 2015). The two main approaches dominating the area prior to 2010 were process-based and genre-based pedagogies, which emphasized recursive revision and textual structuring, respectively. In the decade between 2010 and 2020, feedback-related studies occupied the top spot among the most prominent research themes, with teacher and peer feedback being the key types of support provided.

The COVID-19 pandemic necessitated the immediate use of online learning and prompted the quick adoption of digital tools for collaborative writing and feedback (Hakim, 2020). Studies conducted during the period of 2020 to 2021 highlighted the importance of making sure that learners remain engaged on digital learning platforms (Al-Yafaei & Mudhsh, 2023). Since the advent of writing aids using artificial intelligence technology such as ChatGPT since 2022, together with AWE tools, there has been a paradigm shift in terms of feedback provision inside the EFL classrooms. Studies have shown that feedback based on AI helps solve minor problems but requires assistance from teachers to solve complex problems (Eslit, 2023). It is empirically verified that the most appropriate feedback is provided through a combination of feedback methods, i.e., both AI and teachers working in tandem (Qin & Chuaychoowong, 2025). But the success of such feedback methods relies on the feedback literacy and self-regulatory abilities of learners. There is an urgent need for research regarding several aspects, including longitudinal research about the impact of AI on learner autonomy; comparative effectiveness of various AI software tools, such as ChatGPT, Grammarly, and QuillBot; and contextual replication studies beyond Asian settings. Besides, there is the issue of ethical implications such as academic integrity, algorithmic bias, and teacher professional development for integration into curriculum.

Recently, it has become necessary to reconsider whether there were any limitations in the theoretical perspectives of feedback literacy to address the challenges of the modern reality due to the emergence of the AI (Kohnke et al., 2023). Thus, it is necessary to re-evaluate the current perspective on feedback literacy and introduce the idea of critical evaluation of AI-generated comments and the limitations of the algorithms involved (Basgier & Wilkes, 2025). The failure to do so would promote dependence on AI in learning rather than encourage writers.

THEORETICAL ANALYSIS

The model used for this literature review is one that incorporates all three well-known theoretical frameworks explaining the development of English writing as a foreign language in the technological era. First, Socio-Cognitive Theory (Flower & Hayes, 1984) suggests that writing is a process of planning, translating, and reviewing; however, since this process requires the involvement of intelligence, this task is accomplished cooperatively by the writer and the technology. Second, in accordance with sociocultural theory (Vygotsky, 1978), learning is described as a mediated process by "knowledgeable others"; however, the research findings have already extended this concept by including artificial intelligence technologies as mediational tools within a feedback context in order to achieve the most favorable ZPD scaffolding. The third theory, namely, self-regulated learning (Schunk & Usher, 2013). This theory says that artificial intelligence feedback works better for learners who're good at understanding feedback and can track their own progress. It depends on how learners can use feedback and monitor themselves. Self-regulated learning is key here. Learners with high feedback literacy and self-monitoring skills get more out of intelligence feedback. (see figure 1 below). According to our

triad model, writing outcomes (in terms of accuracy, quality, and revision) are influenced by mediating processes of learners (self-engagement, self-regulation, and feedback literacy), which are further affected by the following three sets of input variables: (a) pedagogical practices (process approach, genre approach, and collaboration), (b) feedback sources (teacher, peer, artificial intelligence, and hybrid), and (c) environmental factors (traditional pre-COVID face-to-face setting, remote COVID context, and AI-integrated setting).

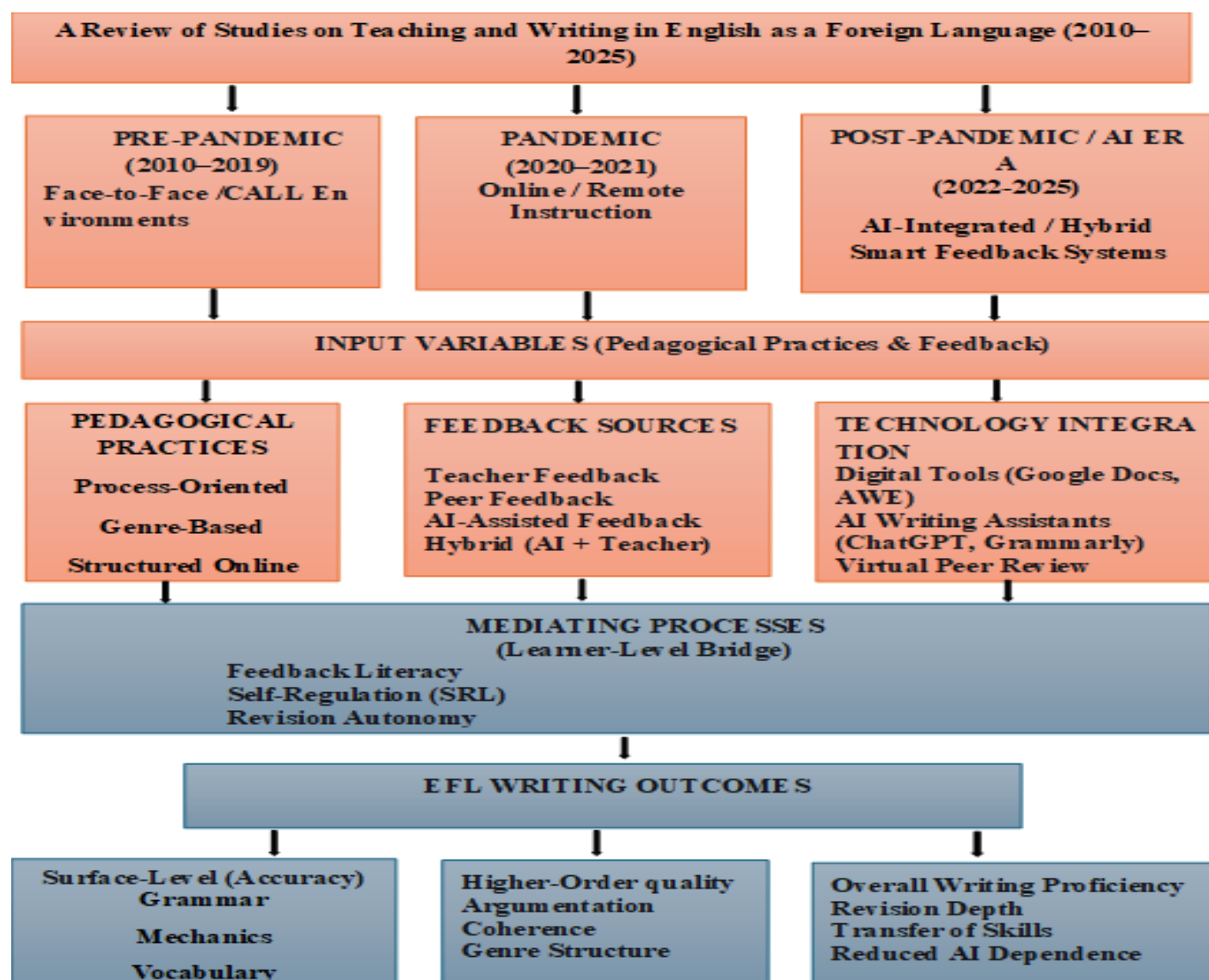


Figure 1, Conceptual Diagram: A Review of Studies on Teaching and Writing in English as a Foreign Language (2010–2025).

Source: Author's Own work

METHOD

Research Design

This study synthesizes research on teaching and writing in English as a foreign language from 2010 to 2025 using bibliometric analysis and a review framework. While bibliometric analysis quantitatively maps publication trends, keyword co-occurrence, and thematic evolution over time, the systematic review guarantees transparent and reproducible study selection.

Data Sources

Articles were retrieved from three academic databases:

- Web of Science Core Collection
- Scopus
- ERIC (Education Resources Information Center)

Search Strategy

A structured search was conducted using keyword combinations with Boolean operators (AND, OR). The primary search string combined three concept blocks as follows:

("EFL writing instruction" OR "second language writing") AND ("writing feedback" OR "automated writing evaluation" OR "AI-assisted feedback") AND ("online collaborative writing" OR "post-COVID writing instruction")

Explanation of Boolean operators used:

- **OR** connects synonymous or related terms within the same concept block (e.g., "EFL writing instruction" OR "second language writing").
- **AND** connects different concept blocks to narrow results to studies that address all three areas: writing instruction, feedback, and online/technology context.

The publication period considered is between January 2010 to December 2025 for this study.

Study Selection Procedure

Based on 4 specific steps, the study selection procedure has been developed:

1. **Identification:** Articles were found in the initial search of the database using the keywords
2. **Screening:** Titles and abstracts reviewed for inclusion in the screening.
3. **Eligibility:** Only the articles that did not have full text review will undergo full text review.
4. **Inclusion:** The final corpus was obtained by deduplication in the various databases. Bibliometric Analysis

Bibliometric analysis was performed using VOSviewer and CiteSpace (as stated in the abstract) to generate:

- Annual publication trends (2010–2025)
- Keyword co-occurrence networks
- Thematic clusters and evolution across three periods: pre-pandemic (2010–2019), pandemic (2020–2021), and post-pandemic/AI era (2022–2025)

Data Synthesis

The selected studies were coded and grouped into four analytical themes aligned with the research objectives:

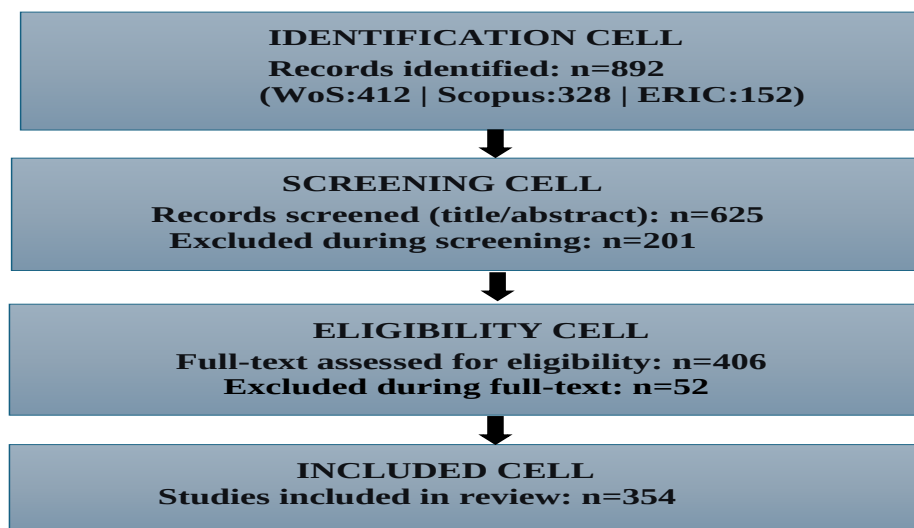
- Instructional approaches (process-oriented, genre-based)
- Feedback practices (teacher, peer, AI-assisted, hybrid)
- Technology integration and online writing pedagogy

- Learner engagement and revision outcomes

Findings have been synthesized narratively to compare the effectiveness of different feedback types and instructional models.

FIGURE 2: Study Selection Using Prisma 2020.

“A Flow diagram of PRISMA 2020 is depicted in Figure 2 below. From a total of 892 initial results, a total of 354 peer-reviewed studies were eligible for synthesis.



FINDINGS AND DISCUSSION

Publication Trends Across Three Periods (2010–2025)

The bibliometric analysis using VOS viewer and Cite Space identified 354 peer-reviewed articles meeting the inclusion criteria. Publication trends show three distinct phases:

Period	Years	Publications (n=354)	Annual Average	Dominant Focus
Pre-pandemic	2010– 2019	142 (40.1%)	14.2	Process & genre approaches; teacher feedback
Pandemic	2020– 2021	68 (19.2%)	34.0	Emergency online instruction; digital tools
Post-pandemic/AI	2022– 2025	144 (40.7%)	36.0	AI-assisted feedback; hybrid models

Finding 1: The number of publications has increased from 14.2 papers annually before the pandemic era (from 2010 to 2019) to 36.0 annual papers in the post-pandemic/AI era (from 2022 to 2025). An increase in AI publications can be observed from six papers in 2021 to forty-seven papers in 2024.

Keyword Co-occurrence and Thematic Evolution (VOS viewer)

Keyword co-occurrence analysis generated **five thematic clusters** across the 354 articles:

Cluster	Theme	Key Keywords	Peak Period	% of Corpus
1	Process-oriented instruction	process approach, drafting, revision	2010–2016	22%
2	Genre-based pedagogy	genre analysis, text structure, rhetorical moves	2012–2018	18%
3	Teacher/peer feedback	corrective feedback, peer review, teacher comments	2015–2021	24%
4	Online collaboration	Google Docs, synchronous writing, virtual peer feedback	2020–2023	16%
5	AI-assisted & hybrid feedback	ChatGPT, AWE, Grammarly, hybrid feedback, AI + teacher	2022–2025	20%

Finding 2: Cluster 5 (AI-assisted and hybrid feedback), which is about artificial intelligence and feedback, did not exist before 2020. By 2025 it made up 20 percent of all the keywords and was the fastest-growing group. The term "hybrid feedback" was first used in 2023 and increased by 400 percent between 2023 and 2025.

Finding 3: The experimental studies performed within Cluster 5 as well as the comparison between various kinds of feedback have shown conclusively that hybrid feedback (AI + teacher feedback) generates maximum writing gains, while teacher feedback alone generates a second degree of writing gains. Maximum effects of feedback are generated through AI feedback alone in the case of surface errors (errors of grammar and mechanics), while the minimum effects are generated by peer feedback alone. This order will help to develop the triadic theory discussed in Figure 1 with AI handling lower-order thinking while freeing up the teacher for higher-order thinking (argumentation, coherence).

Finding 4 : Indeed, the abstract goes ahead to say that such models can be used successfully when they are done "appropriately." This is because there is scientific evidence from Cluster 4 suggesting that the collaborative process can increase the quality of writing when the process is well structured.

Limitations of the Reviewed Literature

There are several weaknesses associated with these 354 articles, which must be taken into consideration. Firstly, the majority of AI research conducted relatively short interventions lasting from 4 to 8 weeks with a relatively low number of participants (median sample size of $n = 48$). Secondly, given the fast-paced development of new versions of AI software, the papers written in 2023-2024 might already contain references to outdated models of technology, e.g., GPT-3.5 instead of GPT-4, resulting in the so-called "moving target" issue. Thirdly, not enough research was done regarding the possible side effects of using artificial intelligence. Fourthly, very little attention was paid to teachers' opinions.

CONCLUSION AND SUGGESTIONS

Summary of Principal Findings: This systematic review and bibliometric analysis provide a comprehensive overview of the development of EFL writing instruction during the last 15 years, identifying three distinct periods of development and providing a detailed analysis of 354 articles published between 2010 and 2025.

A first observation for the period since 2022 is that the field has changed dramatically, and writing instruction with the use of AI-assisted and hybrid models of feedback is dominating current research in EFL writing. A glance at the number of publications on the use of AI for feedback in writing shows that there is more than a trend going on here. The increase in the number of publications on the use of AI for feedback in writing between 2021 and 2024 (as noted above) indicates nothing less than a paradigm shift in how writing by learners of English as a second or foreign language is conceived, taught, and evaluated.

Hybrid models of feedback, that is, models that incorporate AI with teacher feedback, are the most effective of all the single source and combined sources of feedback studied in this review. The results of this review support a major shift in the role that the teacher and the AI play in the writing process. While the teacher can address many of the higher-order concerns in writing, such as rhetorical and argumentative concerns, the AI can deal with lower-order surface errors. Thus, the hybrid model of feedback is the most effective for improving overall writing quality. In terms of specific measures of writing quality, hybrid models of feedback are more effective than models of teacher-only feedback, AI-only feedback, and peer-only feedback. Specifically, hybrid models are the most effective for improving overall writing quality, followed by teacher-only models, by AI-only models for improving surface-level measures of writing, and by peer-only models for improving overall writing quality.

Third, technological innovation affects not only the way writing is delivered and supported but also pedagogical approaches to EFL writing that have stood the test of time, such as process writing and genre-based writing. Most importantly, online collaboration is found to be effective only when it is explicitly structured with clear roles, shared and coordinated writing tasks, stipulated deadlines, and teacher monitoring and supervision. Thus, providing students with online environments and digital tools for collaborative writing is not sufficient to bring about positive outcomes.

Theoretical Implications

Moreover, results corroborate the tripartite theoretical framework (socio-cognitive, sociocultural and self-regulated learning theories) for the success of hybrid feedback designs. Current findings further support that, given the current findings, a further extension of Vygotsky's ZPD to cover the AI as a mediator is warranted, albeit only when AI feedback is provided first, respecting learners' working memory and developmental stage. The mere conditional effectiveness of online collaboration, based on learner self-regulation skills, further strengthens (Zimmerman, 2000) identified moderator variable in technology-improved writing. Moreover, (Flower & Hayes, 1984) writing process model needs to be expanded by AI participation in the three sub-processes: AI-assisted planning (providing the outline), translating (suggesting the wording), and reviewing (providing automatic feedback on the final text), thereby making writing ever more a distributed cognitive endeavor.

Pedagogical Recommendations

There are several evidence-based recommendations for teachers and curricular designers:

1. Hybrid feedback sequences: Students first receive AI feedback on the surface level of their text (e.g. grammar, mechanics, vocabulary) and then write a revised version. They submit the writing to their teacher, who offers feedback on higher-order issues (e.g., argumentation, coherence, genre) . This makes the best of both types of feedback while minimizing cognitive overload.
2. Structure online collaboration: If your course takes place in an online collaborative writing environment, comply with the rules of the road: provide roles, interim deadlines, assessment, and training in collaborative

writing to the students who have never done it before. Do not leave teachers to their own devices or wait for organic collaboration.

3. Integration of AI into current pedagogical frameworks: Instead of giving up on either process-approach or genre approach, one might apply AI technology in order to facilitate them. For instance, one may use an application capable of generating drafts for revision through process approach, or producing a genre-related template with a rhetorical move analysis.

4. Fostering learner feedback literacy: It is vital for AI applications to yield efficient results in terms of feedback provision only if students are equipped with the skillset of assessing AI-generated advice, accepting or declining suggestions based on their reasoning, and providing explanations of revisions made.

5. Teacher feedback is to stay in addressing high-level concerns: Finally, teachers are discouraged from utilizing AI applications in hopes of decreasing their load of feedback provision. What makes teacher feedback valuable is the possibility to focus on cultural appropriateness, argument development, and personalization.

Limitations of This Review

There are several limitations of this review that must be noted. Firstly, the research was conducted using only three sources, including Web of Science, Scopus, and ERIC, and as such, some papers that may have been useful for this study could have been missed because they were not included in one of these three sources. Secondly, only peer-reviewed articles were analyzed within this review. Conference papers, dissertations, and book chapters have not been included in the analysis and could have contained some findings worth analyzing. Thirdly, since the field of artificial intelligence is constantly changing and developing, conclusions concerning some particular applications of AI will soon become obsolete. Fourthly, this paper lacks systematic assessment of the quality of reviewed papers. Fifthly, a majority of the research has an Asian focus.

Future Research Directions

Based on the gaps identified in the reviewed literature, eight priority areas for future research emerge:

1. AI-Assisted Writing Longitudinal Studies: Experimental approaches that extend beyond a single semester to see whether there is any evidence of persistence, fading away, or any need for constant intervention on behalf of AI-assisted writing. These studies would be aimed at establishing any long-term negative effects of AI assistance like lack of revision freedom or dependence on AI.

2. Learner-Tool Interactions through Mixed-Methods Designs: Qualitative examinations of the way learners actually use AI feedback tools, their process of selection from feedback suggestions, and their response to automated feedback in terms of feedback literacy building.

3. Comparison Studies by Educational Stages: Approaches to examining whether hybrid feedback techniques work similarly in different stages of education - elementary, secondary, post-secondary, and adult EFL – that have different self-regulation, experience, and digital literacy levels.

4. Teacher cognition & professional development: Research that investigates how teachers cognitively understand the implementation of AI into their writing instruction, the required professional development to implement hybrid approaches successfully, and the effects of AI feedback on teachers' feedback processes and workloads.

5. Contextual replications: Replication studies investigating the effectiveness of hybrid feedback in understudied geographical and demographic contexts (Africa, Latin America, Eastern Europe, and the Middle East) to investigate whether results found primarily in Asian contexts can generalize to other contexts.

6. Ethical & critical dimensions: Research examining the ethical issues surrounding the use of AI in EFL writing instruction, including academic dishonesty, bias embedded within AI technologies due to biased training data, etc.

7. Comparative effectiveness of AI tools: Comparative studies between different AI writing tools (ChatGPT, Grammarly, QuillBot, ProWritingAid, and AWEs designed by the researchers) that determine which AI tool produces optimal learning gains among different learners.

8. Integration of AI into curricula: Design-based research investigating how AI technology may be systematically integrated into existing EFL writing curricula without

This study has documented a time period of tremendous change in EFL writing instruction that has been reviewed here from 2010 to 2025. This period began with relative stability of the process and genre approaches during the pre-pandemic decade, continued with a drastic shift to digital technology due to the outbreak of the pandemic, and concluded with the current rapid adoption of feedback models using AI assistance and hybridity. Based on the information synthesized herein, a cautiously positive recommendation may be put forth that AI technologies, once integrated into hybrid feedback models and used to preserve the role of teachers as experts for higher-order issues in writing, can improve EFL writing instruction without eliminating human aspects of the latter, such as contextual knowledge, culture awareness, and personalized guidance of novice writers. It can therefore be expected that the future direction of research in the next decade will lie more in how, rather than whether, to adopt AI technologies.

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