

Search information

Received 2026-04-12

Accepted 2026-05-05

Printed ISSN: 2352-989X

Online ISSN: 2602-6856

AI Generated Feedback versus Teacher Feedback in EFL Writing: A Narrative Review of Their Complementary Roles

Ibtihel Silini¹

Wafia Tihal²

¹ ENS Bouzareah (Algeria), ibtihel.silini@ensb.dz,
Laboratoire de Linguistique et de Sociodidactique
du Plurilinguisme

² ENS Bouzareah (Algeria), tihal.wafia@ensb.dz

ABSTRACT

Feedback is a critical component of EFL writing development as it serves as a mechanism for improvement. Traditionally, teacher feedback has been the primary source of support, addressing both basic writing issues, such as grammar and mechanics, and higher-order skills, including content development, organization, argumentation, and coherence. However, this approach is often constrained by large class sizes and limited instructional time. The emergence of AI-generated feedback tools offers new opportunities, enabling learners to receive immediate and detailed guidance on their writing performance. Despite the growing research on AI and teacher feedback, most studies focus primarily on lower-order skills, leaving higher-order skills underexplored. Furthermore, there is currently no narrative synthesis identifying best practices for combining AI and teacher feedback to simultaneously support lower- and higher-order writing development. This qualitative narrative review synthesizes findings from fifteen recent peer-reviewed studies between 2020 and 2026, using thematic analysis to compare AI-generated and teacher feedback, highlighting patterns, implications, and limitations. The review indicates that AI and teacher feedback contribute to writing development in complementary ways: AI excels in providing timely, objective, and detailed guidance on grammar, mechanics, and vocabulary, supporting autonomy, whereas teacher feedback is more effective for higher-order skills and motivational support. Hybrid approaches, which combine AI and teacher feedback, appear to be particularly promising, allowing teachers to focus on complex aspects such as organization, argumentation, and content quality, while AI addresses routine mechanical issues. Integrating AI effectively requires teachers to guide students in evaluating AI suggestions and critically reflecting on their revisions. Overall, this collaboration can enhance efficiency and maintain the essential depth and nuance of human feedback to develop EFL learners' writing performance.

Keywords: AI-generated feedback, Teacher feedback, EFL writing, Hybrid feedback, Lower- and higher-order skills.

INTRODUCTION

In English language teaching and learning, providing feedback is not just about assigning grades or scores. Feedback is a comment or a piece of information provided by the teacher to direct the knowledge stored in the learner's mind in the appropriate direction to improve performance (Black & Wiliam, 1998). Regardless of its nature, source, or intention, feedback is highly beneficial for improving teaching-learning outcomes. In EFL writing instruction, traditional teacher feedback has been the primary source of guidance, addressing both mechanical issues and higher-order writing skills. However, one teacher facing a large class of students waiting for individualized feedback found the situation particularly challenging. The limited time available often makes it difficult to offer personalized comments to each student, especially for complex tasks such as writing assignments.

Recently, the rise of AI tools with natural language processing (NLP) abilities has enabled learners to assess their written texts. These systems often include automated writing evaluation systems and chat-based models, such as ChatGPT, which offer rapid, consistent, and objective corrections. Despite its potential to provide immediate customized feedback to learners through its ability to recognize basic errors in written patterns, it still delivers standardized feedback that may not fully reflect the specific learning context or individual writing intentions (Akanda & Talukder, 2026). Several studies have proven that AI can be beneficial only when it comes to correcting mechanical and structural issues; it often lacks sensitivity to nuance, context, and the writer's intended meaning (Bouafia, 2025; Keser & Pektaş, 2024; Makwana, 2025). Unlike these intelligent systems, teachers can address higher-order issues beyond grammar rules and vocabulary issues, such as critical thinking, creativity, and the overall coherence of writing. Teachers' feedback is a reflection or an interpretation of the learners' actual level, in which it identifies their strengths and weaknesses based on the levels, wants, and needs for better performance.

Despite the growing research comparing AI-generated and teacher feedback, few narrative reviews have synthesized their complementary roles across lower- and higher-order writing skills. In this context, the present study adopts a narrative review approach to examine the roles of AI-generated and teacher feedback in EFL writing. It aims to synthesize recent peer-reviewed research papers to identify patterns, strengths, limitations, and potential areas of integration between the two feedback types.

Accordingly, this study is guided by the following research questions:

- ✓ How do AI-generated and teacher feedback differ in their effects on EFL learners' lower-order (grammar, mechanics, and vocabulary) and higher-order (content, organization, argumentation, and coherence) writing skills?
- ✓ How can AI-generated and teacher feedback be effectively integrated to enhance both lower- and higher-order writing skills in EFL learners?

1. Literature Review

1.1. Sociocultural Theory and Feedback

Social constructivism is one of the prominent theories for understanding how knowledge is socially constructed and how cultural contexts can shape human cognition. In this approach, learning is seen as an active and dynamic process in which learners construct knowledge through their interaction with experiences and prior understanding rather than passively receiving information (Amineh & Asl, 2015). Vygotsky (1978) added to the understanding of this theory the importance of social interaction and collaborative learning in the educational process. Formative assessment plays a crucial role in facilitating this process by providing ongoing feedback and opportunities for students to engage in meaningful learning. Empirical studies have supported the connection between formative assessment and social constructivism, demonstrating that when students are actively involved in the assessment process, they are more likely to construct their own knowledge and develop a deeper understanding of the material (Black & Wiliam, 1998; Hattie & Timperley, 2007). Additionally, formative assessment aligns with the concept of ZPD, which refers to the difference between what a learner can do independently and what they can achieve with the guidance and support of a knowledgeable other. In this context, both teacher and AI-generated feedback can serve as scaffolding tools to support learners' writing skill development.

1.2. Teacher Feedback in EFL Writing

Writing is one of the most striking language skills. It is far more than the simple act of gathering letters to form words; it is a task that demands the simultaneous engagement of both cognitive and metacognitive skills. In fact, by its nature, writing is not a finished product at first attempt. It is an evolving, continuous process that requires feedback to be well and fully developed. For this reason, feedback is an external perspective for students that bridges the gap between their strengths and weaknesses in the learning process. It serves as a guide to assist learners in recognizing their strengths and identifying areas that require further attention or development. According to Black and Wiliam (1998), effective feedback plays a formative role in guiding learners to improve their performance. Similarly, Hattie and Timperley (2007) describe feedback as information given by an agent, who could be a teacher or a peer, about aspects of one's understanding, which can guide future decision-making. In fact, the need for continuous

feedback in the classroom requires teachers to not only decide whether students have grasped the task but also to investigate their ways of thinking to understand the reasons for their learning difficulties. In addition to utilizing assessment as a tool for planning future instruction, teachers are also expected to use it to assist students in judging their amount of understanding, clarifying the commands of a learning assignment, assessing their work against a set of criteria, and perceiving and planning learning objectives.

However, the efficacy of teacher feedback is frequently limited by external factors. According to Makwana (2025), large language classrooms often reflect a gap between pedagogical intentions and practical applications, as teachers are required to provide feedback to a large number of students within a limited instructional time. Due to time constraints and heavy workloads, teachers may be forced to prioritize basic corrections, such as grammar and spelling, over deeper and more meaningful comments that address idea development, organization, and critical thinking.

1.3. AI-Generated Feedback in EFL Writing

With the advancement of technology in classroom pedagogical practices, new forms of feedback have emerged in the literature. AI tools, specifically chatbots, have been used to assign scores to written assignments. Grammarly and ChatGPT have shown considerable potential in supporting learners' writing development by providing immediate and accessible feedback (Utami & Ariati, 2025). These tools enable students to quickly identify and correct errors related to grammar, vocabulary, and sentence structure, which continuously improves their writing skills. In addition to enhancing accuracy, they also promote learner autonomy and encourage them to take greater responsibility for their own learning process. Moreover, the adaptation of AI tools in EFL classroom instruction offers a practical solution to the persistent challenges of time constraints and large classroom size. It delivers instant individualized feedback to a large number of learners simultaneously.

2. Methodology

The adopted methodology for this study is a qualitative narrative review design grounded in an interpretivist paradigm. Interpretivism emphasizes the understanding and interpretation of existing knowledge by exploring patterns, meanings, and relationships across studies, rather than generating numerical data (Creswell & Creswell, 2018). This paradigm is particularly appropriate, as this study seeks to critically examine and synthesize previous research on AI-generated and teacher feedback in EFL writing, with the aim of identifying their complementary roles in supporting both lower- and higher-order writing skills.

A total of fifteen peer-reviewed studies published between 2020 and 2025 were selected based on their relevance to the research topic. Relevant studies were identified through database searches in Google Scholar, Scopus, Web of Science, and the Education Resources Information Center (ERIC). A set of relevant keywords was used to identify the appropriate studies, including "AI-generated feedback," "teacher feedback," and "EFL or ESL writing". To ensure the quality and relevance of the selected studies, only peer-reviewed journal articles were considered. In addition, the selected studies were required to directly compare AI-generated and teacher feedback, particularly within EFL or ESL writing contexts. Priority was given to empirical studies that investigated feedback effectiveness, learner perceptions, and writing performance outcomes. Studies that focused on language skills other than writing were excluded. In addition, the researcher excluded articles that focused solely on the role of AI without addressing its pedagogical implications, as well as studies that examined AI tools without a clear focus on feedback use.

The analysis followed a qualitative thematic synthesis approach, in which the findings of the selected studies were thematically compared and interpreted to develop a coherent understanding of the research problem as follows: Each study was carefully reviewed, and key information was extracted, including research aims, methodology, main findings, implications, and reported limitations. The studies were then coded according to predefined categories, including the type of feedback (AI-generated vs. teacher feedback), the writing skills addressed (lower-order vs. higher-order skills), and the reported effectiveness of each feedback type. After the coding process, the data were grouped into broader themes, such as the effectiveness of AI-generated feedback, the role of teacher feedback, and the impact of hybrid feedback approaches. The themes were then used to identify similarities and differences in patterns between studies.

3. Results

The synthesis of the selected studies sheds light on several consistent patterns regarding the role and effectiveness of AI-generated and teacher feedback in EFL writing. As indicated in the reviewed research, both types of feedback contribute positively to students' writing performance; however, their influence differs depending on the type of writing skill being addressed.

Nevertheless, when comparing both feedback forms, the findings suggest that neither AI-generated nor teacher feedback is independently sufficient to address all aspects of writing development. A prominent finding across the reviewed studies is the significant time-saving potential of AI-generated feedback, particularly in large EFL classroom contexts, where providing individualized feedback to numerous students is highly demanding. Moreover, the findings demonstrate that AI-generated feedback is highly effective in improving lower-order writing skills, including grammar, spelling,

punctuation, and vocabulary. Empirical evidence from experimental and quasi-experimental studies (Khojasteh et al., 2025; Sazandeh & Beiki, 2025; Makwana, 2025) indicates that students receiving AI feedback can quickly identify and correct errors, which supports immediate improvements in writing accuracy.

In addition, it is commonly agreed that AI performs slightly better than human feedback on lexical criteria. First, it suggests alternatives for repetitive or overused vocabulary, allowing learners to be exposed to a variation of words and improve their lexical background. Furthermore, AI does not only work on vocabulary improvement but also supports word precision and helps learners avoid inaccurate expressions and replace them with more specific and academic language. Another important aspect of lexical development is the ability of AI to paraphrase ideas effectively, which is often challenging for EFL learners. AI tools can assist students by reformulating entire sentences to avoid repetition and plagiarism as well as to enhance their textual cohesion.

Despite its effectiveness, AI feedback is limited to the mechanical and structural aspects of writing. In fact, it tends to be summative in nature, providing broad comments rather than detecting specific contextual errors or engaging with the writer's intended meaning (Ranalli, 2021; Bouafia, 2025; Cengiz & Aptoula, 2025; Sazandeh & Beiki, 2025). AI feedback was commonly criticized for missing depth in higher-order skills assessment. Similarly, recent evidence suggests that although students appreciate AI feedback for its accessibility, timeliness, and clarity, they still consider teacher feedback to be more trustworthy and reliable for complex writing tasks (Er et al., 2024; Henderson et al., 2025).

In addition, AI-generated feedback often lacks the capacity to adapt to individual learners' cognitive and linguistic needs, as it relies primarily on generalized algorithms. More importantly, it does not incorporate the element of social mediation, through which knowledge is constructed via interactions, dialogues, and collaborative work. Consequently, the absence of direct social engagement significantly limits AI's pedagogical value, as learners are not guided through reflective processes or encouraged to question their choices or develop metacognitive awareness.

In contrast, the synthesis of the selected studies highlights the distinctive and indispensable role of teacher feedback in EFL writing development. Teacher feedback is frequently mentioned for its depth, contextual sensitivity, and engagement with students' intended meaning (Keser & Pektaş, 2024). According to the reviewed data, teachers generally offer feedback that is targeted to the learner's level, purpose, and communication intent, rather than just correcting their mechanical writing skills. Furthermore, studies by Escalante et al. (2023) and Baz and Aksoy (2025) reveal that, while both AI and teacher feedback may contribute to immediate improvements, teacher

feedback demonstrates more substantial long-term gains in students' learning and skill internalization.

Baz and Aksoy (2025) conducted a long-term mixed-methods study with 100 fifth-grade students. They compared AI and teacher feedback over an eight-week intervention using pre-tests, post-tests, and another post-test administered two months later. The results showed that both groups improved in the short term, but only the teacher feedback group continued to maintain their gains over time, which means they developed strong retention. The knowledge that comes from the teacher is more likely to be remembered because teacher feedback is often associated with the depth of cognitive engagement. As a matter of fact, teacher feedback typically goes beyond correction to include meaningful learning, explanations, and examples. Instead of simply correcting a sentence, a teacher may comment on the clarity of an argument, ask the student to expand on an idea, explain why something is incorrect, and invite them to rethink their choices.

Furthermore, a key finding across the reviewed studies is the effectiveness of hybrid feedback that integrates AI-generated and teacher feedback. A study by Khojasteh et al. (2025) evaluated the writing skills of 88 intermediate-level EFL students. The researchers conducted a randomized controlled experiment to assess the impact of teacher feedback, AI feedback (Grammarly and ChatGPT), and a hybrid combination of both on students' writing skills. The results indicated that the hybrid group performed better and achieved significantly higher scores.

The effectiveness of hybrid feedback lies in its integration of the strengths of both AI-generated and teacher feedback. AI efficiently addresses grammar, spelling, vocabulary, and sentence structure issues, while teachers focus on argumentation, coherence, organization, and clarity. For instance, while AI may correct verb tense errors and suggest vocabulary alternatives, the teacher may comment on whether the thesis statement is clearly developed or whether supporting ideas are logically connected. Moreover, in large EFL classes, where time constraints limit detailed teacher feedback, a hybrid approach can be used to distribute feedback responsibilities efficiently. The combination of both approaches may contribute to improvements in the quality of students' writing and overall teaching-learning outcomes.

4. Discussion

The first research question attempts to explore how AI-generated and teacher feedback differ in their impact on EFL learners' writing skills. The results of this narrative review show a strong contrast between the two feedback forms in terms of their efficacy. AI-generated feedback has been shown to be particularly effective in addressing lower-order skills, as it consistently offers timely, objective, and detailed

corrections for grammar, spelling, punctuation, and vocabulary use. Several studies have also shown that AI feedback is especially effective in lexical resources, as it outperforms teacher feedback in recommending alternative terminology and boosting linguistic accuracy and precision. However, while studies such as Khojasteh et al. (2025) and Sazandeh and Beiki (2025) highlight the immediacy and efficiency of AI-generated feedback, other research, including Henderson et al. (2025), shows that students are often more hesitant to rely on it for complex writing tasks. This contrast means that improvements in surface-level accuracy do not necessarily lead to deeper learning. Another significant finding from the analysis is the possible bias associated with AI-generated feedback. AI systems are generally trained on large datasets that may represent standardized language forms, resulting in an overemphasis on precise linguistic patterns while ignoring context-specific expressions.

In contrast, teacher feedback was shown to be more effective in fostering higher-order writing skills, including content development, organization, coherence, and argumentation. The reviewed studies emphasized that teacher feedback is inherently deep, contextualized, and interpretive, allowing for meaningful engagement with students' ideas and their intentions. Moreover, lasting improvements in writing performance were notably more evident in groups that received teacher feedback, suggesting a stronger impact on long-term skill development and cognitive processing (Baz & Aksoy, 2025). The ability of teacher feedback to provide explanations, examples, and targeted prompts encourages learners to critically reflect on their work.

The second research question sought to determine how AI-generated and teacher feedback can be effectively integrated to enhance both lower- and higher-order writing skills. The synthesis of findings strongly supports the adoption of a complementary hybrid feedback approach, where the strengths of both modalities are strategically combined. AI-generated feedback can be used to handle time constraints and lower-order corrections in large classrooms. It allows teachers to redirect their efforts toward providing in-depth, higher-order feedback that addresses meaning, structure, and critical thinking. Furthermore, the findings suggest that effective integration requires teachers to play an active role in mediating AI use and guiding students to critically evaluate AI-generated suggestions rather than passively accepting them. Thus, the balanced approach does not only enhance writing accuracy and complexity but also promotes learner autonomy while preserving the pedagogical and affective value of teacher feedback.

5. Conclusion and Pedagogical Implications

From the bottom up, this narrative review has examined how AI-generated feedback and teacher feedback contribute to the development of EFL learners' writing skills, revealing a complementary rather than competitive relationship between the two. The synthesis of the reviewed studies demonstrates that each feedback type addresses different dimensions of writing; AI-generated feedback primarily supports lower-order skills through its time-efficient, consistent, and objective corrections, while teacher feedback plays a crucial role in fostering higher-order skills through its depth, contextuality, and engagement with learners' intended meaning.

The findings further indicate that relying exclusively on one form of feedback may result in an inadequate approach to writing development. Accordingly, the study underscores the value of adopting a hybrid feedback approach, in which AI-generated feedback is used to manage immediate revisions, while teacher feedback is directed toward higher-order concerns and deeper cognitive engagement.

Building on the findings of this narrative review, several pedagogical and didactical implications can be drawn to inform future practices in EFL writing instruction. The revolutionizing role of AI-generated feedback calls for a reconceptualization of feedback practices, where technology is not viewed as a substitute for the teacher but rather as a supporting tool that enhances instructional quality and efficiency. Future classroom practices should move toward the implementation of a hybrid feedback approach, in which AI tools are systematically integrated into the writing process to address lower-order concerns and allow teachers to dedicate more time and cognitive effort to higher-order aspects. Also, for such integration to be effective, students need to be explicitly trained on how to critically evaluate and use AI-generated feedback. Teachers should guide learners in distinguishing between accurate and inappropriate AI suggestions, since AI output is not always contextually or academically reliable. Moreover, classroom activities can include guided feedback evaluation tasks, where students compare AI corrections with teacher feedback.

6. Limitations of the Study

Although this study has some useful implications for the effective integration of AI-generated and teachers feedback, a number of limitations and methodological barriers emerged while conducting this enquiry. First, the review is based on a relatively small sample of fifteen studies, which may limit the generalizability of the findings. For that reason, the data are not enough to present all EFL teachers' and students' perceptions towards both types of feedback. Second, the study adopted a narrative review design rather than a systematic review approach. The narrative review approach was selected

because it enables a flexible and interpretive synthesis of findings across diverse studies, as well as it identifies key themes, patterns, and debates. However, it may introduce a degree of subjectivity in the selection, interpretation, and synthesis of the studies. This stems from the fact that it does not follow the highly structured protocol of systematic reviews, where study identification and inclusion are transparently documented using frameworks such as the PRISMA diagram.

7. Bibliography List

- Akanda, F., & Talukder, T. (2026), AI writing tools in English writing: Reviewing teachers' and students' views on benefits and concerns, *Social Sciences & Humanities Open*, Netherlands, 13, 102437.
- Alnemrat, A., Aldamen, H., Almashour, M., Al-Deaibes, M., & Alsharefeen, R. (2025), AI vs. teacher feedback on EFL argumentative writing: A quantitative study, *Frontiers in Education*, Switzerland, 10.
- Alshahrani, A., & Al-Inbari, F. A. Y. (2025), EFL students' perceptions about AI-generated feedback on improving L2 writing: Comparing perceptions of teacher and AI feedback, *Oeconomia Copernicana*, Poland, 16(1), 521–532.
- Amineh, R. J., & Asl, H. D. (2015), Review of constructivism and social constructivism, *Journal of Social Sciences, Literature and Languages*, Iran, 1(1), 9–16.
- Baz, M. A., & Aksoy, S. H. (2025), The effect of feedback on informative text writing: AI or teacher?, *Open Praxis*, Spain, 17.(3)
- Black, P., & Wiliam, D. (1998), Assessment and classroom learning, *Assessment in Education*, United Kingdom, 5(1), 7–74.
- Bouafia, F. (2025), ChatGPT generated versus teacher mediated feedback: A comparative study on first-year EFL students' paragraph writing at Skikda University, *دراسات معاصرة*, Algeria, 12.
- Boukhedoua, S., & Boulkroun, F. (2025), Exploring EFL learners' perceptions of AI-generated language feedback in out-of-class learning in higher education, *مجلة آفاق العلوم*, Algeria, 100.
- Cengiz, Y., & Yigitoglu Aptoula, N. (2025), Comparing AI and human feedback at higher education: Level appropriateness, quality and coverage, *Language Teaching*, United Kingdom.
- Creswell, J. W., & Creswell, J. D. (2018), *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.), Sage Publications, USA.
- Er, E., Akçapınar, G., Bayazıt, A., Noroozi, O., & Banihashem, S. K. (2024), Assessing student perceptions and use of instructor versus AI-generated feedback, *British Journal of Educational Technology*, United Kingdom.
- Haddadian, G. (2024), Comparing the effects of teacher feedback, automated feedback, and integrative feedback on EFL learners' writing accuracy and writing apprehension, [Journal missing], 25, 124–147.

- Hattie, J., & Timperley, H. (2007), The power of feedback, *Review of Educational Research*, USA, 77(1), 81–112.
- Henderson, M., Bearman, M., Chung, J., Fawns, T., Buckingham Shum, S., Matthews, K. E., & de Mello Heredia, J. (2025), Comparing Generative AI and teacher feedback: student perceptions of usefulness and trustworthiness, *Assessment & Evaluation in Higher Education*, United Kingdom.
- Keser, K. Ş., & Pektaş, R. (2024), Human vs. AI feedback on academic writing: a comparative study in Turkish context, *English Studies: A Multifaceted Lens*, Turkey, 190.
- Makwana, V. (2025), A comparative analysis of AI-powered and teacher-led feedback: Investigating student perceptions and writing performance, *Journal of English Language Teaching*, India, 67(1), 3–12.
- Ranalli, J. (2021), L2 student engagement with automated feedback on writing: Potential for learning and issues of trust, *Journal of Second Language Writing*, Netherlands, 52, 100816.
- Sazandeh, M., & Beiki, M. (2025), Comparing AI and teacher corrective feedback on Iranian EFL learners' essay writing skills, *Asian Journal of Education and Social Studies*, UK, 51(5), 473–486.
- Utami, S., & Ariati, J. (2025), Leveraging AI for collaborative writing: A mixed method study on student experiences using AI writing tools, *Bright: A Journal of English Language Teaching, Linguistics and Literature*, Indonesia, 8(1), 105–115.
- Vygotsky, L. S. (1978), *Mind in society: The development of higher psychological processes*, Harvard University Press, USA.