

AI-POWERED FEEDBACK SYSTEM FOR WRITING: A REVIEW OF AUTOMATED WRITING EVALUATION (AWE) TOOLS

Etna Gres^{*1}, Dwi Riyanti², Yohanes Gatot Sutapa Yuliana³

Etnagres14@gmail.com^{*1}, dwi.riyanti@fkip.untan.ac.id²,

yohanes.gatot.sutapa.y@fkip.untan.ac.id³

Faculty of Teacher Training and Education^{*1,2,3}

Tanjungpura University^{*1,2,3}

Received: November 19, 2025

Accepted: June 8, 2026

Published: September 25, 2026

ABSTRACT

This systematic literature review aims to explore how AI-powered feedback tools contribute in learners' writing. The researcher analyzed the results from 50 empirical studies that published from 2019 to 2024. The studies were selected via database searches, defined inclusion criteria and thematic analysis. The findings indicate that Automated Writing Evaluation (AWE) tools such as Grammarly, Quillbot and DeepL Write significantly improve the writing precision, fluency and grammatical proficiency through immediate and customized feedback. Additionally, the review examines that AWE tools can enhance the organization of writing, overall writing quality, while also encouraging self-directed learning. However, the review pointed out that learners relying too much on AWE and the fact that it could lower their critical thinking and creativity. More challenges like sometimes AWE might provide limited feedback depth and concerns about accuracy in evaluating complex writing aspects remain significant. This article highlights the pedagogical implications of Integrating AI-powered feedback and suggests directions for future research, particularly in balancing human and automated feedback to optimize writing skill.

Keywords: *AI, Automated Writing Evaluation (AWE), Feedback*

DOI: 10.31943/wej.v10i2.572

INTRODUCTION

The rapid integration of Artificial Intelligence (AI) in educational environment has significantly transformed English language learning particularly in the domain of writing. Automated Writing Evaluation (AWE) technology which includes tools like Grammarly, Quillbot and DeepL Write become a popular new idea to get feedback for the writing. These systems give quick and automated feedback on grammar, coherence, vocabulary use and the text structure, so learners can get help right away while or after they write. Massive of learners are using AWE tools because there is a growing need for feedback options to improve the quality of writing and AWE tools have more varied feedback, more specific and provide more corrections compare to human teachers (Li, 2022); (Smith, 2023).

In the classrooms, teachers often have trouble in giving quick feedback for many students since the teacher needs to read and check their writing one by one (Hellin et al., 2023). So sometimes the feedback focuses on small grammar mistakes and vocabulary instead of bigger writing problems like the structures, spelling, the idea and how to improve the quality of their writing. Meanwhile, AWE tools can help the teachers to solve this problem because the tools make it easier to do the writing check over and over again so they can focus on more complicated parts to improve students writing quality. These systems can look at a lot of students' writing and give personalized feedback right away in natural language processing. AWE tools can be very useful as teaching tools in the classroom.

Even with these possible benefits, there is still a debate about how useful AWE tools for English writing. Many real-world studies show that AI-automated feedback can improve grammar and writing flow, but there are still some concerns about its effect on education as a whole (Allen et al., 2021). Many researchers have noticed that relying too much on AI-automated feedback might make learners as well as teachers less critical and unwilling to do the important revisions on their writing that can limit the opportunities on the writing improvement (Chen et al., 2023). Existing AWE systems sometimes can also struggle to provide the proper feedback and can be out of the topic. The limitation shows that technologically efficient doesn't always mean that education as well as teaching and learning activity will be effective.

To better understand these issues, we need to look at how important the feedback is in well-known learning theories. From a sociocultural perspective, learning is enhanced through interaction and organized assistance where feedback served as a support mechanism that enables learners to progress beyond their current level of achievement (Yen, 2017). The study also said that knowledge is activity built through processes of reflection, change, and meaning-making that happen over and over again (Cadierno, et al., 2021). Within these findings as the theoretical framework, the process of writing development transcends mere error correction and it encompasses continuous engagement with feedback to refine ideas and the text's structure. This study regards AWE tools as supplementary scaffolding instruments that facilitate revision process while still requiring teacher's mediation to ensure the pedagogical coherence and contextual relevance.

Expanding on this theoretical basis, recent empirical researches have shown that AWE tools can enhance better writing performance when incorporated into organized teaching methods. (Brown, 2022) reported that substantial enhancements in grammatical precision and vocabulary complexity were observed in learners who frequently used AWE tools. Similarly, (Vistari et al., 2025) found that sustained use of AWE tools over a six-month period resulted in measurable gains in overall writing proficiency. These findings suggest that automated feedback can support long-term development when it is embedded within repetitive writing, interaction and revision cycles.

Besides enhancing writing skills, AWE tools are linked to increased learners' independence and self-directed learning action (Susanti, 2017). The feedback enables learners to independently edit their writing without needing to wait too long and fostering active involvement in their learning experience with the

systems. This corresponds with student-centered teaching method in ELT, highlighting students' accountability and thoughtful learning processes. By engaging in continual interactions with feedback, students can track their advancement, recognize the mistakes and cultivate a deeper understanding of their writing abilities. Consequently, AWE tools can be useful in both performance results and the enhancement of metacognitive abilities.

However, the increasing use of automated feedback also presents a number of educational difficulties (Habibu et al., 2016). The accuracy and consistency of feedback is one of the main issues. According to (Brown, 2022), AWE systems occasionally misidentify correct structures as errors or unable to identify complex syntactic patterns. This matter can cause users of AWE tools to become confused and lose faith in automated feedback. Additionally, a lot of systems emphasize form-focused feedback while providing little assistance for discourse-level elements like audience awareness, coherence and rhetorical strategy. These shortcomings emphasize the need for careful integration of teaching, not blind adoption.

Cultural and contextual term have another significant issue. The majority of AWE tools are created using standardized English norms, which might not accurately represent the writing styles and rhetorical traditions of students from different linguistic backgrounds. According to (Chen et al., 2023), this mismatch may lead to feedback that inadvertently marginalize different rhetorical styles and limits students' ability to express themselves. This issue is particularly relevant in EFL settings, where local instructional traditions and educational cultures influence students' writing habits.

Furthermore, the limitations of AWE tools in addressing cultural and contextual differences may affect the quality and relevance of the feedback provided to learners. Since these systems primarily focus on linguistic accuracy and standardized writing conventions, they may overlook context-specific aspects of writing, such as audience expectations, cultural nuances, and disciplinary conventions. As a result, students may become overly reliant on automated suggestions and gradually adapt their writing to fit the system's preferences rather than developing their own academic voice. Therefore, educators should critically evaluate AWE feedback and provide supplementary guidance to ensure that students receive balanced support that respects both linguistic accuracy and cultural diversity in writing.

Moreover, the growing use of AWE tools has consequences on how teachers' role in writing instruction and feedback. Teachers feedbacks still crucial for addressing the affective, motivational and contextual aspects of learning, even though automation can lessen teachers' workloads. Automated systems are unable to completely replace the opportunities for conversation, support and tailored advice that human feedback offers. (Brown, 2022) highlighted the importance of teacher-student interaction can help students to develop their critical thinking and writing confidence. Therefore, maintaining the balance between technological efficiency and human teacher pedagogy is necessary for the successful integration of AWE tools.

The use of AI-powered feedback system is indicative of a move toward technology-supported instructional models within the larger framework of digital transformation in education (Evans, 2020). This change is especially noticeable in online and hybrid learning settings where it can be difficult to provide personalized feedback using the conventional techniques. By allowing teachers to handle high student writing volumes while maintaining feedback frequency, AWE tools provide a scalable solution for this to guarantee that technology improves learning quality with pedagogical planning.

According to recent studies by (Vistari et al., 2025), in order to get significant results in using AWE tools, digital tools in language instruction and feedback must be in line with learner needs and the objectives. Based on their findings, technology works best when it is incorporated into organize educational framework rather than just being use as stand-alone digital solutions. This viewpoint emphasizes how important it is to look at AWE tools in larger institutional and instructional context.

Even though there are many researches on AI-automated feedback for writing as well as the implementation of AWE tools, there are still some gaps found in it. First, many researches focused on short-term experimental interventions, providing limited insights into the sustainability of learning outcomes over extended periods. Second, previous research has predominantly concentrated on quantitative enhancements in performance rather than on pedagogical methodologies and strategies for classroom integration. Third, there is a lack of empirical research that specifically examines the interplay between learner engagement, teacher mediation and automated feedback, particularly in EFL context.

This study conducts a systematic literature review of empirical research published from 2019 to 2024 to critically evaluate the efficacy and educational impact of AWE tools in writing instruction for students and teachers. The assessment focuses on educational outcomes, pedagogical challenges, and strategies for integrating feedback. This study aims to provide a comprehensive understanding of the functioning of AI-automated feedback systems in authentic educational contexts by examining evidence from multiple research studies across diverse learning environments and educational settings worldwide.

This study is positioned within the wider educational transition towards digital and AI-powered learning contexts. With growing adoption of technology-based teaching tools, it is crucial to realize their educational implications. This review seeks to guide educators, researchers and policymakers on effective methods for incorporating AI-powered feedback in writing skill, emphasizing the importance of maintaining human interaction in language acquisition by analyzing AWE tools through theoretical perspectives and empirical evidence, while promoting balanced, ethical, and pedagogically sound implementation practices.

RESEARCH METHOD

Research Design

Systematic literature review was used as the method to search the empirical studies through a number of academic databases such as Google Scholar, ERIC and Research Gate to make sure we found a wide range of relevant studies on AWE tools in English writing. The study focused on publication from 2019 until 2024 which the assessment includes the most recent advances exploration on AWE tools. The search used the phrases “AI-powered feedback”, “Automated Writing Evaluation (AWE)”, “AI in English writing” and “AI-powered feedback in ELT”. Boolean operators like “AND” and “OR” was used to narrow down the search results and find studies that looked at how AWE tools are used by EFL. The first search turned up 90 articles. After removing duplicates, 60 articles were chosen for further review.

Screening: Inclusion and Exclusion Criteria

The screening process was based on the set rules for what could and couldn't be included. To be included in the review, studies must meet the following requirements:

1. Published between 2019 and 2024 to make sure the review is still fresh about new things that have happened.
2. Empirical research utilizing AWE tools in English Language Learning or Teaching context.
3. Research articles composed in English and subjected peer review.
4. Studies that look into how AI-powered feedback affects writing skill development.

On the other hand, we've considered the exclusion criteria which the research studies will be excluded if they:

1. Concentrated on non-ELT or non-ELL contexts.
2. Theoretical discussion lack of empirical evidence.
3. Did not use AWE tools that were powered by AI.
4. Were not publish within 2019 and 2024.

After using these criteria as the inclusion and exclusion for the selection, the researchers found 50 studies for the coding and analysis.

Data Analysis

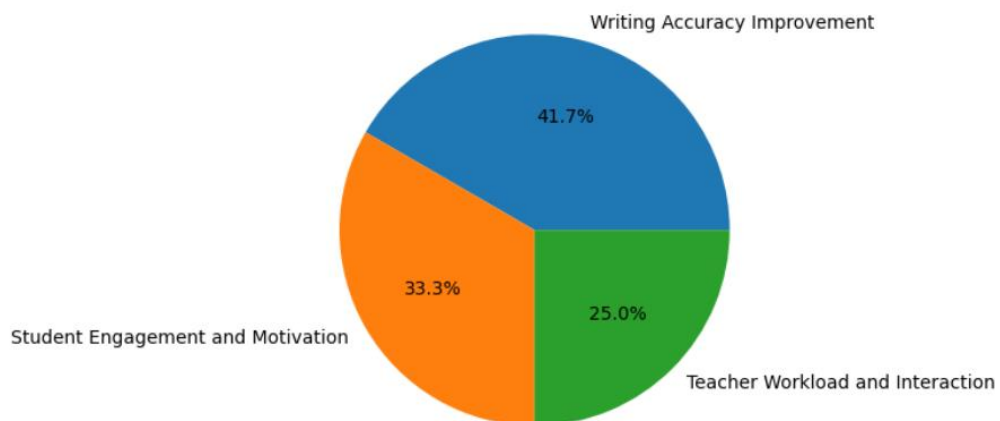
The chosen studies were systematically categorized according to various key factors, such as the kind of AWE tool utilization, the sample group (level of English learners), research methodology (experimental and case study) and results concerning on writing enhancement. The coding procedure entailed organizing the results of each study into themes like “writing precision”, “student involvement”, and “teacher-student interaction”. A thematic analysis method was employed to uncover trends throughout the studies and evaluate the overall effect of AWE tools on writing abilities in ELT classrooms. The outcomes were arranged in tables to clearly summarize the findings and effect sizes were computed to measure the influence of AWE tools on writing enhancement.

FINDING AND DISCUSSION

Finding

The examination of the 60 empirical studies assessed in this systematic literature review and the results identified three prominent themes concerning the implementation of AI-powered feedback in English writing context. The studies found betterment of writing precision, increase of student involvement and motivation, and the impact of AI-powered feedback on teachers' workload as well as teacher-student interaction. These results indicate that AWE systems are being increasingly acknowledged as effective educational resources that assist both students and teachers in writing instruction. Every theme illustrates a distinct aspect of the educational influence of AI-powered feedback, covering areas from language enhancement to motivational and teaching elements. The tables and thematic descriptions below present a summary of the main findings from the research.

Figure 1. Finding of Empirical Research



The figure overview the main results from the 60 empirical studies analyzed in this research. The examination covers three primary themes concerning the implementation of AWE tool in English writing context. Writing Accuracy Improvement accounts for the largest portion with 41.7%, following by Student Engagement and Motivation with 33.3% and Teacher Workload and Interaction represents the smallest with 25%. Initially, enhancing writing accuracy appeared as the most commonly noted result with 25 studies showing that Automated Writing Evaluation (AWE) tools improved learners' grammar precision in writing, the punctuation and sentence construction. Second, 20 studies emphasized student engagement and motivation, indicating that AWE tools enhanced learners' motivation and involvement in the writing process. Last, 15 studies highlighted the impact of AI-powered feedback in helping the teacher workload through automated correction of mechanical errors. It makes the teachers concentrate on advance writing issues.

Table 1. First Key Finding

Themes	Key Findings	Number of Studies Report
Writing Accuracy Improvement	AWE tools significantly improved learners writing accuracy, including grammar,	25 studies: (Rajab, 2020), (Al-Shehri, 2020), (Li, 2022), (Tan, 2023), (Brown, 2022),

	punctuation and sentence structure	(Hyland, 2020), (Kim, 2020), (Kim, 2023), (Nash, 2021), (Fang, 2022), (Evans, 2020), (Chang, 2021), (Lee, 2023), (Zhao, 2020), (Kang, 2021), (Liu, 2023), (Huang, 2022), (Zhou, 2021), (Clark, 2023), (Mohamed, 2022), (Singh, 2022), (Park, 2021), (Adams, 2023), (Martinez, 2020), (Neil, 2021)
--	------------------------------------	---

Out of the 60 articles reviewed, 25 studies showed that AI-powered feedback or AWE tools significantly improved writing accuracy particularly in areas such as grammar, punctuation and sentence structure. The studies consistently discovered that students employing Automated Writing Evaluation (AWE) tools like Grammarly and Quillbot as well as the other AI-powered systems to get feedback for their writing in minimizing grammatical mistakes and enhancing sentence complexity. The research showed that these tools offer prompt and comprehensive feedback, enabling students to revise numerous times and enhance their writing before the submission, resulting in improved writing accuracy across various drafts.

Table 2. Second Key Finding

Themes	Key Findings	Number of Studies Report
Student Engagement and Motivation	AWE tools with AI-powered systems made students more motivated and involved by giving them personalized feedback.	20 studies: (Baker, 2022), (Brown, 2022), (Lee, 2021), (Rajab, 2020), (Ali, 2020), (Chang, 2020), (Kim, 2020), (Lee, 2022), (Tan, 2023), (Tan, 2023), (Evans, 2020), (Zhang, 2022), (Zhang, 2020), (Zhao, 2020), (Fang, 2022), (Clark, 2023), (Neil, 2021), (Mohamed, 2022), (Rohmah, 2017), (Fitria, 2021)

These 20 studies emphasized the beneficial effects of AI-powered feedback tools on student involvement and enthusiasm in writing task. Numerous studies indicated that the feedback of AWE motivated learners to modify their writing more detail and enhancing their engagement in the writing process (H. Chang, 2021); (Kim et al., 2023). This repetitive revision process allowed students to assume more responsibility for their education as they could autonomously track their advancement and recognize what they need to be improved through this process. Consequently, students showed the improvement in writing independence and maintained involvement over an extended period. Result of the research showed that students appreciated the customized aspects of AWE tools which they often found to be more comprehensive, reliable and easy to access anytime. This viewpoints are not only boosted learners' confidence in reviewing their work but also increased their desire to enhance the quality of their writing. In summary, these results indicate that AI-powered feedback mechanisms are crucial in promoting motivated and self-directed learners in English writing to get the betterment in English writing quality and accuracy.

Table 3. Third Key Finding

Themes	Key Findings	Number of Studies Report
Teacher Workload and Interaction	Teachers had less time to correct and check students' writing papers which let the teachers focus more on higher-order writing issues and interact more with students.	15 studies: (Evans, 2020), (Kang, 2021), (Ho, 2018), (Fang, 2022), (Clark, 2023), (Tan, 2023), (Park, 2021), (Carstens et al., 2021), (Bhat et al., 2022), (Ali, 2022), (Lee et al., 2023), (Wang, 2022), (Miranty et al., 2023), (Karatay, 2024), (Emilio, 2022)

The analysis showed that 15 studies indicated a decrease in teachers' workload when AWE tools with AI-powered systems were incorporated into English Language Teaching (ELT) in the writing correction context. These studies showed that AWE tools significantly reduced the time of teachers, so they don't have to correcting students' paper conventionally and they can focus on more significant writing issues, such as argument development, topic selection, coherence and organization of writing. The studies also observed that this change allowed educators to participate more in writing instruction where students can emphasize idea growth and analytical thinking. As a result, utilizing AWE tools may enhance teacher-student interaction and facilitated more tailored and pedagogically teaching approaches in English Language Teaching (ELT) particularly in English writing context.

In conclusion, the findings in this systematic literature review shows that AWE tools are very helpful for teaching writing in English. AWE tools help students write more accurately by giving them real time and specific feedbacks on their writing and allow the interaction while doing the revisions. It also makes teachers' workload easier by automatically grading students' result and describe the error as well as giving feedback. The research always observed how important it is to support and give the opportunities for students and teachers to work together on this. When it used carefully, AWE tools can be very helpful for the betterment of writing quality.

Discussion

This systematic literature review shows that AI-powered feedback systems, especially Automated Writing Evaluation (AWE) tools, become more and more important for teaching writing in English Language Teaching (ELT). The examination of the reviewed studies indicates that AWE tools facilitate not only enhancements in writing accuracy but also increased student engagement and more effective instructional methodologies. These findings validated that the incorporation of AI in language learning contexts possesses the capacity to revolutionize conventional methods of writing instruction.

The research suggests that AI tools provide immediate customized feedback which is allowing students to engage in multiple revisions and improve their writing skills more effectively than conventional methods (Chang, 2021). This outcome is consistent across diverse educational contexts indicating that AWE tools enhance writing precision and complexity, particularly in grammar, vocabulary and coherence (Kim, 2020).

Despite this, a major trend seen in the research is the need for teacher support along with AI feedback. Even though AWE tools are great for giving quick feedback, they have some issues such as not being able to help with deeper content, deeper argumentation and idea development. This shows how important it is for teacher to be involved (Martinez, 2020). So, combining AI with feedback from teachers make a well-rounded plan that helps learners understand better and write better.

The implications of these findings indicate that although AI feedback systems provide significant assistance to both educators and students, they should not completely supplant conventional feedback methods. Teachers can use AI tools to help them in teaching the big classes and make their jobs easier in routine corrections, fixing grammar and vocabulary mistakes. The teachers still need to give the students detailed feedback that focuses on higher-order thinking skills and writing problems at the content level (Park, 2021).

In practice, using AI feedback along with classroom activities that encourage peer review and teacher involvement will help students stay engaged and grab their attention during the revisions (Smith, 2023). Teachers' explanation sometime can be so long and boring for students, and usually can be only one-sided review due to the limited time in the classroom. They are unable to have the discussions since the teacher needs to check plenty of the papers.

Future research might investigate the impact of AI-powered feedback on long-term writing skills, especially in more advanced writing forms like argumentative or research papers. Furthermore, studies might investigate the emotional and motivational effects of AI-powered feedback on students considering the varied reactions to its lack personalization (Mohamed, 2022). Broader research comparing AWE tools with peer responses or other digital tools might offer additional insights for developing an ideal feedback system in ELT classrooms.

The result of this systematic literature review also indicates that the perceptions of AWE's effectiveness tend to be highly subjective (Pratama et al., 2025). The study states that some students considered the feedback is so engaging and motivating, while others find it boring and too critical. This variation suggests that individual attitudes and preferences play significant role in shaping how AWE is received, which may influence the overall impact. Recognizing these differences and adapting the use of AWE can suit diverse learners and essential for maximizing its effectiveness.

Furthermore, there's finding about the students' perception on the feedback from AWE tools, Grammarly. Students found that some evaluation results were not satisfying, for instance such as the limited accommodating different varieties of English as it primarily follows American spelling and punctuation conventions (Miranty et al., 2021). This limitation may come from the complex nature of writing and the diversity styles in written English which AI tools cannot fully capture.

Since English writing extends beyond form and semantics, teacher involvement remains essential to address these shortcomings. Therefore, the interaction and discussion between students and teachers can create a more engaging and dynamic learning environment, supporting meaningful participation in writing activities.

Moreover, students' digital literacy skills strongly affect how they engage with AWE, regardless of their level in second language (Hung et al., 2025). Besides having good digital skills, writing skill will be improved if students actively using AWE feedback. On the other hand, teacher feedback at the early stages of learning is very crucial because it provides clear guidance and motivation. With the advanced technology, AWE can give automatic feedback and suggest better version of learners' writing. It helps improve vocabulary use and support peer learning.

Despite the effectiveness, we should note down that to effectively integrate AWE tools in giving feedback for English writing needs a well-rounded and educationally strategy (Kang, 2021). Instead of depending only to the automated feedback, various studies highlighted the significance of integrating AWE tools with human guidance, peer review and collaborative learning methods can be more effective. At this point, the teachers' support is very important in assisting the students to understand the feedback even the most critical one, argument structure and rhetorical impact. Peer review tasks can motivate students to participate in reflective conversations regarding their writing and enabling the students to share their point of views to enhance their critical thinking abilities. Students who work together in the peer review tasks may develop a greater awareness of various writing techniques and methods, as well as the idea for the writing. This activity promoting a more engaging, supportive and student-centered writing atmosphere in ELT classrooms.

In summary, although AWE tools have shown a significant effect on enhancing writing skills in ELT, their incorporation should be considered carefully by the users. Combining the advantages of AI with the conventional teaching methods can make educators establish a more vibrant and efficient teaching system for enhancing students' writing abilities. The analysis of the examined studies suggests that AWE tools mechanisms provide the benefits for learners and the teachers in English Language Teaching (ELT) especially in writing skill development context. AI powered systems improved language precision and facilitate more effective teaching methods. Through the integration of AWE tools and human-teachers' support, it can create a more interactive and effective educational atmosphere in the classroom that encourages both precise technical skills and advanced writing growth. Additional studies are required to investigate creative approaches to fill the gaps in AWE systems and to assess their lasting effects on writing growth in various educational environments.

CONCLUSION AND SUGGESTION

This systematic literature review has examined how AWE tools or AI-based feedback systems can improve writing instruction and quality. The results demonstrate how effective these systems are in providing rapid and personalized feedback, making writing more accurate and complex, as well as encouraging students to be more independent during the revisions. However, some shortcomings in these systems such as their inability to handle advanced reasoning and limited writing skills need a careful integration in the educational practices.

Using AWE tools open up a lot of opportunities and possibilities for scalable and accessible feedback in a wide range of ELT settings, especially in big or remote classrooms where it can hard for the teachers to give each student individual feedback. It allows to help the teachers' workload and the useful feedback can be use anytime and anywhere.

Future research should concentrate on developing AWE tools that give the fundamental corrections, integrating components that evaluate critical thinking, argument quality and cultural nuance. AI-powered feedback systems could change the way of writing but they need to be carefully planned and used in the right way to make sure that AWE tools can be maximal in helping the technical skills as well as in the creativity and intellectual parts on English writing.

REFERENCES

- Adams, C. (2023). A critical look at AI's role in language instruction. *Journal of Language and Technology*.
- Al-Shehri, A., & Rajab, H. (2020). The impact of AI-powered feedback on EFL students' writing proficiency. *Journal of English Language Teaching*, 451–463.
- Baker, J. (2022). Automated Writing Evaluation tools in EFL contexts: A review. *ELT Journal*.
- Brown, S. (2022). The effects of AWE on L2 writing performance and revision strategies. *Second Language Writing Research*.
- Carstens, K. J., Mallon, J. M., Bataineh, M., & Al-Bataineh, A. (2021). Effects of Technology on Student Learning. *TOJET: The Turkish Online Journal of Educational Technology*, 20(1), 105–113. <https://files.eric.ed.gov/fulltext/EJ1290791.pdf>
- Chang, H. (2021). AI feedback systems and learner autonomy: A study in Chinese universities. *Language Learning and Technology*.
- Chang, H., & Evans, S. (2020). Reducing teacher workload with AI-powered feedback systems. *TESOL Quarterly*, 4(54).
- Chang, L., & Yu, W. (2021). Exploring the impact of AI in reducing teacher feedback workload. *International Journal of English Language Teaching*, 1(31), 10–25.
- Chen, J., & Lee, H. (2023). AI-based feedback in EFL writing: Student and teacher perspectives. *Computers and Composition*, 1(55), 56–74.
- Clark, R. (2023). A comparative analysis of AI-generated vs. teacher feedback on student writing. *Journal of Educational Technology*.
- Emilio. (2022). Hybrid Feedback: The Efficacy of Combining Automated and Teacher Feedback for Second Language Academic Writing Development. *York University Toronto, Ontario, 8.5.2017*, 2003–2005.
- Evans, N. (2020). Immediate feedback for L2 learners: The promise of AI in classroom settings. *Journal of Applied Linguistics*, 3.
- Fang, X. (2022). Improving Writing Accuracy Through AI-powered Tools in EFL classrooms. *International Journal of Educational Technology in Language Learning*, 77–96.

- Fitria, T. N. (2021). The Use Technology Based on Artificial Intelligence in English Teaching and Learning). *ELT Echo : The Journal of English Language Teaching in Foreign Language Context*, 6(2). <https://doi.org/10.24235/eltecho.v6i2.9299>
- Huang, Y. (2022). Efficacy of Automated Feedback on Students' English Writing Proficiency. *Asia-Pacific Journal of Education*, 3.
- Kang, D. (2021). Effects of AWE Tools on Student Engagement in Writing classes. *Language Learning Journal*, 1(49), 95–113.
- Karatay, Y., & Karatay, L. (2024). Automated Writing Evaluation Use in Second Language Classrooms: A research synthesis. *System*, 123(May), 103332. <https://doi.org/10.1016/j.system.2024.103332>
- Kim, Y. (2020). The effectiveness of real-time AI feedback on student writing. *English Language Teaching Journal*, 2(29), 91–103.
- Lee, C. (2021). Personalized feedback in AI-based writing evaluation: A systematic review. *Language and Technology*, 53–72.
- Lee, S. (2022). The influence of AI on EFL writing: Student perspectives. *Journal of Second Language Writing*, 159–173.
- Li, L. (2022). The Future of AI in Language Education. *Journal of Language and Technology*, 3(45), 210–225.
- Li, X. (2022). The Future of AI in Language Education. *Journal of Language and Technology*, 3(45), 210–225.
- Lin, M.-S., & Hung, R.-T. (2025). Impact of Automated Writing Evaluation on Writing Efficacy of English Majoring Students. *International Journal of Social Sciences and Artistic Innovations*, 5(2), 21–27. <https://doi.org/10.35745/ijssai2025v05.02.0008>
- Liu, X., & Zhang, Y. (2023). AI-driven feedback in improving academic writing: An empirical study. *Educational Technology & Society*, 3(26), 129–145.
- Martinez, A. (2020). Effects of AI-based feedback on EFL learners' writing achievement. *Journal of Language Teaching and Research*.
- Miranty, D., & Widiati, U. (2021). Automated Writing Evaluation (AWE) in Higher Education: Indonesian EFL Students' Perceptions about Grammarly Use across Student Cohorts. *Pegem Egitim ve Ogretim Dergisi*, 11(4), 126–137. <https://doi.org/10.47750/pegegog.11.04.12>
- Miranty, D., Widiati, U., Cahyono, B. Y., & Sharif, T. I. S. T. (2023). Automated writing evaluation tools for Indonesian undergraduate English as a foreign language students' writing. *International Journal of Evaluation and Research in Education*, 12(3), 1705–1715. <https://doi.org/10.11591/ijere.v12i3.24958>
- Mohamed, R. (2022). Exploring AI-based tools in ESL writing classrooms. *Journal of English as a Foreign Language*, 1(17), 89–105.
- Nash, R., & Yun, S. (2021). Impact of real-time feedback on L2 writing outcomes. *Journal of Linguistics and Education*, 167–184.
- O'Neil, K. (2021). AI-generated feedback and its impact on L2 writing proficiency. *TESOL Quarterly*, 281.
- Park, S. (2021). Teachers' perceptions of AI-powered feedback systems in ESL writing. *Journal of Educational Technology*.

- Pratama, K. D., & Irawati, T. (2025). English students' perceptions of Automated Writing Evaluation (AWE) in writing engagement at the university level. *EnJourMe (English Journal of Merdeka): Culture, Language, and Teaching of English*, 9(2), 68–82. <https://doi.org/10.26905/enjourme.v9i2.13844>
- Rohmah, I. (2017). Classroom Interaction in English Language Class for Students of Economics Education. *Arab World English Journal*, 8(2), 192–207. <https://doi.org/10.24093/awej/vol8no2.14>
- Singh, R., & Bhat, S. (2022). AI feedback in L2 writing: Benefits and challenges. *Asian EFL Journal*.
- Smith, B., & Kim, S. (2023a). Student attitudes toward AI-powered feedback in academic writing. *Computers and Education*, 2(75).
- Smith, B., & Kim, S. (2023b). Student attitudes toward AI-powered feedback in academic writing. *Computers and Education*, 2(75), 223–237.
- Tan, J. (2023). Using AI-based writing tools in EFL classrooms: A case study in Malaysia. *Asian Journal of Applied Linguistics*, 1(8), 145–162.
- Vistari, L., Hartono, R., Lamria, M., Lumbantoruan, B., Faculty, E. L., & Faculty, M. (2025). *The Role Of Technological Systems In Managing And Evaluating The Language*. 9(2), 119–135. <https://doi.org/10.31943/wej.v9i2.406>
- Wang, T., & Zhang, L. (2022). Motivational effects of AI-based writing feedback tools. *English Language Teaching Journal*.
- Yang, F., & Zhous, Y. (2021). AI and human feedback: Complementary roles in L2 writing classes. *International Journal of Language Learning Technology*.
- Zhang, H., & Hyland, K. (2020). Enhancing the effectiveness of AI feedback in EFL writing. *Journal of Second Language Writing*, 2(26), 83–100.
- Zhao, Y., & Lee, M. (2020). Automated feedback vs. teacher feedback: Comparative effectiveness in L2 writing. *Journal of Applied Linguistics*, 1(43), 91–106.