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ARTIFICIAL INTELLIGENCE (AI) FOR AUTOMATED WRITING EVALUATION IN TESOL: EFFECTIVENESS AND CHALLENGES

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Abstract

Artificial Intelligence (AI) is having a significant influence on language learning, primarily through Automated Writing Evaluation (AWE), which gives quick and personalized feedback to learners. However, there is not enough research on the effectiveness and challenges in establishing higher-order writing abilities in the TESOL context. This study reviews the available research on how AI-based AWE supports TESOL writing and what problems it might have. This research follows Braun and Clarke's (2006) thematic analysis of 55 peer-reviewed studies from academic sources (e.g., Scopus, Google Scholar, JSTORE, ERIC) published between 2018 and 2025 reporting findings on the effect of AWE on pedagogy in TESOL teaching. The findings focus on both the effectiveness and the challenges of AWE tools. The analysis highlights themes such as improved linguistic accuracy, enhanced learner motivation, and personalized learning experiences, which contrast with challenges like academic dishonesty, ethical concerns, over-reliance on AI, and limitations in addressing higher-order cognitive skills. These findings indicate that while AWE tools significantly improve grammar, vocabulary, and writing fluency, these are less effective in developing critical thinking and argumentation. The study suggests the need for blended feedback models that combine AI feedback and teacher guidance, the implementation of ethical guidelines, and the conduct of long-term research to see how AWE affects advanced writing skills over time.

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INTRODUCTION

Artificial Intelligence (AI) has been a significant innovation in language learning and in providing more resources for writing instruction (Islam et al., 2024; Khan et al., 2024; Uddin et al., 2024). AI has completely changed the way people learn and teach, particularly in language learning. One of the most creative uses is Automated Writing Evaluation (AWE), a technological tool that gives students immediate, consistent, and versatile feedback on their written work. AWE has the potential to improve writing instruction in 'Teaching English to Speakers of Other Languages (TESOL)' by addressing individual learning requirements, reducing teacher effort, and enhancing feedback literacy. This study examines how continous usages of AWE can improve students' basic language skills and their ability to develop ideas, structure writing and argument in TESOL contexts. Additionally it highlights the benefits and limitations for using AWE in actual classroom settings to understand how AI feedback influences long term writing development. The most popular AI tools are ChatGPT, Deepseek, Quillbot, Gemini, Grammarly, CopyAI, Wordtune, etc. AI-powered tools are increasingly used to help second language learners develop, revise, and polish written content

as they work toward writing fluency. The educational effects of AWE in language learning systems have been the subject of various research studies. In terms of improving TESOL outcomes, AI in Automated Writing Evaluation (AWE) has become particularly popular. Shalevska (2023) discusses AI tools such as ChatGPT and Grammarly that can give instant suggestions on sentence structure and grammar. Karatay and Karatay (2024) said that AWE is effective in enhancing L2 learners' linguistic accuracy. As Feng et al. (2025) point out, AI such as Grammarly is there to support students' writing by providing instant feedback. Sharifuddin and Hashim (2024) mentioned personalization of learning as one of AI's functions. Rad et al. (2023) note the development of students' feedback literacy in writing. However, higher-order problems, such as content and argumentation, remain a challenge for AWE tools (Shen et al., 2013; Yi, 2014). However, despite these challenges, the increasing use of AI in enhancing writing provides encouraging predictions concerning the future of TESOL (Rashid, 2025). Although past studies provide useful information about language development and feedback, most of them focus on grammar accuracy. The way AWE supports long term skill – organization, coherence, argument and critical thinking are not explained properly.

Despite an expanding literature on Artificial Intelligence (AI) integration in TESOL, a conspicuous gap exists in synthesizing research specifically on the effectiveness and challenges of Automated Writing Evaluation (AWE) in authentic TESOL contexts. Existing reviews have predominantly emphasized surface-level language improvements, such as grammar and vocabulary correction, often overlooking the nuanced role of AWE in enhancing higher-order writing skills, including critical thinking, argumentation, and coherence. AWE technology has advanced significantly during past ten years, according to studies, previous review overlook this developments. This shows the need for an updated and more complete review. Consequently, there is a lack of consolidated and critical analysis that integrates disparate findings on AWE's pedagogical implications, learner autonomy, and ethical concerns across diverse classroom settings. Previous research indicates limitations- students relying too much on AI, not focusing on learner choice and weak discussion, etc. It also indicate the advantages – more feedback, faster response and personal guidance. This review attempts to address this gap by rigorously mapping and evaluating current research on AWE in TESOL writing pedagogy. It identifies key conceptual inconsistencies, under-researched areas such as long-term impacts and ethical considerations, and opportunities for future scholarly inquiry.

The shortage of focused study in this field creates practical issues. AWE's long-term impact in actual TESOL classrooms is notably lacking in study, especially when it comes to writing progress that goes beyond basic grammar (Shen et al., 2023). There is still limited knowledge about how AWE helps learner's complex writing, developing arguments that are logical and discipline focused and improves their use of recourses. Furthermore, learner perspectives and the moral implications of using AI for constructive input have been neglected in current research (Taşkıran, 2022). There is limited evidence on how learners respond to automated feedback or how institutional policies and power dynamics affects it's ethical use in TESOL programs. The understanding of how AWE can be successfully incorporated into various TESOL situations is limited by a lack of solid research, which also restricts its broader implementation. This gap justifies the necessity for a targeted study on the application of AWE in TESOL that is based on rigorous pedagogical and empirical frameworks. This study will help students to improve their writing skills, assist educational institutions in implementing ethically acceptable and successful AI-enhanced writing pedagogy, and benefit TESOL practitioners by influencing evidence-based instruction. Since English language learning is a global priority, using AWE in TESOL supports international innovation, modern teaching methods, and equity in education**.** By doing research, the study

contributes to theory and practice, explaining both the potential of AWE and the boundaries and requirements for integrating it in a responsible and successful way.

This current study is unique in that it focuses only on how TESOL students' writing develops through AWE in authentic learning settings. In contrast to previous study, this study focus on higher level writing skills and uses the latest research to examine how AWE supports advanced writing development over time.Therefore, this study aims to explore the effectiveness and challenges of Artificial Intelligence-based Automated Writing Evaluation (AWE) in TESOL writing support. The study emphasizes research conducted between 2018 and 2025 in adult education settings where advanced writing skills are critical. This time framework helps the review to capture the latest development in AI based feedback tools and their teaching implications. The TPACK (Technological Pedagogical Content Knowledge) framework integrates technology, pedagogy, and content knowledge, which are essential for effective teaching. According to this study, TPACK involves AI-based Automated Writing Evaluation (AWE), helping TESOL instructors integrate AI-based tools with teaching models and language materials to provide personalized, efficient writing feedback. Using TPACK the study shows how teacher knowledge, technology and writing instruction connect, giving a clear framework for understanding the outcomes. It responds to the following two research questions:

(1) How effective is AWE for writing evolution in TESOL?

(2) What are the challenges of AWE for writing evolution in TESOL?

RESEARCH METHOD

The review develops data from 55 peer-reviewed academic publications using a thematic analysis to explore the effectiveness and challenges of Artificial Intelligence for Automated Writing Evolution (AWE) in TESOL. To ensure the academic quality and effectiveness of the review, articles were selected using a systematic search technique and reviewed based on specific inclusion and exclusion criteria. The process started by filtering out irrelevancy studies based on their titles, abstract and results. After that the full papers of the selected studies were reviewed to make sure the resource fit all the criteria. Articles were identified through manual selection from academic databases and keyword-based research, including Google Scholar, ERIC, Scopus, and JSTOR. The keywords were "automated writing evaluation", "AI in TESOL", "artificial intelligence and ESL", "automated feedback in language learning", and "AWE effectiveness and challenges". The research focused on the publications that were released between 2018 and 2025 to reflect the changing nature of AWE technology. To insure focus and quality, studies were included if they (1) addressed AWE tools or systems (e.g., Grammarly, ChatGPT, Criterion, Pigai, Deepseek) in language learning contexts, (2) were conducted in tertiary and adult education settings, (3) were published in peer reviewed journals and (4) were available in English and combination of theoretical knowledge and empirical evidence. Articles were excluded if they (1) did not address AWE tools or systems, (2) discussed general AI applications without reference to writing or TESOL, (3) lacked empirical evidence (opinion pieces, book reviews, or editorials), or (4) were not available in English. For example, studies analyzing AWE that focus on automated translation instead of writing feedback were excluded from the final assessment. Although a large number of studies appeared in the initial search, only those that completely met the criteria were selected which lead to a final set of 55 peer reviewed papers for analysis.

Thematic analysis was conducted following the framework by Braun and Clarke (2006), which refers to identifying, analyzing, and reporting patterns within the data. The first step in the data analysis process was familiarization with all 55 articles through close reading to gain a deep understanding of their content. Next, key ideas were extracted through coding and later categorized into broader themes such as "Improvement", "Motivation", "Academic

dishonesty", "over-reliance", etc**.** Data from multiple researches were compared, organize into possible themes and revised several times to make sure each theme was clear and different from the others. The content was combined in an appropriate and organized manner by refining and classifying themes to represent their key concept. The theme development was made straightforward and easy to follow by using analytical notes to record judgments about combining, dividing or altering themes during this process. This methodology made it possible to thoroughly analyze common themes and findings in the articles, providing a complete understanding of the role and challenges of Artificial Intelligence-based Automated Writing Evaluation (AWE) in the context of Teaching English to Speakers of Other Languages (TESOL).

All selected articles were appropriately cited according to APA guidelines to maintain academic integrity, and direct quotations were used selectively to prevent plagiarism. Multiple perspectives and situations were included, and any biases in the selection and interpretation of the articles were acknowledged. However, this review has certain limitations, including its focus on English-language publications, which can exclude valuable insights from non-English sources, and the potential for publication bias, as studies with significant or positive findings are more likely to be published. Because the review focuses on published, peer- reviewed research, it may exclude essential information from unpublished papers, theses or local papers and the final findings depends on the quality and variety of the studies available. Despite these limitations, the thematic approach offers valuable insights into the role of effectiveness and challenges of Artificial Intelligence-based Automated Writing Evaluation (AWE) in the context of Teaching English to Speakers of Other Languages (TESOL), focusing on key trends and gaps for future research.

RESEARCH FINDINGS AND DISCUSSION

Research Findings

The Effectiveness of AWE for Writing Evolution in TESOL

AI tools provide instant, personalized feedback on grammar, vocabulary, and sentence structure, making TESOL learning faster, more engaging, and effective alongside teacher guidance.

Improvement in TESOL with AI Integration

One of the issues that attracted increasing attention is the integration of Artificial Intelligence (AI) in TESOL, particularly in Automated Writing Evolution (AWE). Shalevska (2023) emphasized that AI tools such as ChatGPT generate writing prompts, provide immediate feedback, and offer suggestions and improvements, which help students enhance their writing abilities. Rashid (2025) reiterated that AI platforms support learners to develop vocabulary, grammar, pronunciation, and writing through repetitive practice and feedback. Karatay and Karatay (2024) stated that AWE is effective for improving the linguistic accuracy of L2 learners. AI tools, e.g., Grammarly, machine translation, and intelligent tutoring systems (ITSs) deliver instant feedback and detect errors in academic writing (Feng et al., 2025). Like its predecessors, ChatGPT helps EFL learners facilitate learning by providing prompts and suggestions that assist them in honing their writing skills (Teng, 2024). Sharifuddin and Hashim (2024) emphasized the role of AI in intelligently designing personal learning experiences by adjusting itself according to the learner's proficiency. AWE is effective in enhancing grammar, spelling, and vocabulary, leading to substantial advancements in these areas (Mat et al., 2024). Rad et al. (2023) emphasized the role of AI-generated feedback in writing feedback literacy and the impact on student development when interacting with feedback from tools such as Wordtune. This research, in addition to showing AI's increasing prominence for improving writing assistance in the field of TESOL, also illustrates the struggles of both students and teachers as they adjust to this new technology.

Motivation through AI in TESOL

AI integrated into TESOL can drastically increase language skills but also offer an unparalleled level of student motivation and engagement. Shalevska (2023) said that AI has the potential to change language teaching for the better and create conditions for meaningful, positive learning. Technologies like Automatic Speech Recognition provided immediate and personal feedback, covering the gap in oral pronunciation (Son et al., 2023). According to Edmett (2025), Generative AI can elevate the motivation factor, shifting focus from basic language use to complex interactions. Rashid (2025) also mentioned that AI became significantly more engaging for students due to instant responses and gamification, contrasting with traditional learning approaches that are less enjoyable. In particular, the integration of Artificial Intelligence in writing and speaking leads to significant increases in motivation and proficiency, as Zainuddin et al. (2024) found. Lu (2023) also mentioned that AI feedback is more motivational because it forces students to correct their answers while also learning language principles. Nazari et al. (2025) noted that AI tools could not be compared to the motivational effect of human tutors due to the lack of similarities. However, ChatGPT leads to increased motivation. Teng (2024) and Li (2024) argued that AI provides an engaging environment through personalized and prompt feedback, making learning less tedious and more engaging and motivating.

Benefits of AI in Language Learning

AI tools, particularly ChatGPT and Automatic Speech Recognition, positively influence oral and written language abilities among EFL students, according to the reviewed studies by Zhu and Wang (2025). Moreover, AI is not only reliable but can also generate personalized tests that adapt to available quizzes or exams, focusing on the student's skill level to enhance individualized learning (Cotton et al., 2023). Combining AI and teacher-generated feedback allows college students to correct their assignments more often with AI learning assistance (Tran, 2025). Bozorgian and Yazdani (2021) stated that the use of metalinguistic explanations significantly affects writing corrections over time, with students with a high language analytic ability showing more active language concept retention during the subsequent periods. Yi (2024) also confirmed these results, adding the psychological method of ambiguity tolerance to students' acceptance and benefit of AWE and automated feedback. Thus, these studies demonstrated the advantages and disadvantages of applying AI to language learning.

Feedback in TESOL with AI Integration

AI-driven feedback systems, such as Automated Writing Evaluation (AWE) tools and generative AI platforms, have significantly improved writing acquisition in TESOL. These tools help learners identify grammatical and lexical errors, encouraging autonomous correction. Teachers can also strategically structure their responses to AI feedback to meet student needs better. Immediate feedback improves speaking skills and reduces learner anxiety while also enhancing error recognition, writing accuracy, language skills, and grammar development (Karatay & Karatay, 2024; Feng et al., 2025). Research showed that immediate feedback on grammar, vocabulary, and writing accuracy, combining human and AI input, enhances the inclusive learning experience (Yi, 2024; Tran, 2025), especially in improving writing accuracy and engagement. Learners value the specificity and speed of AI feedback (Allen & Mizumoto, 2024), with 52% of students appreciating live corrections, which are more specific and practical than generic feedback (Elmotri et al., 2025), and many noting its creativity-enhancing suggestions in grammar and style (Pratama & Sulistiyo, 2024). However, AI feedback often improves lower-order skills like grammar more than higher-order writing quality (Zhang et al., 2025; Al-Kadi, 2025).

Personalized Learning through AI

The AI-powered adaptive learning tools have been extramely successful in providing a tailored language learning experience. Rusmiyanto et al. (2023) and Schmidt and Strasser (2022) further observed that such technologies are tailored to the individual requirements of the learners and that they make for a flexible, inclusive, and motivating learning environment. Ali et al. (2025) demonstrated that AI solutions increase student motivation to learn through immediate and personalised feedback and individual learning paths. Platforms such as Grammarly and Quizlet provide AI-generated exercises that are matched to students' levels (Lola, 2025), and computers can generate personalized lesson plans for ESL students (Keerthiwansha, 2018). Additionally, Sahito et al. (2025) noted the role of AI tools in individualizing the learning environment through interactive lessons and instant feedback routines that enhance listening skills. Autonomy is also promoted with mobile learning tools as students can manage their own learning process (Kannan & Munday, 2018). Kohnke and Zou (2025) indicated that TESOL teachers have also employed AI to fashion human-like conversations and respond to grammatically related queries, in addition to their use in lesson planning. GenAI caters learning to individual learners through tailored lessons and tests, increasing learning effectiveness (Edmett, 2025).

Table 1
Summary of the Effectiveness of AWE

Variables	**Key Findings**	**Author**
Improvement	AI tools enhance writing proficiency by providing immediate suggestions and feedback.	Shalevska, 2023
	AI tools improve various language skills like grammar, vocabulary, and pronunciation.	Rashid, 2025
	AWE feedback improves linguistic accuracy in L2 learners.	Karatay & Karatay, 2024
Motivation	AI tools can significantly increase students' motivation through personalized feedback and engagement.	Rashid, 2025
	With ChatGPT, learners receive instant and personalized feedback that helps to keep them motivated.	Teng, 2024; Li, 2024
	AI tools, such as ChatGPT, stimulate students' motivation and language proficiency.	Zainuddin et al., 2024
Benefit	AI tools, like ChatGPT, positively affect writing and speaking in EFL instruction.	Zhu & Wang, 2025
	AI tools create personalized assessments that adapt to the learner's skill level.	Cotton et al., 2023
	AI and teacher feedback integration improves revision frequency and student engagement.	Tran, 2025
Feedback	AI tools provide immediate feedback on grammar, vocabulary, and writing accuracy.	Yi, (2024). Teng, 2024
	AI-generated feedback is perceived as more specific and effective than generic feedback.	Elmotri et al., 2025
	AI feedback improves students' writing accuracy and supports the development of language skills.	Karatay & Karatay, 2024, Feng et al., 2025
Personalized Learning	AI provides personalized learning pathways, adapting to each student's proficiency and progress.	Ali et al., 2025
	AI-based platforms allow for individualized learning, focusing on student needs and progress.	Rusmiyanto et al., 2023; Schmidt and Strasser, 2022

The Challenges of AWE for Writing Evolution in TESOL

Despite their benefits, AI tools can encourage over-reliance, prioritize grammar over creativity, face technical issues, and require training, making guided use essential for authentic learning.

Academic Dishonesty in AI Integration

The introduction of AI tools in education has raised several concerns about academic dishonesty, particularly with platforms like ChatGPT. Shalevska (2023) pointed out that AI-generated content can lead to questions regarding academic integrity, as students may use these tools to generate or copy content for assignments and exams. Ali et al. (2025) further pointed out that over-dependence on AI could result in superficial learning and a loss of the authentic value of student work. Teng (2024) echoed these concerns, noting that while ChatGPT provides benefits, it can encourage plagiarism and foster an over-reliance on AI-generated content. Despite these risks, Barrot (2023) noted that AI-driven AWE systems can assist in preventing academic dishonesty, especially by detecting plagiarism. Cotton et al. (2023) also acknowledged that AI could be a valuable tool for detecting cheating, but cautioned against its misuse. Lodge et al. (2023) discussed how AI tools, such as ChatGPT, provide students with easy access to high-quality work that could be used unethically. Barrett and Pack (2023) emphasized concerns regarding students submitting AI-generated content without proper acknowledgment. Kao and Reynolds (2024) expressed concerns that over-dependence on AI feedback might hinder students' ability to engage meaningfully with learning materials. Finally, Godwin-Jones (2022) indicated that the ease of using AI tools to generate high-quality content raised significant academic integrity issues, particularly as students might use such content to plagiarize. These findings focus on the challenges that AI poses to academic honesty and integrity in educational contexts.

Ethical Concerns in AI Integration

The integration of AI in language learning and academia has raised several ethical concerns. Rusmiyanto et al. (2023) pointed out issues like data privacy, algorithmic bias, and the human-AI interaction, urging responsible AI use. Edmett (2025) also raised concerns about data privacy and the preservation of the human aspect in teaching. Charpentier-Jiménez (2024) warned about plagiarism, noting that AI-generated content can be hard to detect, complicating academic integrity. Zainuddin et al. (2024) shared concerns about the authenticity of AI content, fearing it may lead to dishonesty. Wang (2024) added that students are increasingly wary of the ethical implications of using AI tools like ChatGPT, especially regarding plagiarism. Feng et al. (2025) cautioned that relying too heavily on AI-generated content could undermine critical thinking and academic integrity. Zhu and Wang (2025) emphasized the need for strict ethical guidelines due to data security risks posed by AI tools. Escalante et al. (2023) noted that over-relying on AI could hinder the development of independent writing skills. Allen and Mizumoto (2024) and Hasan et al. (2025) stressed the need for monitoring to address issues like plagiarism, while Cotton et al. (2023) suggested universities create policies and use AI detection tools. Finally, Nguyen et al. (2023) pointed out privacy risks, particularly around data ownership and consent, underscoring the importance of responsible data management. These concerns call for addressing ethical challenges to ensure AI is used responsibly in education.

Over-reliance on AI in Language Learning

Over-reliance on AI in language learning can undermine student independence and critical thinking. Lola (2025) emphasized that excessive dependence on technology reduces human interaction, which is essential for effective language learning. Keerthiwansha (2018) noted that while AI allows self-paced learning, it diminishes teacher involvement, which is crucial for developing language skills. Sahito et al. (2025) pointed out that relying solely on

AI feedback prevents students from gaining real-life communication skills. Kannan and Munday (2018) warned that overusing AI tools could hinder independent language development. Son et al. (2023) echoed this concern, stating that AI reliance could weaken critical thinking. Povey (2025) added that tools like Grammarly, while useful, limit spontaneous language use and critical thought. Karatay and Karatay (2024) found that over-relying on AI feedback may prevent deep revisions and appreciation of teacher input. Yi (2024) and Pratama and Sulistiyo (2024) raised concerns about AI diminishing engagement with teacher feedback and reducing independent thinking. Al-Kadi (2025) explained that while Grammarly detects errors, it lacks depth for complex tasks. Feng et al. (2025) and Nazari et al. (2021) warned that AI reliance could hinder the development of independent writing skills.

Limitations of AI in Education

AI in education has several technical and practical limitations. Schmidt and Strasser (2022) noted that many AI tools provide basic feedback, lacking the capabilities of more advanced systems. Sahito et al. (2025) demonstrated challenges with AI's reliance on algorithms and issues like automatic speech recognition. Povey (2025) pointed out that AI-generated materials often fail to match learners' proficiency levels, particularly in complex tasks. Zhai and Wibowo (2023) identified problems with AI dialogue systems, such as unnatural voices and difficulty understanding non-standard accents. Wang (2024) added that ChatGPT's responses can be too generalized for tasks requiring critical thinking. Lu (2023) and Al-Kadi (2025) emphasized that AI tools like AWE and Grammarly often miss higher-order skills like coherence and argumentation. Escalante et al. (2023) and Mirzaeian (2025) agreed, noting that AI lacks the depth of human feedback, particularly in creativity and argumentation. Zhang et al. (2025) found that GenAI is effective for lower-order skills but falls short in addressing critical thinking and organization. Shen et al. (2023) noted that while AWE improves grammar and vocabulary, it fails to tackle content development.

Table 2
Summary of the Challenges of AWE

Variables	**Key Findings**	**Author**
Academic Dishonesty	Easy access to AI-generated resources raises concerns about plagiarism and academic integrity.	Shalevska, 2023
	Over-reliance on AI in writing could result in academic dishonesty and shallow learning.	Ali et al., 2025
Ethical Concern	Ethical concerns about data privacy and algorithmic bias arise from the use of AI in education.	Rusmiyanto et al., 2023
	AI-generated content in education raises concerns about authenticity and plagiarism.	Zainuddin et al., 2024
Over Reliance	Over-dependency raised concerns about AI diminishing engagement with teacher feedback and reducing independent thinking.	Yi, 2024; Pratama and Sulistiyo, 2024
	AI reliance could hinder the development of independent writing skills.	Feng et al. 2025; Nazari et al., 2021
	AI tools like ChatGPT might suppress critical thinking and writing development.	Teng, 2024
Limitation	AI feedback lacks depth in higher-order skills such as argumentation and logicality.	Escalante et al., 2023; Mirzaeian, 2025
	AI systems struggle to give detailed feedback on complex language tasks.	Rad et al., 2023
	AI feedback often focuses on surface-level issues like grammar and lacks higher-order skills.	Zhang et al., 2025

Discussion

The effectiveness and challenges of AI-based AWE tools in TESOL have been analyzed here, highlighting how they improve accuracy, motivation, and personalized learning, while also emphasizing the necessity for ethical and balanced use.

Effectiveness of AWE

The results of the study demonstrate that AI-driven AWE tools, such as Grammarly, ChatGPT, and Wordtune, drastically improve TESOL learners' writing skills. These tools give quick, precise, and personalized feedback on grammar, vocabulary, and writing structure (Feng et al., 2025; Shalevska, 2023; Karatay & Karatay, 2024). These tools provide instant correction, allowing students to fix their mistakes immediately and learn from them, which helps improve accuracy over time. This supports previous studies that indicate the value of immediate feedback for faster writing development (Barrett & Pack, 2023). Another advantage is that AI-based feedback develops each learner's proficiency and provides a customized educational experience that increases confidence and promotes participation (Sharifuddin & Hashim, 2024). Additionally, these tools also make it easier for learners to practice writing more frequently as they receive ongoing feedback. For TESOL students, this leads to a quicker, more efficient, and more enjoyable learning experience.

There is an interesting contradiction in this research regarding how well AWE tools assist students with various types of writing skills. These tools are effective at fixing vocabulary, grammar, and spelling (Zhang et al., 2025). However, they often face difficulties with more critical problems like critical thinking, argument, coherence, strength, and content development (Shen et al., 2023). According to some studies, students who rely too heavily on AI may overlook complex skills like critical thinking. Those students only focus on surface-level corrections (Yi, 2024). This gap indicates the importance of the hybrid feedback model, where AI provides rapid corrections for lower-order issues and human instructors for complex tasks, such as critical thinking and logical structure (Zhang et al., 2025). Teacher can manage this by combining AI feedback with more human centered task which have deeper engagement with content such as peer revied writing or critical thinking task. Another gap in this research is understanding the long-term impact of AWE tools in TESOL. How these tools can help students develop their writing skills at a deeper level over time (Khan et al., 2024). This indicates the necessity of long-term research that analyzes the long-term impact of AWE on writing development despite rapid error correction. Researcher should study the long term impact of AWE on students' critical writing skills, particularly within blended learning environments.

The effectiveness of AWE tools in TESOL connects to more general educational objectives, particularly learner autonomy and active involvement. They provide personalized feedback, which is helpful in online classes or in a large classroom where the teacher can focus on each student due to time constraints (Rashid, 2025; Hasan et al., 2024). These tools also allow students to keep learning outside the classroom, even when teachers are not available (Rusmiyanto et al., 2023). Getting instant feedback from AI makes learning more interactive and motivating (Li, 2024; Zainuddin et al., 2024). However it is important that TESOL teachers develop a balance between this effectiveness and empathy so that Ai continues to be additional components to the personal connection between students and teachers. Since technology can boost engagement, AWE tools help students improve results. However, it is still important to balance this efficiency with empathy so education does not lose its personal connection.

Teachers should use AI tools as a support system rather than a replacement for their own feedback. A hybrid model is more effective. AI tools can handle technical issues like grammar and spelling while teachers guide students on critical thinking, creativity, and

arguments (Barrett & Pack, 2023). Policy makers should also encourage AI literacy for both students and teachers, and set guidelines for responsible use to avoid over-dependency (Godwin-Jones, 2022). Researchers need to conduct long-term studies on AWE's impact on higher-order skills such as coherence and rhetorical competence (Shen et al., 2023). These gaps will help to define the future use of AWE in the TESOL classroom.

Challenges of AWE

Although AI tools offer many benefits, using them in TESOL classrooms comes with some challenges. There are many serious issues like academic dishonesty, ethical concerns, over-reliance, etc. As AI tools become more advanced, this increases academic dishonesty. Students might use them to complete their assignments without actually learning (Shalevska, 2023; Godwin-Jones, 2022). The simplicity of generating excellent content with AI tools like ChatGPT may encourage plagiarism and superficial learning (Ali et al., 2025). Additionally, there is an increasing concern that relying too much on AI feedback could damage students' critical thinking skills and their ability to interact with teacher feedback in a meaningful way (Haruna et al., 2025; Yi, 2024; Teng, 2024). These issues show why it is important to keep a balance between using AI and student involvement.

The literature shows mixed opinions about how AI affects academic integrity. On the other hand, AI tools help to detect plagiarism and stop cheating (Barrot, 2023). In contrast, AI tools make students too dependent, leading them to ignore original thinking and rely on AI content (Shalevska, 2023). Instead of just following AI input, teacher may address this problem by encouraging pupils to think critically and reflect on it. These contradictions demonstrate the significance of employing AI in the classroom in a balanced manner. Another issue is that AI can fix basic grammar and spelling mistakes, but it struggles with bigger challenges like creative writing, maintaining coherence, and advanced writing skills (Al-Kadi, 2025; Shen et al., 2023). This weakness is a significant concern because it raises questions about whether AI can truly improve learning in TESOL.

The challenges of AWE tools raise concerns about how technology should be used in education. As AI becomes more common in TESOL, it is important to control overuse and misuse so that students keep their creativity and critical thinking skills (Nazari et al., 2021). A possible solution is a blended approach where AI handles fundamental feedback and grammar, while teacher focus on promoting creativity and higher-level thinking. This indicates the central question of how to balance AI's benefits with the deep engagement that students need for learning. Another issue is Ethical concerns, such as data privacy, algorithm bias, and fear that teaching could feel less human (Rusmiyanto et al., 2023; Zhu & Wang, 2025). These challenges show the importance of clear guidelines to ensure responsible and effective AI use in education. Teacher must think about how to integrate AI without eliminating valuable in-person contact, making the learning experience comprehensive and balanced.

Teachers need to ensure students do not rely too heavily on AI by encouraging them to think critically and solve problems (Teng, 2024; Yi, 2024). They should help students use AI innovatively as part of a writing process that includes their own ideas and reflection. Policymakers should create clear ethical guidelines to protect academic honesty and keep students' data safe (Godwin-Jones, 2022). Institutions can use AI detection tools to prevent misuse. Future studies should also examine how AWE can be used in blended learning, combining AI tools with direct support for more effective learning. Researchers should work on improving AI so it can help students with advanced writing skills like creativity and argument (Shen et al., 2023). They should also work on the long-term effects to ensure it remains ethical and practical in education.

CONCLUSION

This analysis represents how Artificial Intelligence (AI), particularly Automated Writing Evaluation (AWE) tools, can help to improve writing skills in TESOL settings. According to research, AI can provide immediate feedback on grammar, vocabulary, and punctuation, which helps students write more accurately and increases their confidence. AI tools such as Grammarly, ChatGPT, and QuillBot can adapt to each student's requirements, making learning more individualized and motivating students to study independently. They also make writing more engaging and enjoyable for students, reducing anxiety or stress and increasing motivation.

AI tools are highly effective at improving basic skills like correcting grammar errors and enhancing vocabulary, but they struggle with more complex tasks like developing ideas or critical thinking. While using AWE tools for vocabulary and grammatical checks, teacher should devote their own teaching time to assisting students with deeper skills like concept development and critical analysis. Additionally, studies indicated problems such as students becoming too dependent on AI, challenges to academic integrity, and ethical concerns about its use. TESOL instructor should encourage critical analysis of AI input assist self-regulated learning and combine AI and human feedback to enhance advance thinking abilities. This suggests the importance of careful and thoughtful use of AI technologies in education. AI generated feedback and human input must be balanced by teachers, particularly when assisting students in developing their critical thinking and creative skills.

Future research should explore the long-term impacts of AI on writing proficiency. Long-term research may provide a better understanding of how AI tools improve writing over time and how they can help students develop their critical thinking and discussion skills. For TESOL, it would also be beneficial to understand AI and the ethical issues regarding its use in education. Future research should explore ethical issues including AI's impact on integrity, data privacy and how it shapes students' ability to learn. Altogether, the findings show that AI can improve writing in TESOL, making learning more flexible, engaging, and suitable for students' needs in the digital world. By blending Ai tools with strong teaching strategies, teacher can help students build both basic writing skills and advanced cognitive abilities.

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