Optimizing EFL Learners' Writing Learning Processes through Automated Writing Evaluation

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ABSTRACT

This small-scale library study explores the role of Automated Writing Evaluation (AWE) in optimizing EFL learners' writing processes. The researcher employed thematic analysis to analyze findings from 30 peer-reviewed journal articles published between 2019 and 2024. Data were coded using an open-coding strategy and grouped into overarching themes. Two dominant themes emerged: (1) AWE enhanced EFL learners' writing skills, and (2) AWE cultivated writing autonomy. These findings suggest that AWE facilitates more independent, confident, and proficient writing practices. Implications for integrating AWE tools into EFL classrooms and directions for future research are discussed.

Keywords: writing, efl learners, automated writing evaluation, library study, thematic analysis

INTRODUCTION

Mastering advanced writing skills is deemed one of the indispensable requirements in this 21st-century learning era. By possessing well-developed writing competencies, learners can potentially obtain more satisfying academic achievements as the majority of their tasks require them to write. This underlying principle is in line with Tsai (2020) avowing that decent writing proficiency paved a rewarding learning pathway for learners to fully attain gratifying academic outcomes since they could compose high-quality and qualified texts. In contrast, the journey of becoming a proficient writer is a tough one. To be considered skilled and seasoned writers, learners need to possess a comprehensive understanding of the specific topics they are going to discuss in their writing products. Furthermore, learners are required to employ a wide array of meaningful language expressions and appropriate conventions to ensure the comprehensibility of the imparted messages to the targeted audience. Hyland (2019) suggested second language educators constantly equip EFL learners with a good command of writing techniques, strategies, and skills before immersing them in the real-time writing learning dynamics by which they feel more comfortable while uttering their specific thoughts, and ideas, and conceptions in the light of proper dictions, conventions, and vocabulary.

In EFL realm, the writing challenges are believed to be more highly demanding for learners as they ought to express their notions with the accompaniment of suitable wordings to address comprehensible messages to the worldwide audience. This writing composition process closely regards to international readers as English has united all the communication trajectories in this globe. The aforementioned hindrance is tightly interwoven with Budjalemba and Listyani (2020) who argued that EFL learners are continuously commissioned

to employ a vast range of efficient target language expressions and organize their paragraphs in a well-structured manner while approaching second language writing learning dynamics due to the widespread dissemination of English language all around the world. Other salient obstructions hampering EFL learners from yielding qualified writing compositions to worldwide readers is the lack of grammatical, diction, and conventions knowledge. These three major writing learning obstacles are in agreement with Sari and Han (2024) confirming that EFL learners tend to make an early departure from their existing writing learning processes as they possess deficiency in grammar, word choice, and writing conventions. When it comes to more complex writing learning enterprises, EFL learners feel discouraged to continue doing the designated writing tasks. This reluctance is attributed to their incapability to provide in-depth details supporting the depicted ideas. As a result, they continually exhibit poor writing performances. The above-mentioned writing learning issue is in harmony with Wilson et al. (2021) avowing that most EFL learners still encounter serious challenges while partaking in writing ideation processes since they are not capable of structuring their plausible arguments accordingly and supporting their major essential points with an enlightenment of robust supporting details.

To better mitigate the above-explicated writing learning hindrances, second language educators should continuously address EFL learners with the proper utilization of feedback. With the employment of efficient, compatible, and meaningful feedback, EFL learners are more likely to redouble their efforts to showcase satisfying writing performances. This commendable writing learning spirit takes place as EFL learners have been cognizant of the targeted writing standards they need to fulfill. Cheng and Zhang (2021) averred that with the enlightenment of positive, supportive, and constructive writing suggestions, EFL learners infuse a higher degree of writing learning motivation since they are committed to minimizing the occurrence of their frequent writing errors not being repeated in the forthcoming writing events. However, providing EFL learners with teacher-oriented feedback is seen as not enough to nurture their proactive writing learning engagement in the long run. Thus, various sophisticated technological tools should be judiciously harnessed to promote a more emotionally supportive writing learning atmosphere where EFL learners thrive in their desired writing skills to their fullest potential. This suggested advice is mutually interlinked with Sulistyanto and Kadiri (2024) adducing that it is of foremost importance for second language teachers to begin introducing EFL learners to various digital learning platforms invigorating their writing competencies growth whereby a higher degree of writing learning enjoyment received a great emphasis.

One of the valuable digital learning tools second language educators can incorporate into their classroom routines is Automated Writing Evaluation. Automated Writing Evaluation is believed to optimize EFL learners' writing learning processes since they are granted extensive freedom to self-correct the pinpointed writing errors independently and monitor their personalized writing learning progression outside the regular classrooms. Escalante et al. (2023) contended that it is becoming progressively important for second language educationalists to commence their habitual classroom activities with the activation of Automated Writing Evaluation through which EFL learners gradually gain a significant awareness of specific writing shortcomings to be further revised and more autonomous in honing their writing competencies, even they are not assigned to do so by their teachers.

Automated Writing Evaluation serves as a driving force for EFL learners to progressively transform into more productive, mature, and proficient writers. It can be articulated that way since EFL learners have broadened their writing knowledge, skills, and experiences based on the prompt feedback addressed by Automated Writing Evaluation tools. By cultivating this constructive writing learning habit, EFL learners are not anxious while confronting a wide variety of arduous writing hindrances due to the flexible adaptation of employed writing strategies. Link et al. (2022) have likewise noted the pivotal role of Automated Writing Evaluation by that EFL learners are intensively trained to be more strategic decision-makers while facing particular writing challenges, allowing them to unceasingly transform into more active, experienced, and competent writers.

To ensure the best implementation of Automated Writing Evaluation, second language teachers should provide EFL learners with well-structured and clear guidelines concerning the exact procedures of propelling this technological platform in their writing classroom circumstances. Hence, second language educators are advised to play their roles as supportive writing learning facilitators amidst the incorporation of Automated Writing Evaluation. By playing their role as supportive learning facilitators, second language educationalists can help locate some particular writing areas requiring continuous improvements. Through this interactive writing learning practice, EFL learners gradually rekindle their utmost writing learning desire, which is becoming highly-achieving and skillful writers. The above-expounded contentions are parallel with Wang et al. (2022) believing that Automated Writing Evaluation is more likely to help EFL learners to transfigure into successful and skilled writers as long as supportive writing learning assistances are ceaselessly imparted during the complexities of their personalized writing dynamics. On a similar note, Woodworth and Barkaoui (2020) theorized that second language teachers must rejuvenate their conventional role to be more supportive writing learning facilitators amidst the internalization of Automate Writing Evaluation through that EFL learners are willing to stay on their right writing learning tracks as a further attempt to achieve more fruitful writing achievements.

Five previous investigations were conducted in concordance with the major topic forming in this library study. Rara et al. (2024) discouraged the excessive use of smartphones in modern second-language writing learning enterprises as EFL learners did not heed their profound attention to the specifically given writing materials. Alqasham and Al–Ahdal (2021) recommended second language teachers embark on their daily writing learning journeys with the accompaniment of a digital mind mapping strategy to enable Saudi Arabian EFL learners to experience a smoother ideation process due to the comprehensive activation of their background knowledge. Harun et al. (2024) unfolded that most Indonesian EFL learners were highly supportive of the constant utilization of Google Form-Based Digital Worksheets by which they could accomplish the given inquiries more engagingly and flexibly. Rofiah et al. (2023) uncovered that Indonesian EFL learners were willing to express their personal opinions productively amidst the internalization of the Padlet application by which a higher level of confidentiality encouraged them to participate in various online learning dynamics. Moonma (2021) highlighted the critical importance of equipping Thailand EFL learners with the prudent usage of online collaborative writing learning activities conducted through Google Docs wherein open-ended and mutual sharing sessions enabled them to broaden their specific understanding of the given writing topics. Despite increasing technological integration in

language education, the specific impact of Automated Writing Evaluation (AWE) on the development of EFL learners' writing skills and autonomy remains underexplored. Previous studies have focused broadly on digital tools, leaving a research gap in understanding how AWE can address persistent writing challenges in EFL contexts. This study aims to fill that gap by synthesizing recent findings and identifying recurring themes. The central research question is: How does Automated Writing Evaluation optimize EFL learners' writing learning processes?

RESEARCH METHOD

The researcher employed a library analysis approach in this small-scale qualitative study. With the help of a library analysis approach, the researcher could potentially produce more robust, reliable, and relatable findings contributing to the betterment of the particular research area being investigated. It can be stated that since the researcher profoundly conducted exhaustive data analysis on the findings produced by the previous studies. Klassen et al. (2012) argued that with the help of a library analysis method, the researchers would have broader opportunities to yield more valid, trustworthy, and relevant results as they carried out an in-depth analysis of the data derived from prior investigations. To escalate the fullest benefits of library analysis internalization, the researcher concurrently applied a thematic analysis approach. With the enlightenment of a thematic analysis method, the researcher might generate accurate and meaningful results as the identical findings derived from previous studies were grouped into some major themes. This meritorious value is congruent with Braun and Clarke (2021) who accentuated the crucial role of thematic analysis in qualitative-based studies by which each imparted data would be understandable for the targeted research stakeholders due to the systematic findings' segmentation into certain themes. An open-coding approach was implemented to minimize various kinds of unintended incongruities and inconsistencies among the thematically-categorized findings. Owing to this data analysis technique, the researcher conducted a profound data evaluation process to discover some discrepancies hindering the validity of findings. This contention resonated with Nowell et al. (2017) who advocated qualitative-oriented researchers to capitalize on an open-coding methodology at the onset of their in-depth data analysis processes to help them diminish a vast array of unwanted mismatches among the subcategorized results. A total of 30 peer-reviewed journal articles published from 2019 to 2024 were selected based on relevance to EFL writing and AWE. Databases such as Google Scholar, ResearchGate, Elsevier, and Taylor & Francis were searched using terms like "Automated Writing Evaluation," "EFL writing feedback," and "Grammarly in language learning." Inclusion criteria required empirical studies in EFL contexts with clear methodological reporting. Articles not addressing writing outcomes or lacking peer review were excluded. Themes were identified using an open coding strategy and refined through iterative categorization. Trustworthiness was ensured through constant comparison and alignment with established AWE frameworks.

RESULTS AND DISCUSSION

The researcher stipulated two main themes after the completion of a thematic analysis: (1) Automated Writing Evaluation enhanced EFL learners' writing skills, and (2) Automated Writing Evaluation cultivated robust writing learning autonomy among EFL

learners. More comprehensive and detailed data descriptions can be observed in the ensuing sections.

Table 1 Automated Writing Evaluation Enhanced EFL Learners' Writing Skills

Theme 1	Studies
Automated Writing Evaluation enhanced EFL learners' writing skills	Zhai and Ma (2023); McCarthy et al. (2022); Lee (2020); Fan and Ma (2022); Miranty and Widiati (2021); Shi et al. (2022); Dewi (2023); Palermo and Wilson (2020); Barrot (2024); Zhai and Ma (2022); Wilson et al. (2021); Xue (2024); Wei et al. (2023); Li (2023); Benali (2021); Dodigovic (2021).

The first theme highlights how Automated Writing Evaluation (AWE) significantly improved EFL learners' writing performance. A primary benefit was learners' increased ability to revise their work effectively. By receiving immediate and targeted feedback, students became more skilled in identifying and correcting their writing errors, leading to clearer and higher-quality compositions. McCarthy et al. (2022) found that Chinese university students, supported by AWE tools, produced more proficient writing and adapted well to various academic genres.

In addition to improving writing accuracy, AWE helped build learners' confidence. As students engaged with automated feedback, they expanded their knowledge of topic-specific content and writing conventions, which in turn strengthened their self-efficacy. Lee (2020) supported this finding, noting that regular exposure to constructive digital feedback allowed learners to develop their writing skills and become more confident and independent writers.

Another notable benefit of AWE was its ability to raise learners' awareness of recurring errors. Writing proficiency requires not only generating ideas but also critically reviewing one's own work. AWE encouraged students to take a more reflective and analytical approach to their writing. For example, Miranty and Widiati (2021) reported that Indonesian learners became more aware of common mistakes and were better equipped to revise them effectively after using AWE tools.

Furthermore, studies revealed that AWE fostered steady progress in learners' writing development. Consistent use of these tools motivated learners to track their improvements and strive for better outcomes. Zhai and Ma (2022) found that Chinese EFL learners demonstrated notable writing gains over time when AWE was used consistently and feedback was provided in a constructive and supportive manner.

Finally, AWE contributed to smoother idea generation, a common challenge in EFL writing. Writing blocks often hinder students during content development. However, with AWE, learners could explore a wider range of vocabulary and expressions, which facilitated more fluent and coherent writing. Xue (2024) showed that learners experienced fewer difficulties in generating content after engaging with AWE tools, suggesting these tools can serve as valuable aids in the ideation process.

In sum, AWE not only helped EFL learners refine their technical writing skills but also boosted their confidence, self-awareness, and fluency—making it a powerful tool for enhancing overall writing performance.

Table 2 Automated Writing Evaluation Cultivated Robust Writing Learning Autonomy among EFL Learners

Theme 2	Studies
Automated Writing Evaluation cultivated robust writing learning autonomy among EFL learners	Parra and Calero (2019); Astutik et al. (2024); Geng and Razali (2022); Woodworth and Barkaoui (2020); Yao (2021); Wilson et al. (2024); Mat et al. (2024); McNamara and Kendeou (2022); Yildiz and Gonen (2024); Hung et al. (2024); Waer (2023); Cao and Wang (2023); Li (2021); Sari and Han (2024).

The second theme reveals that Automated Writing Evaluation (AWE) played a vital role in fostering writing autonomy among EFL learners. By consistently engaging with automated feedback, students developed a stronger sense of responsibility for their writing progress. This encouraged them to choose and apply appropriate writing strategies independently, resulting in more self-directed learning. Mat et al. (2024) found that Malaysian learners, with regular use of AWE, became more competent and adaptable writers by aligning their strategies with the demands of different tasks.

AWE also contributed to reducing learners' writing anxiety. As students became familiar with the feedback process, they felt more confident and comfortable participating in writing activities. This led to greater classroom engagement and enhanced performance. McNamara and Kendeou (2022) emphasized that autonomy and reduced anxiety are closely linked, enabling students to perceive writing as an enjoyable and manageable task.

Furthermore, AWE helped learners become more self-sufficient in completing writing assignments. Instead of depending heavily on teachers, students used automated feedback to identify errors, revise meaningfully, and improve content quality. Yildiz and Gonen (2024) supported the idea that early exposure to AWE fosters independent learning behaviors in writing classrooms.

An additional benefit was the development of analytical revision habits. With AWE, learners routinely examined grammar, vocabulary, and structure, enriching their writing competence through practice. Cao and Wang (2023) noted that students who regularly used AWE tools gained a deeper understanding of essential language features and were more likely to apply them in future compositions. Finally, AWE encouraged persistence and resilience. It promoted a growth mindset, helping learners view challenges as opportunities to improve. When given constructive feedback, students responded with immediate and thoughtful revisions. Li (2021) highlighted that this behavior marked a transition from teacher-dependent writing to more autonomous, self-regulated learning.

In summary, AWE not only empowered EFL learners to take charge of their writing development but also instilled lasting habits of independence, strategic thinking, and reflective revision.

CONCLUSION

This study affirms the value of Automated Writing Evaluation in fostering both technical writing competence and learner independence among EFL students. Educators are encouraged to incorporate AWE tools alongside explicit strategy instruction and reflective

revision practices. Institutions should also invest in teacher training to ensure pedagogically sound use of such technologies.

Future research could examine how AWE tools perform when paired with peer feedback strategies or collaborative writing tasks. Investigating student attitudes toward different AWE interfaces would also offer valuable insights into tool-specific affordances.

Irrespective of all these advantageous results, second-language educational stakeholders are suggested to interpret these thematically categorized findings with caution as the prospective implications of these research outcomes may be divergent among writing learning routines conducted in specific regions. Thus, impending studies could analyze the mutual correlation of Automated Writing Evaluation with the incorporation of student-centered pedagogical methods such as graphic organizers, collaborative writing, and peer writing. With the actualization of the above-suggested input, second language educationalists are more likely to promote a more positively sound and emotionally supportive writing learning atmosphere for EFL learners to participate in since their habitual writing dynamics are packed in more interactive, innovative, and contextualized fashions.

For the continual advancement of this moderate library study, future researchers need to critically examine the impacts of Automated Writing Evaluation in Southeast Asian countries; Indonesia, Singapore, Malaysia, and Thailand. By embodying this suggested advice, second language educators will obtain more novel, practical, and thoughtful insights concerning the most feasible internalization of Automated Writing Evaluation in their daily writing classroom climates.

Aside from the above-elaborated shortcomings, the thematically-categorized findings offered a profound illumination of the expedient ways Automated Writing Evaluation optimized EFL learners' writing learning processes by which these technological tools play a pivotal role in habituating EFL learners into more experiential writing learning dynamics. It can be discerned from the significantly fostered writing proficiency and robust entrenchment of writing learning autonomy. With the presence of these two laudable writing attributes, EFL learners do not merely showcase exemplary writing performances but also inherit life-long learning characters, ensuring more solid intellectual empowerment in this ever-changing era.

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