

# Integrating AI Tools in English Writing Classes to Enhance Student Accuracy and Coherence



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KEY WORDS	ABSTRACT
Artificial Intelligence, English Writing, Student Accuracy, Coherence, Educational Technology	This study explores the integration of artificial intelligence (AI) tools in English writing classes with the aim of enhancing student accuracy and coherence. Utilizing a qualitative research methodology based on library research and literature review, the study examines various AI technologies such as grammar checkers, automated feedback systems, and writing assistants, and their impact on improving writing skills. The analysis synthesizes findings from a range of academic articles, case studies, and theoretical frameworks to understand how AI tools support the writing process by providing real-time, personalized feedback and promoting self-regulated learning. The literature indicates that AI tools can help students identify and correct grammatical errors, organize their ideas more coherently, and develop greater confidence in their writing abilities. Moreover, these technologies encourage iterative writing practices and enable instructors to focus more on higher-order writing skills such as argument development and creativity. Despite challenges related to over-reliance on technology and potential issues of accessibility, the integration of AI in writing instruction presents a promising avenue for enhancing student learning outcomes. This study contributes to the ongoing discourse on educational technology by offering a comprehensive overview of AI tool applications in English writing pedagogy. The findings provide valuable insights for educators, curriculum designers, and policymakers seeking to incorporate innovative strategies that support student writing development. Future research is recommended to empirically assess the long-term effectiveness of AI-assisted writing instruction across diverse learner populations and educational contexts.

## 1. INTRODUCTION

In recent years, the rapid advancement of artificial intelligence (AI) technologies has significantly influenced various domains, including education (Zhai et al., 2021). Among the most promising applications is the integration of AI tools in language learning, particularly in English writing instruction (Chassignol et al., 2018). Writing proficiency remains a challenging skill for many learners due to its complex cognitive, linguistic, and organizational demands (Crilly et al., 2016). Traditional writing instruction often struggles to

provide timely and personalized feedback that addresses individual learner needs, which can hinder students' progress in achieving accuracy and coherence in their writing. The emergence of AI-powered writing assistants, grammar checkers, and automated feedback systems offers new opportunities to transform English writing pedagogy by enhancing both the learning experience and outcomes (Kwan, 2024).

Despite the growing adoption of AI tools in educational settings, there remains a significant research gap concerning their specific impact on

student accuracy and coherence in English writing classes. Most existing studies focus on general language learning or technological development, leaving limited understanding of how AI integration influences students' writing quality in authentic classroom contexts (Wang, 2024). This gap is further complicated by challenges such as over-reliance on AI corrections, potential reduction in critical thinking, and varied accessibility across learner populations.

The urgency of this research stems from the increasing demand for effective, scalable, and adaptive teaching strategies that can meet diverse learner needs in an increasingly digital world (Ajani, 2024). Previous studies have demonstrated the potential of AI tools to offer immediate, context-aware feedback, facilitating iterative writing and self-regulation. However, these findings often lack a comprehensive synthesis that connects AI functionalities directly with measurable improvements in writing accuracy and coherence (Yang et al., 2025).

This study aims to fill this gap by conducting a qualitative literature review focused on the integration of AI tools in English writing classes, emphasizing their role in enhancing student accuracy and coherence (Taye & Mengesha, 2024). The novelty of this research lies in its holistic approach to examining pedagogical, technological, and learner-centered dimensions of AI-supported writing instruction.

The primary objective is to provide educators, curriculum developers, and policymakers with evidence-based insights into best practices for incorporating AI tools effectively in writing curricula. By doing so, this research contributes to improving instructional design, fostering learner autonomy, and ultimately elevating the quality of student writing in English language education (Toufaha, 2024).

## 2. METHOD

This study employs a qualitative research design utilizing a literature review approach to explore the integration of artificial intelligence (AI) tools in English writing classes and their impact on enhancing student accuracy and coherence (Wu, 2024). The qualitative method is appropriate for gaining an in-depth understanding of existing knowledge, theories, and practices related to AI-assisted writing instruction within diverse educational contexts (Al-Bukhrani et al., 2025).

The data sources for this research consist entirely of secondary data collected from academic journals, conference proceedings, books, theses, and reputable online databases such as Scopus, Google Scholar, and ERIC. These sources were selected based on their relevance, credibility, and contribution to the fields of educational technology, second language writing, and AI applications in pedagogy (Son et al., 2023). The inclusion criteria for literature were studies published within the last decade to ensure the currency of technological developments and pedagogical approaches.

Data collection was conducted through systematic library research and a comprehensive literature review (Khalid et al., 2021). This process involved identifying, screening, and selecting scholarly works that address the roles, benefits, challenges, and outcomes of AI tool integration in English writing education. Keywords such as “artificial intelligence,” “English writing,” “writing accuracy,” “writing coherence,” and “educational technology” guided the search strategy.

For data analysis, a thematic analysis method was employed to synthesize the findings from the selected literature. The process included coding textual data to identify recurring themes related to AI functionalities, pedagogical implications, learner engagement, and improvements in writing quality (Zhang &

Hyland, 2018). This qualitative synthesis enabled the construction of a conceptual framework that links AI tool integration with enhancements in student writing accuracy and coherence.

By using this rigorous qualitative literature review methodology, the study provides a comprehensive understanding of how AI tools can be strategically employed in English writing classes to foster better writing outcomes, thereby informing future research, instructional design, and educational policy.

## RESULT AND DISCUSSION

The integration of artificial intelligence (AI) tools in English writing classes has shown promising potential to enhance student accuracy and coherence, addressing long-standing challenges in second language writing pedagogy. Through an extensive review of the literature, it is evident that AI technologies such as grammar checkers, automated feedback systems, and intelligent writing assistants provide learners with immediate, personalized, and context-specific support. This feedback mechanism not only aids in identifying and correcting grammatical errors but also assists students in organizing their ideas logically, thus improving coherence in their writing. The availability of real-time corrections and suggestions encourages iterative writing practices, fostering a more engaged and reflective learning process.

One of the critical advantages of AI tools highlighted in the literature is their capacity to supplement traditional teacher feedback by offering consistent and scalable assistance. Unlike human instructors who may have limited capacity to provide detailed feedback for every student promptly, AI applications can analyze numerous texts simultaneously and

deliver instant, tailored recommendations. This responsiveness aligns well with Generation Z students' preference for timely and relevant feedback, increasing their motivation and enabling them to take ownership of their learning. As a result, students develop a heightened awareness of their common errors and are empowered to self-correct, which gradually cultivates greater autonomy and confidence in their writing skills.

The review also reveals that AI tools positively influence the coherence of student writing by helping learners structure their arguments more effectively. Many AI systems incorporate features that guide sentence construction, paragraph organization, and logical flow, which are essential components of coherent writing. Such scaffolding is particularly beneficial for English language learners who may struggle with linking ideas cohesively due to limited exposure to academic writing conventions. Furthermore, AI-driven writing platforms often integrate examples and explanations, facilitating learners' understanding of rhetorical structures and stylistic nuances. This instructional support complements human teaching by addressing both micro-level language mechanics and macro-level discourse organization.

However, the literature also cautions against potential pitfalls associated with over-reliance on AI tools. Some studies emphasize the risk that students might become dependent on automated corrections without fully internalizing the underlying language rules, potentially hindering deeper learning. There are concerns that excessive use of AI may reduce critical thinking and problem-solving opportunities as students may opt for easy fixes instead of engaging thoughtfully with their writing. Moreover, disparities in access to AI

technologies due to socioeconomic or institutional constraints highlight an equity issue that educators and policymakers must consider when promoting AI integration.

Despite these challenges, the pedagogical value of AI in writing instruction is reinforced when combined with guided human facilitation. Effective integration involves positioning AI as a complementary tool rather than a replacement for teacher intervention. Teachers play a vital role in contextualizing AI feedback, encouraging critical reflection, and supporting students in applying suggested improvements meaningfully. This blended approach maximizes the strengths of AI technology while mitigating its limitations, leading to more sustainable writing skill development.

In summary, the synthesis of the reviewed literature supports the conclusion that AI tools significantly enhance student accuracy and coherence in English writing classes. These technologies provide adaptive, immediate, and personalized feedback that resonates with contemporary learners' needs and learning styles. When strategically integrated with traditional instruction, AI-driven writing assistance facilitates a more effective, learner-centered approach that improves writing quality and fosters greater learner independence. Future empirical research should focus on longitudinal studies to assess the long-term impact of AI tools on writing development and explore strategies to optimize the balance between technological and human instructional support.

### 1. The Impact of AI Tools on Enhancing Writing Accuracy

The integration of AI tools in English writing education has shown a notable impact on improving student accuracy. Accuracy in

writing involves correct grammar, punctuation, spelling, and syntax, all of which AI-driven tools effectively target through automated corrections. Many studies emphasize that real-time grammar checkers and spell checkers provide immediate feedback that students can utilize to revise their texts actively. This immediate reinforcement promotes better retention of language rules and diminishes the recurrence of common errors.

AI tools also offer explanations for suggested corrections, which help deepen students' understanding of grammatical structures rather than simply correcting mistakes passively. The interactive nature of these tools allows learners to engage critically with their writing and explore language patterns more independently. Such engagement is vital for developing long-term accuracy, as it encourages students to internalize rules rather than relying solely on external correction.

Furthermore, the precision and consistency of AI feedback reduce the risk of subjective errors that might occur with human grading, ensuring that students receive uniform standards across their work. This consistency builds confidence among learners, knowing that their writing is evaluated fairly and systematically. In contexts with large class sizes where individualized teacher feedback is limited, AI tools fill a critical gap by offering personalized, scalable support.

However, challenges arise when AI tools misinterpret context or stylistic nuances, sometimes suggesting inappropriate corrections. This limitation necessitates a complementary role for educators to mediate AI feedback and guide students in making informed decisions. Thus, while AI tools significantly enhance accuracy, their effectiveness is maximized when combined with

teacher facilitation that addresses contextual language use.

Additionally, AI's impact on writing accuracy extends beyond error correction to fostering metacognitive skills. As students interact with AI-generated feedback, they become more aware of their linguistic weaknesses and strengths, promoting self-monitoring and regulation in writing processes. This metacognitive development is crucial for autonomous learning and continuous improvement.

In sum, the literature highlights that AI tools contribute substantially to writing accuracy by providing timely, detailed, and individualized feedback, although their optimal use depends on integration within a broader pedagogical framework that includes human oversight and guidance.

## 2. AI's Role in Promoting Coherence and Organization in Writing

Coherence, the logical and smooth flow of ideas, is essential for effective writing and a common challenge for English learners. AI writing tools increasingly incorporate features that support not only grammar but also text structure and organization. Tools such as automated outlining, coherence checking, and linking phrase suggestions help students arrange their ideas in a clear and cohesive manner.

The literature suggests that AI's ability to analyze larger text segments enables it to detect organizational weaknesses, such as abrupt transitions or unclear argument flow, which traditional grammar checkers overlook. This macro-level analysis encourages students to think critically about the overall structure of their writing, rather than focusing solely on sentence-level correctness. Consequently, AI

tools act as cognitive scaffolds that guide students in constructing well-organized essays and reports.

Moreover, AI platforms often provide exemplars or templates demonstrating effective organizational strategies, which learners can emulate. Exposure to such models enhances students' understanding of writing conventions and rhetorical structures, particularly beneficial for second language writers unfamiliar with academic genres.

However, the integration of coherence-focused AI features raises concerns regarding over-standardization. Excessive reliance on predefined structures might limit creativity or individual voice if students adhere rigidly to AI-generated templates. Therefore, educators must encourage flexibility and critical engagement with AI suggestions, fostering balance between structural guidance and personal expression.

Research also highlights the motivational effect of improved coherence feedback. When students see tangible improvements in the clarity of their writing, their confidence and enthusiasm for writing tasks increase. This positive reinforcement contributes to more sustained engagement and a willingness to revise and refine work iteratively.

Furthermore, the role of AI in promoting coherence is complemented by collaborative peer review systems enhanced with AI analytics. These systems enable students to critique each other's work using AI-generated coherence indicators, fostering a community of practice and enhancing collective writing skills.

In conclusion, AI tools significantly support coherence development by providing structural feedback, exemplars, and motivational



reinforcement, but their pedagogical implementation must safeguard against over-dependence to preserve creativity and individual style.

### 3. Learner Autonomy and Engagement Through AI Integration

The literature consistently points to AI tools as catalysts for increasing learner autonomy and engagement in writing classes. Gen Z students, in particular, respond positively to technology-enabled learning environments that offer personalized feedback and interactive features. AI’s instant corrective feedback satisfies their desire for immediate responses and facilitates self-paced learning.

By providing detailed and contextualized feedback, AI tools empower students to take control of their writing development. This autonomy encourages active experimentation, where learners test different linguistic choices and immediately observe the outcomes. Such trial-and-error processes are fundamental to deep learning and foster a sense of ownership over the writing process.

Table summarizing the role of AI tools in promoting learner autonomy and engagement, with a focus on Generation Z students in writing classes:

Aspect	Description	Impact on Learner Autonomy	Effect on Engagement
Personalized Feedback	AI provides tailored, context-specific corrections and suggestions based on individual writing inputs.	Enables learners to understand and address their unique errors independently.	Increases motivation by addressing learners’ specific needs promptly.
Instant Corrective Feedback	Immediate responses to errors allow learners to correct mistakes in real time.	Facilitates self-paced learning and encourages learners to self-monitor.	Satisfies Gen Z’s preference for quick feedback, maintaining interest.
Interactive Features	Includes tools such as writing prompts, suggestions, and progress tracking integrated within AI platforms.	Encourages experimentation with language choices and writing styles.	Enhances engagement through gamification and interactive elements.
Trial-and-Error Learning	Learners test different expressions and structures, immediately seeing results of their choices.	Promotes deep learning by allowing learners to learn from their own decisions.	Fosters a sense of ownership and responsibility for learning progress.
Ownership of Writing Process	Students take control of their writing development, using AI as a supportive tool rather than a crutch.	Builds autonomy by encouraging independent revision and reflection.	Increases confidence and persistence in writing tasks.

Engagement is further enhanced by gamification elements embedded in some AI writing platforms, including progress tracking, badges, and performance comparisons. These features align with Gen Z’s affinity for digital

interactivity and can increase motivation to complete writing tasks and improve proficiency.

Nevertheless, the literature also cautions that increased autonomy requires adequate learner training in using AI tools effectively. Without

guidance, students may misinterpret feedback or become frustrated by technical limitations, leading to disengagement. Thus, scaffolding by educators remains essential to maximize AI's positive impact on autonomy and motivation.

Moreover, AI tools enable differentiated instruction by adapting feedback according to individual learner profiles, addressing diverse proficiency levels and learning preferences. This personalized approach helps overcome the one-size-fits-all limitation of traditional writing instruction, fostering equitable learning opportunities.

Peer interaction facilitated by AI-supported platforms also contributes to learner engagement. Features such as collaborative writing spaces and AI-powered peer review tools encourage social learning, which enhances motivation and provides diverse perspectives on writing improvement.

In sum, AI integration fosters learner autonomy and engagement by providing personalized, interactive, and adaptive learning experiences. This aligns well with contemporary educational paradigms emphasizing student-centered learning, though it requires thoughtful instructional design to support effective tool usage.

#### 4. Challenges and Limitations of AI Integration in Writing Instruction

While AI tools offer numerous benefits, the literature highlights several challenges and limitations that must be addressed to optimize their integration in English writing classes. A primary concern is the potential over-reliance on AI-generated corrections, which may inhibit students from developing critical thinking and self-editing skills. Learners might become dependent on automatic fixes, neglecting

deeper linguistic understanding and problem-solving abilities.

Another significant challenge involves the contextual limitations of AI tools. Many AI systems struggle with understanding nuanced language, idiomatic expressions, and cultural references, leading to inappropriate or inaccurate feedback. This shortcoming necessitates human oversight to interpret and supplement AI suggestions accurately.

Accessibility and equity issues also arise, as not all educational institutions or learners have equal access to advanced AI technologies due to cost, infrastructure, or digital literacy disparities. This digital divide risks exacerbating educational inequalities unless addressed through policy and resource allocation.

Furthermore, ethical concerns about data privacy and student information security are increasingly prominent with the use of AI tools. Institutions must ensure compliance with data protection regulations and transparently communicate the use of student data within AI platforms.

Integration challenges also include resistance from educators unfamiliar with AI technologies or skeptical about their pedagogical value. Professional development and support are crucial to build teacher confidence and competence in leveraging AI effectively.

Finally, aligning AI tools with curriculum standards and assessment criteria remains complex. Educators must balance the use of AI feedback with traditional evaluation to maintain academic integrity and learning objectives.

In conclusion, while AI tools enhance English writing instruction, addressing technological, pedagogical, ethical, and equity challenges is essential for sustainable and effective implementation.

### 5. Implications for Pedagogy and Future Research Directions

The integration of AI tools in English writing instruction has profound implications for pedagogical practice. Educators are encouraged to adopt a blended approach, where AI technologies complement rather than replace human instruction. This synergy allows teachers to focus on higher-order writing skills such as argumentation, creativity, and critical analysis, while AI supports lower-level mechanical accuracy and structural coherence.

Curriculum design must also evolve to embed AI tool usage explicitly, including training students in digital literacy and critical evaluation of automated feedback. This will ensure students use AI as an empowering resource rather than a crutch.

The role of teacher facilitation is paramount in guiding students to interpret AI suggestions thoughtfully and integrate them meaningfully into their writing. Professional development programs focused on AI literacy for educators are critical to this end.

Table summarizing key aspects of curriculum design and teacher facilitation for effective AI tool integration in English writing classes:

Focus Area	Description	Key Actions	Expected Outcomes
Curriculum Design	Embed AI tool usage explicitly within the curriculum, ensuring students receive structured training.	Integrate digital literacy modules and lessons on AI feedback evaluation.	Students learn to critically assess AI suggestions and use tools responsibly.
Digital Literacy Training	Equip students with skills to navigate AI writing tools effectively, including understanding limitations.	Develop workshops and tutorials on AI tool functionalities and ethical use.	Empowered learners use AI as a resource to enhance, not replace, their skills.
Critical Evaluation Skills	Teach students how to analyze and decide which AI-generated feedback to accept or revise.	Incorporate exercises that require students to justify or critique AI suggestions.	Improved critical thinking and writing quality.
Teacher Facilitation	Teachers guide interpretation of AI feedback, contextualizing it within writing goals and student needs.	Provide professional development focused on AI literacy for educators.	Teachers effectively mediate AI feedback, fostering meaningful integration.
Professional Development	Continuous training for educators on latest AI tools and pedagogical strategies for AI-assisted writing instruction.	Organize regular workshops, seminars, and collaborative learning sessions.	Educators maintain updated skills, improving teaching efficacy and student outcomes.

For policymakers, investing in equitable access to AI tools and infrastructure can bridge

existing gaps and democratize advanced educational technology. Funding, partnerships, and inclusive policies will support widespread adoption, especially in under-resourced



contexts.

Future research should focus on longitudinal studies assessing the long-term impact of AI-supported writing instruction on student proficiency and attitudes. Comparative studies across different learner populations and educational settings will further elucidate best practices and contextual adaptations.

Experimental designs combining qualitative and quantitative data can provide richer insights into how AI influences writing processes, learner autonomy, and motivation. Additionally, exploring ethical frameworks for AI use in education will ensure responsible integration.

Overall, the findings encourage a reimagining of English writing pedagogy that embraces technological innovation while retaining human-centered values, ultimately preparing learners for the complex communicative demands of the 21st century.

### 3. CONCLUSION

Integrating AI tools in English writing classes has proven to be a transformative approach to enhancing student accuracy and coherence by providing immediate, personalized, and context-sensitive feedback that supports both linguistic correctness and effective organization of ideas. These technologies empower learners to engage in iterative writing processes, fostering greater autonomy, motivation, and reflective practice. While challenges such as over-reliance on AI, contextual limitations, and equity issues remain, their thoughtful integration alongside human instruction offers a balanced and effective pedagogical strategy. Ultimately, AI tools not only improve the mechanical aspects of writing but also

contribute to the development of confident, coherent communicators, underscoring their vital role in modern English writing education.

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