From Draft to Masterpiece: AI-Powered Self-Editing in ESL Writing

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ABSTRACT

This study explores the integration of Blackbox AI, an AI-powered writing assistant, into ESL (English as a Second Language) instruction to enhance students' professional writing skills, particularly in crafting effective cover letters. Recognizing the common challenges faced by ESL learners—such as grammatical errors, limited vocabulary, and lack of confidence—the project implemented Blackbox AI in a classroom setting with 30 technical college students. Through a structured, three-phase instructional approach, students were introduced to cover letter conventions, engaged with Blackbox AI for real-time feedback, and iteratively revised their drafts. The AI tool provided grammar and spelling corrections, tone adjustments, and rephrasing suggestions, fostering self-editing, critical thinking (Zakaria et al., 2025), and learner autonomy. Results showed significant improvements in writing clarity, structure, and professionalism, with 90% of students reporting increased motivation and confidence. The initiative highlights the transformative potential of AI in language education, promoting personalized learning and preparing students for real-world communication. The findings advocate for broader adoption of AI tools in ESL contexts to support inclusive and future-ready education.

Keywords: Blackbox AI, ESL learners, L2 writing

INTRODUCTION

In today's rapidly evolving educational landscape, the integration of artificial intelligence (AI) tools has emerged as a transformative force, particularly in the realm of language instruction. As educators seek innovative ways to enhance student learning and engagement, AI-powered applications are increasingly being recognized for their potential to personalize and streamline the learning process. One such tool, Blackbox AI, has shown promise in supporting English as a Second Language (ESL) students, especially in the development of professional writing skills. This extended abstract focuses on the implementation of Blackbox AI as a writing assistant to help ESL learners craft effective and impactful cover letters. Cover letters are a critical component of job applications, serving as a candidate's first impression and a platform to highlight their qualifications and enthusiasm for a role. However, many ESL students face significant challenges in writing these documents due to difficulties with grammar, tone, vocabulary, and overall confidence in their language abilities. These barriers often result in generic, unclear, or ineffective letters that fail to capture the attention of potential employers. The project described herein aims to bridge this gap by leveraging the capabilities of Blackbox AI to provide real-time, personalized feedback. Through iterative editing and guided revisions, students are empowered to refine their writing, enhance clarity, and develop a more professional tone. This initiative not only improves writing outcomes but also fosters greater learner autonomy and confidence, aligning with broader educational goals of preparing students for real-world communication and employment success (Sun, 2023).

BACKGROUND AND RATIONALE

English as a Second Language (ESL) students often encounter a unique set of challenges when it comes to written communication, particularly in formal or professional contexts such as job applications. These challenges stem from a variety of factors, including limited exposure to authentic English usage, restricted vocabulary, and a lack of familiarity with the conventions of professional writing. As a result, many ESL learners struggle with grammatical accuracy, sentence structure, and the ability to convey their ideas clearly and persuasively. These difficulties are further compounded by low self-confidence, which can hinder students from fully expressing their strengths and experiences in writing. Traditional classroom instruction, while valuable, may not always provide the individualized attention or immediate feedback necessary to address these issues effectively. This is where AI-powered tools like Blackbox AI offer a compelling solution. Designed to function as a real-time writing assistant, Blackbox AI provides instant grammar and spelling corrections, tone adjustments, and multiple rephrasing suggestions tailored to the user's input. By integrating this tool into the writing process, students are given the opportunity to engage in self-directed learning and iterative improvement. They can experiment with language, receive immediate feedback, and make informed revisions—all of which contribute to a deeper understanding of English writing conventions. Moreover, the use of such technology promotes learner independence and builds confidence, as students begin to see tangible improvements in their writing. This rationale underscores the importance of incorporating AI tools into ESL instruction to better support diverse learner needs and enhance educational outcomes.

METHODOLOGY

The implementation of this project took place in a real-world classroom environment involving 30 ESL (English as a Second Language) students enrolled in a technical college. The instructional design was structured around a three-phase process aimed at gradually building students' writing competence and confidence. In the first phase, students were introduced to the concept and importance of cover letters in professional settings. They were guided through the basic structure, tone, and content expectations of a standard cover letter. Following this, students were tasked with drafting their own cover letters based on a simulated job advertisement relevant to their field of study.

In the second phase, students were introduced to Blackbox AI, an AI-powered writing assistant. A demonstration session was conducted to familiarize them with the tool's interface and features, including grammar correction, tone adjustment, and rephrasing suggestions. Students then uploaded their initial drafts into the platform and received real-time feedback. They were encouraged to explore multiple suggestions and reflect on the rationale behind each correction.

The final phase involved students revising their drafts based on the AI-generated feedback. Instructors provided additional support through one-on-one consultations and group discussions to clarify doubts and reinforce learning. The final versions of the cover letters were submitted for evaluation. Throughout the process, emphasis was placed on iterative learning, self-editing, and critical thinking (Zakaria et al., 2025). This methodology not only improved the technical quality of student writing but also fostered a sense of ownership and independence in their learning journey.

STUDENT CHALLENGES

Before the integration of Blackbox AI into the classroom, students exhibited a range of challenges that are commonly observed among ESL learners, particularly in the context of professional writing. One of the most prevalent issues was the frequent occurrence of typographical and spelling errors, which often disrupted the clarity and professionalism of their writing. Punctuation mistakes, such as missing commas or incorrect use of apostrophes, further contributed to confusion and reduced the overall readability of their cover letters.

Grammatical inconsistencies were another major concern. Students struggled with subject-verb agreement, verb tense usage, and sentence structure, leading to awkward or incorrect phrasing. These issues were compounded by a limited vocabulary, which often resulted in repetitive or overly simplistic language. Many students also lacked familiarity with the formal tone and structure expected in cover letters, leading to content that was either too casual or too generic.

Beyond technical issues, a significant barrier was the students' lack of confidence in their writing abilities. This often manifested in vague or overly cautious language, as students were hesitant to assert their strengths or tailor their content to specific job roles. As a result, their cover letters lacked the persuasive quality needed to make a strong impression on potential employers. These challenges not only hindered their ability to communicate effectively but also limited their opportunities for employment. Addressing these issues required a multifaceted approach that combined technological support with pedagogical guidance, which this project aimed to provide through the integration of Blackbox AI.

FEATURES OF BLACKBOX AI

Blackbox AI is a sophisticated writing assistant designed to support users in producing high-quality written content through a range of intelligent features. For ESL students, these features are particularly beneficial as they address common language challenges while promoting independent learning. One of the core functionalities of Blackbox AI is its real-time grammar and spelling correction. As students type, the tool identifies and corrects errors instantly, helping them recognize and learn from their mistakes. This immediate feedback loop reinforces grammar rules and improves accuracy over time.

Another valuable feature is tone and style adjustment, which allows students to modify their writing to suit formal or professional contexts. This is especially useful in cover letter writing, where tone plays a crucial role in conveying professionalism and enthusiasm. Blackbox AI also offers multiple rephrasing options, enabling students to explore alternative sentence structures and expressions. This not only enhances clarity and conciseness but also expands their vocabulary and stylistic range.

Additionally, the tool provides vocabulary enhancement suggestions, recommending more precise or impactful words to replace vague or repetitive language. These features collectively support iterative writing, where students can continuously refine their drafts based on AI-generated suggestions. Over time, this process cultivates a deeper understanding of language mechanics, improves writing fluency, and builds confidence. By functioning as a responsive and non-

judgmental writing coach, Blackbox AI empowers students to take control of their learning and develop essential communication skills that are transferable to academic and professional settings.

CLASSROOM IMPLEMENTATION

The classroom implementation of Blackbox AI was carefully structured to ensure maximum student engagement, learning effectiveness, and integration with existing curriculum goals. The process began with an introductory session where students were taught the significance of cover letters in job applications. The instructor highlighted common pitfalls such as vague language, poor structure, and grammatical errors, setting the stage for why AI assistance could be beneficial. Students were then provided with a sample job advertisement and asked to draft a personalized cover letter tailored to the position.

Once the initial drafts were completed, students were introduced to Blackbox AI through a guided tutorial. The instructor demonstrated how to input text, interpret feedback, and apply suggested changes. Students then used the tool independently to revise their drafts, focusing on improving grammar, tone, and clarity. The AI's real-time feedback allowed them to make immediate corrections and experiment with different phrasings, fostering a sense of autonomy and curiosity.

To reinforce learning, the instructor facilitated group discussions where students shared their experiences using the tool. They compared original and revised drafts, discussed the rationale behind certain changes, and reflected on how the AI suggestions improved their writing. Peer feedback was also encouraged, creating a collaborative and supportive environment. This approach not only enhanced technical writing skills but also promoted critical thinking (Zakaria et al., 2025) and self-assessment. By embedding AI into the writing process, the classroom became a dynamic space for exploration, reflection, and growth, ultimately preparing students for real-world communication challenges.

RESULTS AND OBSERVATIONS

The implementation of Blackbox AI in the ESL classroom yielded highly encouraging results, both in terms of student engagement and measurable improvements in writing quality. Among the 30 students who participated in the project, 27—representing 90% of the class—responded positively to the intervention. This strong response highlights the tool's effectiveness in addressing the specific challenges faced by ESL learners. Students reported feeling more motivated to write and revise their work, largely due to the immediate and constructive feedback provided by the AI. The ability to see real-time corrections and suggestions helped demystify grammar rules and writing conventions, making the learning process more accessible and less intimidating.

In addition to increased motivation, students also demonstrated greater confidence in their writing abilities. Many who previously struggled with expressing themselves clearly began to take more initiative in refining their drafts. The iterative editing process encouraged them to experiment with language, explore alternative phrasings, and develop a more professional tone. Instructors observed significant improvements in the clarity, coherence, and persuasiveness of the final cover letters. Sentences became more structured, vocabulary more precise, and overall presentation more polished. The transformation was not only technical but also attitudinal students began to view writing as a skill they could master rather than a barrier they had to overcome. These outcomes

suggest that AI tools like Blackbox AI can play a pivotal role in enhancing both the competence and confidence of ESL students, ultimately preparing them for more effective communication in academic and professional settings.

IMPLICATIONS AND CONCLUSION

The successful integration of Blackbox AI into ESL instruction offers valuable insights into the broader potential of artificial intelligence in education. This project demonstrates that AI tools, when thoughtfully implemented, can significantly enhance the learning experience by providing immediate, personalized feedback that traditional classroom settings may not always be able to offer. For ESL students, who often require more targeted support in mastering the nuances of English writing, such tools can serve as powerful allies in their academic and professional development.

One of the key implications of this initiative is the shift toward more learner-centered education. By empowering students to take control of their writing process, Blackbox AI fosters independence, critical thinking (Zakaria et al., 2025), and self-reflection. These are essential skills not only for language acquisition but also for lifelong learning. Furthermore, the tool's ability to adapt to individual writing styles and needs makes it a scalable solution for diverse educational contexts.

This project also underscores the importance of integrating technology into language education to bridge gaps in access and support. As AI continues to evolve, its applications in education are likely to expand, offering new opportunities for personalized learning across disciplines. Future implementations could explore the use of AI in other writing genres such as essays, reports, or creative writing, and extend access to students in rural or underserved areas. In conclusion, the use of Blackbox AI in ESL classrooms is not just a technological enhancement—it represents a meaningful step toward more inclusive, effective, and future-ready education.

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