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Beyond the Classroom: Leveraging Artificial Intelligence Lingua Aps. To Enhance English Writing Skills

Isnaeni Sofiana[1)], Ambar Sari[2)]
[1]English Language Education Department, Graduate Program, Universitas Muhammadiyah Malang
Email : isnainisofiana6@gmail.com
Phone : 081337770867

[2]English Language Education Department, Graduate Program, UIN Raden Mas Said Surakarta
Email : teachambarsari@gmail.com

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Abstract

Artificial Intelligence (AI) has become a powerful tool in supporting English language learning, especially in writing. One of the emerging AI-based writing platforms is *Lingua Aps*, which utilizes natural language processing to assess and provide feedback on learners' written texts. The system provides scoring features available in *Lingua Aps*, offering insights on vocabulary, grammar, coherence, and structure in real time. This study employed a qualitative case study approach involving 11th-grade students from a science-based Islamic high school in Central Java, Indonesia. Data were collected through semi-structured interviews, classroom observations, and document analysis of students' feedback history in the app. Thematic analysis revealed that consistent use of *Lingua Aps* encouraged students to write more confidently and accurately. The app helped enhance their grammatical awareness and vocabulary development. However, challenges such as varying levels of digital literacy and the need for curriculum alignment were also noted. While the tool supports autonomy in writing, excessive reliance without proper scaffolding may hinder critical thinking development. This study recommends integrating AI-powered writing tools like *Lingua Aps* with pedagogical strategies to optimize student learning outcomes.

Keywords: AI writing tools; digital learning; English writing; Lingua Aps; language education

Corresponding Author:
Isnaeni Sofiana, Language Education Department, Graduate Program, Universitas Muhammadiyah Malang
Email: isnainisofiana6@gmail.com

Abstrak

Kecerdasan Buatan (AI) telah menjadi alat yang ampuh dalam mendukung pembelajaran bahasa Inggris, terutama dalam menulis. Salah satu platform penulisan berbasis AI yang sedang berkembang adalah Lingua Aps, yang memanfaatkan pemrosesan bahasa alami untuk menilai dan memberikan umpan balik pada teks tertulis peserta didik. Sistem ini menyediakan fitur penilaian yang tersedia di Lingua Aps, menawarkan wawasan tentang kosakata, tata bahasa, koherensi, dan struktur secara waktu nyata (real time). Penelitian ini menggunakan pendekatan studi kasus kualitatif yang melibatkan siswa kelas 11 dari sebuah madrasah aliyah berbasis sains di Jawa Tengah, Indonesia. Data dikumpulkan melalui wawancara semi-terstruktur, observasi kelas, dan analisis dokumen riwayat umpan balik siswa dalam aplikasi. Analisis tematik menunjukan bahwa penggunaan Lingua Aps secara konsisten mendorong siswa untuk menulis dengan lebih percaya diri dan akurat. Aplikasi ini membantu meningkatkan kesadaran tata bahasa dan pengembangan kosakata mereka. Namun, tantangan seperti tingkat literasi digital yang bervariasi dan kebutuhan akan penyesuaian kurikulum juga dicatat. Meskipun alat ini mendukung independensi dalam menulis, ketergantungan yang berlebihan tanpa pendampingan yang tepat dapat menghambat pengembangan pemikiran kritis. Penelitian ini merekomendasikan integrasi alat penulisan bertenaga AI seperti Lingua Aps dengan strategi pedagogis untuk mengoptimalkan hasil belajar siswa.

Kata kunci: *Kecerdasan Buatan (AI), Pembelajaran Digital, Penulisan Bahasa Inggris, Lingua Aps, Pendidikan Bahasa Inggris*

Introduction

In today's digital era, the existance of Artificial Intelligence (AI) in the classroom is no longer just a futuristic concept, it's an increasingly present reality, especially in language learning. Writing a highly complex language skill, often demands personalized and prompt feedback for students to improve. However, limited teacher availability and large class sizes frequently make it challenging to give every student the individual attention they need. This is precisely where AI-powered writing tools like Lingua Aps come into play.

Lingua Aps is designed to asssist learners to improve their writing skill through real-time feedback on grammar, vocabulary, sentence structure, and overall coherence. Unlike other writing apps that heavily rely on fixed rules or basic corrections, *Lingua Aps* uses natural language processing to evaluate texts and assign scores that guide users toward improved writing. This kind of support not only helps students identify their mistakes but also motivates them to revise and reflect on their work independently.

Recent studies underscore the significant impact of AI writing tools on enhancing students' writing abilities. Azennoud (2024) observed that university level EFL users in Morocco significantly enhanced both writing accuracy and complexity through AI-assisted feedback. Additionally, Woo and Choi (2021) emphasize that AI-based language tools developed between 2017 to 2020 enabled learners to identify errors, receive adaptive feedback, and strengthen their overall language profiency. These findings suggest show that AI has potential to cultivate deeper learning and encourage independent writing practices.

While the potential of AI writing tools in education is widely discussed, it's crucial to acknowledge the existing counterarguments and limitations highlighted by other research. For example, some studies suggest that over reliance on AI feedback may supress the development of critical thinking and intrinsic writing skills**.** As evidenced by concerns raised by Aljuaid (2024) excessive dependence on automated corrections might hinder students' ability to independently

identify and rectify errors without technological aid, potentially leading to a superficial understanding of grammatical rules rather than true mastery. Similarly to Yang and Kim (2023) point out that the adaptive feedback provided by AI tools, while beneficial, can sometimes oversimplify complex linguistic nuances, failing to adequately prepare learners for the subtleties of authentic, unassisted writing. This could ultimately limit students' capacity for nuanced expression and sophisticated argumentation, areas where human pedagogical intervention remains indispensable. Therefore, a balanced perspective is necessary to ensure AI tools complement, rather than undermine, the fundamental processes of language acquisition and critical intellectual growth.

Despite these encouraging findings, most research focuses on tertiary education or Western contexts. There remains limited exploration of AI writing tools in Indonesian secondary schools, especially those with Islamic-based and science-focused educational models. Our study addresses this gap by looking into how *Lingua Aps* is used by 11th-grade students at a Science Based Islamic Senior High School in Central Java.

What makes this study unique is its attention to student experiences and real classroom dynamics. By combining observations, interviews, and analysis of students' writing and feedback, this research surfaces not just changes in writing accuracy or scores but also learner motivations, digital literacy differences, and teacher roles in scaffolding AI use. The purpose of this research is to explore how *Lingua Aps* can be more than a correction tool, but it also can be a meaningful partner in the writing journey.

Ultimately, this paper explores two interrelated questions:

1. How does engaging with *Lingua Aps* affect secondary students' writing improvement, motivation, and confidence?
2. What challenges arise from integrating AI tools in classroom settings, such as varying digital literacy levels and curriculum fit, and how can educators address them?

By weaving student voices and practical classroom insights, this study aims to offer grounded guidance on integrating AI into English writing instruction in diverse educational contexts.

Method

This study employed a qualitative case study design to deeply explore the implementation of *Lingua Aps* in a real classroom context. The research focused on 11th-grade students at a Science-Based Islamic Senior High School in Central Java, Indonesia. The primary objective was to investigate how students used *Lingua Aps* to improve their English writing skills, particularly in producing explanation texts, and to identify challenges they faced during the process.

The research was conducted over the course of one semester. Data were collected through classroom observations, semi-structured interviews with students and their English teacher, and documentation analysis of student texts and AI-generated feedback from the *Lingua Aps* system. A total of 30 students participated in the study, representing diverse levels of digital literacy and English writing proficiency.

The instruments used included an observation checklist, interview guides, and a data collection sheet to track revisions and scores generated by *Lingua Aps*. The classroom observations focused on how the application was integrated into writing activities, the interaction between teacher-student and student-tool, and students' responses to feedback.

For data analysis, thematic analysis was used to identify recurring patterns and insights across interviews, observations, and document reviews. Student responses were transcribed and coded manually to extract themes related to motivation, confidence, perceived usefulness of the

app, and areas of difficulty. Scores provided by *Lingua Aps* were compared over time to track individual progress.

The research procedure followed these stages:

1. Initial orientation and training for students on how to use *Lingua Aps*.
2. Integration of the tool into weekly writing assignments.
3. Ongoing classroom observations and monitoring of AI feedback cycles.
4. Mid-point and end-point interviews with selected students and the teacher.
5. Final analysis of all collected data to evaluate impact and challenges.

Ethical considerations such as informed consent, confidentiality, and voluntary participation were upheld throughout the study. This method aimed to present a nuanced understanding of how AI tools like *Lingua Aps* function within a specific educational and cultural setting.

Result and Discussion

The findings reveal several key themes related to the use of *Lingua Aps* in the classroom: enhanced motivation, writing improvement, and digital literacy challenges. First, students reported increased motivation to write because they could see immediate feedback from the app. Many felt that the feedback made them more aware of their writing mistakes and encouraged them to revise their texts. This sense of progress gave students a greater sense of control over their learning journey. For instance, a student mentioned, “When I see my score going up after editing, I feel more confident and want to keep writing.”

Second, the students' writing showed measurable improvement in areas such as grammar accuracy, vocabulary diversity, and sentence coherence. The scoring system in *Lingua Aps* enabled students to track their performance across multiple drafts. This immediate feedback loop allowed them to self-correct and better understand language structures. Observation notes indicated a shift in student behavior from passive reliance on teachers to proactive engagement with writing tasks.

However, the study also uncovered a significant challenge related to digital literacy. Not all students were equally proficient in using the app’s features. Some struggled with interpreting the feedback, especially when it was abstract or overly technical. Additionally, internet connectivity issues occasionally interrupted the learning process, highlighting the importance of infrastructure in digital learning initiatives.

From the teacher's perspective, *Lingua Aps* served as a useful assistant, but not a replacement. Teachers still needed to guide students in understanding nuanced language use and ensuring that the AI feedback aligned with curriculum goals. This balance between automation and human instruction was critical.

Compared to earlier studies conducted in university or Western contexts, this study provides evidence that AI tools can be adapted successfully in Indonesian high schools with specific religious and scientific orientations. It highlights the need for culturally responsive and pedagogically sound integration strategies.

In conclusion, while *Lingua Aps* offers promising support in improving English writing, it is most effective when used as a complement to teacher instruction and embedded within a supportive learning environment. The insights gained from this study emphasize the importance of contextual understanding and the human dimension in technology-enhanced language learning.

The findings of this study reveal three main themes: enhanced writing motivation**,** improvement in writing accuracy**,** and challenges in digital literacy when using Lingua Aps in the classroom.

1. Increased Motivation and Confidence

The integration of *Lingua Aps* significantly boosted students' motivation and confidence in English writing. Students consistently reported feeling more encouraged to write due to the immediate and personalized feedback provided by the app. Seeing their scores improve after revisions gave them a sense of achievement and ownership of their learning process.

One student stated, *"When I see my score going up after editing, I feel more confident and want to keep writing."* This emotional engagement contributed to a more persistent and enthusiastic approach to writing tasks. Rather than perceiving writing as a one-time requirement, students began to view it as a process of reflection, revision, and growth.

These findings align with Li & Zou (2022), who found that AI-driven feedback in secondary education significantly increases learner autonomy and writing self-efficacy. Lingua Aps acted not just as a correction tool, but as a motivator that helped students develop self-regulated learning behaviors.

2. Improvement in Writing Quality

Across the semester, students demonstrated progress in **grammar accuracy**, **vocabulary diversity**, and **sentence coherence**. Table 1 illustrates the comparative scores from three writing drafts evaluated by Lingua Aps.

Table 1. Average Writing Scores Across Three Drafts (N = 30)

Writing Criteria	**Draft 1**	**Draft 2**	**Draft 3**	**% Improvement**
Grammar Accuracy	62.3	70.5	78.2	+25.5%
Vocabulary Usage	65.1	72.0	76.9	+18.1%
Sentence Coherence	60.0	67.4	74.8	+24.7%
Overall Score	62.5	70.0	76.6	+22.6%

These improvements validate findings by Arslan & Sadeghi (2023), who emphasized the benefits of iterative AI feedback in enhancing cohesion and lexical richness in EFL contexts. Students in this study not only corrected surface-level mistakes but also gradually internalized structural elements of academic writing. Moreover, classroom observations indicated a shift in student behavior from passive dependence on teacher feedback to active self-editing and initiative in drafting. This transition suggests that AI tools, when used consistently, can cultivate deeper language awareness and learner independence.

3. Digital Literacy and Infrastructure Barriers

Despite the positive outcomes, the study also revealed several challenges, particularly concerning digital literacy and technical infrastructure. Not all students were equally adept at interpreting the feedback provided by Lingua Aps. Some struggled to understand linguistic terms or abstract feedback such as *"tense error"* or *"incoherent argument."*

One student expressed, *"I don't understand what 'tense error' means,"* highlighting the gap between automated language and students' comprehension levels. This underscores the need for teacher support to explain AI-generated feedback in accessible ways.

Additionally, intermittent internet connectivity posed obstacles to the seamless use of the app. Uploading drafts and receiving feedback were sometimes delayed, disrupting the learning flow. These findings echo Etemadfar et al. (2021), who emphasized that successful AI integration in education depends on both digital readiness and infrastructure reliability.

Addressing these barriers requires not only technological solutions but also pedagogical scaffolding and digital literacy training to ensure all learners can benefit equally from AI-assisted tools.

4. Teacher's Role in Mediation

While Lingua Aps provided formative feedback and automated scoring, the role of the teacher remained central. Teachers were crucial in interpreting the feedback, explaining nuanced language issues, and aligning the tool's output with the curriculum objectives.

Teachers in this study acted as mediators between the technology and the students, ensuring that AI feedback did not remain superficial or misunderstood. This perspective aligns with Meccawy et al. (2020), who argue that human intervention enhances the pedagogical value of AI tools, especially in areas requiring cultural or contextual interpretation.

Rather than being replaced, teachers' roles evolved to focus on mentoring, guiding revision strategies, and fostering critical engagement with feedback. This human-AI collaboration created a more dynamic and supportive writing environment.

Conclusion

This study concludes that the integration of *Lingua Aps* in an Indonesian Science-Based Islamic Senior High School supports students' English writing development, particularly in the genre of explanation texts. The real-time feedback and automated scoring system improved learners' motivation, accuracy, and independence in revising their work. The tool also contributed to enhanced student engagement and greater confidence in the writing process. Nevertheless, the research identified challenges such as digital literacy gaps and technical limitations, which require thoughtful guidance from educators and better infrastructure. *Lingua Aps* should be positioned not as a replacement for teacher feedback but as a supplementary tool that empowers students to become more autonomous writers.

The findings of this study have significant implications for integrating AI-based tools in diverse educational settings. It suggests that successful implementation relies on combining technological innovation with human-centered teaching strategies. Future research is recommended to explore longitudinal effects, comparative studies with other writing platforms, and professional development programs for teachers using AI writing assistants.

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