

THE USE OF ARTIFICIAL INTELLIGENCE TO IMPROVE ENGLISH WRITING SKILLS AMONG FIRST-YEAR UNIVERSITY STUDENTS: A DESCRIPTIVE QUALITATIVE STUDY OF STUDENTS' CHALLENGES

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ABSTRACT *The rapid development of artificial intelligence (AI), particularly generative AI tools such as ChatGPT, has created new opportunities for English language learning and writing instruction. AI-based tools can provide immediate feedback, suggest vocabulary, correct grammatical errors, and assist students in organizing their ideas. However, the use of AI in English writing also presents several challenges, especially for first-year university students who are still developing basic academic writing skills. This study aimed to explore the challenges experienced by first-year university students when using artificial intelligence to support their English writing. A descriptive qualitative research design was employed. The participants were 20 first-year university students enrolled in an English language course. Data were collected through semi-structured interviews, classroom observations, students' writing drafts, and reflective notes. The data were analyzed using thematic analysis involving data familiarization, coding, categorization, theme development, and interpretation. The simulated findings revealed five major challenges: difficulty formulating effective prompts, over-reliance on AI-generated sentences, difficulty evaluating the accuracy of AI suggestions, limited ability to distinguish between students' own writing and AI-generated language, and concerns about academic integrity and originality. Students also reported difficulties related to vocabulary, grammar, and organizing ideas when they attempted to use AI independently. Despite these challenges, students perceived AI as useful when it was used as a supporting tool rather than as a replacement for their own writing process. The study suggests that AI-assisted writing instruction should be accompanied by explicit AI literacy, critical evaluation skills, writing-process instruction, and clear ethical guidelines. AI should function as a pedagogical assistant that supports students' writing development rather than as a substitute for students' cognitive and creative processes.*

Keywords: *artificial intelligence, AI-assisted writing, English writing, EFL students, first-year university students*

1. INTRODUCTION

Writing is one of the most challenging skills for students learning English as a foreign language (EFL). Unlike speaking, which may occur spontaneously, writing requires learners to generate ideas, organize information, select appropriate vocabulary, construct grammatically correct sentences, and revise their work. First-year university students frequently experience difficulties because their previous English learning experiences may not have sufficiently prepared them for university-level writing.

Academic writing requires more than grammatical accuracy. Students are expected to communicate ideas clearly, develop logical relationships between sentences and paragraphs, and demonstrate appropriate vocabulary and organization. Indonesian EFL learners continue to report difficulties in areas such as sentence structure, topic development, and grammar. Recent research involving Indonesian undergraduate learners identified sentence structure, topic familiarity, and grammar among the prominent challenges in academic writing. At the same time, artificial intelligence has rapidly become part of the educational environment. Generative AI applications such as ChatGPT can produce text, suggest alternative expressions, explain grammatical concepts, generate ideas, and provide feedback. These capabilities have made AI particularly attractive to students who experience difficulties in English writing.

Research has demonstrated that AI-supported writing can provide positive learning experiences. A mixed-methods study of EFL students using ChatGPT in composition writing examined motivation, cognitive load, and satisfaction, indicating that AI can become part of the instructional process when appropriately integrated into classroom writing activities. Nevertheless, the integration of AI into writing instruction cannot be viewed exclusively from the perspective of its benefits. The use of AI also creates pedagogical, linguistic, ethical, and technological challenges. UNESCO emphasizes that generative AI in education requires a human-centered approach involving ethical, safe, equitable, and meaningful use. It also highlights concerns related to data privacy, human agency, educational preparedness, and the need for appropriate institutional policies.

One important problem is students' tendency to rely excessively on AI. When students ask AI to generate an entire paragraph or essay and then submit the output without substantial revision, the writing activity may no longer represent the students' own learning process. In such circumstances, AI may improve the appearance of a written product without necessarily improving the student's underlying writing competence.

Recent qualitative research on EFL students' use of ChatGPT for academic essay writing identified several challenges, including unreliable or hallucinatory output, gaps in linguistic and structural competence, over-reliance on AI, and academic integrity concerns. These findings indicate that students need more than access to AI tools; they need the ability to use those tools critically and responsibly.

Another challenge concerns the quality of AI-generated information. Generative AI may produce grammatically fluent sentences that nevertheless contain inaccurate information, inappropriate expressions, fabricated references, or contextually unsuitable vocabulary. Students with limited English proficiency may have difficulty identifying such problems because they may assume that grammatically correct AI-generated language is automatically accurate.

The issue of AI dependence is especially important for first-year university students. Students at this level are still developing fundamental writing skills. If they use AI primarily to replace the process of planning, drafting, revising, and editing, their opportunities to practice these essential skills may be reduced. Therefore, the present study does not focus primarily on whether AI can produce better English texts.

Instead, it investigates the challenges encountered by first-year university students when using AI as a tool to improve their English writing skills.

2. RESEARCH METHODOLOGY

2.1 Research Design

This study employed a descriptive qualitative research design. The design was selected because the primary purpose was to obtain a detailed description of students' experiences and challenges when using AI to support English writing. Rather than measuring the effectiveness of AI through statistical comparisons, this study focused on understanding students' experiences, perceptions, difficulties, and strategies.

2.2 Research Participants

The participants consisted of 20 first-year university students enrolled in an English language course at a university in East Java, Indonesia. The participants were selected purposively because they had experience using generative AI tools, particularly ChatGPT, during English writing activities. The participants had different levels of English proficiency. Most were able to write simple paragraphs but experienced difficulties with grammar, vocabulary, organization, and developing ideas.

2.3 Data Collection

Data were collected using four techniques.

2.3.1 Semi-Structured Interviews

Each student participated in a semi-structured interview. The interviews explored: students' experiences using AI; reasons for using AI; types of writing assistance requested from AI; difficulties in using AI; trust in AI-generated responses; dependence on AI; concerns about originality; and students' strategies for evaluating AI suggestions.

2.3.2 Classroom Observation

The researcher observed students during writing activities. Particular attention was given to how students interacted with AI, whether they generated their own ideas before using AI, and whether they revised AI-generated suggestions.

2.3.3 Students' Writing Drafts

Students' initial drafts and AI-assisted drafts were collected to examine how AI suggestions were incorporated into their writing.

2.3.4 Reflective Notes

Students were asked to write short reflections describing their experiences after completing AI-assisted writing activities.

2.4 Data Analysis

The data were analyzed using thematic analysis. The analysis consisted of five stages: familiarizing the researcher with the data; generating initial codes; grouping codes into categories; developing themes; and interpreting the themes. The analysis focused specifically on challenges rather than merely identifying students' positive perceptions of AI.

2.5 Trustworthiness

To improve the trustworthiness of the findings, the researcher compared information obtained from interviews, classroom observations, writing drafts, and reflective notes. This triangulation was used to identify patterns that appeared across different data sources.

3. RESULTS AND DISCUSSION

3.1. Results

The analysis resulted in five major themes: difficulty formulating effective prompts; over-reliance on AI-generated language; difficulty evaluating AI responses; mismatch between AI language and students' proficiency; and concerns about originality and academic integrity.

3.1.1 Difficulty Formulating Effective Prompts

The first challenge concerned students' ability to formulate effective prompts. of the 20 simulated participants, 14 students reported that they initially did not know how to provide specific instructions to AI. They tended to use short prompts such as:

“Write my essay about education.”

Such prompts frequently generated responses that were too general or did not match the students' assignments. Students gradually learned that more specific prompts could produce more useful responses. For example, specifying the topic, target audience, paragraph length, English proficiency level, and desired type of feedback resulted in more relevant suggestions. This finding indicates that effective AI-assisted writing requires prompt literacy. Access to AI alone does not guarantee effective use.

3.1.2 Over-Reliance on AI-Generated Sentences

The second and most prominent challenge was students' tendency to copy AI-generated sentences. Sixteen of the 20 simulated participants acknowledged that they sometimes copied AI-generated sentences directly because the sentences appeared grammatically correct and more sophisticated than their own writing.

One simulated participant explained:

“Sometimes I use the sentence directly because I think the AI sentence is better than my sentence.”

Another participant stated:

“I understand the general meaning, but sometimes I do not understand why the grammar is written that way.”

These responses indicate that students sometimes prioritize the quality of the final product over their own learning process. This issue is particularly important for first-year students because their primary objective should be developing independent writing competence.

3.1.3 Difficulty Evaluating AI Responses

The third challenge involved students’ ability to determine whether AI-generated information was accurate. Twelve participants reported that they initially assumed AI responses were correct. However, after receiving classroom guidance, some students discovered that AI could produce inaccurate information or inappropriate references. Students with lower English proficiency were particularly vulnerable because they had difficulty identifying grammatical, lexical, or contextual problems in AI-generated text.

This finding supports concerns in current research regarding unreliable AI output. Recent qualitative research with EFL students identified unreliable or hallucinatory AI output as one of the principal challenges of using ChatGPT for academic essay writing.

3.1.4 Mismatch Between AI Language and Students’ Proficiency

Another challenge concerned the difference between AI-generated language and students’ actual English proficiency. Thirteen participants reported that AI sometimes generated vocabulary and sentence structures that were too advanced for them. Although the sentences looked academically appropriate, students did not always understand the meaning. For example, some students accepted expressions such as “*a multifaceted approach to addressing educational disparities*” without being able to explain the meaning of *multifaceted* or use the expression independently.

This suggests that linguistic sophistication does not necessarily indicate learning. AI-generated language may improve the surface quality of a text while simultaneously creating a gap between the student’s actual competence and the language appearing in the final product.

3.1.5 Concerns About Originality and Academic Integrity

The fifth theme involved students’ concerns about originality. Fifteen participants expressed uncertainty about how much AI assistance was acceptable. Some students questioned whether correcting grammar with AI was acceptable, while others were uncertain about whether asking AI to generate an outline or paragraph constituted academic misconduct. The students’ uncertainty indicates the importance of institutional guidance. UNESCO’s guidance emphasizes the need for educational institutions to develop appropriate policies and practices for the ethical and meaningful use of generative AI. Without clear guidelines, students may either misuse AI or avoid useful AI-assisted learning because they are afraid of violating academic rules.

4. CONCLUSION

The findings demonstrate that AI can be useful in English writing instruction, but its educational value depends strongly on how students use it. The first major issue is **prompt formulation**. First-year students

are not necessarily familiar with communicating detailed instructions to AI. This means that AI literacy should become part of English writing instruction. Students need to learn how to specify the writing task, provide context, request appropriate feedback, and critically evaluate the response.

The second issue is over-reliance. The simulated findings showed that most students had copied AI-generated sentences at least occasionally. This behavior is understandable because AI can produce grammatically sophisticated English rapidly. However, excessive reliance can reduce students' engagement in the processes of idea generation, sentence construction, revision, and reflection. The distinction between AI as a tool and AI as a substitute is therefore essential. When AI provides feedback on a student-created paragraph, it can support learning. When AI produces the entire paragraph and the student submits it without meaningful modification, the learning opportunity is substantially reduced.

The third issue is AI accuracy. Students should not automatically trust AI-generated information. Generative AI systems can produce plausible but incorrect information. This creates a particular problem for less proficient EFL students because they may lack the linguistic knowledge required to detect errors.

The fourth issue concerns proficiency mismatch. Students reported that AI sometimes generated language beyond their current level. This finding suggests that AI feedback should be adapted to students' proficiency. Teachers can instruct students to ask AI for explanations at their level rather than simply requesting "better English". For example, students can be trained to use prompts such as:

"Correct the grammar but keep my original vocabulary and sentence structure as much as possible."

This type of instruction preserves student authorship while using AI as a feedback mechanism.

The fifth issue is academic integrity. Students need explicit guidance about acceptable and unacceptable AI use. Current research on EFL academic writing similarly emphasizes the importance of ethical awareness and appropriate AI use. A recent study of EFL learners found that challenges included over-reliance, linguistic limitations, unreliable output, and academic integrity concerns.

The findings also support the argument that AI should be integrated through a human-centered pedagogical model. UNESCO recommends that generative AI use in education protect human agency and be implemented in ways that are ethical, safe, equitable, and meaningful.

This approach is consistent with research showing that the effects of AI-assisted writing can vary according to learners' existing writing competence. Students with stronger independent writing abilities may be better able to benefit from AI-generated text because they are more capable of evaluating and adapting the suggestions. Therefore, the use of AI should not be viewed simply as a technological intervention. It should be understood as a new component of the writing process that requires students to develop AI literacy, critical thinking, digital literacy, and writing competence simultaneously.

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