

**When EFL Students Integrated AI Technology into Their Academic Writing: What Should the Lecturers do to identify, prevent and assess students' skills?**

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**ABSTRAK**

This study aims to explore the methodologies employed by lecturers in identifying, preventing, and evaluating students' academic writing when integrating AI into the process. A single case study approach was used, selecting five English as a Foreign Language (EFL) lecturers from various higher education institutions across Indonesia as respondents. The selection criteria emphasized their expertise in academic writing and AI, demonstrated through their contributions to Scopus-indexed journals, as well as their comprehensive understanding of AI applications. Data collection was conducted through semi-structured interviews, both online and in person. The collected data were analyzed using descriptive principles, including data reduction, data display, and conclusion or verification. The findings revealed a range of methodologies employed by educators. Lecturers primarily focused on writing style, argument complexity, and originality to identify AI's influence. Prevention strategies emphasized enhancing foundational writing skills, encouraging independent research, and promoting academic integrity. For evaluation, lecturers balanced content quality, structural aspects, creativity, and critical thinking, while ensuring academic integrity through plagiarism detection tools. These findings provide valuable insights into the evolving landscape of educational practices and underscore the importance of adapting methodologies to accommodate technological advancements.

**Key Words: Artificial Intelligence (AI), Academic Writing, Strategies to Identify, Prevent Dependency, and Assessment.**

**INTRODUCTION**

Artificial Intelligence (AI) technology has significantly transformed the educational landscape, offering a wide range of tools that help students efficiently complete academic tasks (Mohammadkarimi, 2023). In the realm of academic writing, AI provides numerous benefits, including grammar checks and plagiarism detection, ensuring that students adhere to academic writing conventions while maintaining the authenticity of their work. Additionally, AI assists in research by aiding in information retrieval, data analysis, and generating necessary references (Darwin et al., 2023). Through providing relevant content recommendations, AI not only expands students' insights but also helps structure their writing in a more systematic way. The increased productivity resulting from AI usage is also evident in the efficient completion of academic tasks. With AI's rapid corrections and instant feedback, students can improve the quality of their writing, creating a more effective and efficient learning environment.

Moreover, several recent studies have revealed positive outcomes related to the use of AI in academic writing. Söğüt (2024) found that AI can help alleviate writer's block, offer language support, and provide personalized, real-time feedback. Ginting et al. (2023)

confirmed that AI use in academic writing enhances motivation, effectiveness, and the identification of strengths and weaknesses, ultimately leading to the production of high-quality written work. Similarly, Syahnaz and Fithriani (2023) discovered that AI tools, such as online paraphrasing tools, help EFL students overcome challenges in academic writing and improve their writing productivity. These findings suggest that the integration of AI-based technologies in language classrooms offers significant benefits for students. Abdalgane and Othman (2023) further emphasized that AI use in English as a Foreign Language (EFL) settings not only facilitates language learning but also ensures that both teachers and students remain current with the latest technological developments. Their research suggests that AI-based tools hold great potential to improve teaching and learning. In a similar study, Sumakul et al. (2022) explored teachers' perceptions of AI use in EFL classrooms and found that teachers held positive attitudes towards AI, believing it enhances the effectiveness of teaching and learning.

Together, these studies clearly demonstrate that AI technology in academic writing within the EFL context provides several advantages. AI assists in overcoming writing barriers, offers language support, boosts motivation and effectiveness, and helps produce high-quality written work. Its integration into educational practices brings notable benefits, not only for students but also in improving teaching efficacy and facilitating the English language learning process.

However, despite the many advantages, some studies also highlight the potential negative impacts of AI in academic writing. For example, Haghighi et al. (2023) found that over-reliance on AI could impair students' ability to fully understand the material they are studying. Additionally, there is a risk of increased plagiarism, as students may be tempted to copy information without proper attribution, particularly if they do not fully understand the workings of the AI tools they are using. Excessive use of AI could also diminish students' ability to write independently and form original arguments, as they may rely too heavily on technological assistance. This dependency can result in a superficial understanding of the material, as students may focus more on composing texts with AI help rather than engaging deeply with the content. Smith and Johnson (2019) observed that excessive use of AI led to a decline in critical thinking and originality in students' writing. Likewise, Lee (2018) argued that AI could hinder students' ability to develop their own writing style and voice. These studies provide empirical evidence supporting the claim that AI use in academic writing may have negative consequences, such as reduced comprehension, increased plagiarism, and weakened writing skills.

Although the studies mentioned above reveal both positive and negative aspects of AI usage, it is clear that AI technology remains popular among students for completing academic writing tasks, even in light of its potential drawbacks. Therefore, it is essential for educators to play a proactive role in minimizing these negative effects. Educators must implement specific strategies to reduce students' dependence on AI and encourage them to rely on their own abilities. This research aims to gather detailed information on how educators can prevent students from excessively depending on AI technology in academic writing and, instead, foster their independent writing skills. To address this issue, the study will focus on answering the following research questions:

1. How do EFL lecturers identify students' writing outcomes resulting from the use of AI?
2. How do EFL lecturers discourage students from consistently relying on AI technology in academic writing?
3. How do EFL lecturers assess the academic writing outcomes of students whose writing processes involve AI?

## **METHOD**

### ***Time and Place***

This study was conducted in 2024 across various higher education institutions in Indonesia, involving five English as a Foreign Language (EFL) lecturers as respondents. The selection of respondents was based on three main criteria: first, expertise in academic writing and the application of Artificial Intelligence (AI) in education; second, their contributions to Scopus-indexed journals, demonstrating credibility and expertise in the academic field; and third, a comprehensive understanding of AI applications in the academic writing process.

These criteria were chosen to ensure that the respondents possessed relevant competence and experience, allowing for the collection of data that provides in-depth insights into the methodologies employed in identifying, preventing, and evaluating the use of AI in academic writing..

### **Research Instrument**

In this study, the primary research instrument used for data collection was semi-structured interviews. The semi-structured format allowed for a flexible and in-depth exploration of the lecturers' methodologies in identifying, preventing, and evaluating students' academic writing, particularly in relation to the integration of Artificial Intelligence (AI). The interviews were conducted both online and in-person to accommodate the lecturers' availability and preferences.

### **Research Design**

This research is a qualitative study that applies a single case study approach. The single case study is utilized by the researchers with the aim of ensuring that the gathered information can effectively address each research question that is the focus of this study. In conducting this case study, the researchers adopts the qualitative study framework introduced by Miles & Huberman (1994), both in data collection and analysis.

### **Research Procedure**

The research procedure was designed to explore the methodologies used by lecturers in identifying, preventing, and evaluating students' academic writing, especially in the context of integrating Artificial Intelligence (AI). The first step involved selecting participants, specifically five English as a Foreign Language (EFL) lecturers from different higher education institutions across Indonesia. These lecturers were selected based on their expertise in both academic writing and AI, as well as their contributions to Scopus-indexed journals, ensuring that they had the necessary qualifications and experience for the study. A semi-structured interview protocol was then developed, which allowed flexibility to explore in-depth the lecturers' approaches to identifying the influence of AI, preventing overreliance on it, and evaluating students' writing. The data collection was done through semi-structured interviews, conducted both online and in-person, depending on the availability of the lecturers. After the data collection, the responses were analyzed using descriptive analysis techniques, focusing on extracting key themes and insights.

### **Data Analysis**

Following data collection, the analysis focused on identifying key themes and patterns from the interview transcripts using descriptive data analysis methods. The first step involved data reduction, where irrelevant or less significant information was removed, and only the most relevant data were kept. The next step was data display, where the reduced data were organized into thematic categories to identify recurring patterns related to AI's influence, prevention strategies, and evaluation methods. Finally, conclusions were drawn based on these themes, and peer checking was used to verify the accuracy and reliability of the findings. This process ensured that the conclusions accurately represented the lecturers' perspectives and provided useful insights into the role of AI in academic writing.

## **RESULTS AND DISCUSSION**

*Rq 1: How do EFL lecturers identify students' academic writing resulting from the use of AI?*

The findings from the interviews with five EFL lecturers indicate that the use of AI in students' writing is a growing concern, and lecturers are employing various strategies to detect potential AI involvement. The focus areas mentioned—such as writing style, argument complexity, originality, and student understanding align with a broader academic discourse on the challenges posed by AI in education. These approaches are not only crucial for identifying AI-assisted writing but also for maintaining academic integrity as AI tools become more integrated into students' learning processes.

One of the key indicators of AI involvement is a noticeable change in writing style, including enhanced vocabulary, more structured and consistent sentence construction, and the absence of common human errors. These observations align with findings from Mohammadkarimi (2023), who noted that AI-generated texts tend to exhibit a level of consistency and sophistication that is uncommon in student writing, particularly for those still developing their language skills. Moreover, AI algorithms are designed to produce polished, grammatically correct text, which can be easily distinguished from the more varied and error-prone style of human writing (Perkins, M., 2023).

Additionally, lecturers also focused on the quality of the arguments presented in students' work. AI-generated texts often display logically structured arguments that are clear and precise, but these arguments can lack depth, personal insight, or critical analysis. This characteristic has been highlighted by Wu & Yu (2024), who emphasize that while AI tools may produce well-organized arguments, they often fail to capture the nuanced understanding and complexity expected in higher education writing. As Darwin et al. (2023) point out, AI-generated content may also present arguments in a manner that appears too mechanical or overly simplistic, reflecting a lack of genuine intellectual engagement with the material.

Furthermore, originality and authenticity are significant concerns for lecturers. They focus on determining whether the work is genuinely the student's own or an AI-assisted reproduction, which is becoming an increasingly pressing issue in academic integrity. AI tools often generate content by pulling information from various sources, raising concerns about unacknowledged use of published materials (Marzuki et al., 2023). As Nurseha (2023) notes, detecting AI-generated content can be particularly challenging because these tools frequently reword or synthesize information in a way that appears original, making it difficult to trace the material back to its original source without the use of plagiarism detection tools.

In addition to plagiarism detection tools, direct discussions with students about their writing process play a crucial role in identifying AI involvement. Many lecturers in the study use these tools to confirm whether parts of student work have been copied from existing sources, which is a common issue with AI-generated texts. Perkins (2023) also stresses the importance of engaging in direct conversations with students, as a student's inability to explain their arguments or defend their writing choices may indicate AI assistance.

Ultimately, the lecturers' use of a combination of approaches—examining writing style, assessing the quality of arguments, utilizing plagiarism detection tools, and engaging in direct student interactions aligns with broader recommendations for combating academic dishonesty in the age of AI. These multi-faceted approaches are essential for effectively detecting AI-assisted writing, as relying on a single method may not provide sufficient evidence to confirm AI involvement (Mohammadkarimi, 2023; Darwin et al., 2023). This comprehensive approach also emphasizes the importance of assessing students' understanding of their work, which is a critical factor in distinguishing between original and AI-assisted writing.

In conclusion, the findings suggest that maintaining academic integrity in the context of AI use requires a multifaceted approach that combines traditional methods of detection with more contemporary strategies, such as discussions with students and the use of AI-specific detection tools. As AI continues to evolve, lecturers will need to remain vigilant and adaptive in their efforts to ensure that students' work accurately reflects their own intellectual engagement and understanding. These findings are consistent with the research and recommendations from Mohammadkarimi (2023), Perkins (2023), Nurseha (2023), Wu & Yu (2024), Darwin et al. (2023), and Marzuki et al. (2023).

*Rq 2: How can EFL lecturers discourage students from constantly depending on AI technology in academic writing?*

The interviews with five EFL lecturers revealed several strategies to prevent students from over-relying on Artificial Intelligence (AI) in academic writing. Key approaches include focusing on foundational writing skills, encouraging independent research, and promoting academic integrity. Lecturers stressed the importance of teaching essay structure, argument organization, and sentence construction to boost students' confidence in their own writing abilities. As Mohammadkarimi (2023) suggests, fostering a solid understanding of basic writing skills serves as a crucial foundation that helps students feel more capable of

completing assignments independently, without resorting to AI. Independent research and critical thinking were emphasized, helping students develop complex arguments and deepen their understanding of the material. This aligns with Perkins, M (2023), who advocates for students to engage in manual research processes, such as literature analysis and formulation of research questions, which strengthens their intellectual independence. Ethics education was also a central theme, with lecturers advocating for training in research ethics and academic honesty to prevent AI misuse. As Wu & Yu (2024) point out, the promotion of academic integrity, through clear guidelines on responsible source usage, is essential in countering AI's potential to undermine original thought. Active supervision and personalized guidance were seen as vital, with one-on-one meetings and feedback sessions helping students stay on track. This strategy is supported by Nurseha (2023), who highlights the role of continuous guidance and reflection in ensuring that students develop a strong understanding of their work. While the use of AI as a tool for grammar checking or idea structuring was acknowledged, it was emphasized that AI should not replace independent thought or creativity. This is consistent with the view of Darwin et al. (2023), who stress the importance of students recognizing AI as a supplement to, rather than a replacement for, their own cognitive processes. Additionally, group discussions were promoted to foster collaborative learning and critical thinking, and creativity in writing was encouraged to produce original work. Marzuki et al. (2023) similarly emphasize that collaborative learning and fostering creativity are key to helping students reduce their reliance on AI and produce authentic, original work. Overall, the strategies align with the goal of ensuring students engage meaningfully with the writing process, develop essential skills, and maintain academic integrity while using AI responsibly.

*Rq 3: How do EFL lecturers assess the academic writing of students whose writing process involves AI?*

The findings from the interviews with five EFL lecturers align with various strategies discussed in the existing literature regarding the integration of AI in academic writing. One of the central themes is the importance of understanding how students use AI throughout the writing process. This is consistent with Mohammadkarimi (2023), who emphasizes the need for educators to distinguish between different roles AI can play, from grammar checking to content generation. Similarly, Sharadgah & Sa'di (2022) highlight the necessity of educators understanding AI's involvement to maintain control over its impact on students' independence and originality. The lecturers also prioritized content quality in their assessments, focusing on the accuracy, depth, and relevance of the material, which reflects the views of Sumakul et al. (2022), who argue that, even with AI assistance, the focus must remain on the intellectual engagement of the student. Darwin et al. (2023) further support this by stressing that critical thinking and the depth of students' arguments should be the primary evaluative criteria. In terms of structural and linguistic evaluation, the lecturers' focus on grammar, coherence, and sentence structure is in line with Baskara (2023), who notes that AI can help with these technical aspects but should not replace students' creativity and originality. Söğüt (2023) also underscores the balance between utilizing AI to enhance linguistic quality while ensuring students' own intellectual contributions are clear. Additionally, the lecturers emphasized the importance of plagiarism detection tools to verify the authenticity of students' work, aligning with Haghighi et al. (2023) and Abdalgane & Othman (2023), who highlight the ethical risks of AI in academic writing, particularly in terms of potential plagiarism or uncredited content generation. The lecturers also stressed the need for students to demonstrate creativity and critical thinking, even when using AI. This reflects the ideas of Smith and Johnson (2019), who argue that AI should augment, not replace, human creativity, and Lee (2018), who highlights the importance of students engaging critically with AI-generated content. Lastly, the lecturers' approach to providing constructive feedback and engaging in joint evaluations with students echoes Söğüt (2023) and Sharadgah & Sa'di (2022), who emphasize the value of dialogue and ongoing feedback to ensure ethical and effective AI use. Overall, the lecturers' strategies align with the broader consensus in the literature, advocating for a balanced and multifaceted approach to assessing AI-influenced academic writing, which focuses on maintaining academic integrity, fostering critical thinking, and encouraging originality.

## CONCLUSION

The findings from the interviews with five EFL lecturers provide insights into how AI is integrated into academic writing and the strategies used to identify its influence on students' work. Lecturers commonly focused on changes in writing style, the complexity of arguments, and the originality of the content. AI-generated writing often features enhanced vocabulary, structured sentences, and logical but superficial arguments. Plagiarism detection tools and discussions with students about their writing processes also helped assess the authenticity of the work. These approaches ensured that AI's involvement did not compromise the integrity of students' academic writing.

In order to prevent students from over-relying on AI, the lecturers emphasized strategies such as strengthening foundational writing skills, encouraging independent research, and promoting academic integrity. By focusing on teaching essential writing techniques, like essay structure and argument organization, lecturers aimed to build students' confidence in their ability to write independently. Active supervision and personalized guidance were also key in ensuring students developed critical thinking and research skills. Additionally, while AI tools were acknowledged as helpful for tasks like grammar checking and structuring ideas, the lecturers emphasized the importance of maintaining originality and creativity in students' work.

The lecturers also highlighted the importance of evaluating academic writing produced with AI involvement, with a focus on content quality, structure, and originality. They emphasized the need to understand how AI was used in the writing process, whether for grammar checks or content generation, to assess the depth of students' engagement with the material. Plagiarism detection and the promotion of creativity were integral to ensuring the authenticity of student work. This comprehensive approach aligns with existing literature on AI in academic writing, which advocates for a balanced evaluation that encourages intellectual independence, critical thinking, and originality while recognizing the potential benefits of AI tools.

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