

Generative AI for Academic Writing among Indonesian History Education Lecturers

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Abstract: *Since the Generative artificial intelligence (GenAI) is potentially reshaping academic writing and publication, this study aims to investigate how Indonesian history education lecturers adopt GenAI across the workflow of writing to publication. It also aims to identify the perceived benefits, risks, and supports needed for responsible use. To obtain these purposes, a qualitative study involved 50 lecturers from Sumatra, Java, Kalimantan, Sulawesi, and Bali was conducted. Data were gathered through questionnaires, semi structured interviews, and focus group discussions. Thematic analysis, supported by triangulation across instruments, was used to identify patterns of use and challenge. The most frequently used tools were ChatGPT, Grammarly, Google Translate, Gemini, QuillBot, and Turnitin. Adoption was driven by simplicity and efficiency. Indonesian history lecturers reported using GenAI for (a) idea generation and research design, (b) literature synthesis, (c) data analysis, (d) content editing and proofreading, and (e) preparation for publication and dissemination. Four recurring challenges tempered these benefits: safeguarding academic integrity, uneven digital literacy, over reliance on automated outputs, and concerns about data validity and accuracy. Overall, participants framed GenAI as a productivity aid rather than a replacement for scholarly judgment. In conclusion, these outcomes contribute to the wider discussion on technology in higher education by providing educators and policymakers with information about how to maintain a balance between academic rigor and innovation.*

Key Words: *Generative AI, Education Lecturer, Academic Writing*

Introduction

Learning, assessment, classroom management, and publication are all being transformed by the growing adoption of Generative Artificial Intelligence (GenAI) in the education field. However, there are also urgent problems with the use of GenAI, especially when it comes to the authorship and reliability of educational results. Using GenAI in education has a number of goals, including personalizing instruction, analyzing data to assess student performance, and creating platforms for adaptive learning (Celik, 2023). Additionally, by using educational chatbots and virtual tutors to boost academic productivity, GenAI integration in education can produce interactive learning experiences (Kim & Kim, 2022). Therefore, it is anticipated that the application of GenAI in education will be beneficial in enhancing the effectiveness, relevance, and quality of education in order to equip future generations to meet the increasingly complicated needs of the modern world.

Teachers have been using a variety of GenAI technologies to assist students in meeting learning objectives by utilizing technological advancements in order to support the fourth *Asta Cita* of the Government of the Republic of Indonesia, which relates to strengthening

human resource development, science, technology, and education. On the application of GenAI in Indonesian education, however, opinions vary. While some studies demonstrate a great deal of enthusiasm for its use (Baha et al., 2023), (Marzuki et al., 2023), others raise concerns about its efficacy, implementation, and upholding of academic integrity among higher education users. According to some experts, when AI is seen to be involved in the writing process, trust in authors decreases (Liu et al., 2022). Furthermore, ethical validation is necessary for the use of GenAI in writing to avoid possible abuse in attempts to produce new scientific discoveries and train future professionals (Lund & Wang, 2023). Concerns over the possible displacement of human labor by technology are also raised by the incorporation of GenAI (Qadir, 2023). Thus, through integrating GenAI into academic use, social science teachers—which includes history educators—must be able to solve these issues.

The use of GenAI technology in academic writing has been the subject of several research in recent years. According to scientific studies, using GenAI-based tools can improve writing skills (Marzuki et al., 2023; Gayed, 2022). Due to the difficulties and benefits of this technological paradigm shift, several research evaluations have shown that integrating GenAI in an educational setting necessitates significant adaptation to instructional approaches (Cardon et al., 2023). Concurrently, other studies have investigated the use of GenAI technology to academic writing in order to improve contextualization and personalization in real-world learning environments (Hwang et al., 2023). Additionally, empirical research on the adoption of GenAI shows that users value the feedback it offers in the context of academic writing, which has led to the development of a technique to reliably and successfully differentiate GenAI-generated text for the purpose of maintaining academic integrity (Chang et al., 2021).

As researchers, this is helpful in helping lecturers choose and use the GenAI technology that best meets their needs. As a result, writing scientific articles is becoming more effective and of higher quality. It's also critical to comprehend the goals of using GenAI technology when creating research articles. This can help create and modify GenAI technology to meet certain requirements and goals in scientific writing. However, researching the primary difficulties experienced by history lecturers is also a crucial step in creating solutions to problems that could lower the output and caliber of scientific writing.

There are a number of reasons to investigate the many kinds of GenAI technologies that history lecturers can utilize to produce research papers that will be published. GenAI technology can speed up research and free up lecturers to concentrate on more in-depth analysis by helping them with data analysis, literature search, and even writing enhancement suggestions (Toar et al., 2022; Yang et al., 2021; Abdalgane & Othman, 2023). Second, the application of AI in research can lead to new developments (Morley et al., 2020; Burger et al., 2020; Adams & Chuah, 2022). Specifically, GenAI technology can assist instructors in identifying patterns or trends that they might overlook by hand, opening the door for more creative and pertinent study. Third, by assisting with the translation and interpretation of texts other than Indonesian, GenAI technology can also improve the accessibility of knowledge and information for history instructors (Lund & Wang, 2023; Alkaissi & McFarlane, 2023). This will enable lecturers to more efficiently access literature and research from a

variety of sources. Therefore, these three factors can help lecturers maximize their potential as researchers in order to achieve the increasingly high standards of professionalism in the academic world and produce research that has an impact.

The introduction section must contain (in sequence) a general background, a previous literature study (state-of-the-art) as a basis for the statement of scientific novelty of the article, a statement of scientific novelty of science, and a research problem or hypothesis. At the end of the introduction, the purpose of the article should be clearly written. In the scientific article format, it is not permissible to review the literature as in the research report, but it is manifested in the form of a previous study review (state-of-the-art) to demonstrate the scientific novelty of the article.

Method

This study is a case study using a qualitative approach to investigate how history lecturers describe the GenAI technology used in writing research articles for publication, looks at the goals of implementing GenAI technology in the process of writing research articles for publication, and investigates the different difficulties encountered when using GenAI technology when writing research articles for publication. This case study investigation was carried out in Indonesia, specifically in universities. Fifty history education instructors from various parts of Indonesia, including Sumatra, Java, Kalimantan, Sulawesi, and Bali, participated in this study.

In the present research, the researchers employed three tools: focus groups, interviews, and questionnaires. In the city of Bandar Lampung, both online and offline data collection methods were used. While some individuals engaged online, those who lived in the province of Lampung and its environs had their data collected offline. In order to invite participants for questionnaires, FGDs, and interviews, the research team rented a co-working space as a study support room. The purpose of the study questionnaire is to ascertain the goals of using GenAI technology in research article authoring. The survey was taken from earlier research (Marzuki et al., 2023; Alhalangy & Abdalgane, 2023). In the meantime, interviews were carried out to gather information on the different kinds of AI technology utilized and the primary obstacles encountered when applying AI technology when composing research articles for publication. Several studies (Toar et al., 2022; Deiniatur & Cahyono, 2024; Bin & Mandal, 2024) served as the basis for the compilation of the study questions. FGDs were carried out to obtain comprehensive understanding of the primary obstacles encountered when applying AI technology to research article authoring. Mahapatra's research is cited in the FGD implementation guidelines (Mahapatra, 2024). Prior to gathering research data, the research team obtained an ethical clearance from LPPM STKIP PGRI Bandar Lampung.

Results and Discussion

Based on the computation of the research instrument, nineteen respondents have a high level of familiarity with GenAI-based technologies, according to the questionnaire data. Twenty-four of the respondents had a moderate level of knowledge. In the meantime, 14 respondents don't know anything about GenAI technology. Three categories, i.e.,

knowledgeable, average, and unknowledgeable, have been created from the distribution of research participants.

GenAI used by History Lecturers. According to the study's findings, ChatGPT was the most popular GenAI-based tool, utilized by 48 participants. Grammarly and Google Translate, which were both utilized by 43 respondents, came in second. 39 respondents used Gemini, which came in third. Another well-liked tool that 38 respondents have tried is Quillbot. 35 respondents reported using Turnitin, which is similarly well-liked. Twenty respondents utilize Publish or Perish. Respondents also make extensive use of other GenAI-based products, such as VOSviewer (used by 18 academics), Google AI (used by 17 lecturers), and Semantic Scholar (used by 10 lecturers). Only one to five faculty members used other GenAI-based technologies like Perplexity, NVivo, Consensus, SCISummary, and Jenni AI, according to respondents. Based on these results, respondents indicated which GenAI-based technologies they preferred. The most widely used GenAI tools include ChatGPT, Grammarly, Google Translate, Gemini, Quillbot, and Turnitin. Participants in FGD shared their opinions about these GenAI tools. The use of these GenAI tools is motivated by their capacity to help produce writing themes and ideas as well as generalize difficult writing processes like planning, drafting, editing, reviewing, and publishing.

Participants in the FGD reported that ChatGPT, Gemini, Grammarly, Quillbot, and Google Translate are frequently used to enhance the language and substance of research publications, particularly for individuals who struggle with English. According to earlier research, academics utilize Grammarly, Quillbot, and ChatGPT as proofreading tools to fix grammatical and structural mistakes (Toar et al., 2022; Burger et al., 2020). In the meanwhile, a lot of people utilize Google Translate for precise language translation. In order to assist writers feel more confidence about publishing their work, Turnitin can also be a very helpful tool for testing the similarity of their writing. On the other hand, Jenni AI, SCISummary, and Consensus seem to be less well-liked. The majority of users said they had never used them.

Advantages of Using GenAI Technology for Research Writing and Publication. The study's conclusions reflect the outcome of data analysis pertaining to the second research question that was gathered from focus groups and interviews. Five topics pertaining to the goals of using GenAI technology when producing research articles for publication were identified from the data collected through thematic analysis. These themes include: (1) organizing concepts and study design; (2) synthesis and literature review; (3) data analysis; (4) content editing and proofreading; and (5) getting the paper ready for publishing and distribution.

Challenges experienced by History Lecturers. The final research question focuses on the primary obstacles that history education instructors have while using GenAI technology to write research articles for publication. According to the data collected, history education lecturers identify four primary issues. These issues include concerns about an excessive dependence on GenAI, data quality and accuracy, uneven digital literacy, ethical clarity, and academic integrity.

Therefore, even if GenAI has enormous potential to boost academic output, it is impossible to overlook the difficulties that may occur. In order to preserve the uniqueness

and scientific inventiveness of Indonesian history education instructors, the use of GenAI must be carefully controlled through an ethical approach, explicit policies, and increased digital literacy.

Conclusion

This study shows that Indonesian history education instructors are progressively incorporating GenAI technology into their scholarly writing and publication procedures. The most popular tools, like ChatGPT, Grammarly, Google Translate, Gemini, and Quillbot, are essential for increasing productivity, boosting language quality, assisting with data analysis, and supporting publication strategies. These results imply that GenAI has evolved into a cognitive collaborator in academic work in addition to a technical tool. However, the study also highlights four enduring issues: the issue of data trustworthiness and hallucinated references, the risks associated with an excessive reliance on AI tools, the ethical uncertainty surrounding academic integrity, and inequities in digital literacy. A multi-level approach is needed to address these issues.

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