



Student Creativity Innovation in Completing Artificial Intelligence (AI)-Based Lecture Assignments

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ARTICLE INFO

Article history:

Received May 05, 2025

Revised May 15, 2025

Accepted May 25, 2025

Available online June 29, 2025

Keywords:

Student innovation, artificial intelligence, academic ethics, digital creativity, higher education.



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ABSTRACT

This study aims to describe the forms of innovation and creativity among students in utilizing Artificial Intelligence (AI) technology to complete academic assignments, as well as to identify the ethical challenges and risks involved. A qualitative phenomenological approach was used, involving eight active students from the Early Childhood Islamic Education (PIAUD) program who frequently use platforms such as ChatGPT, Grammarly, Canva AI, and DALL-E. Data were collected through semi-structured interviews, observations, and documentation, and analyzed using Miles and Huberman's interactive model. The findings reveal that students use AI not only for technical efficiency but also as a medium to express creativity in essay writing, language editing, and visual media production. However, ethical issues arise, including technological dependency and uncertainty about the authenticity of AI-assisted academic work. This research contributes significantly to the development of AI literacy programs and institutional policies in higher education, promoting responsible AI use while reinforcing students' independent thinking and learning.

INTRODUCTION

A survey conducted by EduTech ID (2023) of 600 students from 10 universities in Indonesia shows that more than 78% of students have used Artificial Intelligence (AI) platforms such as ChatGPT, Grammarly, and Canva AI in completing their college assignments (Panjaitan, Sinurat, & Tarigan, 2024) (Mumtaz et al., 2023) (Ariyanti & Alam, 2025). On the other hand, as many as 61% of lecturers expressed concern about the increase in plagiarism and the decline in the originality of students' academic work (Education Quality Assurance Institute, 2023). This fact shows that the use of AI by students is no longer a marginal phenomenon, but has become part of daily learning practices that need to be studied in depth (Darojat et al., 2024) (Azizah et al., 2024) (Manalu, 2024).

Several previous studies have examined the use of AI in education. Research conducted by Popenici and Kerr (2017) shows that the role of AI has the potential to support

independent learning in universities, but the approach still focuses on the institutional and lecturer side rather than from the perspective of student experience in the process of completing academic tasks (Popenici & Kerr, 2017). Meanwhile, another study by Darwis (2022) shows that the integration of AI in education is able to improve learning efficiency and personalization, but has not paid enough attention to the ethical aspects, creativity, and innovation in the practice of its use by students (Dawis et al., 2022; Sabillah, 2024; Solehudin & Al-Nur, 2025). In other words, previous studies have tended to be macro and systemic, and have not specifically explored how students develop innovation and creativity through AI in the context of coursework (Kristyowati, 2021; Uno & Umar, 2023).

In fact, in the field, an interesting phenomenon has emerged: students not only use AI to speed up work, but also combine various AI platforms to produce complex and high-quality tasks (Bengio, 2012; Huberman & Miles, 1994). In contrast to these studies, this study specifically aims to reveal the forms of innovation and creativity of students in using AI in completing academic assignments, not just assessing the effectiveness of technology in learning. In other words, while previous research focused on the function and impact of AI from an institutional and pedagogical perspective, this study delved into students' micro-practices directly—how they strategized, chose platforms, and combined AI tools such as ChatGPT, Grammarly, Canva AI, and DALL-E to create academic work that is not only completed, but also engaging and high-quality.

In addition, this study also discusses ethical dilemmas and lecturers' challenges in assessing the originality of student assignments generated with the help of AI, an issue that has not been discussed in previous studies specifically and in depth. While some studies have touched on the ethics of using AI, not many have directly linked it to lecturers' experience in assessments and students' views on the limits of creativity and manipulation of technology.

The main problem in this context is that there is no comprehensive understanding of how AI is used by students in their courses in an innovative yet still ethical way. Some lecturers reported difficulties in assessing the originality of student work because more and more assignments were generated with the help of AI (Annisa et al., 2024; D'Paskah et al., 2024; Kusumaningrum et al., 2023). In addition, there is no institutional policy that clearly governs the boundaries of the use of AI, thus creating ambiguity in the realm of academic ethics (Agustin, Wulandari, & Rusydiyah, 2024; Satrianansyah et al., 2024).

In the field, there is a phenomenon that students not only use AI to speed up tasks, but also show high creativity in combining various technology platforms. This phenomenon opens up a space for critical questions: is this a reflection of critical and innovative thinking skills, or is it a sign of dependence on technology? What is the boundary between creativity and violations of academic ethics?

Thus, the urgency of this research lies in efforts to bridge the gap of previous studies, namely by exploring the praxis dimension of the use of AI by students in terms of innovation, creativity, and the accompanying ethical challenges. This research not only explains *what* and *how* students use AI, but also *why* the practice is important to understand in the context of

academic policy development and the preparation of assessments relevant to technological developments.

Therefore, the purpose of this study is to describe the form of innovation and creativity of students in utilizing AI as a tool in completing lecture assignments. This research also aims to identify the challenges and risks arising from the use of AI, both in terms of ethics, originality, and learning independence. The focus of this research is directed at the real practice of students in the field, so that it can describe how AI is used in a direct academic context, not just in theory or systems.

The results of this research are expected to contribute to universities in formulating policies and guidelines for the use of AI wisely. In addition, this research can also be a reference for lecturers in compiling assessments that are adaptive to the digital era, as well as a reflection material for students to use technology responsibly and creatively.

METHODS

This study uses a qualitative approach with a phenomenological descriptive research type. This approach was chosen because it aims to deeply understand students' subjective experiences in utilizing Artificial Intelligence (AI) in the process of completing lecture assignments. The design of this research focuses on the exploration of meaning, understanding, and perspective experienced by the subject directly.

The population in this study is active students from various study programs at one of the private universities in Indonesia. The researcher used purposive sampling techniques to determine the sample, namely students who actively use AI technology in completing their college assignments, such as ChatGPT, Grammarly, Canva AI, and DALL-E. The number of participants interviewed was eight people, consisting of students in semesters 4 to 6 from the Department of Early Childhood Islamic Education (PIAUD).

Data collection was carried out through three main techniques, namely semi-structured interviews, participatory observation, and documentation. Interviews were conducted in person and online using interview guidelines that had been prepared by previous researchers. Interview questions are designed to explore how students use AI, why they choose to use AI, the forms of innovation they make, and the ethical challenges and dilemmas they face. Observations were made on the process of students compiling assignments with the help of AI, which was carried out for two weeks in the classroom and in the student workspace. Documentation is in the form of screenshots of students' interactions with AI, final project results made using AI, and notes on the use of relevant AI features.

The main instrument in this study is the researcher himself. The existence of researchers is participatory-moderate, where researchers are involved in the data collection process, but still keep their distance so as not to interfere with the natural dynamics of the participants. The researcher also used interview guidelines and observation sheets as auxiliary instruments to ensure the consistency of the data collected. The validity of the data was tested through source triangulation, triangulation techniques, and member checking. Triangulation was carried out by comparing the results of interviews, observations, and documentation.

Meanwhile, member checking was carried out by asking for confirmation from participants regarding the results of the researcher's interpretation of the data provided.

This research was carried out for approximately two months, starting from early March to the end of May 2025. The research location is the main campus of the Nahdlatul Ulama Tuban Islamic Religious Institute and the student learning environment outside the classroom (such as discussion rooms, libraries and campus parks). In the process of data exploration, additional informants such as final project supervisors and fellow students are used to gain a broader view of perceptions and acceptance of the use of AI in academic assignments.

Data analysis was carried out inductively using an interactive model from Miles and Huberman (1994), which included three main stages: data reduction, data presentation, and conclusion drawn. The data that has been collected from interviews, observations, and documentation is reduced to identify key patterns and themes. After that, the data is presented in the form of narratives and thematic tables to facilitate interpretation. The last step is to draw conclusions based on the tendency of students' meanings, behaviors, and views in utilizing AI innovatively while still considering academic ethics.

Because this study does not use laboratory tools and materials, the technical specifications of the tools are not discussed in detail. However, the researchers note that the AI platforms used by college students vary, both free and paid versions, and are used through personal devices such as laptops or smartphones with standard specifications.

RESULT

1.1 Student Innovation in the Use of AI

The study found that students use various AI platforms not only as technical tools, but also as a space to express creativity and improve the quality of their coursework. Innovation comes in many forms and processes of use.

1.1.1 The Use of AI in Academic Writing

Most college students use ChatGPT to help draft essays, articles, and reports. They use the question and answer feature to create a writing structure and get an initial explanation of topics that they have not mastered. One of the informants, D (a 6th semester student of the Early Childhood Islamic Education study program), said:

"I usually start by asking ChatGPT to create a writing framework first. If the framework is suitable, then I ask for his help to explain each part. But I still edit it again so that the language matches my style and I don't just copy it right away."

Common steps taken by students include: 1) Input initial commands such as "create an essay outline about the influence of social media on reading literacy." 2) Request content development based on the selected framework. 3) Edit and align content with assignment guidelines and academic style. 4) Using Grammarly AI to correct grammar and spelling before collecting.

1.1.2 Utilization of AI for Visual Content and Presentation

In addition to writing, students also rely on Canva AI and DALL-E in the creation of visual media. It is widely used in group presentation tasks, assignments end of course, as well as creative products such as digital campaign posters. Another informant, R (a 4th semester student from the Early Childhood Islamic Education Study Program), said:

"When I have the task of creating a digital campaign about the environment, I use DALL-E to make posters that are aesthetic and themed. The visuals are more interesting than my manual design. Then, templates from Canva AI are also very helpful to create clean and professional presentations."

The following is data on AI usage activities based on field findings:

Table 1. Types of Student Innovation Based on AI Platforms

Child's Age	Types of Innovation	Task Output
Chat GPT	Drafting the outline and content of the essay	5 paragraph essay for MK Language assignment
Grammarly AI	Editing grammar dan akademik tone	Scientific articles free of spelling errors
Canva AI	Visual design of presentations and posters	Group presentation slides and campaign posters
DALL-E	Illustrations and Visual Assets	Poster on the theme "Batik and Local Culture"

Source:

2.1 Challenges and Risks in the Use of AI

In addition to various benefits, students also face challenges when using AI, especially related to ethics, originality of work, and learning independence.

2.1.1 Technology Dependency and Critical Decline

Some students stated that the convenience offered by AI makes them tend to be lazy to think deeper. There is a tendency to directly accept AI answers without doing the resynthesis process. One of the informants, N (6th semester student majoring in Early Childhood Islamic Education said:

"Sometimes I realize, so it's too comfortable. Just ask, it will be answered immediately. Even though I should have searched from several sources and summarized it myself. But when it comes down to it, AI is an instant solution."

2.1.2 Ethical Confusion and Task Authenticity

Some students are unsure about the limits of the use of AI. They admitted that they were worried about whether tasks created with the help of AI could be considered academically legitimate. Informant M (4th semester student of the Madrasah Ibtidaiyah Teacher Education study program), said:

"I was once reprimanded by a lecturer because the language style of my assignment was too 'AI'. So I had to redo it to make it look more natural. But there are no definite rules on campus about whether or not AI can be used."



Figure 1. Study program from AI

- 1) Presentation slides using Canva AI themed "Children with special needs";
- 2) Digital campaign poster themed "Eco-Friendly Lifestyle" using DALL-E for leaf and earth illustrations.

DISCUSSION

The results of this study show that students are actively utilizing various AI platforms such as ChatGPT, Grammarly, Canva AI, and DALL-E to improve the quality of their academic assignments. This utilization is not only limited to technical efficiency, but also reflects a form of creativity in the process of thinking, designing, and presenting ideas visually. In the aspect of academic writing, students use ChatGPT to compile a writing framework, understand topics that have not been mastered, and develop content systematically. They also integrate Grammarly as a tool to improve grammar and academic tone before assignments are collected. The use of AI includes various stages, starting from writing framework, developing content, editing grammar, and creating visual content for presentations and posters. This shows the existence of a systematic work pattern and a collaborative AI utilization strategy, where one platform is used to complement other functions. This practice supports the findings of Fu and Weng (2024) who emphasize that the role of AI has become a partner of learning in academic and creative processes (Fu & Weng, 2024; Yue et al., 2025)

In addition to writing, the use of AI also appears to be significant in the creation of visual content. Students use DALL-E and Canva AI to create presentation media, digital campaign posters, and thematic illustrations for group assignments. The resulting visuals are considered more attractive and professional than manual design results. This is an indication that students are not only using AI passively, but are also able to adapt and adapt the features

of the technology to the needs of complex and diverse tasks. This form of innovation shows that AI supports the visual design competencies needed in the modern academic world, especially in project- or product-based education.

However, despite showing positive potential, the use of AI also poses a number of serious challenges, particularly in the realm of academic ethics and learning independence. One of the issues that emerged was the tendency of students to be dependent on AI, which led to a decrease in critical thinking skills and independent learning initiatives. Some students admitted that they were too comfortable with the speed of answers provided by AI, so they missed an important process in learning, namely searching, filtering, and reflecting information from various sources. This is in line with the findings of Luo, Cao, and Chen (2025) who emphasize the need for strict supervision and ethical education in the use of AI in academic environments because the use of AI without ethical mentoring can reduce the quality of process-based learning and learning (Luo et al., 2025; McClay, 2025)

In addition, there is confusion among students about the limits of using AI in academic assignments. Students feel that there are no clear guidelines from the campus regarding whether the use of AI is fully allowed, or there are certain restrictions. In some cases, students have even received reprimands from lecturers because the language style of their assignments is considered too "robotic" or does not reflect the author's original voice. This confusion reflects the lack of ethical literacy of AI in the academic world, as also revealed by Ogwueleka (2025). This situation opens up a gray space between creativity and the manipulation of technology, which if left unchecked can have an impact on the decline of academic integrity (Ogwueleka, 2025).

In the context of academic ethics, it is important to uphold the principles of transparency and honesty in the use of AI (Floridi et al., 2018; Ogwueleka, 2025) Educational institutions need to develop clear guidelines on how and when the use of AI is allowed, as well as educate students about the consequences of plagiarism and other ethical violations. Comprehensive AI literacy should include a critical understanding of AI output, so that students can use this technology as a tool without Sacrifice creativity and independence of thinking (Linnes et al., 2022; Lowry, 2021; Song, 2022)

Thus, this research makes an important contribution in explaining the dynamics of the use of AI by students, both in terms of innovation and ethical challenges. These findings can be the basis for universities to develop policies for the use of AI that is responsible, adaptive, and supports the development of 21st-century skills. On the other hand, these results also underscore the need to strengthen an academic culture that encourages independent thinking, creativity, and ethical decision-making in a digital context.

However, the limitations of this study lie in the limited number of participants and the context of the research that was only conducted in one institution. Therefore, advanced research needs to involve students from various backgrounds, majors, and campuses, in order to gain a broader and representative understanding of how AI is used in the context of higher education in general. Quantitative and comparative approaches between institutions can also

be an option to explore the influence of institutional context on patterns of utilization and ethical perceptions of AI.

CONCLUSION

Based on the results of the research, it can be concluded that students effectively utilize AI technologies such as ChatGPT, Grammarly, Canva AI, and DALL-E to improve the quality of their academic assignments, both in terms of content preparation and editing and visual creation. However, the use of AI also poses ethical challenges and the risk of decreased learning independence if it is not accompanied by proper understanding and management.

This research emphasizes the importance of developing AI literacy policies and programs in educational institutions to encourage responsible use of AI, maintain academic integrity, and strengthen students' independent thinking. For further research, it is suggested that the scope of participants be expanded to get a more comprehensive picture of the impact of AI in the context of higher education.

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