



## Students' Experiences of Learning Authenticity in Artificial Intelligence Assisted Academic Work

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### ABSTRACT

The development of artificial intelligence (AI) technology in education has changed the way students learn and complete academic assignments. This research aims to explore students' experiences in interpreting the authenticity of learning when using AI in academic work. The research uses a qualitative approach with a semi-structured interview method with students who use AI tools in academic activities. The data was analyzed using thematic analysis to identify students' perceptions and experiences regarding the use of AI. The results show that AI helps improve learning efficiency, generating ideas, and understanding complex concepts. However, over-reliance has the potential to reduce critical thinking involvement and a sense of ownership of academic work. Therefore, clear guidelines for the use of AI in education are needed so that this technology can support a learning process that remains authentic and with integrity

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## **INTRODUCTION**

The development of digital technology in the last decade has brought about a significant transformation in higher education practices. One of the most influential innovations is the emergence of artificial intelligence (AI) technology which is increasingly integrated in various academic activities, including information search, academic writing, data analysis, and the development of research ideas. The emergence of generative AI systems, such as large language models, has accelerated the use of this technology in student learning activities.

The technology not only serves as a technical tool, but also begins to influence the way students think, learn, and produce academic work (Dwivedi et al., 2023; Kasneci et al., 2023).

In the context of higher education, AI offers a wide range of opportunities to improve the quality of learning. This technology allows for personalization of learning, provides quick feedback, and helps students understand complex concepts through broader and more efficient access to information. A number of studies show that the use of AI can increase learning effectiveness, increase student engagement, and support a more adaptive problem-solving process (Holmes et al., 2022; Zawacki-Richter et al., 2021). In addition, AI also has the potential to help students develop initial ideas, summarize literature, and structure academic writing more systematically (Bozkurt et al., 2023).

However, the integration of AI in academic activities also poses a number of important challenges, especially related to learning authenticity and academic integrity. Academic integrity is a fundamental principle in education that emphasizes the value of honesty, responsibility, and originality in the academic process (Eaton, 2022). The use of AI in the preparation of academic assignments raises questions about the extent to which students' work reflects their own understanding and thought processes. Some studies suggest that uncontrolled use of AI has the potential to facilitate less authentic academic practices, such as the use of AI-generated content without a deep understanding (Cotton et al., 2023; Tlili et al., 2023).

In addition, there are concerns that over-reliance on AI technology can reduce students' cognitive engagement in the learning process. AI can provide instant answers and quick solutions to a wide range of academic problems, but these conditions have the potential to reduce the process of critical reflection and intellectual exploration that should be an important part of the college learning experience (Rudolph et al., 2023; Susnjak, 2022). In this context, the use of AI poses a dilemma between learning efficiency and the authenticity of the student learning process.

On the other hand, recent research also shows that college students do not always use AI passively. Many students use AI as a cognitive tool that can support the learning process, such as to understand difficult concepts, generate initial ideas, or improve the quality of academic writing. This shows that AI can function as a productive learning support tool when used reflexively and responsibly (Lim et al., 2023; Mollick & Mollick, 2024). Therefore, understanding how students experience and interpret the use of AI in academic work is important to be studied further.

Although research on AI in education is growing rapidly, most studies still focus on aspects of technology, institutional policy, or ethical issues in general. Research that specifically explores students' experiences in interpreting learning authenticity when using AI in academic work is still relatively limited. In fact, students' subjective experiences can provide a deeper understanding of how AI technology affects their learning process.

Based on this background, this study aims to explore students' experiences in interpreting the authenticity of learning in academic work assisted by artificial intelligence. This research is expected to make a theoretical and practical contribution to the development of learning practices that are able to integrate AI technology responsibly without reducing the quality and authenticity of the student learning process.

## **THEORETICAL REVIEW**

### ***Artificial Intelligence in Higher Education***

The development of artificial intelligence (AI) has brought significant changes in various sectors, including higher education. AI allows computer systems to perform tasks that would normally require human intelligence, such as natural language processing, data analysis, and algorithm-based decision-making. In the context of education, AI technology is increasingly being used to support the learning process, ranging from adaptive learning systems, virtual tutors, to AI-based academic writing tools (Ouyang & Jiao, 2021; Chassignol et al., 2022).

The integration of AI in higher education provides various opportunities in improving the quality of learning. This technology allows for personalized learning, provides automated feedback, and helps students understand complex material through wider and more efficient access to information. Research shows that the use of AI can increase student engagement in the learning process as well as support the development of critical thinking and problem-solving skills (Huang et al., 2021).

In Indonesia, the use of AI in education is also starting to grow along with the increasing digitalization of higher education. Several studies show that the use of AI-based technology can help students in the learning process, especially in terms of information search, literature analysis, and the preparation of scientific papers (Suryadi & Kusuma, 2022; Rahmawati & Hidayat, 2023). However, the use of AI in education in Indonesia still requires strengthening from the aspects of policy, digital literacy, and ethics of using technology in academia.

### ***Authentic Learning in the Digital Era***

The concept of authentic learning is a pedagogical approach that emphasizes the active involvement of students in the learning process that is relevant to the real situation. Authentic learning aims to develop students' critical thinking, problem-solving, and reflective skills through meaningful learning experiences (Herrington & Parker, 2020).

In the digital era, the concept of learning authenticity faces new challenges due to the development of information and communication technology. Digital

technology provides broad access to sources of knowledge, but at the same time it can also affect the way students interact with information and complete academic assignments. Research shows that the use of digital technology in learning can improve the learning experience when supported by the right pedagogical strategies (Bond et al., 2020).

In the context of education in Indonesia, authentic learning is also an important concern in efforts to improve the quality of higher education. A learning approach that encourages students to think critically and produce academic work independently is considered one of the indicators of the success of the educational process. Several national studies show that the integration of digital technology in learning needs to be balanced with strengthening academic literacy so that students remain actively involved in the process of academic thinking and reflection (Yusuf & Widodo, 2021; Prasetyo et al., 2022).

#### ***AI-Assisted Academic Work***

The use of AI in student academic work is increasing along with the development of generative technology. Various AI-based tools are now able to help students generate ideas, develop writing structures, and improve the quality of language in academic works. This technology provides practical benefits in increasing student efficiency and productivity in completing academic assignments (Perkins, 2023).

Nevertheless, the use of AI in academic work has also raised a number of debates related to the limitations of the use of the technology. Several studies have shown that the use of AI that is not accompanied by adequate understanding can reduce student involvement in the learning process and potentially affect the development of critical thinking skills (Chan & Hu, 2023).

In the Indonesian context, the use of AI in student academic work is starting to become an increasingly common phenomenon, especially since the emergence of various generative AI platforms. Several national studies show that students use AI to help draft writing, summarize literature, and improve language structure in scientific papers. However, the use of this technology also raises concerns related to the potential misuse of AI in the preparation of academic papers and its implications for academic integrity (Sari & Nugroho, 2023; Lestari & Putra, 2024).

#### ***Students' Experiences of Learning Authenticity with AI***

Students' experience in using AI in academic activities is an important aspect in understanding the impact of the technology on the learning process. Students' learning experiences are not only influenced by the technology used, but also by how they interpret the use of technology in an academic context.

Research shows that students have diverse perceptions of the use of AI in learning. Some students see AI as a tool that can improve the quality of learning, while others see it as a challenge to academic integrity and the authenticity of scientific papers (Sallam, 2023).

In addition, students' experience in using AI is also influenced by the level of digital literacy and their understanding of the ethics of using technology in academia. Students who have better digital literacy tend to use AI as a learning support tool, not as a substitute for their own thought process (Zhai, 2023). In this context, understanding students' experiences in using AI is important to

understand how the technology affects the authenticity of learning in academic work.

Thus, an exploration of students' experiences in interpreting the use of AI in academic work can provide a more comprehensive understanding of how the technology affects the learning process. This understanding is important to formulate learning strategies that are able to integrate AI technology responsibly without reducing the quality and authenticity of the student learning process.

## **METHODOLOGY**

This research uses a qualitative approach to explore students' experiences in interpreting the authenticity of learning when using artificial intelligence (AI) in their academic work. The qualitative approach was chosen because this research aims to deeply understand the experiences, perceptions, and meanings constructed by students towards the phenomenon of using AI in the context of learning. This approach allows researchers to explore participants' subjective perspectives more comprehensively as well as understand the dynamics of learning experiences that cannot be quantitatively measured (Creswell & Creswell, 2021; Merriam & Tisdell, 2020).

The research design used is a phenomenological study, which focuses on understanding the individual's experience of a particular phenomenon. In this study, the phenomenon studied is the experience of students in using AI as a tool in academic work and how they interpret the authenticity of the learning process that occurs. The phenomenological approach allows researchers to identify the essence of the experiences experienced by participants through reflection on their own experiences (Neubauer et al., 2019).

Participants in this study are undergraduate students from various study programs who are actively using AI technology in their academic activities, such as in assignment preparation, academic writing, or information search. The participant selection technique uses purposive sampling, which is the deliberate selection of participants based on certain criteria relevant to the research objectives. The criteria for participants in this study are students who have experience using AI-based tools in academic activities for at least the last semester. Purposive sampling techniques are often used in qualitative research because they allow researchers to obtain informants who have direct experience with the phenomenon being studied (Etikan & Bala, 2017; Campbell et al., 2020).

Data collection was carried out through semi-structured interviews that allowed researchers to dig into participants' experiences in depth while providing flexibility for participants to explain their views freely. Interviews are conducted in person or online with a duration of between 30 to 60 minutes for each participant. Interview questions focused on students' experiences in using AI for academic work, their perceptions of the benefits and challenges of using AI, and how they interpret the authenticity of learning in the context of using the technology. The semi-structured interview method is considered effective in qualitative research because it can generate rich and in-depth data regarding the participants' experiences (Kallio et al., 2016).

The data obtained from the interviews were then analyzed using thematic analysis. Thematic analysis was used to identify key patterns that emerged from participants' experiences related to the use of AI in academic work. The analysis process is carried out through several stages, namely the process of familiarization with the data, the initial coding process, the grouping of codes into main themes, and the interpretation of the theme to understand the meaning of the participant's experience more deeply. Thematic analysis is widely used in qualitative research because it provides flexibility in identifying patterns of meaning in complex data (Braun & Clarke, 2021).

To ensure the validity of the data (trustworthiness), this study applies several data validation strategies, including member checking, which is asking participants to reconfirm the results of the interpretation of interviews that have been conducted by the researcher, and data triangulation, which is comparing various perspectives of participants to gain a more comprehensive understanding of the phenomenon being studied. In addition, the researcher also conducts a process of reflection and field recording during the research process to maintain transparency and consistency in data analysis. The application of this validation strategy is important in qualitative research to ensure the credibility and reliability of research findings (Nowell et al., 2017; Lincoln & Guba, 2020).

By using this methodological approach, this research is expected to provide a deeper understanding of students' experiences in using AI in academic work and how they interpret the authenticity of learning in the context of the use of artificial intelligence technology in the higher education environment.

## RESEARCH RESULTS

The results of thematic analysis of the interview data show that students' experiences in using artificial intelligence (AI) in academic work can be understood through several main themes, namely: AI as a learning support tool, efficiency in completing academic assignments, potential dependence on AI, and students' reflections on learning authenticity. These themes illustrate how students interpret the use of AI in an academic context while showing the dynamics between the benefits of technology and challenges to the authenticity of the learning process.

Table 1. Summary of Thematic Findings

Theme	Description	Example Codes
AI as Learning Support	AI helps understand concepts	explaining concepts, summarizing materials
Efficiency in Academic Tasks	AI accelerates task completion	generating ideas, outlining essays
Risk of Overreliance	Potential reliance on AI	copying answers, reduced thinking
Reflection on Authentic Learning	Student reflection on academic integrity	ethical concerns, responsibility

### ***AI as a Learning Support Tool***

Most participants viewed AI as a tool that helps them understand complex learning materials. Students explained that AI is often used to explain difficult concepts, summarize material, and provide examples that can help them understand certain topics more quickly. In this context, AI is perceived as a cognitive tool that supports the learning process, not as a substitute for student learning activities. One participant explained:

*"Usually I use AI when I come across a concept that is difficult to understand in a book or journal. AI helps explain in simpler language so I can get an early idea before reading more academic references."* (Participant S03, Interview, 12 March 2025).

Other participants also emphasized that AI helps them in summarizing long learning materials so that they are easier to understand.

*"When lecture material or journal articles are too long, I often ask AI to summarize the important points first. From there, I can understand the core of the material before reading it in detail."* (Participant S07, Interview, 14 March 2025).

Some participants stated that AI helped them develop an initial understanding of a topic before reading the academic literature in more depth. Thus, AI serves as a means to speed up the process of information exploration in the early stages of learning. One participant explained:

*"AI helps me get an early idea of a topic. After that, I kept looking for journals or books to make sure the information was more accurate."* (Participant S11, Interview, 16 March 2025).

This experience shows that the use of AI can make a positive contribution to the learning process when used as a supporting tool in understanding academic concepts.

### ***Efficiency in Completing Academic Tasks***

The second theme that emerged from the results of the study was the increase in efficiency in completing academic tasks. Many participants stated that AI helped them in generating initial ideas, drafting writing frameworks, and improving language structure in academic assignments. In some cases, college students use AI to help formulate research questions, compose opening paragraphs, or summarize relevant references. One participant explained:

*"AI was very helpful when I started writing assignments. Usually I ask the AI to give me some initial ideas or create a writing outline so I don't start from a blank page."* (Participant S02, Interview, 11 March 2025).

Another participant mentioned that AI helps improve the quality of language and the structure of academic writing.

*"I often use AI to check sentence structure or improve academic language in my assignments. This makes my writing look neater and easier to understand."* (Participant S06, Interview, 13 March 2025)

Participants also mentioned that the use of AI can save time in the process of working on assignments, especially when they have to manage various academic assignments in a limited time. A student stated:

*"When I have a lot of tasks in one week, AI helps me work faster, for example by summarizing an article or helping to structure an initial paragraph."* (Participant S09, Interview, 15 March 2025)

However, some students emphasized that they continue to revise and further develop the results produced by AI.

*"Even though I use AI to help with writing, I still edit and adapt it to my own understanding. I don't just use the results of AI right away."* (Participant S12, interview, 17 March 2025)

These findings show that students are using AI as a tool to improve efficiency in completing academic assignments, but they are still aware of the importance of revising and reflecting on the results produced by the technology.

#### ***Risk of Overreliance on AI***

While AI provides various benefits in the learning process, some participants also expressed concerns about the potential dependence on the technology. Some students realize that the overuse of AI can reduce their involvement in critical thinking and academic analysis. One of the participants expressed his concerns as follows:

*"AI is very helpful, but sometimes I feel like if I use it too much, I don't think deeply about the material being studied."* (Participant S04, Interview, 12 March 2025)

Some participants also stated that the convenience provided by AI can make students tempted to use the technology excessively without really understanding the material being studied.

*"Because AI can provide answers quickly, there is a possibility that students will simply copy or use the answers without really understanding the content of the material."* (Participant S08, Interview, 14 March 2025)

Other participants emphasized that the use of AI needs to be accompanied by academic awareness and responsibility so as not to reduce the quality of the learning process.

*"I think AI should be used wisely. If we rely too much on AI, we can miss out on the actual learning process, such as reading, analyzing, and understanding the material we are learning ourselves."* (Participant S10, Interview, 16 March 2025)

These findings show that while AI provides convenience in completing academic tasks, students are also aware of the risk of dependence on the technology. Therefore, the use of AI in learning requires reflective awareness from students so that the technology does not replace the critical thinking process that is at the core of academic learning.

#### ***Students' Reflection on Learning Authenticity***

The last theme that emerged from this study was students' reflection on the authenticity of learning. Many participants realized that the use of AI in academic work raises questions about the extent to which the academic work produced reflects their own intellectual understanding and contributions. One of the participants expressed his views as follows:

*"When I use AI to help write assignments, I sometimes ask myself if the writing really reflects my understanding or is just the result of technology."* (Participant S01, Interview, 10 March 2025)

Some students also emphasized the importance of using AI responsibly so that the technology does not replace their thought process.

*"I think AI should be used as a tool to understand material or improve writing, not to automatically generate entire tasks."* (Participant S05, Interview, 13 March 2025)

Other participants highlighted the importance of maintaining academic integrity when using AI technology in learning activities.

*"I try to use AI just as an initial reference. After that, I continued to write with my own understanding so that the task remained the result of my thoughts."* (Participant S09, Interview, 15 March 2025)

This reflection shows that students have an awareness of the importance of maintaining academic integrity in the use of AI technology. Students seek to strike a balance between utilizing technology to improve learning efficiency and maintaining the authenticity of their learning process.

## **DISCUSSION**

The findings of this study show that students interpret the use of artificial intelligence (AI) in academic work through two main dimensions, namely as a learning support tool as well as a challenge to the authenticity of the learning process. These results show that students' experience in using AI is not single, but rather a negotiation process between the use of technology to improve academic efficiency and efforts to maintain the integrity and authenticity of the learning process.

### ***AI as a Cognitive Learning Support***

The results of the study show that students use AI as a cognitive tool to understand complex learning materials, summarize information, and obtain an initial overview of an academic topic. These findings are in line with research showing that AI-based technology can act as a cognitive support system that helps students access and organize information more effectively (Holmes & Tuomi, 2022). In the context of digital learning, AI can help students gain an initial understanding of complex concepts before undertaking more in-depth academic exploration through the scientific literature.

These findings also reinforce the argument that AI does not necessarily replace the student learning process, but can serve as a tool that supports learning when used reflexively and critically (Selwyn et al., 2023). In this study, students use AI as a means to understand initial concepts before reading other academic sources such as journals or books. This shows that AI can act as a scaffolding tool that helps students in the early stages of the learning process.

In the context of higher education in Indonesia, the use of digital technology as a learning tool is also growing. Research by Rachman and Suryanto (2022) shows that students in Indonesian universities are increasingly utilizing digital technology to support the understanding of academic concepts and expand access to learning resources. Thus, the integration of AI in learning can be part of the digital transformation in higher education that has the potential to improve the quality of student learning experience.

### ***AI and Academic Efficiency***

The research findings also show that students are using AI to improve efficiency in completing academic tasks, such as generating initial ideas, drafting writing frameworks, and improving language structure in scientific papers. These results are consistent with research showing that AI technology can

improve students' academic productivity by assisting with the process of idea generation, information organization, and text editing (Ray, 2023).

In the context of modern learning, academic efficiency is one of the important factors that affect how students utilize digital technology. College students often face a high academic load so technologies like AI are used to help manage time and complete assignments more effectively. Research by Dwivedi et al. (2024) shows that generative AI has great potential to improve cognitive work efficiency in various fields, including education.

Nevertheless, the study also shows that college students are not entirely dependent on AI in completing academic assignments. Many participants emphasized that they continue to revise, develop ideas, and evaluate the results generated by AI. This shows that students still maintain an active role in their learning process.

In the national context, research by Putri and Santoso (2023) shows that students in Indonesia tend to use digital technology as a tool for academic productivity, but are still aware of the importance of intellectual involvement in the process of preparing scientific papers. This shows that the use of AI in higher education does not necessarily reduce the quality of the learning process if used wisely.

#### ***Risks of Overreliance on AI***

Although AI provides various benefits in learning, the findings of this study also show that there are concerns among students about the potential dependence on the technology. Students are aware that the overuse of AI can reduce their involvement in critical thinking and academic analysis.

These findings are in line with research that shows that the use of automated technology in learning can affect students' cognitive engagement levels if the technology is used passively without critical reflection (Luckin, 2023). AI can provide quick and instant answers, but this has the potential to reduce the process of intellectual exploration that is an important part of learning in college.

In addition, research by Williamson and Eynon (2022) shows that the development of AI technology in education also poses new challenges related to how students develop critical and reflective thinking skills. Therefore, the use of AI in education needs to be accompanied by a pedagogical approach that is able to encourage students to remain active in the process of academic thinking and analysis.

In the context of higher education in Indonesia, the issue of dependence on digital technology is also starting to become a concern. Research by Hidayat and Kurniawan (2021) shows that the use of digital technology that is not accompanied by adequate academic literacy can affect the quality of students' learning processes. Therefore, strengthening digital literacy and academic literacy is an important factor in ensuring the responsible use of AI technology.

#### ***Students' Awareness of Academic Integrity***

The findings of this study also show that students have a fairly high awareness of the importance of maintaining academic integrity in the use of AI. Students realize that AI technology can help the learning process, but they also understand that the academic work produced must still reflect their own intellectual understanding and contributions.

This awareness shows that students not only make pragmatic use of AI technology, but also reflect on the ethical implications of using the technology in an academic context. Research by Mhlanga (2023) shows that students' ethical awareness of the use of AI is an important factor in maintaining academic integrity in the digital era.

In addition, research by Baidoo-Anu and Owusu Ansah (2023) shows that students tend to view AI as a learning tool that must be used responsibly, not as a substitute for the learning process. These findings reinforce the results of this study which shows that students try to balance the use of technology and academic responsibility.

In the national context, research by Wibowo and Hartono (2024) shows that students in Indonesian universities are beginning to develop awareness about the ethics of using AI in academic activities. This shows that the integration of AI in education needs to be accompanied by strengthening academic policies and digital ethical literacy.

### ***Implications for Higher Education***

Based on the findings of this study, the integration of AI in higher education requires a pedagogical approach that is able to balance the use of technology and the strengthening of authentic learning processes. AI can provide various benefits in improving learning efficiency and access to information, but its use needs to be directed to continue to support the development of critical thinking skills, academic reflection, and scientific integrity of students.

Therefore, higher education institutions need to develop guidelines for the use of AI in academic activities and strengthen students' digital literacy so that the technology can be used responsibly. With the right approach, AI is not only a technological tool in education, but it can also be a means to support more meaningful and authentic learning experiences.

## **CONCLUSIONS AND RECOMMENDATION**

This research shows that students use artificial intelligence (AI) as a supporting tool in academic work, especially to understand complex concepts, generate initial ideas, and increase efficiency in completing assignments. However, students are also aware of the risk of dependence on AI that could potentially affect their involvement in the process of critical thinking and academic analysis. These findings show that the use of AI in higher education requires a balance between the use of technology to increase academic productivity and efforts to maintain the authenticity of the learning process.

Based on these findings, universities are advised to develop clear guidelines regarding the use of AI in academic activities as well as strengthen students' digital literacy and academic ethics. Thus, AI can be used responsibly as a learning support tool without compromising the authenticity of the learning process. Further research can explore the use of AI in a broader learning context as well as use diverse methodological approaches to gain a more comprehensive understanding of the impact of AI on students' learning experiences.

## FURTHER STUDY

Further research can involve a wider range of participants from different disciplines to gain a more comprehensive understanding of the use of AI in higher education. In addition, future research can examine the influence of AI on students' critical thinking skills, academic creativity, and scientific integrity by using a more diverse methodological approach.

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