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The Use of ChatGPT in Lectures: Student Perceptions Reviewed from the Aspects of Utilization, Digital Literacy, and Academic Ethics

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Abstract

The development of Artificial Intelligence (AI), especially ChatGPT, has brought changes in the learning process in universities and encouraged students to utilize technology to support academic activities. This condition makes it important to find out how students perceive the use of ChatGPT in lectures. This study aims to analyze students' perception of the use of ChatGPT from the aspects of utilization, digital literacy, and academic ethics. This study uses a survey method with a quantitative descriptive approach. Data was collected through an online questionnaire using Google Form to students of the Educational Technology Study Program, Faculty of Education and Psychology, Semarang State University, class of 2022–2025 who were selected using random sampling techniques. The research instrument was in the form of a closed questionnaire with a five-point Likert scale, while the data was analyzed using descriptive statistics through the calculation of mean and percentage. The results of the study show that students have a very positive perception of the use of ChatGPT in lecture activities, which is reflected in the aspects of utilization, digital literacy, and academic ethics. These findings show that ChatGPT is seen as a technology that is able to support the learning process if used wisely, accompanied by digital literacy skills, and still paying attention to academic ethics. This research contributes to enriching the study of the use of AI in higher education and can be a reference for the development of learning that integrates AI effectively and responsibly.

Keywords: academic ethics, artificial intelligence, ChatGPT, digital literacy, utilization of AI

INTRODUCTION

One of the forms of technological advancement that has the most influence on changes in the education system is Artificial Intelligence (AI). This technology allows computers to carry out the human-like thinking process in understanding context, recognizing patterns, and making decisions based on available data. AI in the world of education is an important pillar in building a smart education system that is oriented to data and individual needs. Through this technology, the learning process can be made more personalized, interactive, and efficient (Tasya et al., 2025). These developments show that AI is not only a technological innovation, but also an important part of the transformation of modern education. Globally, the use of AI has been used in various fields such as learning analytics, automated feedback systems, and intelligent tutoring systems. This technology helps educators understand student learning patterns and tailor teaching strategies to individual needs. This indicates a paradigm shift from teacher-centered learning to student-centered learning, where students play a more active role in developing their knowledge. In the context of lectures, AI is also used as a tool to help complete academic tasks such as preparing papers, making presentation materials, to help formulate ideas and understand the material more deeply (Marlin et al., 2023).

According to Akbar et al (2025), AI is a system designed to mimic human thought processes through context understanding, pattern recognition, and data-driven decision-making. In education,

AI functions to increase learning effectiveness through automatic assessments, quick feedback, and learning style recommendations that suit students' abilities. This development is supported by the presence of platforms such as ChatGPT, Google Gemini, and Blackbox AI which are widely used by students to understand concepts, find references, and help with academic writing. Digital advances have also changed the way humans learn and adapt to the changing times. Information and communication technology (ICT) is now an important part of the learning process. The development of ICT supports the creation of an education system that is more flexible and in accordance with the needs of modern students (Kasmiyati et al., 2025). Technology was created to facilitate activities and help solve problems more quickly and efficiently (Zulfikasari et al., 2024). In higher education, the demands of learning focus not only on knowledge, but also on digital literacy, critical thinking, and technological adaptability. This makes the application of AI even more relevant in supporting the learning process (Akbar et al., 2025).

While AI, specifically ChatGPT, provides many benefits in education, its use also poses challenges especially in the ethical aspects of academia. AI can help students in writing scientific papers, but without a clear policy it can cause problems such as plagiarism and technology dependence (Fatqurhohman et al., 2025). According to Adawiyah et al, (2026) stated that ChatGPT has the potential as an independent learning medium to improve digital literacy but still requires ethical awareness so as not to conflict with academic values. Therefore, ethical digital literacy is important in higher education. Previous research has shown that some students consider ChatGPT to be an efficient tool, but only a small percentage understand the ethical implications of its use (Niyu et al., 2024). Lestari (2024) also found that the implementation of ChatGPT in Indonesian universities is still in its early stages, with a focus on academic efficiency, while critical thinking and self-evaluation skills are still not optimal. On the other hand, ChatGPT is widely used in academic activities such as drafting papers, reports, and presentation frameworks. This technology is able to understand the context of the conversation, answer questions, and generate learning ideas. In higher education, ChatGPT is often used to help write assignments, analyze data, and develop digital learning media (Marlin et al., 2023; Rey et al., 2025). Naurah & Dewantara (2025), also showed that ChatGPT is effective in speeding up task completion and aiding in the exploration of ideas. However, this utilization still needs to be balanced with digital literacy so as not to cause dependency (Zaputra et al., 2024).

Previous studies have shown that AI research in Indonesia still focuses on student perception, digital literacy, and effectiveness of use. Saputri & Surawan, (2025) found a relationship between the use of ChatGPT and students' ability to formulate arguments, even though they are influenced by digital literacy. Luthfiyyah et al (2024) show that ChatGPT helps speed up the completion of student assignments but has the potential to cause dependency without lecturer guidance. Suarti et al (2025) also found positive student perceptions of ChatGPT but still emphasized the importance of critical thinking skills. Based on the study, AI research in education is still dominated by perception and effectiveness aspects, while studies on specific applications in Educational Technology students as well as aspects of academic ethics and dependency are still limited. Zaputra et al (2024) added that although the use of ChatGPT is quite widespread, students' ethical awareness and critical thinking skills are still low. This shows the need for more in-depth research on the responsible use of AI in higher education.

The results of initial observations on students of the 2022–2025 Educational Technology Study Program at the Faculty of Education and Psychology show that most students have used ChatGPT in academic activities, such as looking for references, designing learning, and compiling learning media. However, its use is still accompanied by challenges in the form of technological dependence and low awareness of academic ethics. This condition shows that the use of AI has not been fully balanced with adequate digital literacy. Based on these conditions, this study aims to determine the application of ChatGPT in the lecture activities of students of the Education Technology Study Program from the aspects of utilization, digital literacy, and academic ethics. This research is expected to provide a comprehensive overview of the use of AI in higher education, so the urgency of this research lies in the increasing use of AI among students which needs to be balanced with an understanding of academic ethics. Theoretically, this research is expected to enrich the literature on AI in higher education in Indonesia. Practically, this research can be a guideline for students and lecturers in the critical and ethical use of ChatGPT. Institutionally, this research is expected to be a consideration for universities in designing technology-based learning policies that are in accordance with the times.

METHOD

This study uses a quantitative approach with survey methods and descriptive research design. The quantitative approach was chosen because this study aims to obtain an overview of students' perceptions of the use of ChatGPT in lecture activities based on data obtained from respondents and statistically analyzed. The survey method was used to collect data on students' perceptions of the use of ChatGPT which was reviewed from the aspects of utilization, digital literacy, and academic ethics. The population in this study is all students of the Educational Technology Study Program, Faculty of Education and Psychology, Semarang State University, class of 2022–2025. The research sample amounted to 150 students who were selected using the random sampling technique. This technique was chosen so that each member of the population has an equal opportunity to become a respondent so that the data obtained can be representative of the research population. The variables in this study consist of three aspects, namely the use of ChatGPT, digital literacy, and academic ethics. Each variable is described into several indicators that are the basis for the preparation of research instruments. The variables and research indicators are in the form of the intensity of ChatGPT use, the purpose of academic use, learning effectiveness, and the ability to use it. Search and evaluate information, understanding of how AI works, critical attitude towards AI outcomes, awareness ethics when using AI, academic honesty, and reliance on AI.

The research instrument uses a closed questionnaire that is compiled based on indicators for each research variable. Each statement item uses a five-point likert scale consisting of Strongly Disagree (STS), Disagree (TS), Neutral (N), Agree (S), and Strongly Agree (SS). The questionnaire was compiled to measure students' perception of the use of ChatGPT based on aspects of utilization, digital literacy, and academic ethics. Before being used as a research instrument, the questionnaire first goes through a validity test and a reliability test. The validity test was carried out to determine the ability of each statement item to measure the research variables, while the reliability test was carried out to determine the level of consistency of the instrument. The test results showed that all items of the statement were declared valid and the instrument had a good level of reliability so that it was suitable for use as a data collection tool. You have flexibility to name your following headings.

Data collection is done online using Google Forms. The questionnaire link was distributed to the respondents according to the criteria of the research sample. Before filling out the questionnaire, respondents received an explanation of the purpose of the research and instructions for filling out the questionnaire so that the data collection process could take place systematically. The data that has been collected is analyzed using descriptive statistics with the help of IBM SPSS Statistics version 26. The analysis was carried out through the calculation of mean and percentage values to illustrate the tendency of students' perception of the use of ChatGPT in each aspect of the research. Furthermore, the results of the calculation are interpreted based on the assessment categories that have been determined so that an overview of the level of student perception of the use of ChatGPT in lecture activities is obtained.

RESULTS AND DISCUSSION

The research was carried out by distributing questionnaires online using Google Form to students of the Educational Technology Study Program of the State University of Semarang class of 2022–2025. The data collection process lasted for approximately one week and obtained as many as 150 respondents who were willing to fill out the research questionnaire. The instrument used consists of 29 statements prepared based on three research variables, namely the use of ChatGPT, digital literacy, and AI academic ethics. Based on the data obtained, the research respondents consisted of 62 male students and 88 female students. Complete data on the characteristics of respondents by gender can be seen in Table 1.

Table 1. Characteristics of Respondents by Gender

Gender	Frequency	Percentage (%)
Male	62	41,33
Women	88	58,67
Total	150	100

Based on the characteristics of the respondents in Table 1, this study involved students from the class of 2022 to 2025 with a composition of male and female respondents. The involvement of respondents from various generations provided a more diverse perception of the use of ChatGPT in lecture activities. In addition, the variation in respondents' characteristics showed that the research

data was obtained from students who had different learning experiences so that it could provide a broader picture of students' perceptions of the use of ChatGPT. Then the results of the research on students' perceptions of the use of ChatGPT in lecture activities are presented in Table 2.

Table 2. Results of Student Perception Analysis of the Use of AI in Lectures

Number of Respondents	Red	Percentage (%)	Category
150	123,96	85,49	Very High

In general, the results of the study show that students' perception of the use of ChatGPT is in the very high category. These findings show that ChatGPT has become one of the most widely accepted technologies in supporting the student learning process. Students use ChatGPT not only to obtain information, but also as a tool to understand the material, find initial references, and develop ideas when doing academic assignments. The findings show that the development of Artificial Intelligence technology is starting to become part of student learning activities in universities. The ease of accessing information, ChatGPT's ability to respond quickly, and the presentation of information that is easy to understand are some of the factors that encourage students to use this technology in lecture activities. However, the use of ChatGPT still needs to be balanced with digital literacy skills and an understanding of academic ethics so that the information obtained can be used appropriately and responsibly.

The results of this study are in line with the research of Kasneci et al (2023) who stated that ChatGPT has the potential to support the learning process through the provision of fast and interactive information. Research by Khairul Marlin et al (2023), also explains that AI can increase learning effectiveness if it is used as a support for the learning process, not as a substitute for students' thinking skills. Thus, the high perception of students in this study shows that ChatGPT is seen as a technology that can help the learning process as long as it is used wisely and still pays attention to academic integrity. These findings also provide an idea that the use of AI in learning has the opportunity to continue to be developed in the university environment. However, its implementation needs to be accompanied by an increase in digital literacy and awareness of academic ethics so that students not only use AI practically but also remain able to think critically and responsibly in completing academic tasks (Cotton et al., 2024). In addition to looking at the overall results, this study also analyzes the results based on each research variable. A recapitulation of the results can be seen in Table 3.

Table 3. Result Recapitulation Based on Variables

Variable	Red	Percentage (%)	Category
Utilization of ChatGPT	43,83	87,65	Very High
Digital Literacy	44,68	89,36	Very High
Academic Ethics AI	39,78	88,40	Very High

The recapitulation of the results of the research based on each variable is presented in Table 3. The table shows an overview of students' perceptions of the use of ChatGPT in lecture activities which is reviewed from the aspects of utilization, digital literacy, and academic ethics of AI. Based on the results of the study, the three variables obtained a very high category. These findings show that students' perception of the use of ChatGPT is not only influenced by the benefits felt in the learning process but also supported by digital literacy skills and understanding of academic ethics. In other words, students not only use ChatGPT as a learning tool, but also have the awareness to use the technology critically and responsibly.

In terms of utilization, students showed a very positive perception of the use of ChatGPT in lecture activities. This illustrates that ChatGPT has become one of the technologies that is quite close to student learning activities. Its use is not only limited to finding information, but also helps to understand lecture material, obtain initial references, develop ideas, and support the completion of academic assignments. Ease of access, the ability to respond quickly, and the presentation of easy-to-understand information are some of the reasons that encourage students to use ChatGPT in the learning process. However, ChatGPT is still seen as a learning tool, so its use needs to be balanced with students' ability to evaluate information from other scientific sources so that the information obtained remains accurate and accountable. This finding is in line with the research of Luthfiyyah et al (2024) who explain that ChatGPT can be used as a learning support medium and help students complete various academic tasks.

The digital literacy variable obtained very high results and became the variable with the highest achievement in this study. The results show that students are not only able to use ChatGPT but also have the ability to understand and evaluate the information provided by AI. Students realize that the answers generated by ChatGPT are not always completely correct, so it is still necessary to compare them with books, journals, and other scientific sources. This awareness shows that students have a more critical attitude in utilizing AI technology as a learning resource. The ability to verify information is an important part of digital literacy because it can help students obtain more accurate information and reduce the risk of inappropriate use of information in academic activities. The results of this study are in line with the research of Akbar et al. (2025) which states that the use of AI technology can support the development of students' digital literacy.

Meanwhile, in the aspect of AI academic ethics, students also showed a very positive perception. These findings illustrate that students understand the importance of using ChatGPT responsibly in academic activities. For students, ChatGPT is seen as a tool that supports the learning process, not as a substitute for thinking skills or completing tasks as a whole. This awareness shows that students continue to strive to maintain academic honesty and are responsible for the results of work made with the help of AI. Understanding academic ethics is important because the development of AI technology needs to be balanced with a wise attitude in its use so as not to reduce the quality of the learning process and academic integrity. These findings are in line with the research of Safitri, (2024) which emphasizes the importance of academic ethics in the use of ChatGPT in the educational environment.

Overall, the results of this study show that ChatGPT has become part of the learning process of students of the Educational Technology Study Program, State University of Semarang. The high perception of students in the aspects of utilization, digital literacy, and academic ethics shows that the use of AI not only provides convenience in academic activities but is also followed by students' ability to use technology critically and responsibly. The results of this study reinforce that the use of ChatGPT has the potential to support the learning process in higher education if it is accompanied by good digital literacy and an understanding of academic ethics.

CONCLUSION

This study shows that students of the Educational Technology Study Program, State University of Semarang have a positive perception of the use of ChatGPT in lecture activities reviewed from the aspects of utilization, digital literacy, and academic ethics. These results answer the purpose of the research that the use of ChatGPT is seen as able to support the learning process if used wisely, supported by digital literacy skills, and still pay attention to academic ethics in every academic activity. These findings show that the use of Artificial Intelligence (AI) in higher education not only provides convenience in obtaining information and supporting the learning process but also requires students' ability to think critically and responsibly in using technology. This research contributes to the development of studies on the use of AI in the education sector, especially in providing an empirical picture of students' perceptions of the use of ChatGPT as a learning support. The results of this research are expected to be a reference for universities in developing learning policies and strategies that integrate AI effectively, as well as being the basis for future research to examine the use of AI in different contexts, educational levels, or research methods so that it can expand understanding of the implementation of AI in the world of education.

DECLARATION OF GENERATIVE AI

The authors declare that no generative AI or AI-assisted technologies were used in the writing process of this manuscript.

CONFLICTING INTEREST STATEMENT

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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