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The Negative Impact of Artificial Intelligence (AI) on Students' Learning Processes: An Islamic Counseling Perspective

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ABSTRACT

Background: Artificial Intelligence (AI) has transformed education by enabling students to access information and complete academic tasks more efficiently. However, excessive and uncontrolled AI use may reduce critical thinking, learning independence, academic motivation, and social interaction. Empirical evidence is therefore needed to understand these negative impacts and to formulate appropriate educational interventions.

Purpose: This quantitative study analyzed the negative influence of AI utilization on students' learning processes and examined its implications from the perspective of Islamic Counseling.

Method: A quantitative survey involved 36 students selected through purposive sampling. Data were collected using a 20-item, four-point Likert-scale questionnaire with high reliability (Cronbach's $\alpha = 0.988$) and analyzed using descriptive statistics (frequency, percentage, mean, and standard deviation) to examine students' perceptions of the negative effects of AI on learning activities.

Results: Excessive AI use negatively affected several aspects of students' learning, including increased dependence on AI for academic tasks, decreased critical thinking, reduced learning motivation and independence, declining reading habits and information verification, and limited academic interaction with teachers and peers. The convenience of AI may also reduce students' responsibility for constructing knowledge independently.

Conclusion: This study offers practical implications for educators and school counselors in promoting responsible AI use. From the perspective of Islamic Counseling, strengthening ṣidq (honesty), amānah (responsibility), self-control, and tabayyun is essential so that AI functions as a learning support tool rather than a substitute for students' thinking and learning processes.

KEYWORDS

Artificial Intelligence, Critical Thinking, Islamic Counseling, Learning Process, Student Learning Independence.

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INTRODUCTION

The development of digital technology has brought significant changes to the world of education, one of which is the emergence of Artificial Intelligence (AI), an innovation increasingly utilized in learning activities (Bonfield et al., 2020; Wang et al., 2024). AI makes it easier for students to access information, understand material, and complete various academic tasks quickly and efficiently (Srinivasa et al., 2022; Sajja et al., 2024; Vieriu & Petrea, 2025). AI's ability to provide instant answers and extensive information makes this technology a popular learning resource for students at various levels of education (Chen et al., 2020; Javaid et al., 2023). The use of AI also supports more flexible and adaptive learning to the development of digital technology. Therefore, AI is seen as an innovation that has the potential to increase the effectiveness of the learning process if used appropriately and responsibly (Suryanarayana et al., 2024; Rizvi et al., 2025).

Despite these benefits, the use of AI also presents challenges to student's learning. The ease of obtaining instant answers has the potential to reduce student's opportunities to develop critical thinking skills, analyze information, and solve problems independently (Lin & Chen, 2024; Garzón et al., 2025). Furthermore, dependence on AI can reduce learning motivation, weaken the habit of reading various learning resources, and reduce the ability to verify the accuracy of information obtained. This situation indicates that excessive use of AI not only impacts cognitive aspects but can also change student's learning behavior, making them more passive and dependent on technology (Zhang et al., 2024; Fan et al., 2025). This phenomenon is increasingly evident in everyday academic life. Many students use AI as their primary choice for completing assignments rather than reading books, discussing with friends, or consulting with teachers. As a result, the learning process is more oriented towards achieving quick results than building deep understanding (Grassini, 2023). Furthermore, the convenience offered by AI also has the potential to reduce creativity, academic responsibility, and the intensity of social interaction in the learning environment. If this situation persists without adequate guidance, it is feared that the educational goal of developing independent, critical, and character-driven students will be difficult to achieve (Jayaron, 2024).

To identify developments and trends in research on the use of Artificial Intelligence (AI) in education, researchers conducted a bibliometric analysis using VOSviewer based on relevant publications. This analysis aimed to map dominant research themes and identify potential research opportunities. The visualization results show the evolving focus of AI studies in education over time, based on the interrelationships between keywords as shown in Figure 1.

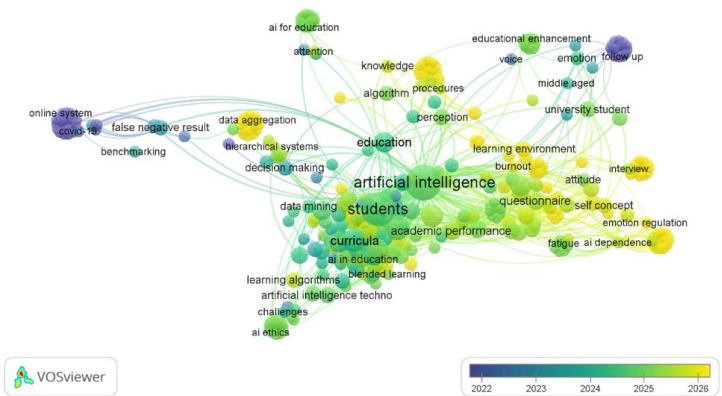


Figure 1. Visualization of Artificial Intelligence Research Trends in Education (2022-2026).

Based on Figure 1, research on *Artificial Intelligence* (AI) in the field of education is still dominated by the theme *artificial intelligence*, *students*, *education*, *academic performance*, and *curricula*, which shows that most studies focus on optimizing the use of AI to improve learning processes and outcomes. In contrast, issues related to the negative impacts of AI use, such as *AI addiction*, *burnout*, *emotion regulation*, and *self-concept*, is still considered a newly developing theme and has not been studied in depth. The findings of the bibliometric mapping indicate a research gap (*research gap*), particularly regarding the negative consequences of AI utilization on student's learning processes. Uncontrolled AI utilization has the potential to impact critical thinking skills, learning motivation, learning independence, literacy culture, information verification skills, academic responsibility, and the quality of student's social interactions. Therefore, this research is deemed important to provide empirical evidence regarding the negative impacts of AI utilization in the learning process. Based on this gap, the author is interested in conducting research entitled "The Negative Impact of Artificial Intelligence (AI) Utilization on Student's Learning Process: An Islamic Counseling Perspective."

This study aims to analyze the negative impact of the use of *Artificial Intelligence* (AI) on student's learning processes through a quantitative survey approach, focusing on critical thinking skills, learning motivation, learning independence, literacy culture, information verification skills, academic responsibility, and social interaction. This analysis was conducted by integrating an Islamic Counseling perspective that emphasizes the importance of using technology wisely based on Islamic values. *ṣidq* (honesty), *amanah* (responsibility), *tabayyun* (information verification), and self-control, so that AI functions as a learning support medium, not as a substitute for student's thinking processes. Thus, this research not only seeks to generate empirical evidence regarding the negative impacts of AI use in education, but also offers a conceptual foundation for the development of learning strategies and Islamic Counseling services that encourage the ethical, responsible, and character-building use of AI for students. The research results are expected to enrich the body of empirical studies on the impact of AI in education and serve as a reference for teachers, counselors, and educational institutions in designing policies and interventions that can minimize the negative impacts of AI without ignoring its benefits for the learning process.

RESEARCH METHODOLOGY

This study uses a quantitative approach with a descriptive survey design, this approach was chosen to obtain an empirical picture of student's perceptions of the negative impacts of the use of Artificial Intelligence (AI) in the learning process (Gazzola et al., 2020; Doyle et al., 2020; Casteel & Bridier, 2021; Rahman et al., 2024; Lim, 2025). Descriptive surveys allow researchers to describe student response tendencies based on data obtained through questionnaire distribution, thereby providing objective information about the conditions being studied. The research population is students who have utilized Artificial Intelligence (AI) as a learning resource in academic activities. The research sample consisted of 36 students selected using a purposive sampling technique. This technique was used because respondents must meet certain criteria, namely: (1) having used AI in learning activities; (2) utilizing AI to search for information, understand material, or complete academic assignments; and (3) being willing to become research respondents by completing the questionnaire completely.

The research instrument was a closed-ended questionnaire constructed using a four-level Likert Scale: Strongly Agree (S), Agree (S), Disagree (DS), and Strongly Disagree (DS) (Alsalamah & Callinan, 2021; Teplá & Distler, 2025). The questionnaire consisted of 20 statements developed based on indicators of the negative impact of AI utilization on student's learning. Before being used

as a research instrument, the questionnaire was first tested for validity and reliability to ensure each statement item was able to accurately and consistently measure the construct being studied.

Table 1. Research Instrument Indicators

No	Indicator	Number of Items
1	Critical thinking skills	3
2	Dependence on AI	3
3	Motivation to learn	3
4	Learning independence	3
5	Literacy culture	2
6	Ability to verify information	2
7	Social interaction in learning	2
8	Academic responsibility	2
Total		**20**

Data were analyzed using IBM SPSS Statistics in two stages. The first stage was descriptive statistical analysis, including frequency, percentage, mean value (*mean*), and standard deviation to describe the tendency of student's perceptions towards each research indicator (Sallis et al., 2021; Barrett et al., 2025). The second stage was a validity test using Pearson Product Moment correlation and a reliability test using Cronbach's Alpha coefficient to ensure the quality of the research instrument. The analysis results were then interpreted based on score categories and discussed using an Islamic Counseling perspective to provide an understanding of the importance of using AI ethically, responsibly, and in line with Islamic values.

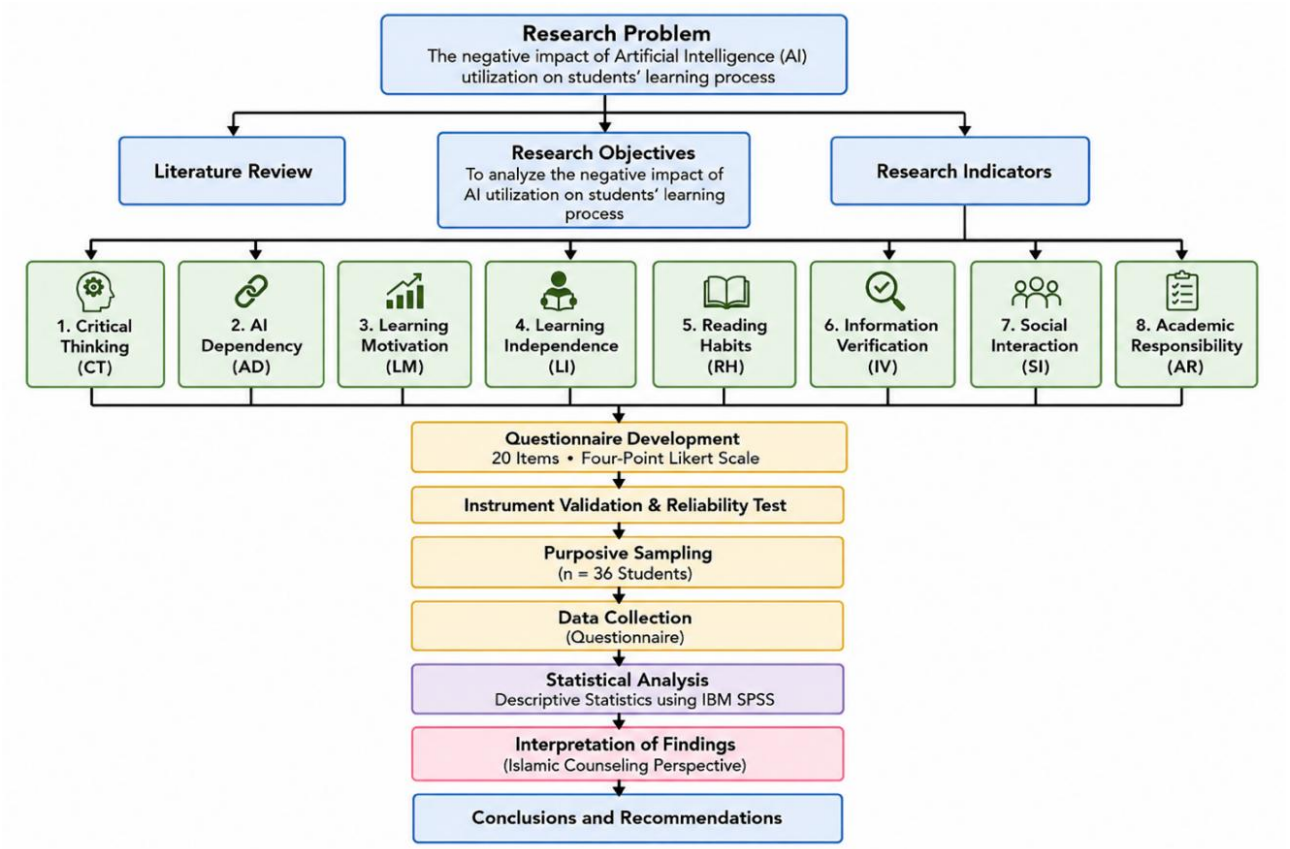


Figure 2. Research Framework

RESULT AND DISCUSSION

This study involved 36 students who had utilized Artificial Intelligence (AI) as a learning resource in their academic activities. All respondents were selected using purposive sampling techniques in accordance with the research criteria, namely having used AI to search for information, understand material, or complete learning assignments. All questionnaires were distributed in a complete manner so that all data could be analyzed.

Instrument Validity Test

Validity testing was conducted using Pearson Product Moment Correlation by correlating the score of each item with the total score. An item was declared valid if it had a correlation coefficient greater than the r-table value ($n = 36$; $\alpha = 0.05 \approx 0.329$).

Table 1. Instrument Validity Test Results

Item	r-count	Decision	Item	r-count	Decision
1	0.868	Valid	11	0.944	Valid
2	0.884	Valid	12	0.952	Valid
3	0.903	Valid	13	0.957	Valid
4	0.927	Valid	14	0.944	Valid
5	0.924	Valid	15	0.950	Valid
6	0.915	Valid	16	0.951	Valid
7	0.888	Valid	17	0.959	Valid
8	0.931	Valid	18	0.950	Valid
9	0.946	Valid	19	0.952	Valid

Based on Table 1, all statement items have calculated r-values greater than the table r-value (0.329). Correlation values range from 0.868 to 0.959, indicating that each item is able to measure the research construct well. Thus, all statement items are declared valid and suitable for use as research instruments.

Instrument Reliability Test

The reliability of the instrument was analyzed using the Cronbach's Alpha coefficient.

Table 2. Reliability Test Results

Variables	Number of Items	Cronbach's Alpha	Information
Negative Impact of AI Utilization on the Learning Process	20	0.988	Very Reliable

The analysis results showed a Cronbach's Alpha value of 0.988. This value far exceeds the minimum limit of 0.70, indicating that the research instrument has a very high level of internal consistency. This indicates that all statement items consistently measure the research constructs and can be used as a basis for further analysis.

Descriptive Analysis

Descriptive analysis was conducted to describe the tendency of respondents' perceptions regarding the negative influence of the use of Artificial Intelligence (AI) in the learning process based on 20 statement items.

Table 3. Descriptive Statistics

Statistics	Mark
Number of Respondents	36
Number of Items	20
Measurement Scale	Liked 4
Overall Mean	2.33
Category	Moderate

The overall average score of 2.33 indicates that respondents had a moderate perception of the negative impact of Artificial Intelligence (AI) use on learning. This finding indicates that while AI offers various conveniences in obtaining information and completing academic assignments, its use still has negative impacts perceived by students on various aspects of the learning process.

Indicator Based Analysis

To provide a more comprehensive picture, the analysis results are grouped based on the indicators used in the research.

Table 4. Results of Analysis of Each Indicator

Indicator	Mean	Category
Critical Thinking	2.40	Moderate
AI Dependency	2.28	Moderate
Learning Motivation	2.31	Moderate
Learning Independence	2.33	Moderate
Reading Habits	2.36	Moderate
Information Verification	2.42	Moderate
Social Interaction	2.18	Moderate
Academic Responsibility	2.46	Moderate

Overall, all indicators were in the moderate category, indicating that students have experienced negative impacts of AI across various dimensions of the learning process. The Academic Responsibility indicator received the highest average score, indicating that AI use has the potential to impact student's academic honesty and responsibility. Meanwhile, the Social Interaction indicator received the lowest average score, indicating that while AI does influence learning interactions, its impact is relatively minor compared to other aspects.

The Impact of Artificial Intelligence Utilization on Critical Thinking Skills

The research results show that the critical thinking ability indicator obtained an average score of 2.40, categorized as moderate. This finding indicates that students are beginning to experience a decline in critical thinking activity due to the use of Artificial Intelligence (AI), although the impact is not yet high. The ease of AI in providing instant answers causes some students to tend to accept information without going through in-depth analysis, evaluation, or reasoning. This condition has the potential to reduce students' opportunities to develop higher-order thinking skills, one of the key competencies in 21st-century learning (Hsu, & Wu, 2023). These results indicate that AI is not the cause of the decline in critical thinking skills, but rather how it is used is crucial. If AI is used solely as an answer provider, students will lose the opportunity to construct knowledge through

independent thinking. Conversely, if AI is used as a means of exploration, providing feedback, or stimulating discussion, the technology can support the development of critical thinking skills (Gerlich, 2025). Therefore, teachers need to design learning activities that still require students to conduct analysis, argumentation, and reflection before using the results provided by AI.

The Impact of Artificial Intelligence Utilization on Learning Dependence

The AI dependency indicator scored an average of 2.28, categorized as moderate. This finding suggests that some students are beginning to use AI as a primary resource for completing academic assignments. The ease of quickly obtaining answers makes students prefer using AI over searching for information in books, journals, or discussions with teachers and peers. Although the level of dependency is not yet considered high, this condition requires attention because if it persists, it can reduce student's ability to solve problems independently. The learning process should not only produce correct answers, but also develop skills in seeking information, analyzing various sources, and making decisions based on their own thinking (Lo, 2023). Therefore, the use of AI must be balanced with learning strategies that encourage students to actively seek references and develop independent learning skills.

The Influence of Artificial Intelligence Utilization on Learning Motivation and Independence

The results showed that the learning motivation indicator scored an average of 2.31, while the learning independence indicator scored 2.33, both of which are in the moderate category. These findings indicate that the use of AI is beginning to impact student's enthusiasm for learning and their ability to manage their own learning process. The ease of obtaining instant answers makes some students more focused on completing assignments than on deeply understanding the material. As a result, intrinsic motivation to learn can potentially decline because students feel no need to explore the material further (Yilmaz & Yilmaz, 2023). Furthermore, reliance on AI can also reduce learning independence, as students become accustomed to quickly finding solutions without the need to search for information or solve problems independently. These findings demonstrate that the use of AI should be directed as a learning support medium, not a substitute for it (Yavich, 2025). Teachers can assign project-based assignments, case studies, and reflective discussions to encourage students to construct knowledge through active learning experiences.

The Impact of Artificial Intelligence Utilization on Information Literacy and Verification Culture

The literacy culture indicator scored an average of 2.36, while the ability to verify information scored an average of 2.42, both of which are in the moderate category. These results indicate that students are beginning to experience a change in their information-obtaining habits. They tend to prefer using AI over reading various learning resources directly. This situation has the potential to undermine reading habits and the ability to evaluate the quality of information received. Information generated by AI isn't necessarily completely accurate, requiring verification through trusted scientific sources (Augenstein et al., 2024 Sison et al., 2024). Therefore, strengthening digital literacy is crucial so that students are not only able to use AI but also have the ability to evaluate, compare, and confirm the information obtained before using it in academic activities.

The Impact of Artificial Intelligence Utilization on Social Interaction and Academic Responsibility

The results showed that the social interaction indicator scored an average of 2.18, the lowest of all indicators, while the academic responsibility indicator scored an average of 2.46, the highest. Although all indicators were still in the moderate category, these findings indicate that the impact of AI was most felt in the academic responsibility aspect. The higher average score on the academic responsibility indicator indicates student's concerns about AI practices that could reduce honesty in learning, such as copying AI answers without understanding the content or reprocessing them. Conversely, the relatively lower social interaction score indicates that AI has not completely replaced student's communication with teachers or peers, although there is a tendency for discussion intensity to decrease when AI is perceived as capable of providing solutions quickly These findings indicate that the primary challenges of using AI in education are not only cognitive but also involve academic character development (Guan et al., 2025). Therefore, educational institutions need to develop guidelines for the ethical use of AI to ensure students uphold honesty, responsibility, and academic integrity.

Implications in Islamic Counseling Perspective

Overall, the study results showed an overall average score of 2.33, which falls into the moderate category, indicating that students have experienced negative impacts from AI utilization in various aspects of the learning process, although not yet at a high level. This finding indicates that AI still has benefits in learning, but its use requires guidance to prevent it from compromising the quality of student's learning. From an Islamic Counseling perspective, the results of this study reinforce the importance of instilling the values of *ṣidq* (honesty), *amānah* (responsibility), *tabayyun* (verifying information), and mujāhadah (self-control) in utilizing digital technology (Manik, 2025). The value of ṣidq teaches students not to use AI as a means of plagiarism or to obtain learning outcomes dishonestly. The value of amānah instills an awareness that academic tasks are a personal responsibility that must be completed through learning efforts (Al Hadi et al., 2026). Meanwhile, the principle of tabayyun encourages students to always check the accuracy of information generated by AI before using it as a basis for decision-making or using it in academic assignments. Thus, the results of this study indicate that AI should be positioned as a learning aid, not a substitute for thinking and learning. The role of teachers, counselors, and educational institutions is crucial in guiding students to utilize AI ethically and responsibly, while maintaining a focus on developing critical thinking skills, independent learning, and Islamic character.

CONCLUSION

This study shows that the use of Artificial Intelligence (AI) has a moderate negative impact on student's learning process, as indicated by a decline in critical thinking skills, increased dependence on AI, reduced motivation and independence in learning, a decline in literacy culture and the habit of verifying information, and the potential for decreased academic responsibility and social interaction. Therefore, teachers, counselors, and educational institutions need to direct the use of AI as a learning aid that is used ethically, responsibly, and in harmony with the values of Islamic Counseling by strengthening the attitudes of ṣidq, amanah, and tabayyun. This study still has limitations because it involved a relatively small number of respondents, used a purposive sampling technique, and only relied on perceptual data through questionnaires, so the results cannot be generalized widely. Further research is recommended to involve a larger and more diverse sample, use a mixed methods approach, and examine the relationship between the intensity of AI use with

learning outcomes and student's character formation to obtain a more comprehensive understanding.

DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this work the authorsused ChatGPT in order totranlate and correct spelling. After using this tool/service, the authorsreviewed and edited the content as needed and takesfull responsibility for the content of the publication..

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AUTHORS' CONTRIBUTION

Author 1: Conceptualization; Project administration; Writing - original draft

Author 2: Supervision; Validation.

Author 3: Supervision; Validation.

Author 4: Methodology; Data curation; Proofreading; Writing - review and editing.

Author 5: Formal analysis. In-vestigation; Retrieving data

Author 6: Formal analysis; Data curation; Retrieving data

Author 7: Investigation; Formal analysis; Retrieving data

DECLARATION OF COMPETING INTEREST

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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