

UTILIZATION OF ARTIFICIAL INTELLIGENCE FOR INCREASING LEARNING FOR STUDENTS

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Abstract: Artificial Intelligence is part of technology that has the ability copy method man think, understand information, and take action. Students are one of group the most users leveraging AI in various academic settings as a means of supporting the learning process. Research. This aim is to analyze how AI can increase the quality of learning for students, looking to know the role of AI in making learning more professional, adaptive, and effective. And also analyze the benefits and disadvantages of the use of AI in the learning process. Research was conducted based on the Systematic Literature Review (SLR) method, using PRISMA guidelines for searching scientific databases produce several scientific articles through a selection process, resulting in 12 relevant articles being analyzed. Research results show that AI provides impact on increasing quality, effectiveness, and independence for students. AI also plays an important For make learning become more professional, adaptive, and effective. However, the challenges like dependence on students against AI, a decline in motivation for learning, and weakened ability think. This is what makes the use of AI in the sector of education needs balance to ensure optimal benefits so that the creation integrity education.

Keywords: Artificial Intelligence, university students, learning effectiveness, learning motivation, systematic literature review.

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INTRODUCTION

AI has a significant impact on the world of education, with its abilities for analyzing and process data. AI has give solution more personal and adaptive learning, so that student No Again fixated on conventional methods. (Peliza, tt2024) . AI technology also accelerates the learning process with give access fast and wide on the source of relevant education. AI helps students utilise time to study in an efficient with provide material relevant and customized to their learning speed. For fulfilling individual needs, making the learning process in a way overall more effective, so that students can maximize their potential academic they (Wahyudinarti et al ., 2024) .

Based on previous studies, some big studies about the use of Artificial Intelligence (AI) in learning more emphasize the impact on effectiveness, motivation, and results Study students, meanwhile, research that is a special study of student perception student to use of AI as a learning medium is still limited. In addition, many studies done in the context of education tend to be general without considering characteristics of certain individuals, as well as not yet studied in a deep issue of dependency, ethics, and independence. Study students' use of AI. Therefore, it is necessary to conduct research that focuses on the perception of students on the use of AI as a learning medium in the context of education, to obtain a clearer, comprehensive, and contextual understanding.

The existence of AI, of course, has advantages and disadvantages. The advantages is can help a man finish complex tasks that require effectiveness and efficiency from both data and time; however, from one aspect, the drawback of AI can endanger human work. (Arly et al., 2023) . With understanding this, the AI system can give content customized learning with interests and styles. Study every student; if students feel learning is customized to their needs, then they will be more involved and more motivated for learning. AI can immediately target giving bait come back

to students, the AI system can analyze performance and tasks students in real-time, providing relevant feedback, and identify areas that need improvement. improved (Yassir, tt 2024) .

Based on the formulation problem in the study, this is how utilization of Artificial Intelligence (AI) can be implemented in the learning process for students at the college level and how far AI is capable increase effectiveness learning, motivation learning, independence learning, and the ability of students. Research This analysis utilizes AI in learning students with a review of not only aspect effectiveness learning, but also motivation, independence, and critical thinking, as well as challenge ethics and risk dependence on AI. Besides that, researchers also formulated problem related How results study previously describe AI's contribution in learning student reviewed from method research, level research, and the aspects measured. Therefore, with the use of AI in the learning process, feedback comes back fast and adapts the right material to strengthen the connection between teachers and students. AI can also help student in increase their digital literacy, which includes more from only ability to read and writing conventional. This also includes the ability to access, evaluate, and critically utilize information. (Fitriani & Arfini, 2025) .

So with the existence of AI, everything need man becomes very easy. AI is capable of providing a very effective solution for humans, starting from a problem as small as a very complex problem that even not all the experts in the field can solve problem the (Yani, 2024) . Therefore, when AI technology is used correctly, then technology can increase experience learn and encourage learning depersonalization, and even push academic. (Dwiki Zaira Nurmila et al., 2024) .

In a way overall objective of literature is to analyze systematically how Artificial Intelligence (AI) can increase the quality of learning for students at a university. This study this is also aims to know the role of AI in making learning become more personal, adaptive, and effective. And also analyze the advantages and disadvantages of AI in the learning process.

METHOD

Study: This was done with the literature review method that follows the PRISMA guidelines. Research literature is a method of research that focuses on analyzing literature or relevant literature on a research topic. Data sources for the study were obtained from studies previously related or comparable to the subject research. (Malahati et al., 2023) Have an opinion that studying literature is a type of study where the subject is literature or library. Data sources in research. This utilise study relevant previous or similar For get data. Research This entire review deep article on scientific books, journals, and literature.



Figure 1. Prism Research Steps

Data collected from Google Scholar using keywords specific to AI and education. Articles that have been obtained are selected so as not to duplicate articles , as well as ensure complete content from articles that have been obtained. Criteria eligibility in the article will be presented in the table under :

Table 1. Criteria inclusion and exclusion

Criteria	Inclusion	Exclusion
Year Publication	Article published in the last 5 years (2020-2025)	Published articles before 2020
Publication Type	Journal articles, proceedings, conferences, and reports, research that has been directed in an academic	Article in the form of opinion, review, general, or editorial
Language	English language articles, English or Indonesian	Articles written in Language besides English and Indonesian
Subject Study	Focus on students	Focus on other things, student
Accessibility	Articles with access full	Articles that only own abstract or are not available in text

At the stage of data collection, the author gathers literature from various sources via Google Scholar, to present research data, the author use method Prism.

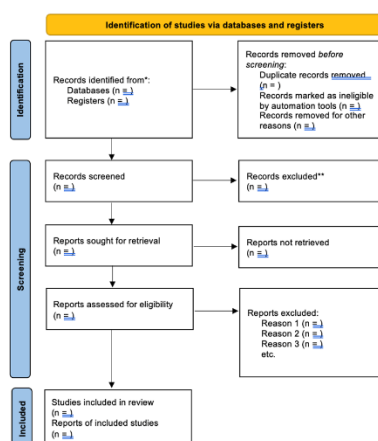


Figure 2. PRISMA Flowchart Diagram

The next step results from the findings journals that have been chosen, described in a narrative. The next analysis was made in the form comparison to look for equality or difference between articles that have been chosen for discussion and made a conclusion.

RESULT

Based on the results search literature search via Google Scholar, you can obtain several relevant articles on this. At this stage, several article beginning, after the screening process is carried out, with delete article duplicate articles being deleted, and the title as well as abstract, the number article reduced. Next, at the eligibility stage, a review is carried out on the text so that a really good article can be obtained according to with criteria research criteria. Finally, several selected articles were used as material for analysis in this systematic literature review. A visualization graphic about results selection literature served through the flowchart in Figure 2 below.



Figure 2. Selection results literature

The following is a table comparison of the results of the research we have obtained through relevant analyzed journals with the title study. This

Table 2. Comparison between the results study

No	Author Name & Year	Method	Level	Measured Aspects	Research result
1	Sehan Rifky (2024)	Qualitative	Student	Impact: The use of Artificial Intelligence (AI) in higher education, focusing on personalized learning, efficiency management, as well as challenge ethics	AI provides impact, positive like improvement, personalization, learning, efficiency administration, as well as a need for attention to student data privacy and security.
2	Ahmad Yani (2024)	Qualitative	Student	The role of AI in determine quality of students' abilities and productivity student	AI has an impact on insight and productivity student If used with good, but If No used with Good can weaken their ability think because of dependence on AI.
3	Sri Sugiarto, I. Gusti Made	Quantitative	Student	Utilization of AI in effective	Majority 89.7% of students, use AI, with

	Sulindra, & Adnan (2024)			learning; intensive use and perception student towards AI in learning	50.9% routinely; perception generally positive that AI helps understanding material and complete tasks, even though they still need adjustments to make it more effective and inclusive.
4	Muhammad Yassir & Saharuna (2024)	Quantitative (ex post facto)	Student	The impact of AI on motivation, learning, and creativity, including role motivation and creativity as mediation the influence of AI	AI has a significant influence on motivation, learning, creativity, and results. Studies have shown that it is influential when mediated by motivation, learning, and creativity.
5	Tasya, CH, Sangka, KB, & Oktorina, D. (2025)	Quantitative survey	Student	Influence utilization of AI for motivation, study students; digital literacy as a moderating variable	The use of AI has an impact positive and significant to motivation Study students; digital literacy plays a role as a negative moderator, the more tall digital literacy, the influence of AI on motivation Study the more reduce.
6	Kisno, k., Fatmawati, N., Rizqiyani, R., Kurniasih, S., & Ratnasari, EM (2023)	Qualitative	Student	Utilization of AI technology by students as a response to positive results in creativity, digital learning, and transformation	AI improves effectiveness management assignments, personal learning, feedback, and learning readiness for digital transformation, as well as awareness challenges and aspects of ethics. Use of AI in Education.
7	Syamsidar HS & Samsinar S. (2024)	Quantitative Survey	Student	Effective use of AI in learning science and	Effective AI in increase independence in studying students,

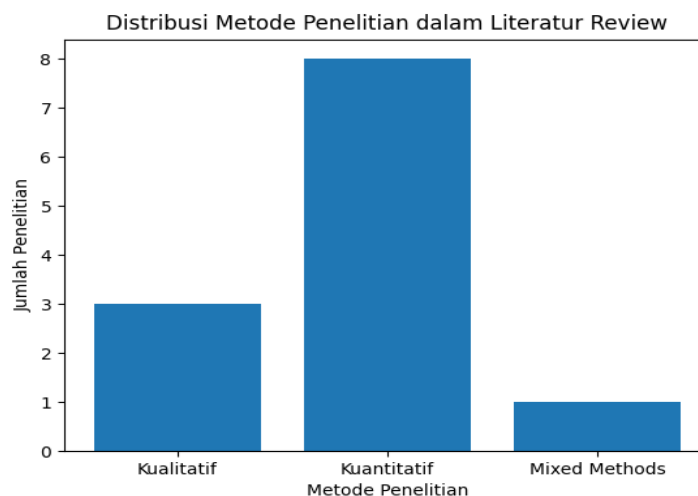
				religion to increase independence in study	especially the ability think critically, creatively, innovatively, and solve problems, with a level 80% effectiveness
8	Maulidah Amalia Putri & Lifa Farida Panduwinata (2025)	Quantitative	Student	Influence the use of AI in critical student	AI is positively influential on the ability think critical students; improve ability, facilitating settlement of assignments, and improves the learning process.
9	Umm Hanifah & Novebri (2025)	Quantitative	Student	Influence of dependence on the use of AI on the effectiveness of student	AI plays an important role in improving the effectiveness of learning, but also has the potential to lower motivation and independence in studies.
10	Nanny Mayasari, Rizki Dewantara & Yocki Yuanti (2023)	Quantitative	Student	The impact of AI and technology on the effectiveness of the learning process for students.	AI & Educational technology correlate positively; the use of AI and educational technology is significant in increasing results Study student.
11	Herwandi Sape, Muh. Ridwan & Muhammad Fuad (2025)	Mixed methods (quantitative & qualitative)	Student	Influence: The use of AI in learning interactive against literacy numeration students.	AI improves the score of literacy and numeracy students in a significant way; students become more active, independent, and involved in learning.
12	Mica Siar Meiriza, Graciela Br Sembiring, Melody Sitorus, Vidia Wardana &	Quantitative	Student	Influence the use of AI in the interest of the study students	AI is positively influential in the interest of students in studying; it increasingly increases interest in learning,

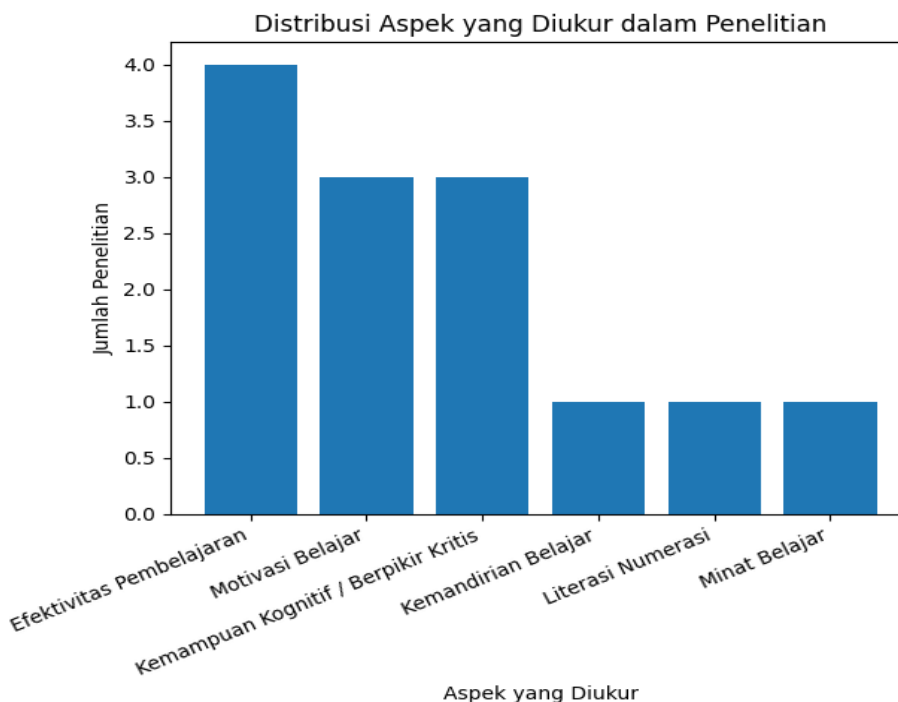
	Nur Sakinah (2024)				motivation, understanding material, and interest in students towards the learning process.
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Comparison results study previously show that each research analyzed concentrates on students as the subject of the research. Most studies use a quantitative approach in the form of a service, experiment, or ex post facto, whereas several studies use a qualitative approach, and one study use approach mixture. This shows that empirical statistical data is more suitable For analyze studies about the use of AI in learning.

Seen from results, some big studies state that intelligent artificial give impact positive impact on the process and results of the study. AI effects include improved motivation and interest student For learning, effective learning, personalized learning, ability, creativity, literacy, numeracy, and independence learn. However, some studies emphasize that AI can increase the quality of learning for students, but also raises problems like dependence, loss independence thinking, ethical problems, privacy, and data security. Therefore, AI overall increase quality of learning for students, but needs adequate supervision and digital literacy.

Figure 3. Research Method





Based on the third chart the can conclude that a big study about the use of AI in learning is dominated by quantitative methods, while several small studies use qualitative and mixed methods or a mixture. The whole study focuses on levels of students, so that show that most AI applications studied in education are at a high level, from measured aspects. Most research focuses on effective learning, followed by motivational learning, and cognitive and critical learning. In addition, more A little study was done about element independence learning, literacy, numeracy, and interest learning. Findings. This confirms that AI is seen own contribution main in increase quality of learning student especially in terms of effectiveness, motivation, and ability think

DISCUSSION

Analysis of literature shows that the use of Artificial Intelligence (AI) has a significant contribution in increase quality of learning for students at college. Most of the research analyzed shows that AI supports personalized learning, helping students understand material more effectively and increasing motivation, interest in learning, and independence learn. This is in harmony with the objective of this study, namely analyze how AI is capable of presenting experience learn more adaptively, effectively, and relevant with need student. (Merino-Campos, 2025) .

Utilization intelligence AI- made in learning college tall own Lots benefit for students, one of them is that AI makes it possible learning meaningful personalization system that can adapt materials and methods learning with learning styles and individual students. (Djakfar Musthafa, 2024) . In addition, intelligent artificial own potential to increase accessibility to education. With the help of artificial intelligence, students in remote or with physical limitations can access high-quality education of high quality from a distance of high quality . (Rifky, 2024) .

Learning that uses learning media AI- based has Lots benefits, such as reduce error, giving lots of convenience, consistency, thoroughness, and character permanence. (Lutfiyatun et al., 2023) .

Based on data analysis, intelligent artificial intelligence can be used to identify need Study unique students. Which allows learning and curriculum to be customized with the level of understanding and interests of each student (Hs & S, 2024) .

Artificial Intelligence (AI) has lots of benefits that can be utilized in education. This offer opportunity new For develop education and learning (Kisno et al ., 2023) . Ability intelligence can do things like introduction pattern, processing, and taking decision data -based has open road for change in how people use and discover information in institutions, education, and academia. This means that intelligent artificial own ability to contribute to education with create an information transfer process more easily for students, although, thus, some big studies focus on aspects of technical use of AI or general technology, without, in a way, deep learn How students see themselves as users is mainly. (Tyaningsih et al., 2024) .

The use of AI is also proven to play a role in increasing cognitive skills, such as critical thinking, creativity, literacy, and numeracy. Some studies even show that AI is influential to results when mediated by motivation, learning, and creativity. Thus, AI not only functions as a tool help academics, but also as a stimulus for the formation competence students in the digital era. According to this, although use intelligence artificial own effect positive to motivation learning, the proportion of the influence of AI in increasing motivation Study is only 10.1%, and this proportion is considered too low, so that it can be reliable in a way exclusive for increasing motivation Study. (Tasya et al ., 2025)

Participant students who have sufficient knowledge about artificial intelligence not only become passive, but they can also participate actively in a way active in evaluate opportunities and threats of technology in the academic and social sectors. If used wisely, the use of AI in education can be beneficial for students in the modern era, but it can also damage the understanding of religion. In recent years, the use of AI in field education has increased rapidly. This includes learning data analysis, development curriculum, automatic virtual tutor, and management students.

However, the results analysis also shows that the utilization of AI is not letting go of challenges. Dependence excessive against AI has the potential to lower independence and the ability think for students if not used properly. With various features that AI offers, students can study in an independent and more effective way. (Ardana et al ., 2025) . In addition, the issue ethics, data security, and privacy for users become important things that need to be addressed by the institution's education. Therefore , AI implementation must be done in a way wise, focused, and consistent pedagogically in the learning process. (Erna Widyasari et al ., 2024) .

In a way, overall findings strengthen that AI has a role in transforming learning at college high, as means supporters academic development and the development of medium competence of students, during its use in a balanced manner with digital literacy and surveillance, with adequate ethics.

CONCLUSION

Based on the literature review, it can be concluded that the use of Artificial Intelligence (AI) can help increase the quality of learning for students at college high. AI can make learning more personal, adaptive, and effective with adaptive material For fulfil need Study students. In addition, AI improves creativity, interest, motivation, and the ability think critical student as well as increase independence. This shows that AI is not only a tool help academics but also a means to increase the competence of students in the digital age.

However, the use of AI in learning does not solve the problem. Dependence excessive against AI has the potential reduce independence think students and lower their desire to learn; thus, educational institutions must notice problem ethics privacy and data security. Therefore, the

use of AI in learning must be done with care, with adequate supervision, and supported by strong digital literacy so that the benefits are maximized without effect bad.

In a way, overall, intelligent artificial own role strategic role in changing education with high technology . This can become supporters main learning process. If used in a way proportional and directed to strengthen interaction between students and instructors, AI can help build a more learning professional, flexible, and relevant system with need students in the Society 5.0 era.

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