

THE USE OF ARTIFICIAL INTELLIGENCE (AI) AS AN ACADEMIC ASSISTANT AND ITS IMPACT ON STUDENT LEARNING MOTIVATION

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ABSTRACT

The development of Artificial Intelligence (AI) in education has brought significant changes to the learning process, particularly as an academic assistant for students. This study aims to analyze the impact of AI utilization on student learning motivation. The method used was a qualitative approach through a Systematic Literature Review (SLR) using the PRIMA approach to review ten relevant scientific articles. The SLR was used systematically, structured, and transparently to identify, evaluate, and synthesize related research findings. The PRIMA approach serves as a conceptual foundation for viewing the development of student potential holistically, encompassing personal, relational, intellectual, moral, and self-actualization aspects. The results of the study indicate that the use of AI in learning can increase student learning motivation by increasing engagement, creating interactive learning, and presenting personalized material tailored to individual needs. Furthermore, AI also provides rapid and accurate feedback, supporting student understanding and independence in learning. However, the use of AI also has potential negative impacts, such as dependence on technology, which can reduce students' intrinsic motivation, creativity, and critical thinking skills. The success of AI implementation in learning is influenced by several factors, including teacher readiness, infrastructure availability, and the learning strategies used. Therefore, the use of AI needs to be done wisely, purposefully, and proportionally in order to maximize the benefits while minimizing the risks that may arise in the learning process.

Keywords: Artificial Intelligence; Academic Assistant; Learning Motivation; Interactive Learning

1. INTRODUCTION

Technological advancements in the current era of the Fourth Industrial Revolution are bringing about significant changes in various aspects of life, including education. One technology that is developing at a rapid pace is Artificial Intelligence (AI). AI is increasingly being used in the field of education because it can help humans complete various tasks quickly and efficiently. According to McCarthy (2007), AI is a technology that enables machines to mimic human intelligence in performing tasks. This makes AI increasingly relevant for use in the student learning process.

In the university setting, students as the digital generation are the group most actively utilizing AI in academic activities. Various platforms such as ChatGPT, Grammarly, and QuillBot are used as academic assistants to help understand course material, draft assignments, and improve writing quality. The convenience offered by AI makes students more likely to use it frequently in their learning process. This aligns with Davis's (1989) view in the Technology

Acceptance Model (TAM), which states that a person will use a technology if they perceive it to be easy to use and beneficial.

The increasing use of AI indicates a shift in how students learn. Students can now access information quickly and instantly without having to go through the lengthy processes of the past. On the one hand, this has positive effects, such as improving learning efficiency, helping students understand difficult material, and supporting the completion of academic assignments. On the other hand, this ease of access can also affect students' psychological well-being, particularly their motivation to learn.

Learning motivation is a crucial factor in determining students' academic success. According to McClelland (1987), achievement motivation is the internal drive within an individual to achieve goals and attain optimal results. Additionally, Sardiman (2018) explains that learning motivation is the overall driving force within a person that initiates learning activities and provides direction for those activities. Meanwhile, Uno (2011) states that learning motivation can be seen in the desire to succeed, the drive to learn, and perseverance in tackling tasks. Students with high learning motivation tend to be more active, diligent, and enthusiastic about participating in the learning process. Conversely, students with low learning motivation tend to make less effort and do not perform optimally in their studies.

In the context of using AI as an academic assistant, there are two potential effects on student learning motivation. On the one hand, AI can enhance learning motivation by providing convenience, accelerating understanding, and helping students feel more confident in completing assignments. On the other hand, the use of AI also has the potential to reduce learning motivation if students become overly reliant on technology and reduce their independent study efforts.

Although numerous studies have been conducted on the use of AI in education, most research has focused primarily on the effectiveness and ease of using the technology. Meanwhile, studies specifically examining the impact of AI utilization on student learning motivation remain relatively limited. This indicates a research gap that warrants further investigation.

Based on this, this study is important to determine whether the use of AI as an academic assistant affects students' learning motivation. The urgency of this study lies in the importance of understanding the impact of technology use on students' psychological aspects, particularly learning motivation. It is hoped that this study will provide a clearer picture of how AI can be optimally utilized without diminishing students' enthusiasm and drive to learn.

2. METHODOLOGY

This study employs the Systematic Literature Review (SLR) method. SLR is a research method conducted in a systematic, structured, and transparent manner to identify, evaluate, and synthesize research findings relevant to the use of AI as an academic assistant in relation to student learning motivation.

According to Kitchenham (2004), SLR is a method designed to comprehensively collect and evaluate research evidence using standardized procedures to minimize bias and enhance the reliability of findings. Additionally, Petticrew and (Roberts, 2006) state that SLR enables researchers to obtain a comprehensive overview of a phenomenon through the systematic integration of previous research findings.

This study employs the PRIMA approach, a counseling and guidance methodology focused on the positive and comprehensive development of individual potential, encompassing personal, relational, intellectual, moral, and self-actualization aspects, so that students can develop optimally in accordance with their developmental stages. This approach also emphasizes the

importance of preventive services and character building, not just curative ones (Prayitno, 2013). The PRIMA approach is relevant as a conceptual foundation to ensure that the use of technology is not only oriented toward academic convenience but also supports students' holistic development.

According to Sugiyono (2017), analysis in literature-based research involves: collecting sources, grouping data by theme, and describing the content of the findings without manipulating the data. As a result of a selection process based on the relevance of the titles, abstracts, and content of the articles, ten articles were identified as eligible for further analysis.

3. RESULT

Based on the literature review conducted, several articles were identified that are relevant to the focus of this study on the utilization of Artificial Intelligence (AI) as an academic assistant in improving students' learning motivation. These articles were further analyzed to obtain key findings related to the role of AI technology in the learning process.

The results of the review were organized systematically to produce a structured and easily understandable discussion. Information from each study is presented in a table, including the source (author and year), research title, research focus, main theme, and resulting implications. This presentation aims to provide a clear summary and to avoid repetition between narrative explanations and the displayed data. In addition, the use of subheadings is intended to clarify the direction and focus of the discussion in each section related to the influence of AI on students' learning motivation.

Table 1. Literature Review Articles

No	Source (Author, Year)	Title	Research Focus	Main Theme	Implication
1.	Santiaji, Sukirwan, & Madawistama (2025)	Integrasi ai zep quiz untuk meningkatkan motivasi belajar aljabar siswa smp boarding school.	Effect of AI on motivation	Learning motivation	Increases interest, engagement, enthusiasm
2.	Hidayat et al. (2024)	Inovasi pembelajaran PAI: Penerapan kecerdasan buatan untuk meningkatkan motivasi siswa.	Personalized learning role	Adaptive learning	Adjusts material to student needs

3.	Hapsari et al. (2025)	Literature review: Pengaruh artificial intelligence (AI) terhadap motivasi belajar peserta didik.	Impact engagement	on Learning enangement	Students more active and motivated
4.	Gultom et al. (2024)	Pengaruh aplikasi Wordwall berbasis artificial intelligence terhadap motivasi belajar siswa.	Use of AI media	Interactive learning	Creates engaging enviroment, reduces boredom
5.	Jamilah et al. (2025)	Pemanfaatan artificial intelligence (AI) sebagai media pembelajaran interaktif dalam meningkatkan motivasi belajar murid SDN Sawahlega 02 Kabupaten Bandung.	Chatbot learning	in AI in education	Helps independent understanding
6.	Ma' fud & Abidin (2025)	Pengaruh literasi artificial intelligence terhadap motivasi belajar siswa. Jurnal Pendidikan Indonesia.	Learning adjusment	Personalized learning	Improves confidence and effectiveness
7.	Amori et al. (2025)	Analisis Penggunaan Artificial Intelligence dalam Meningkatkan Minat Belajar Siswa di SMA	Instant feedback effect	Learning feedback	Speeds up understanding

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8.	Khusna & Fadli (2025)	Pengaruh Ketergantungan Kecerdasan Buatan terhadap Motivasi Belajar Siswa pada Sistem Persamaan Linear Dua Variabel.	Risk of AI	Negative impact	Reduces creativity
9.	Supriyanto et al. (2024)	Dampak dan tantangan pemanfaatan ChatGPT dalam pembelajaran pada kurikulum merdeka: Tinjauan literatur sistematis.	AI challenges	Technology issues	May reduce intrinsic motivation
10.	Respati (2026)	Literatur Review: Pengaruh Penerapan Sistem Pembelajaran Adaptif Berbasis AI terhadap Hasil Belajar dan Motivasi Belajar.	Implementation factors	AI implementation	Depends on teacher readiness and facilities

4. DISCUSSION

Based on a compilation of studies, several relevant journals were identified regarding the use of Artificial Intelligence (AI) as an academic assistant to enhance student learning motivation. The results of these studies revealed several key findings regarding the effects of AI use, its application in learning, and its impact on student engagement and motivation.

Santiaji, Hidayat, and Hapsari (2024–2025) in their research revealed that the use of AI in the learning process can significantly increase students' learning motivation. This is

demonstrated by increased student interest in learning, active participation, and enthusiasm in engaging in learning activities compared to conventional learning methods.

Gultom and Jamilah (2024–2025) state that the use of AI, such as chatbots, adaptive learning systems, and interactive media, can create a more engaging and enjoyable learning environment. This encourages students to be more active during the learning process and helps reduce boredom.

Hidayat, Ma’fud, and Abidin (2024–2025) emphasize that AI enables personalized learning, meaning the delivery of material can be tailored to each student’s needs and abilities. This approach has proven to help improve students’ understanding of the material while fostering confidence in learning.

In his research, Amori (2025) explains that one of the advantages of AI lies in its ability to provide rapid or instant feedback. This feedback helps students quickly identify errors and make corrections, thereby making the learning process more effective and positively influencing their motivation to learn. However, Khusna, Fadli, and Supriyono (2024–2025) found that the use of AI also has the potential to cause negative impacts if not utilized wisely. Excessive reliance on AI can reduce students’ creativity and weaken their intrinsic motivation to learn independently.

Respati (2026) adds that the success of AI implementation in learning is greatly influenced by several factors, such as teacher readiness, the availability of facilities and technological infrastructure, and the learning strategies employed. Without the support of these factors, the implementation of AI will not yield optimal results.

In general, these various studies indicate that the use of Artificial Intelligence (AI) as an academic assistant has a significant impact on enhancing students’ motivation to learn. However, its implementation still requires proper management to maximize benefits and minimize potential risks.

The Impact of Artificial Intelligence on Student Learning Motivation

The impact of artificial intelligence on student learning motivation can be understood as the role of AI technology in encouraging students to be more active and enthusiastic in participating in the learning process, from both internal and external perspectives. Various studies have shown that the application of Artificial Intelligence (AI) in learning can increase student learning motivation. Santiaji, Sukirwan, and Madawistama (2025) as well as Hapsari et al. (2025) state that the use of AI results in a greater increase in motivation compared to conventional learning methods. Similar findings were also reported by Zahren et al. (2025) and Ali et al. (2025), who noted a significant increase in learning motivation following the implementation of AI in education.

Interactive and Personalized Learning

Interactive and personalized learning is an educational approach that emphasizes active student engagement and tailors instructional materials to each individual’s abilities and needs. In this context, AI plays a role in creating learning experiences that are more engaging and tailored to students’ characteristics. Hidayat, Sumarna, and Hyangsewu (2024) explain that AI supports adaptive learning, which can adjust the material to the students’ level of understanding. Additionally, the use of AI-based media such as Wordwalls (Gultom et al., 2024) and educational chatbots (Samsudin et al., 2025) has been shown to increase student participation and engagement in the learning process.

Feedback and Independent Learning

Feedback and independent learning are related to students' ability to receive immediate evaluation and manage their learning process independently without relying too heavily on teachers. AI excels at providing fast and accurate feedback. Hapsari et al. (2025) state that instant feedback helps students immediately understand their mistakes. Additionally, Fatah et al. (2025) and Ma'fud and Abidin (2025) explain that the use of AI can encourage students to learn more independently while also increasing their motivation to learn.

Negative Impacts of AI Use

The negative impacts of AI use refer to the consequences that may arise if this technology is used excessively or without adequate supervision in the learning process. Supriyono et al. (2024) and Khusna and Fadli (2025) state that uncontrolled use of AI can lead to dependence on technology, reduce creativity, and weaken students' critical thinking skills and intrinsic motivation. Therefore, the use of AI must be balanced with appropriate supervision and guidance.

Challenges in AI Implementation

Challenges in AI implementation include various obstacles encountered when applying this technology in the field of education, both in terms of facilities and human resource readiness. Respati (2026) and Samsudin et al. (2025) state that limited technological facilities, a lack of training for educators, and disparities in access are the main barriers to AI implementation. This indicates that the successful use of AI depends not only on technology but also on the readiness of the educational environment.

AI as an Academic Assistant

AI as an academic assistant can be defined as the use of artificial intelligence technology as a learning tool that helps students understand course material, complete assignments, and develop learning skills. In general, AI has proven to be an effective academic assistant. Sugiarto et al. (2024) and Mardhatillah et al. (2025) state that the use of AI can improve motivation, independence, and the quality of learning through a student-centered approach. Thus, AI functions not only as a tool but also as a partner in the learning process.

5. CONCLUSION

Based on the results of the literature review conducted, it can be concluded that the use of Artificial Intelligence (AI) as an academic assistant has a significant impact on student learning motivation. In general, the use of AI in learning can enhance learning motivation through various aspects, such as increased student interest and engagement, the creation of more interactive learning experiences, and the provision of personalized learning tailored to individual needs and abilities.

Furthermore, AI's ability to provide quick and accurate feedback supports improved student understanding and fosters independence in learning. This indicates that AI serves not only as a tool but also as a facilitator that can enrich students' learning experiences.

However, the use of AI also has the potential for negative impacts if not used wisely. Overreliance on technology can diminish students' intrinsic motivation, creativity, and critical thinking skills. Therefore, the use of AI must be balanced with supervision, guidance, and appropriate learning strategies.

Furthermore, the success of AI implementation in enhancing student learning motivation is significantly influenced by several factors, including teacher readiness, the availability of

facilities and infrastructure, and the support of the educational environment. Without these supporting factors, the use of AI will not yield optimal results.

Thus, it can be concluded that AI has great potential to enhance student learning motivation when utilized appropriately, purposefully, and proportionately. Therefore, an active role is required from educators and educational institutions in managing the use of AI to maximize its benefits and minimize any potential negative impacts.

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