Jurnal Komunikasi dan Bisnis

Artificial Intelligence Applications and Learning Interest: A Case of Communication Science Students

Ahmat Anjani[1]
Wafie Rahma Dewi[2]
Zaskia Rochmani Putri[3]
Yasqi Ikhwatuddin[4]

[1]Communication Science Study Program, Universitas Kebangsaan Republik Indonesia, Jl. Terusan Halimun No.37, Lengkong, Bandung West Java, 40263 Indonesia. E-mail: anjaniahmat252@gmail.com
[2]Communication Science Study Program, Universitas Kebangsaan Republik Indonesia, Jl. Terusan Halimun No.37, Lengkong, Bandung West Java, 40263 Indonesia. E-mail: wrahmadewi@gmail.com
[3]Communication Science Study Program, Universitas Kebangsaan Republik Indonesia, Jl. Terusan Halimun No.37, Lengkong, Bandung West Java, 40263 Indonesia. E-mail: zaskiabandung001@gmail.com
[4] Communication Science Study Program, Universitas Kebangsaan Republik Indonesia, Jl. Terusan Halimun No.37, Lengkong, Bandung West Java, 40263 Indonesia. E-mail: yasqiikhwtdn@gmail.com

Abstract

The increasing use of Artificial Intelligence (AI) in higher education has brought notable changes to the way learning activities are designed and experienced, particularly through more interactive and individualized learning approaches. From a theoretical standpoint, AI-supported learning environments are assumed to foster greater student engagement and stimulate interest in the learning process. This study aims to investigate the influence of AI application usage on the learning interest of Communication Science students at a private university in Bandung. A quantitative research approach with an explanatory survey design was applied in this study. Data were obtained from 97 students through a structured online questionnaire and analyzed using simple linear regression techniques. The results show that AI application usage has a positive and statistically significant effect on students' learning interest. Students who engage more frequently with AI-based tools tend to demonstrate higher levels of attention, enthusiasm, and inclination toward learning activities supported by AI. From a theoretical perspective, these findings contribute to the body of knowledge on technology-enhanced learning by reinforcing the role of AI in shaping students' learning interests. From a practical perspective, the findings indicate that the thoughtful integration of AI-based tools into instructional practices can enhance student engagement and motivation to learn.

Keywords

artificial intelligence application, learning interest, communication science students

Corresponding Author:
Ahmat Anjani

Email:
anjaniahmat252@gmail.com

Article History:
Received: November 11, 2025
Accepted: January 9, 2026
Published: January 13, 2026

Publisher:
LPPM Institut Bisnis dan Informatika Kwik Kian Gie

Selection and Peer-review under the responsibility of the Editor Team of Jurnal Komunikasi dan Bisnis.

OPEN ACCESS

INTRODUCTION

The progress of a nation is fundamentally shaped by the quality of its human resources in mastering knowledge and technology, particularly in responding to the challenges of the Industrial Revolution 4.0 era (Balog and Demidova, 2021). Educational standards in Indonesia are under growing pressure to advance, ensuring that students develop the knowledge and competencies needed to remain competitive in an increasingly demanding labor market and to respond effectively to rapid technological change. One effort to enhance learning quality is through the integration and utilization of technology.

In this modern era, the role of science and technology has become highly significant in societal development and national advancement. Education serves as the primary foundation for acquiring the knowledge and skills essential for advancing science and technology (Salsabila, et. al., 2021). Science and technological development are closely interconnected. To date, advancements in science and technology have progressed rapidly. The emergence of the Industrial Revolution 4.0 has become a widely recognized phenomenon, significantly influencing technological development and utilization across various sectors, including education. One of these developments is the widespread adoption of artificial intelligence technology.

In this advanced era, the development of information and communication technology has accelerated significantly, particularly in relation to Artificial Intelligence (AI) (Holmes et. al. 2019). Within the educational sphere, AI has opened new opportunities to enhance students' learning experiences. Through AI-based learning platforms, students can access personalized and interactive materials, allowing learners to adjust their learning processes based on their personal needs and preferred ways of learning.

Students' learning interests can also be stimulated through AI-powered applications, such as virtual tutors, quick-search features, and recommendation systems that suggest additional learning resources. Moreover, AI helps students analyze their learning progress and address academic difficulties more effectively.

The media play an integral role in the teaching and learning process and are fundamental to educational practice. Learning media refer to any tools that can be used to convey messages from the sender to the receiver, thereby stimulating students' thoughts, attention, emotions, and interest in learning. According to Masdar et. al. (2024), learning media are tools that present messages aligned with learning objectives. This implies that media function as components of learning resources or physical means that contain instructional materials within the student's environment and capture students' attention, thereby promoting learning. The use of learning media helps create learning experiences that are more engaging and enjoyable. Consistent with this view, Ruth Lautfer states that learning media serve as instructional aids that support teachers

in delivering instructional material, enhance students' creativity, and increase their interest in learning.

Interest, in its essence, reflects an individual's acceptance of a connection between themselves and something external. The stronger this connection, the greater the individual's interest. Students with a high interest in a particular subject will be motivated to explore the learning material more deeply. Such students naturally strive to improve their academic performance and will actively ask questions when they encounter difficulties in understanding the material. Conversely, students with low interest tend to participate less actively in the learning process, which negatively affects their learning outcomes.

Thus, students with higher levels of learning interest generally achieve better academic outcomes than those with lower levels of interest. Students who demonstrate a strong interest devote maximum attention to their studies. Interest can also be expressed through statements indicating a preference for one subject over another. A student who learns with genuine interest will make consistent efforts to study attentively, maintain high enthusiasm, and continuously motivate themselves to engage with the learning material, ultimately improving their academic achievement.

The researcher intends to examine the influence of AI-based application usage on the learning interest of Communication Science students at one private university in Bandung. This study is guided by the following research question: Do Artificial Intelligence applications influence the learning interest of Communication Science students?

This study is grounded in the Technology Acceptance Model (TAM), which explains that an individual's acceptance and use of technology are primarily determined by perceived usefulness and perceived ease of use (Davis, 1989). When students perceive AI-based applications as useful for supporting their learning and easy to operate, they are more likely to adopt and utilize these technologies consistently. Such technology acceptance is expected to enhance students' engagement, motivation, and interest in learning activities. Therefore, TAM provides a relevant theoretical framework for examining how the use of AI applications influences the learning interest of Communication Science students at one private university in Bandung.

LITERATURE REVIEW

Artificial Intelligence (AI) refers to computational approaches that enable digital systems to simulate cognitive functions such as learning, reasoning, and problem-solving. Through the use of algorithms and mathematical models, AI enables computers and digital systems to learn from data, identify patterns, and support informed decision-making. (Eriana & Zein, 2023). Recent developments in Artificial Intelligence (AI) have brought substantial changes across multiple

sectors, particularly in education. In response to the growing demand for more effective teaching and learning approaches, educational institutions have increasingly turned to AI-based solutions, which offer diverse benefits and are implemented through various forms of application.

AI technology includes a diverse set of tools and methodologies that can be integrated into educational practices. These applications include intelligent tutoring systems, personalized learning experiences, adaptive assessments, and automated grading systems. For instance, the integration of AI in foreign language education highlights the effectiveness of intelligent computer-assisted language learning (ICALL), which facilitates personalized learning through adaptive environments tailored to individual student needs (Seo et al., 2021). Furthermore, generative AI tools such as ChatGPT are increasingly recognized for their potential to enhance student learning by providing interactive environments that foster engagement and deepen understanding of complex subjects (Sullivan et al., 2023).

The role of AI in higher education has garnered substantial attention, with studies demonstrating its effectiveness in enhancing learning outcomes through personalized support and collaborative learning environments. Studies indicate that AI-powered tools can create a more responsive educational landscape, allowing educators to adapt their instructional methods to meet the diverse needs of learners (Nguyen et al., 2022). Such adaptability is crucial in higher education, where variations in students' backgrounds and learning styles necessitate tailored instructional approaches.

Several types of AI applications have been widely utilized in education, including interactive learning platforms, multimedia and visual learning tools, Learning Management Systems (LMS), and real-time classroom management systems. Interactive Learning Platforms, exemplified by tools such as Quizizz, leverage AI to create engaging and personalized learning experiences. Findings by Baidoo-Anu and Ansah (2023) highlight that AI can enhance student engagement through learner-centered educational content and formative assessments. Multimedia and Visual Learning Tools, such as Canva, utilize AI to enrich learning experiences by providing diverse and interactive content. A study conducted by Handayani et al. (2025) discusses significant advancements in educational technology and highlights its role in improving the accessibility of education through online learning and the use of multimedia.

Learning Management Systems (LMS) have undergone substantial transformation through integration of AI, streamlining administrative tasks such as grading and feedback (Baidoo-Anu & Ansah, 2023). These systems facilitate the personalization of educational content, enabling educators to deliver more customized learning experiences. Real-time classroom management tools, such as Happy Class, are essential for monitoring classroom dynamics and addressing emerging issues. The incorporation of AI in this context supports the provision of

timely feedback and assistance to educators, which is essential for sustaining effective learning environments (Baidoo-Anu & Ansah, 2023).

Students' learning interest is a key factor in achieving optimal academic outcomes. Research demonstrates that learning interest has a significant influence on academic performance, as evidenced by the regression analysis conducted by Nurhasanah and Sobandi (2016). To achieve the Minimum Mastery Criteria (KKM), it is essential for educators to improve various dimensions of learning interest, including curiosity, attention, motivation, and prior knowledge. In this context, creating a supportive and motivating learning environment becomes crucial. Several factors influence learning interest, including teaching methods, internal and external factors, and innovations in instructional design.

The incorporation of AI into educational settings has increasingly been recognized as a factor that changes how students interact with learning content and participate in the learning process. Recent research suggests that AI-based applications, including tools such as ChatGPT, can foster students' interest and motivation in learning by offering adaptive and interactive learning experiences.

Zawacki-Richter et al. (2019) emphasize that AI tools such as ChatGPT can foster greater engagement and collaboration among university students. The authors argue that interactive technologies make educational content more accessible, thereby positively influencing students' learning interest. They also highlight potential ethical dilemmas associated with AI use, particularly concerning academic integrity, which may affect students' motivation and trust in the educational process (Cotton et al., 2023). The dual impact of AI, enhancing engagement while simultaneously raising ethical concerns, underscores the need for a balanced approach to AI implementation.

Alowais et al. (2023) further illustrate the positive implications of AI by discussing its role in medical education, where tools such as ChatGPT function as virtual teaching assistants. Their findings indicate that AI can significantly enhance student engagement by providing personalized and immediate support, thereby increasing students' interest in the subject matter.

METHODS

A quantitative research approach is used in this study. Quantitative methods are used because they enable the collection of numerical data that can be statistically analyzed to test research hypotheses. Data were gathered through a structured questionnaire employing a five-point Likert scale, measuring two variables: the use of artificial intelligence applications (X) and students' learning interest (Y). The use of AI applications is operationalized through indicators reflecting students' experiences in AI-assisted learning, including cognitive support, attention and focus, learning activeness, participation, and task motivation. Meanwhile, the learning

interest (Y) is operationalized through indicators that capture students' affective and behavioral responses to the learning process, encompassing learning satisfaction, self-achievement, learning preference, academic interest, and learning enjoyment. The questionnaire was distributed online using Google Forms to facilitate convenient access and efficient data collection. The collected data were then examined using inferential statistical methods, with simple linear regression applied to assess the effect of AI application usage on students' interest in learning.

To operationalize the research variables, each construct was translated into measurable indicators. The operational indicators for Artificial Intelligence Applications and Learning Interest were derived from relevant theoretical frameworks and previous empirical studies. The questionnaire items were developed using a combination of adaptation and self-development. Several items were adapted from previous studies examining the influence of Artificial Intelligence on students' learning interest, particularly the study by Muchminiin et al. (2024), which conceptualizes learning interest through indicators such as attention, enjoyment, preference, participation, and learning satisfaction.

In addition, several items were independently developed by the researcher to suit the context of Communication Science students at one private university in Bandung and to capture aspects of AI usage that were not fully addressed in previous instruments. A detailed description of the operational indicators, dimensions, and corresponding questionnaire items is presented in Table 1.

Table 1 The Operational Indicators

Variable	Operational Definition	Dimension	Operational Indicators	Questionnaire Items	Scale
Artificial Intelligence Applications	The level of students' utilization of AI applications in learning activities	Cognitive Aspect	AI helps students understand learning materials	X1, X3, X9	Likert 1-5
		Attention and Focus	Students' focus and attention during AI-based learning	X2	Likert 1-5
		Learning Activeness	Students' activeness in AI-supported learning activities	X4, X5	Likert 1-5
		Participation	Students' participation in AI-related discussions and activities	X6, X7	Likert 1-5
		Task Motivation	Motivation to complete assignments using AI	X8	Likert 1-5
Learning Interest	Students' interest and engagement in AI-based learning	Learning Satisfaction	Satisfaction with AI-based learning experiences	Y1	Likert 1-5
		Self-Achievement	Perceived learning achievement when using AI	Y2	Likert 1-5
		Learning Preference	Preference for courses that use AI in teaching methods	Y3, Y5, Y8	Likert 1-5
		Academic Interest	Interest in AI-related projects and subjects	Y4	Likert 1-5
		Learning Enjoyment	Enjoyment and positive feelings during the learning process	Y6, Y7	Likert 1-5

The population consisted of 128 Communication Science students at one of the private universities in Bandung. A sample of 97 respondents was determined using the Slovin formula

(5% margin of error). Proportionate stratified random sampling was applied. Validity was tested using Pearson Product–Moment correlation, and reliability was assessed using Cronbach's Alpha ($\alpha > 0.60$). Statistical analyses were conducted using SPSS version 25. Hypothesis testing examined the effect of AI application usage on students' interest in learning.

RESULTS AND DISCUSSION

Results

The results indicate that the use of AI-based applications in the learning process has a substantial positive influence on students' learning interest. Across the majority of items, the "Agree" and "Strongly Agree" categories dominate the response distribution, suggesting that students perceive AI not only as a supportive tool but also as a meaningful contributor to their motivation and engagement.. In addition, the results of the questionnaire distribution are presented in the following graph.

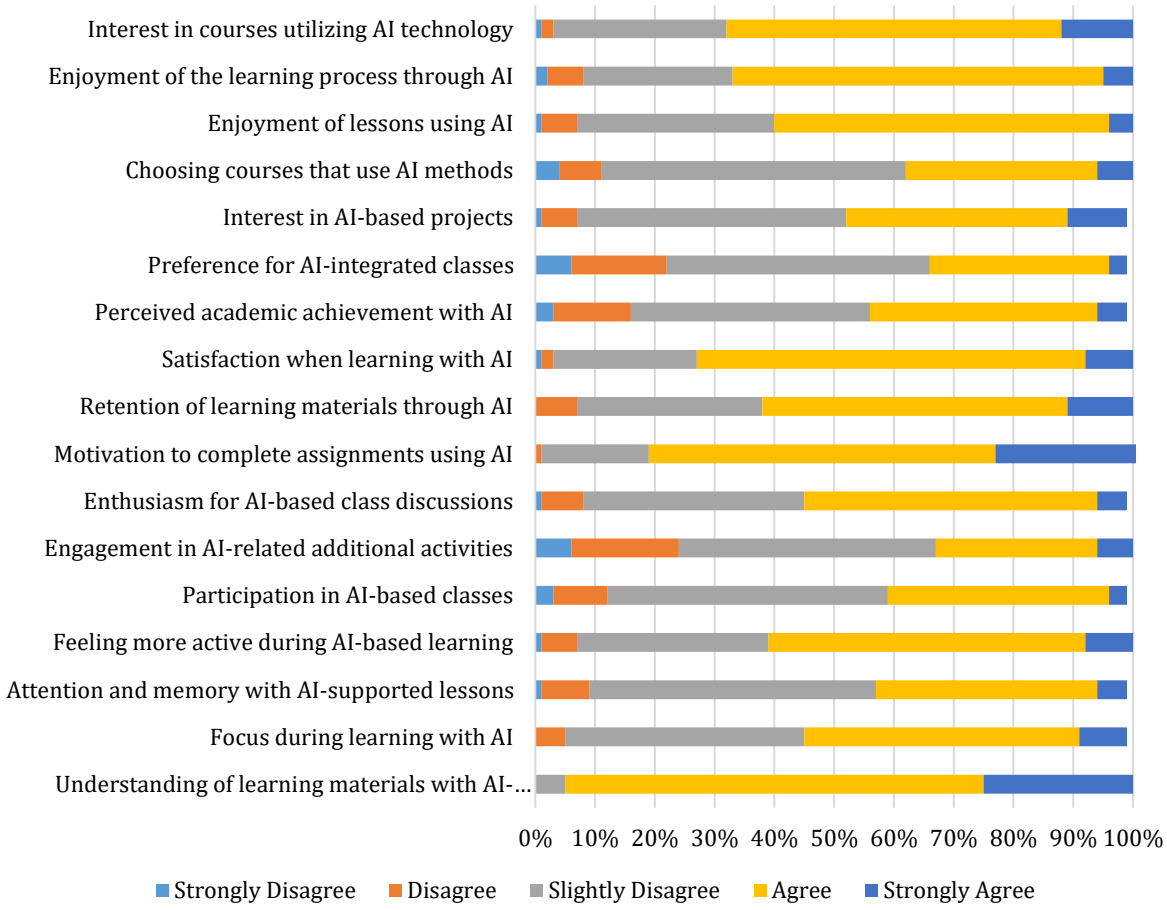

Figure 1. Distribution of Student Responses on AI Usage in Learning

The descriptive analysis of students' responses regarding the use of Artificial Intelligence (AI) in learning reveals several consistent patterns across the 17 questionnaire items. Overall, the

majority of respondents expressed positive attitudes toward the integration of AI in the learning environment.

Understanding of learning materials (X1). Most students agreed that AI-assisted learning helps them better understand course content, with 70% agreeing and 25% strongly agreeing. Only 5% indicated slight disagreement, and none responded negatively.

Focus during learning with AI (X2). A combined 54% reported an improvement in focus (46% agreed; 8% strongly agreed), while 40% slightly disagreed and 5% disagreed, suggesting moderate but not universal perceived benefits for concentration.

Attention and memory with AI-supported lessons (X3). Responses showed mixed perceptions: 48% slightly disagreed, while 42% agreed or strongly agreed that AI-supported lessons improved attention and memory. Only 1% strongly disagreed.

Feeling more active during AI-based learning (X4). A majority (53% agree; 8% strongly agree) felt more active when AI tools were used in class. Only 7% expressed disagreement at any level.

Participation in AI-based classes (X5). Nearly half (47%) reported slight disagreement about increased participation, whereas 40% agreed or strongly agreed. This indicates varied personal experiences with participation levels.

Engagement in AI-related additional activities (X6). Responses leaned neutral to somewhat negative, with 43% slightly disagreeing and 18% disagreeing. Only 33% reported agreement at varying levels, suggesting that AI does not strongly motivate extracurricular involvement.

Enthusiasm for AI-based class discussions (X7). A majority demonstrated positive attitudes: 49% agreed, and 5% strongly agreed, while 8% disagreed and 37% slightly disagreed, indicating moderate overall enthusiasm.

Motivation to complete assignments using AI (X8). Strong positive responses were recorded, with 58% agreeing and 24% strongly agreeing. Only 19% indicated any level of disagreement.

Retention of learning materials through AI (X9). More than half (51% agree; 11% strongly agree) stated that AI helps them retain material longer, while 31% slightly disagreed and 7% disagreed.

Satisfaction when learning with AI (Y1). A large majority (65% agree; 8% strongly agree) reported greater satisfaction when using AI in learning activities. Only 3% expressed disagreement.

Perceived academic achievement with AI (Y2). Responses were mixed: 40% slightly disagreed, while 43% agreed or strongly agreed. Thirteen percent disagreed, suggesting differing perceptions of AI's contribution to achievement.

Preference for AI-integrated classes (Y3). Most respondents did not strongly prefer AI-based classes; 44% slightly disagreed, and 16% disagreed. Still, 33% indicated agreement.

Interest in AI-based projects (Y4). More than half (47%) expressed agreement or strong agreement, while 45% slightly disagreed, indicating balanced but generally positive attitudes.

Choosing courses that use AI methods (Y5). Slight disagreement was relatively high (51%), but 38% agreed or strongly agreed. Only a small percentage (11%) disagreed, demonstrating uncertainty toward heavy course selection based on AI usage.

Enjoyment of lessons using AI (Y6). Most respondents (56% agree; 4% strongly agree) enjoyed AI-supported lessons, with only 7% disagreeing and 33% slightly disagreeing.

Enjoyment of the learning process through AI (Y7). A high level of positive sentiment was observed, with 62% agreeing and 5% strongly agreeing. Only 8% disagreed, and 25% slightly disagreed.

Interest in courses utilizing AI technology (Y8). Strong positive responses were recorded. Specifically, 56% agreed, and 12% strongly agreed, while only 1–2% disagreed. High student interest in AI-integrated coursework was observed.

A strong proportion of respondents reported that AI helps them understand learning material more effectively, increases their focus, and enhances their ability to retain information, which are key cognitive components of learning interest. Likewise, the high agreement observed in statements such as being more motivated to complete assignments and experiencing greater satisfaction while learning with AI shows that AI applications increase both emotional and behavioral engagement. These patterns suggest that AI positively reinforces students' willingness to participate, interact, and invest effort in academic tasks.

Students also expressed heightened enjoyment of the learning process, with more than half indicating greater enthusiasm for lessons that incorporate AI. Enjoyment is a central determinant of intrinsic learning interest, implying that AI tools create a more stimulating and interactive learning environment. Furthermore, high levels of interest in AI-related courses reflect that exposure to AI within the classroom may foster broader academic curiosity and long-term engagement.

However, several items reveal a more moderate influence. Responses related to course selection and preference for AI-based classes show mixed patterns, indicating that while students value AI as a learning enhancer, it is not the sole factor driving their decisions about course enrollment or participation. Additionally, engagement in extracurricular AI-related activities shows lower agreement, suggesting that the influence of AI is more pronounced within formal learning settings rather than beyond them.

Overall, the aggregated responses show positive patterns in students' learning interest when AI-based applications are used. Higher levels of comprehension, motivation, and enjoyment were reported. Although variations were observed across different aspects of learning behavior, student interest and engagement were consistently higher in AI-supported learning contexts.

Following the descriptive analysis of the questionnaire responses, further statistical testing was conducted to evaluate the quality of the measurement instrument. This stage focused on examining the validity and reliability of the questionnaire items to ensure that the data collected were suitable for subsequent inferential analysis. The following tables present the results of the validity test for Variable X and Variable Y.

Table 2 Validity Test Results for Variable X

No. Item	r-count	r-table (df=N-2)	Conlusion
1	0.48	0.1975	Valid
2	0.63	0.1975	Valid
3	0.655	0.1975	Valid
4	0.684	0.1975	Valid
5	0.697	0.1975	Valid
6	0.679	0.1975	Valid
7	0.634	0.1975	Valid
8	0.508	0.1975	Valid
9	0.574	0.1975	Valid

Based on Table 2, the results of the validity test for Variable X show that all items in this variable are declared valid. This decision is made because every item has an r-count value greater than the r-table value, indicating that the items successfully measure the intended construct. Validity testing was also performed on the items belonging to Variable Y. The detailed results are presented in the following table.

Table 3 Validity Test Results for Variable Y

No. Item	r-count	r-table (df=N-2)	Conlusion
1	0.606	0.1975	Valid
2	0.616	0.1975	Valid
3	0.638	0.1975	Valid
4	0.675	0.1975	Valid
5	0.713	0.1975	Valid
6	0.748	0.1975	Valid
7	0.757	0.1975	Valid
8	0.641	0.1975	Valid

Based on Table 2 and Table 3, the results indicate that all items are also valid, as each item has an r-count value greater than the r-table value, confirming that the items accurately measure the variable. In addition, the reliability test results indicate that the instrument used to measure

AI application usage is highly reliable. The results of the reliability test for Variable X are presented in the following table.

Table 4 Validity Test Results for Variable X

Reliability Statistics	Value
Cronbach's Alpha	0.830
Number of Items	9

The validity test result for Variable X is 0.830, indicating that the instrument used to measure AI application usage is highly reliable. This value exceeds the minimum requirement of 0.60 and falls within the 0.70–0.90 range, which is categorized as high reliability. Therefore, the items measuring Variable X demonstrate strong internal consistency. In addition to Variable X, reliability testing was also performed for Variable Y, which measures students' learning interest. The results of the reliability analysis for Variable Y are shown in the table below.

Table 5 Validity Test Results for Variable Y

Reliability Statistics	Value
Cronbach's Alpha	0.856
Number of Items	8

The validity test result for Variable Y is 0.856, which also exceeds the reliability threshold of 0.60. This value is within the 0.70–0.90 interval, indicating high reliability. Thus, the items measuring learning interest are internally consistent and reliable.

The reliability test results show that both variables used in this study are highly reliable: (a) Variable X (AI Application Usage): $\alpha = 0.830$; and (b) Variable Y (Learning Interest): $\alpha = 0.856$ This indicates that the questionnaire items consistently measure their respective constructs and are appropriate for use in subsequent statistical analysis.

To evaluate the proposed hypothesis, a simple linear regression analysis was performed, and the significance of the relationship between Variable X and Variable Y was examined using the t-test. The decision rule states that H_0 is rejected when the calculated t-value exceeds the t-table value at $\alpha = 0.05$. The detailed results of the t-test, including the regression coefficients and significance levels, are presented in the following table.

Table 6 Hypothesis Testing (t-test)

Model	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.
	B	**Std. Error**			
(Constant)	1.559	2.035		0.766	0.446
X	0.813	0.062	0.801	13.044	<0.001

a. Dependent Variable: Y

Based on Table 6, the calculated t-value (13.044) exceeds the critical t-value (1.66). Accordingly, the null hypothesis (H_0) was rejected. These results show a statistically significant relationship between AI application usage (X) and the learning interest of Communication Science students(Y).

Discussion

The results of this study indicate a statistically significant relationship between the use of Artificial Intelligence (AI) applications and learning interest among Communication Science students at a private university in Bandung. The regression analysis demonstrates a positive and statistically significant relationship between AI application usage and students' learning interest, providing an empirical foundation for the interpretation presented in this section. Rather than interpreting these findings solely through numerical outcomes, they can be more meaningfully understood by examining how AI functions as an instructional communication medium and how it supports the psychological processes underlying learning interest.

From the perspective of educational psychology, learning interest is closely associated with attention, motivation, emotional engagement, and sustained involvement in learning activities. Hidi and Renninger (2006) explain that learning interest often begins with situational triggers that capture learners' attention and may develop into more enduring individual interest when supported consistently. In this study, AI-based learning applications appear to function as such situational triggers by presenting learning materials in interactive, adaptive, and visually engaging formats. These characteristics help attract students' attention and maintain engagement, which explains why many respondents reported higher levels of enjoyment, motivation, and satisfaction when AI was integrated into the learning process.

Learning interest can also be understood through the concept of student engagement, which encompasses behavioral, emotional, and cognitive dimensions. Fredricks et al. (2004) emphasize that effective learning environments encourage not only active participation but also emotional involvement and cognitive investment. The positive responses observed in this study—particularly regarding motivation, enjoyment, and active participation—indicate that AI-supported learning environments foster multiple dimensions of engagement. By encouraging interaction, sustaining attention, and supporting meaningful learning activities, AI applications contribute to learning experiences that align with the core components of student engagement.

From the perspective of educational communication, learning is fundamentally a communicative process in which messages are transmitted, interpreted, and negotiated between educators, learners, and instructional media. AI-based platforms serve as mediating channels that enhance message delivery by combining textual, visual, and interactive elements. According to multimedia learning theory, proposed by Mayer (2009), learning becomes more effective when

instructional messages are presented through multiple modes that support cognitive processing. In this context, AI-supported learning environments may improve students' learning interest by reducing cognitive overload and making instructional messages more accessible and meaningful.

AI-based learning platforms also play a role in reducing transactional distance between educators and students. Moore (1997), as cited in Falloon (2011), defines transactional distance as the psychological and communication gap that may occur in mediated learning environments. AI-supported tools help minimize this distance by facilitating continuous interaction, timely feedback, and adaptive communication between learners and instructional content. As a result, students may feel more connected to the learning process, which can enhance their interest and engagement in AI-supported learning environments.

From a motivational standpoint, the findings can be interpreted using Self-Determination Theory proposed by Ryan and Deci (2000), which highlights autonomy, competence, and relatedness as key determinants of intrinsic motivation. AI applications allow students to regulate the pace of learning, access explanations tailored to individual needs, and receive immediate feedback. These features may strengthen students' perceived competence and sense of control over the learning process. When students feel capable and autonomous, their interest in learning is more likely to increase and be sustained. This mechanism helps explain why students in this study reported greater motivation to complete assignments and higher enjoyment during AI-supported learning activities.

The findings of this study are consistent with previous research on AI and learning engagement. Baidoo-Anu and Ansah (2023) reported that AI-supported learning environments enhance student engagement through learner-centered content and formative assessment. Similarly, Zawacki-Richter et al. (2019) emphasized that AI tools in higher education promote interaction and active participation, which are essential components of learning interest. The present study extends these findings by situating AI within the context of communication education, demonstrating that AI not only supports learning efficiency but also enhances students' affective and motivational engagement with instructional content.

However, the influence of AI on learning interest is not uniform across all dimensions. Several indicators related to course preference and extracurricular engagement showed more moderate responses. This suggests that while AI contributes positively to learning interest within structured classroom settings, it is not the sole determinant of students' broader academic choices. Learning interest is shaped by multiple factors, including teaching strategies, interpersonal communication, and institutional culture. In this sense, AI should be understood as a complementary instructional medium rather than a replacement for pedagogical interaction and human guidance.

Ethical considerations also play an important role in shaping students' responses to AI-based learning. Previous studies have highlighted concerns related to academic integrity, trust, and overreliance on AI technologies. Cotton et al. (2023)noted that ethical challenges associated with AI use may influence students' motivation and perceptions of fairness. Therefore, the positive relationship between AI usage and learning interest observed in this study points to the importance of balanced implementation. AI should be integrated in ways that support transparent communication, responsible use, and meaningful interaction between educators and students.

Overall, the findings suggest that AI applications enhance students' learning interest by supporting cognitive understanding, fostering motivation, and increasing enjoyment in the learning process. When viewed through the lenses of educational psychology and communication theory, AI functions as an instructional medium that strengthens message delivery, learner engagement, and motivational processes. When implemented thoughtfully, AI has the potential to enrich learning experiences and support sustained student interest in higher education, particularly in communication-based disciplines that emphasize interaction, meaning-making, and engagement.

CONCLUSION

The questionnaire instruments used to assess AI application usage (Variable X) and learning interest (Variable Y) can be regarded as both valid and reliable. The validity analysis showed that all items for both variables obtained r-count values exceeding the r-table value, indicating that each item appropriately represents the construct it was designed to measure.

In addition, the reliability analysis confirmed a high level of internal consistency. The Cronbach's Alpha coefficients reached 0.830 for Variable X and 0.856 for Variable Y, both of which surpass the minimum reliability criterion of 0.60 and fall within the category of high reliability. These results indicate that the instruments consistently measure their respective variables.

The hypothesis testing further revealed a statistically significant relationship between AI application usage and students' learning interest. This is reflected in the calculated t-value of 13.044, which is greater than the critical t-value of 1.66, along with a significance level of less than 0.001.

Taken together, these findings suggest that higher levels of AI application usage are associated with increased interest in learning among Communication Science students at a private university in Bandung. Overall, the results suggest that AI-based learning tools play a positive role in supporting student engagement, motivation, and the overall learning experience.

ACKNOWLEDGEMENTS

The author would like to express sincere appreciation to Hazman Hiwari, S.Kel., for his valuable guidance, insightful feedback, and continuous support throughout the consultation process related to the statistical analysis and interpretation of data in this research. His contributions were instrumental in ensuring the accuracy and rigor of the statistical procedures employed in the study.

REFERENCES

Alowais, S. A., Alghamdi, S. S., Alsuhebany, N., et al. (2023). Revolutionizing healthcare: The role of artificial intelligence in clinical practice. *BMC Medical Education, 23,* 689. https://doi.org/10.1186/s12909-023-04698-z

Baidoo-Anu, D., & Ansah, L. O. (2023). Education in the era of generative artificial intelligence (AI): Understanding the potential benefits of ChatGPT in promoting teaching and learning. *SSRN Electronic Journal, 7*(1), 52-62. https://doi.org/10.2139/ssrn.4337484

Balog, M. M., & Demidova, S. E. (2021). Human capital development in the context of the fourth industrial revolution. *IOP Conference Series: Earth and Environmental Science, 666*, 062120. https://doi.org/10.1088/1755-1315/666/6/062120

Cotton, D. R. E., Cotton, P. A., & Shipway, J. (2023). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International, 61*(2), 228–239. https://doi.org/10.1080/14703297.2023.2190148

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319–340.

Eriana, E. S., & Zein, A. (2023). *Artificial intelligence (AI)*. Eureka Media Aksara.

Falloon, G. (2011). Making the Connection: Moore's Theory of Transactional Distance and Its Relevance to the Use of a Virtual Classroom in Postgraduate Online Teacher Education. *Journal of Research on Technology in Education*, 43(3), 187–209. https://doi.org/10.1080/15391523.2011.10782569

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School Engagement: Potential of the Concept, State of the Evidence. *Review of Educational Research*, 74(1), 59-109. https://doi.org/10.3102/00346543074001059

Handayani, R., Annis, A., Asminanti, A., Nisya, K., & Ikhsan, A. N. (2025). Peran teknologi dalam meningkatkan kualitas pendidikan. *JARIAH: Jurnal Risalah Addariya*, 62–72. http://e-journal.staisddimangkoso.ac.id

Hidi, S., & Renninger, K. A. (2006). The Four-Phase Model of Interest Development. *Educational Psychologist*, 41(2), 111–127. https://doi.org/10.1207/s15326985ep4102_4

Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign.

Masdar, A. K. C., Nadira, L., Murnika, Y., & Wismanto. (2024). Pemilihan media pembelajaran yang tepat untuk meningkatkan hasil pencapaian belajar peserta didik. *Edukasi Elita: Jurnal Inovasi Pendidikan, 1*(3), 76–85. https://doi.org/10.62383/edukasi.v1i3.243

Mayer, R. E. (2009). PRINCIPLES FOR FOSTERING GENERATIVE PROCESSING IN MULTIMEDIA LEARNING. In *Multimedia Learning* (pp. 221–222). chapter, Cambridge: Cambridge University Press.

Muchminiin, M. A., Rahmadhani, M. K. A., Muqorobin, S., Mustaghfirullah, F., & Luthfi, O. S. (2024). Pengaruh penggunaan artificial intelligence (AI) terhadap minat belajar mahasiswa. *Mars: Jurnal Teknik Mesin, Industri, Elektro, dan Ilmu Komputer*, 2(4), 56–62. https://doi.org/10.61132/mars.v2i4.235

Nguyen, A., Ngo, H., Hong, Y., Dang, B., & Nguyen, B.-P. T. (2022). Ethical principles for artificial intelligence in education. *Education and Information Technologies, 28*, 4221–4241. https://doi.org/10.1007/s10639-022-11316-w

Nurhasanah, S., & Sobandi, A. (2016). Minat belajar sebagai determinan hasil belajar siswa. *Jurnal Pendidikan Manajemen, 1*(1), 128–135. https://doi.org/10.17509/jpm.v1i1.3264

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54–67. https://doi.org/10.1006/ceps.1999.1020

Salsabila, U. H., Putri, V. A., Cahyani, P., Annisa, A., & Yuliatin, A. T. (2021). Upaya dalam memajukan teknologi pendidikan Indonesia. *Nusantara: Jurnal Pendidikan dan Ilmu Sosial, 3*(3), 442–458. https://ejournal.stitpn.ac.id/index.php/nusantara

Seo, K., Tang, J., Roll, I., Fels, S. S., & Yoon, D. (2021). The impact of artificial intelligence on learner–instructor interaction in online learning. *International Journal of Educational Technology in Higher Education, 18*. 54. https://doi.org/10.1186/s41239-021-00292-9

Sullivan, M., Kelly, A., & McLaughlan, P. (2023). ChatGPT in higher education: Considerations for academic integrity and student learning. *Journal of Applied Learning & Teaching, 6*(1). 31-40. https://doi.org/10.37074/jalt.2023.6.1.17

Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education: Where are the educators? International *Journal of Educational Technology in Higher Education, 16*, 39. https://doi.org/10.1186/s41239-019-0171-0