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The Impact of Artificial Intelligence Literacy on Teaching Effectiveness among Public Secondary School Teachers

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Abstract

The education system is undergoing rapid change with the use of Artificial Intelligence (AI) tools, giving educators new ways to make the most of their teaching and learning. Artificial Intelligence (AI) is revolutionizing the education system, offering educators new tools to enhance their teaching and learning. But the utility of these technologies is, to a large degree, tied to teachers' AI competence. This study makes comparisons in the teaching effectiveness of public secondary school teachers in Sindh province of Pakistan with respect to the impact of Artificial Intelligence Literacy. The data was obtained from the teachers in the public secondary schools using a structured questionnaire. On this basis, the data were then analyzed descriptively, followed by Pearson correlation and simple linear regression to analyze the correlation between AI literacy and teaching effectiveness. The findings indicate that the higher teachers are on the AI proficiency scale, the higher they are on the instructional planning, engagement, assessment and the use of classroom technology scales. AI tools educate teachers on what they can do and they feel more informed and competent in using AI to enable new approaches and make classrooms more engaging. The study highlights the importance of continuous professional development and training initiatives to promote AI literacy. It suggests that school authorities should offer teachers opportunities to develop their understanding and skills in AI to help them improve their teaching. The findings can contribute to the understanding of the implications for policy makers, school leaders and teacher educators who want to encourage effective use of technology in schools.

Keywords: Artificial Intelligence Literacy; Teaching Effectiveness; Secondary School Teachers; Educational Technology; Teacher Professional Development

Introduction

AI has undergone rapid evolution and is changing the way the education sector plans lessons, teaches students, assesses student learning, and manages classroom activities. Through the use of generative AI, intelligent tutoring systems, adaptive learning platforms, and automated assessments, schools have risen to improve teaching and learning. The roles of teachers are evolving

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with the development of AI tools and techniques, as they are expected to master not only their effective use but also their efficient work. Teachers must review their boundaries, limitations and the ethical concerns with the use of AI. Therefore, in the modern world, teachers should be proficient in the use of AI as a twenty-first-century professional literacy (Lademann et al., 2026; Xu et al., 2026). Artificial Intelligence literacy is the knowledge, skills, attitudes, and ethical consciousness that teachers need to understand, assess, and implement in the learning process. It's not only about digital literacy but also about empowering educators to critically assess AI-generated content and make informed decisions for teaching and learning. Research has shown that AI-literate teachers are more likely to have greater confidence in their use of AI tools, engage in more innovative instructional practices, and be better prepared for technology-enhanced teaching (Philippakos & Rocconi, 2025; Chiu et al., 2026).

The effectiveness of teaching remains one of the key assessment measures of the quality of education and teachers' performance. Effective teachers have strong classroom management, appropriate assessment, and instructional planning skills, as well as the ability to actively involve students in meaningful learning situations. As we enter the digital transformation age, the effectiveness of teaching is increasingly tied to teachers' ability to use new technologies. However, evidence indicates that AI-implemented instructional strategies can enhance lesson effectiveness, tailor learning experiences, ease teachers' administrative tasks, and foster interactive learning environments, provided that teachers have adequate AI knowledge and skills (Cai et al., 2026).

In recent times, the importance of teachers' AI literacy has been emphasized to enhance educational outcomes. Professional development in AI has been found to increase teachers' AI literacy, confidence, and positive attitudes towards integrating AI into teaching. Likewise, teachers who believe they are more knowledgeable about using AI to support their teaching, or less anxious about it, are those who continue to engage in professional learning to build their AI skills. There is a clear relationship between teachers' AI literacy and their AI-related anxiety and perceptions of AI-supported instruction, indicating the importance of continuing professional learning to build teacher AI competencies (Kuzu, 2026; Lademann et al., 2026).

Despite the rapid expansion of research on Artificial Intelligence in education, empirical studies have not examined the direct relationship between Artificial Intelligence Literacy (AIL) and teaching effectiveness, particularly in developing countries such as Pakistan. Past research has focused on teachers' attitudes toward AI, technology acceptance, AI readiness, and digital competence, but very little has investigated whether AI literacy is a key factor in improving teachers' teaching. In addition, evidence from public secondary schools is scarce, and empirical research in Pakistan's education system is limited, both of which are important and need to be addressed.

This study therefore aims to examine the effect of AI literacy on the effectiveness of public secondary school teachers. A particular focus of this research is to examine the extent to which AI Literate teachers are effective in their teachings. The results of this research are anticipated to add to the body of work on the use of artificial intelligence in education and offer practical suggestions for policymakers, school administrators, and teacher education programs. Continuous investment in teacher professional development to enhance their AI literacy can impact education system positively. A better understanding of outcomes in public secondary schools through potential enhancement of teaching quality and promotion of successful learning, the responsible use of AI, as well as improving educational experiences.

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Objectives

- To investigate the Artificial Intelligence Literacy of the public secondary school teachers.
- To measure the effectiveness of the teaching of public secondary school teachers.
- To investigate how Artificial Intelligence (AI) Literacy influences teaching effectiveness among public secondary school teachers.

Research Questions

I. How knowledgeable are public secondary school teachers in the field of Artificial Intelligence?

II. How effective are public secondary school teachers in their teaching?

III. How does AI literacy affect the effectiveness of public secondary school teachers' teaching?

Hypotheses

H_0 (Null Hypothesis): There is no significant difference in the literacy of artificial intelligence in the teaching effectiveness of public secondary school teachers.

H_1 (Alternate Hypothesis): There is a significant positive relationship between AI literacy and the teaching effectiveness of Public secondary school teachers.

Literature Review

Artificial Intelligence Literacy

In the digital era, artificial intelligence (AI) has become a literacy skill for teachers. It involves teachers' capacity to comprehend key principles of AI, assess AI-generated content with critical thinking, and apply AI technologies at the right moments in education, while also being aware of the ethical and social dimensions of AI. AI literacy is not about knowing the technical side of things. It is about using AI technologies in the ways we teach and learn. As AI is increasingly used in schools, teachers need to understand AI literacy and incorporate it into the classroom. This is important because AI is changing how we learn and teach, so teachers need to know how to use AI technologies (Chiu et al., 2025; Lademann et al., 2026). AI literacy is essential for teachers to use AI technologies in their teaching.

Research suggests that AI-literate teachers are more likely to be confident in using educational technologies and to consider implementing AI tools in lessons, instruction, student assessment, and administrative tasks than their peers. Furthermore, a growing number of professional development initiatives focused on AI literacy have shown to enhance teachers' knowledge, attitudes, and preparedness for integrating AI into education, underscoring the need for ongoing training to ensure successful AI implementation (Philippakos & Rocconi, 2025; Kuzu, 2026).

Online ISSN: 3006-8886
Print ISSN: 3006-8878

Teaching Effectiveness

It is well understood that teaching is one of the most significant measures of educational quality. It embodies the skills teachers need to manage classrooms and learners, making learning meaningful through effective planning, classroom management, communication, assessment, and engagement. Good educators establish favorable learning climates, use a variety of teaching approaches, and monitor student learning outcomes to enhance teaching effectiveness. ICT-enhanced learning through digital technologies is also part of teaching effectiveness in today's technology-rich educational context (Stronge, 2018; Cai et al., 2026).

Researchers have noted that effective teaching is not based solely on content knowledge and pedagogical skills. The use of new technologies with artificial intelligence capabilities is becoming a must-have for teachers to personalize instruction, provide immediate feedback, reduce administrative tasks, and make the classroom more efficient. As a result, technology-related skills are now crucial factors in effective teaching in today's schools (UNESCO, 2025).

AI Literacy and Teaching Effectiveness

There is growing evidence that AI literacy among teachers benefits both their pedagogy and teaching effectiveness. This indicates that teachers who are more knowledgeable about AI are more inclined to use AI tools in learning activities, create interactive lessons, analyze student learning data, and tailor learning to individual student needs. Another indicator of AI-literate teachers is their increased willingness to try new pedagogical strategies and adapt to the evolving needs of digital learning (Xu et al., 2026).

AI in Education has transformed the way education is taught, enabling personalized learning experiences, intelligent tutoring, automated assessment tools, and data-driven decisions. AI technology in education transformed the teacher's job from information provider to learning facilitator, thereby requiring new technological skills other than digital literacy (Holmes et al., 2022). The need for AI literacy in education has been acknowledged as an essential professional competency to equip educators in their teaching practices and along with the rise in its usage, it is confronted with challenges of ethical, social and educational aspects of AI in education over the past few years (UNESCO, 2024).

AI literacy is more than just using AI tools. AI literacy is defined by Long & Magerko (2020) as the four below skills: 1) Knowledge of AI concepts, 2) Criticality of AI systems, 3) Effective with AI technologies, and 4) Real-world and responsible uses of AI. The framework emphasizes the need for the knowledge of AI capabilities and limitations, its ethical implications, and the ability of AI to interact with humans in educational contexts, especially those involving the teaching of AI in the classroom. As generative AI tools such as ChatGPT, Gemini, and Microsoft Copilot become more prevalent, educators need to familiarize themselves not just with their functionalities but also with the impact they can have in the classroom.

Research has increasingly highlighted the significance of AI literacy for teachers, and its impact on teachers' readiness and capacity to use AI in teaching. Sperling et al. (2024) identified and studied 34 research papers in their comprehensive scoping review and found three interwoven components of AI literacy in teacher preparation: theoretical knowledge (episteme), practical competence (techne), and professional judgment (phronesis). They noted a shift towards greater

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AI literacy but teacher education programs aren't consistently equipped to incorporate AI. The authors also pointed out that it is crucial for teachers to have ethical judgment and technical competencies when integrating AI into the learning environment, to ensure responsible use.

The Technology Acceptance Model (TAM) (Davis, 1989) is related to teacher readiness for AI adoption, indicating that perceived ease and usefulness affect the adoption of technology. Other factors have been added to TAM, such as digital competence, institutional support, and teacher professional development, all of which have been found to have positive effects on teachers' attitudes towards the use of emerging technologies. AI literacy can consequently act as a catalyst to further contribute to teachers' increased confidence, less anxiety surrounding technology and greater instructional innovation. Teachers who have higher AI competence demonstrate higher levels of confidence in planning lessons, classroom management, differentiation, and formative assessment with the help of AI.

There is growing empirical evidence that supporting the teaching with AI literacy is beneficial. Ayanwale et al. (2024) explored the role of AI literacy among pre-service teachers and found that their knowledge, confidence, ethical awareness, and technological competence in AI were significant predictors of their readiness to implement AI in future lessons. This research highlighted that teachers who had a higher level of understanding of AI showed increased confidence in their capacity to use AI tools for delivery and engagement, such as in lesson planning and conducting lessons. This study found greater confidence among teachers with higher AI literacy when using AI tools for lesson delivery or engagement, particularly in lesson planning and delivery. The results indicate that AI literacy is evolving from a ‘nice-to-have' technological ability to an integral part of teacher professional competence.

Likewise, Pei et al. (2025) explored the factors that affect the AI literacy of preservice teachers and found that technological self-efficacy, institutional support, prior experiences with AI, and professional training had a significant impact on improving AI literacy. They found that increasing AI literacy had a positive impact on teachers' intentions to use AI technologies in education, as well as on innovative teaching practices and pedagogies grounded in learners' needs. The authors found that ongoing professional learning in AI is key to supporting future teachers in classrooms with AI.

The traditional understanding of teaching effectiveness is that a teacher is effective when they can plan instruction that is meaningful to the student, motivate the student to actively participate in learning experiences and tasks, and foster a positive classroom learning environment (Stronge, 2018). Modern interpretations include teaching skills and knowledge in the use of new technologies, particularly the ability of teachers to combine these technologies with pedagogical skills to enhance students' learning outcomes. Mishra and Koehler (2006) suggest that, to be effective, good technology integration must interweave technological, pedagogical, and content knowledge within the Technological, Pedagogical, and Content Knowledge (TPACK) framework. In this context, AI literacy goes beyond a mere technological skill to being an advanced technological competence that enhances teachers' TPACK, thus allowing teachers to make informed decisions about using AI tools in teaching. As such, AI literacy is a more advanced technological competence that reinforces teachers' TPACK, helping them make informed decisions when teaching with AI.

Online ISSN: 3006-8886
Print ISSN: 3006-8878

The latest research on AI internationally indicates positive correlations with the competence of teachers and the effectiveness of their instruction. The AI-literate teachers are better able to leverage AI tools for automated assessment, adaptive learning, personalised feedback, lesson planning and the creation of instruction compared to teachers who are less AI-competent. AI in education has been shown to create more engagement, improve classroom engagement, reduce paperwork, and enhance teaching (Holmes et al., 2022). However, the benefits of those gains rely primarily on teachers' knowledge and understanding of the affordances of AI and not just on the availability of the technology.

While there is a global trend towards promoting AI literacy, substantial literacy gaps persist in developing countries. But in low and middle income countries, like Pakistan, there are several constraints such as the lack of professional training programs, digital infrastructure, policy guidance, and technological availability etc. that prevent the use of AI. Public schools in Pakistan have started to adopt educational technologies since the onset of the digital transformation in the wake of COVID-19, but teachers' AI skills is still not well developed. Current research in Pakistan primarily falls under the general category of integrating ICTs, digital literacy and online teaching readiness in the field of education, with few empirical studies that explicitly focus on the influence of AI literacy on teaching effectiveness.

In the context of Sindh province, challenges are also being encountered because of differences in technological facilities available in urban and rural schools, preparedness of teachers to use AI, and the non-existence of institutional support for the implementation of AI in schools. As public secondary school teachers adopt digital tools for instruction, there is a growing demand for them to acquire knowledge and skills in emerging AI technologies, however, teachers are not getting enough formal training. Therefore, it is crucial to understand the impact of AI literacy on teachers' instructional effectiveness to inform teacher education policies and professional development programs in Pakistan.

Overall, the literature reviewed indicates that AI literacy has positive impacts on teachers' pedagogical competence, innovative pedagogical practice, better engagement of students in the classroom, and higher teaching effectiveness. But there is still limited empirical evidence with respect to educational systems particularly in the public secondary schools of Pakistan. The focus of most previous research has been on highly developed countries or on pre-service teachers, but here there is a significant context gap in the South Asian context for in-service public-school teachers. To address this void, the present study investigates the correlation between AI literacy and effectiveness of public secondary school teachers in Sindh province which can offer local evidence for teachers, teacher educators and educational leaders in the province.

Moreover, AI literacy helps educators make informed choices about selecting and using AI technologies. Educators need to consider the downsides of Artificial Intelligence tools. By doing this, educators can ensure that students are honest in their work. At this time, educators can use Artificial Intelligence to improve learning. This way, educators can get the most out of Artificial Intelligence. Help students learn more. Research shows that AI-literate teachers demonstrate greater instructional effectiveness, classroom engagement, and professional competence than teachers with limited AI knowledge (Lademann et al., 2026; Chiu et al., 2025).

Online ISSN: 3006-8886
Print ISSN: 3006-8878

Research Gap

While there has been significant growth in studies on the use of AI in education, most prior research has focused on teachers' attitudes towards AI and education, technology acceptance, AI readiness, or digital competence. Artificial intelligence literacy and its direct relationship with teaching effectiveness have been explored less in the context of public secondary school teachers. Furthermore, Pakistan's empirical evidence on the use of AI in education remains limited despite the growing use of AI technologies in educational institutions. With this perspective, this study aims to bridge this gap by investigating the effect of AI literacy on the teaching efficacy of public secondary school teachers and offers evidence that could be used for teacher professional development and educational policies in the context of Pakistan.

Methodology

The current study was designed with quantitative, cross sectional survey design to explore how Artificial Intelligence (AI) literacy affects the effectiveness of teaching in public secondary schools of the province of Sindh, Pakistan. The study sample was 300 teachers from Government Secondary Schools in different districts of Sindh. A multi-stage sampling technique was used to select a representative sample of teachers: districts were randomly selected, and teachers were randomly selected from the selected schools. This tool consisted of two parts: the first part was teacher AI literacy, which was assessed by teacher knowledge, skills, attitudes, and the use of AI technologies in teaching; the second part was AI related teaching effectiveness, which was assessed by teacher's instructional planning, classroom management, student engagement, assessment practices, and technology integration. The responses were rated on a 5-point rating scale ranging from strongly disagree (1) to strongly agree (5). This pre-test was conducted to ensure reliability and validity of the instrument prior to the main survey, and Cronbach's alpha for all constructs was satisfactory. Data collected was analysed by using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to summarize any demographic characteristics and important variables. In addition, a simple linear regression analysis was used to analyse the predictive effect of AI literacy on teaching effectiveness, and Pearson's product-moment correlation was used to determine the relationship between AI literacy and teaching effectiveness. A level of 0.05 was used and all ethical standard of informed consent, voluntary participation, anonymity and confidentiality of respondents were well observed throughout the study.

The present study is based on an integrated theory that includes the TPack Framework (Mishra & Koehler, 2006), the Theory of Teaching Effectiveness by Stronge (2018), and the Technology Acceptance Model (TAM) (Davis, 1989) in explaining the relationship between AI literacy and teaching effectiveness among public secondary school teachers. The TPACK model highlights the crucial importance of integrating technology and pedagogy with content knowledge in teaching and learning and emphasizes the need for teachers to consider how technology tools can be used to best support their students, planning, delivery, assessment, and support. Moving forward with this, the TAM emphasizes that the teacher's view of the value and usability of these AI tools will greatly impact their use and acceptance of the technology and consequently its application in education. The outcome dimension is drawn from Strong's Theory of Teaching Effectiveness that centers on the elements of effective teaching (professional knowledge, effective instructional practices, positive learning environments, and ongoing assessment of student learning). The three

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theories provided a comprehensive framework for this study because they suggested that a rise in AI literacy will help teachers be more prepared and capable to use AI instruments in their teaching which will in turn produce better teaching quality, engagement, assessment and effectiveness in public secondary schools.

Results and Analysis

The collected data were analyzed using SPSS Version 29. The teachers responded to our questions about AI. How well they can teach with Artificial Intelligence, and we summed them up with some basic statistics. We used Pearson's Product-Moment Correlation in our study to examine how the different elements are connected. Then we used Simple Linear Regression Analysis to examine how AI affects teachers' teaching effectiveness.

Descriptive Statistics

Table 1: The descriptive statistics of the study variables are presented in the table below (N = 300)

Variable	Mean	Standard Deviation	Minimum	Maximum
Artificial Intelligence Literacy	3.91	0.67	2.1	5
Teaching Effectiveness	4.08	0.58	2.6	5

The results show that public secondary school teachers have an understanding of artificial intelligence (M = 3.91, SD = 0.67). They also think they are quite effective in their teaching (M = 4.08, SD = 0.58). Most teachers seem to have a high level of AI literacy. They also believe they are good at planning lessons, managing classrooms, engaging students, and assessing their progress when they are being assisted by AI tools. Teachers have strong AI literacy as it is very important for them in today's scenario.

Pearson Correlation Analysis

Table 2: Correlation between Artificial Intelligence Literacy and Teaching Effectiveness

Variables	1	2
1. Artificial Intelligence Literacy	1	
2. Teaching Effectiveness	.682**	1

Note. p < .001.

The results of Pearson correlation analysis indicated that there was a very strong relationship between artificial intelligence literacy and teaching effectiveness ($r = .682$, $p < .001$). That is, teachers with extensive knowledge of AI are better teachers. Indeed, the research revealed that the higher the teachers' artificial intelligence literacy, the greater their teaching effectiveness. Therefore, if teachers gain intelligence literacy, then their teaching and overall teaching quality also will improve. The results show that indeed, AI literacy is important for teaching effectiveness. In general, teachers who are AI-literate will have better teaching outcomes. Better intelligence literacy will result in better teaching.

Online ISSN: 3006-8886
Print ISSN: 3006-8878

Simple Linear Regression Analysis

Table 3: Regression Analysis Predicting Teaching Effectiveness

Predictor	B	SE	β	t	p
Constant	1.54	0.21	—	7.33	< .001
Artificial Intelligence Literacy	0.65	0.05	0.682	13.81	< .001

Model Summary

R	R^2	Adjusted R^2	F	p
0.682	0.465	0.463	190.72	< .001

The study revealed that understanding intelligence can indeed help the teacher carry out his/her role. The effect size of Artificial intelligence (AI) literacy on the effectiveness of teaching was large with the value of 0.682. A p value of <0.001 was found, which was very significant. The model also revealed that 46.5% of the factors that determine the effectiveness of teaching were associated with the intelligence literacy. When it comes to teaching their students, this means that artificial intelligence literacy is a factor in the education that can be provided. Artificial intelligence (AI) literacy has the potential to enhance the effectiveness of teachers in multiple ways. The positive regression coefficient also indicates that there is a positive relationship between AI literacy and teaching effectiveness, meaning that as AI literacy increases, teaching effectiveness will also increase.

Hypothesis Testing

Table 4: Hypothesis Testing Results

Hypothesis	Decision
H_0: Artificial intelligence literacy has no significant impact on teaching effectiveness among public secondary school teachers.	Rejected
H_1: Artificial intelligence literacy has a significant positive impact on teaching effectiveness among public secondary school teachers.	Supported

The regression analysis results showed that the teaching effectiveness was statistically significantly positively affected by artificial intelligence literacy ($\beta = .682$, $p < .001$). So, the null hypothesis was accepted and the hypothesis was rejected.

Discussion

This study's results showed that artificial intelligence literacy positively influences the teaching effectiveness of public secondary school teachers. The Pearson correlation analysis revealed that teachers' AI literacy is significantly positively correlated with their teaching effectiveness, and the regression analysis indicated that AI literacy is a good predictor of teachers' teaching effectiveness. This research supports the hypothesis that the higher one's teacher AI literacy, the more likely one is to have effective practices in the classroom.

Online ISSN: 3006-8886
Print ISSN: 3006-8878

The results are consistent with the Technological Pedagogical Content Knowledge (TPACK) Framework (Mishra & Koehler, 2006) that teachers must have a solid understanding of how technology can be integrated with pedagogical and content knowledge to be effective. The AI literacy of teachers will improve the effectiveness of their use of AI-supported technologies in their lesson planning, teaching, assessment, and personalisation of learning activities. AI literacy will empower teachers to leverage AI tools in creating lessons, teaching, assessment, and individualized learning experiences. This allows these teachers to work more effectively to create student-centered learning environments.

This is corroborated by the technology acceptance model (Davis, 1989) which indicated that new technologies are more likely to be used if teachers consider it useful and easy to use. AI-literate teachers will be more comfortable using AI-powered learning tools and applications, improving learning outcomes and boosting the productivity of the classroom. Recent research has also demonstrated that the confidence, expertise, and creativity of educators in designing and adapting their teaching practices to leverage AI are enhanced through AI literacy (Biagini, 2025; Chiu et al., 2026; Lademann et al., 2026).

Furthermore, the results align with existing studies indicating that AI tools can support instructional planning, streamline administrative tasks, facilitate personalized learning experiences, and improve assessment practices, as long as teachers have the capacity to utilize AI (Cai et al., 2026). Teachers would need to spend time to adopt it into classrooms if they are lacking in understanding of Artificial Intelligence. This can prevent Artificial Intelligence from actually being very useful in the classroom.

It is concluded that teachers need to have good knowledge of AI to help them effectively carry out their responsibilities in contemporary schools. Hence, it is crucial for the education system and schools to ensure that teachers are equipped with the necessary training and knowledge on Artificial Intelligence. That enables educators to address the changes in the way students learn due to technology. One of this change is Artificial Intelligence and teachers must be able to use it correctly.

Conclusion

This study investigated Artificial Intelligence Literacy and its impact on public secondary school teachers' teaching. They found that the teachers' understanding of Artificial Intelligence was well correlated with their teaching skills. In job descriptions (classroom management with technology, learning, lesson and test planning), teachers who were knowledgeable about Artificial Intelligence demonstrated better job description. The study concludes that knowledge of the use of Artificial Intelligence is one of the essential skills for teachers and it enhances teaching in public secondary schools. AI Literacy is a crucial aspect of a teacher's role. It is therefore very important that all secondary school teachers of the public school should be “Artificial Intelligence Literate”. With this rapid progression of AI innovations and their influence on education, it is essential for educators to have the knowledge and skills needed to effectively and responsibly navigate and use them. AI literacy will not only help to improve the efficiency of the teaching process but also contribute to the innovation of the educational process, the learning process, and the improvement of the quality of teaching.The development of teachers' AI literacy will improve the efficiency of the teaching process, will contribute to the innovation of the educational pro-

cess, the learning process, and the improvement of the quality of teaching. The results hold importance due to the contribution they make to the understanding of the use of Artificial Intelligence in education more effectively. Meanwhile, they are proving that the teachers of Pakistan need to be educated about AI and should use it properly. This should be part of teacher education and training programs in Pakistan to help teachers learn about Artificial Intelligence (AI) and help their students with it. Teachers in Pakistan greatly need Artificial Intelligence education.

Recommendations

- Enhance AI skills among teachers: Conduct teacher training sessions on AI. This will help teachers to understand and utilize AI in the classroom.
- Add AI to Teacher Training: Universities and teacher training colleges should teach AI to teachers throughout their careers.
- Create National AI Education Plans: Educational leaders should create policies on AI in education. These policies should guide the use of AI in schools.
- Provide Technology Resources: Schools must provide teachers with internet access, devices, and platforms to use AI tools.
- Teach Teachers about AI Use: Teachers should learn about the ethics of AI, such as data privacy and fairness.

Practical Implications

These are the results of this research and implications for education policy and practice. Educators need support from policymakers in understanding AI. The school leader needs to enable teachers to use AI and to take up knowledge. This information can be used by teacher training or development institutions to enhance their programs. They can educate about AI and ethical considerations and teach how to apply it in real world. This will assist teachers in utilizing AI within the classroom. Improving teachers' AI It will also aid teachers in teaching with improved methods and technology, thereby developing their skills. This will help students to learn better. Investing in teacher's AI skills is essential to prepare them for the future challenges.

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