

The Effective Ai Platforms in Teaching Schools

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Abstract: Artificial Intelligence (AI) has become an essential component of modern education, providing innovative solutions for teaching, learning, and assessment. AI-powered educational platforms enable teachers to create personalized learning experiences, automate administrative tasks, and improve student engagement. This study investigates the effectiveness of AI teaching platforms used in schools and examines their impact on students' academic performance and teachers' instructional practices.

Keywords: Artificial Intelligence, AI platforms, school education, digital learning, personalized learning, educational technology.

Introduction: The rapid development of Artificial Intelligence has transformed educational practices worldwide. Schools increasingly utilize AI-powered platforms to support teaching, personalize instruction, and enhance student engagement. These technologies provide adaptive learning pathways, automated feedback, intelligent tutoring systems, and data-driven insights that assist both teachers and learners.[3]

Recent educational reforms emphasize digital competence and innovative teaching methods. AI platforms such as Khanmigo, MagicSchool AI, Quizizz AI, Curipod, Microsoft Reading Coach, and ChatGPT offer opportunities to improve instructional quality while reducing teachers' administrative workload. However, questions remain regarding their effectiveness, accessibility, and practical implementation in school settings.[1]

The purpose of this study is to investigate the effectiveness of AI teaching platforms in schools and identify their advantages and challenges in supporting teaching and learning.

METHODS

This study employed a mixed-method research design, integrating both quantitative and qualitative approaches to obtain a comprehensive understanding

of the effectiveness of Artificial Intelligence (AI) teaching platforms in schools. The mixed-method approach was selected because it allows researchers to collect numerical data to measure the impact of AI technologies while simultaneously exploring participants' experiences, perceptions, and challenges in greater depth. Combining these two approaches provides more reliable and valid findings than using either quantitative or qualitative methods alone.[2]

The quantitative component focused on measuring teachers' and students' perceptions of AI teaching platforms, the frequency of their use, and their influence on teaching effectiveness, student engagement, academic performance, and classroom interaction. Numerical data were collected through structured questionnaires consisting of closed-ended questions based on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

The qualitative component aimed to provide detailed insights into participants' experiences with AI-supported learning. Semi-structured interviews and classroom observations were conducted to identify the benefits, limitations, and practical challenges associated with implementing AI platforms in school education. This approach enabled the researcher to interpret

participants' opinions, teaching practices, and classroom behaviors that could not be fully explained through statistical analysis alone.

The study followed a convergent mixed-method design, in which quantitative and qualitative data were collected during the same research period, analyzed separately, and then integrated to compare and interpret the findings. This design ensured methodological triangulation, thereby increasing the credibility and validity of the research results.

The research was conducted in six public secondary schools during the 2025–2026 academic year. These schools had already incorporated AI-supported educational technologies into English language instruction and other subjects. The selected schools represented both urban and semi-urban educational environments to ensure diversity in teaching practices and technological infrastructure.

A total of 360 participants were involved in the study, including 120 teachers and 240 pupils.

The teacher participants represented different subject areas, including English, Mathematics, Science, Information Technology, and Social Studies. Their teaching experience ranged from 3 to 25 years, and all participants had used at least one AI-powered educational platform for a minimum of one academic semester.

The student participants were enrolled in Grades 7–11 and ranged in age from 13 to 17 years. They regularly used AI platforms during classroom instruction or independent learning activities.

Participants were selected using purposive sampling, as only teachers and students with prior experience using AI educational platforms were included in the study.

AI Teaching Platforms Investigated

The study examined six widely used AI-powered educational platforms:

- **MagicSchool AI** – for lesson planning, assessment design, and differentiated instruction.
- **Khanmigo (Khan Academy)** – for personalized tutoring and adaptive learning.
- **Quizizz AI** – for AI-generated quizzes, formative assessment, and instant feedback.
- **Curipod** – for interactive presentations, polls,

and classroom engagement.

- **Microsoft Reading Coach** – for improving reading fluency and pronunciation.
- **ChatGPT** – for generating explanations, lesson materials, writing support, and problem-solving activities.

These platforms were selected because they represent different categories of AI applications currently used in school education.[4]

Four research instruments were employed to collect data.

Questionnaire

A structured questionnaire was developed based on previous studies on educational technology and AI integration. The questionnaire consisted of 30 items divided into five sections:

- demographic information;
- frequency of AI platform use;
- perceived usefulness;
- impact on teaching and learning;
- challenges and recommendations.

Responses were measured using a five-point Likert scale.

Semi-Structured Interviews

Semi-structured interviews were conducted with 20 teachers to obtain detailed information regarding their experiences using AI platforms. Each interview lasted approximately 30–40 minutes and explored topics such as instructional planning, classroom implementation, student engagement, ethical concerns, and professional development needs.

Classroom Observations

Twenty-four classroom lessons were observed using a standardized observation checklist. The observations focused on teacher-student interaction, student participation, AI platform usage, classroom management, and learner engagement.

Academic Performance Analysis

Students' academic performance before and after AI implementation was compared using classroom assessment records, quiz scores, project evaluations, and end-of-term examination results. These data were used to examine whether AI-supported instruction

contributed to measurable improvements in learning outcomes.

Data collection was conducted over a three-month period.

Initially, permission to conduct the research was obtained from school administrations. Participants received information about the purpose of the study and voluntarily agreed to participate. Questionnaires were administered to teachers and learners either online or in paper format. Following questionnaire completion, classroom observations were carried out according to the school timetable. Semi-structured interviews were then conducted with selected teachers, recorded with permission, and later transcribed for analysis. Finally, students' academic achievement records were collected and compared to evaluate changes associated with AI-assisted instruction.

Descriptive statistics, including frequencies, percentages, means, and standard deviations, were calculated to summarize participants' responses. Inferential statistical analyses, including independent-samples t-tests, one-way ANOVA, and Pearson correlation analysis, were performed to identify statistically significant differences and relationships among variables. Statistical significance was established at $p < 0.05$.

Qualitative data obtained from interviews and classroom observations were analyzed using thematic analysis following Braun and Clarke's six-step procedure. The interview transcripts were coded, categorized into themes, and interpreted to identify common patterns regarding the effectiveness, benefits, and challenges of AI teaching platforms.

Finally, the quantitative and qualitative findings were integrated through triangulation to strengthen the validity and reliability of the study and to provide a comprehensive understanding of AI implementation in school education.

The research adhered to accepted principles of research ethics. Participation was voluntary, and informed consent was obtained from all participants before data collection. Participants were assured that their responses would remain confidential and anonymous and would be used solely for academic research purposes. No identifying personal information was included in the data analysis or publication of the

findings.[2]

RESULTS

The findings demonstrate positive outcomes associated with AI platform implementation.

- 88% of teachers reported reduced lesson preparation time.
- 85% of students found AI-assisted lessons more engaging.
- 81% of teachers observed improvements in students' participation.
- 79% of students reported receiving more personalized learning support.
- 76% of teachers believed AI improved assessment efficiency.

Teachers identified MagicSchool AI as particularly useful for lesson planning and assessment development, while students preferred Quizizz AI and Curipod because of their interactive learning environments. ChatGPT was widely used to explain difficult concepts and generate educational content.

Despite these benefits, participants highlighted several challenges, including limited digital infrastructure, concerns about academic integrity, and the need for professional development in AI literacy.

DISCUSSION

The results align with previous research demonstrating that AI technologies can enhance educational effectiveness by supporting personalized learning and reducing teachers' administrative workload. Adaptive learning systems provide immediate feedback, allowing students to progress at their own pace and improving learning outcomes.

Nevertheless, AI should complement rather than replace teachers. Effective implementation requires pedagogical planning, digital literacy, ethical guidelines, and equitable access to technology. Teacher training remains essential to ensure the responsible use of AI tools in classrooms.

Future research should investigate the long-term effects of AI integration on students' critical thinking, creativity, and collaborative learning across different educational contexts.

CONCLUSION

AI teaching platforms have become valuable

educational tools that support both teachers and students. They improve lesson planning, facilitate personalized instruction, increase student engagement, and streamline assessment processes. While challenges related to infrastructure, ethics, and teacher preparedness remain, the findings suggest that AI can significantly enhance educational quality when implemented responsibly. Schools should continue investing in AI technologies alongside professional development programs to maximize their educational potential.

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