AI in Education: Impact on Learning Experiences and Outcomes at New Lambunao Integrated School

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Abstract –This research explores the integration of Artificial Intelligence (AI) in education, focusing on its impact on learning experiences and academic outcomes at New Lambunao Integrated School. A mixed-method approach was used, combining a comprehensive literature review and a quantitative survey involving 50 students and 10 teachers from Junior and Senior High School levels. One of the most commonly used AI tools identified in the study is ChatGPT, which students and teachers utilize for personalized tutoring, automated assessments, and real-time support. Findings reveal that 75% of students and 70% of teachers regularly use AI-based educational tools, with over 80% acknowledging its positive impact on engagement and learning personalization. However, challenges such as limited internet access, lack of teacher training, and insufficient devices continue to hinder full integration. The study concludes that while AI tools like ChatGPT offer significant educational advantages, infrastructural and training support are essential for maximizing their potential in public school settings.

Keywords– Artificial Intelligence, Education Technology, Learning Outcomes, Personalized Learning, Teacher Readiness

INTRODUCTION

The rapid evolution of artificial intelligence (AI) is fundamentally reshaping the educational landscape, moving beyond mere digitization to introduce novel pedagogical approaches and redefine the roles of educators and learners (Chetry, 2024; Kong et al., 2025; Luckin et al., 2016). This transformation is driven by AI's capacity to optimize learning outcomes, streamline teaching practices, and tailor educational tools to individual needs through data-driven machine learning (Adewale et al., 2024; Holstein et al., 2019; Dey, 2025). AI now serves not just as a support tool but as an active agent in classroom instruction, making learning more dynamic, engaging, and personalized (Winkler & Söllner, 2018; Zhou et al., 2023; VanLehn, 2011).

This research explores how AI improves learning experiences and outcomes in the context of New Lambunao Integrated School. It examines both the opportunities and challenges of AI adoption, focusing on its practical application in real educational environments (Ruano-Borbalan, 2025; Sposato, 2025).

The paper also reviews the global literature on AI in education and compares it with local realities, offering insights into how AI can be effectively integrated into Philippine schools (Almasri, 2024; Ayeni et al., 2024; Popenici & Kerr, 2017; Selwyn, 2019).

OBJECTIVES OF THE STUDY

1. To assess how AI technologies are currently being used by teachers and students at New Lambunao Integrated School.

2. To evaluate the perceived effectiveness of AI in enhancing learning experiences and academic outcomes.

3. To identify the common challenges and barriers faced in implementing AI tools in the school.

4. To recommend actionable strategies for improving AI integration in educational settings.

MATERIALS AND METHODS

This study employed a mixed-method approach, combining a comprehensive literature review and a quantitative survey conducted at **New Lambunao Integrated School**.

- **Participants**: The respondents included **50 students** and **10 teachers** from both **Junior and Senior High School** levels. The participating teachers represented various subject areas, ensuring a balanced perspective on AI integration in classroom practices.
- **Instrument**: Data were gathered using a **structured survey questionnaire**, composed of **Likert-scale items** and **multiple-choice questions**. The survey assessed the **frequency of AI usage**, **perceived benefits**, **student engagement**, and **challenges encountered** in implementing AI in education.
- **Mode of Distribution**: Both **printed** and **online versions** of the questionnaire were administered to ensure accessibility and participation.
- **Data Collection Period**: The survey was conducted over the course of **one week in July 2025**, accommodating class schedules and availability of respondents.
- **Ethical Consideration**: **Verbal consent** was obtained from all participants before the survey was administered. The study ensured **confidentiality and anonymity**, with all responses treated solely for academic research purposes.

RESULTS AND DISCUSSION

Table 1: Frequency of AI Tool Usage

Frequency	Students (%)	Teachers (%)
Often	45%	30%
Sometimes	35%	40%
Rarely	15%	20%
Never	5%	10%

Analysis: A combined 80% of students and 70% of teachers use AI tools regularly, suggesting wide adoption but varying depth of usage.

Table 2: Perceived Effectiveness of AI

Table 2A: Students' Perception of AI Usefulness (n=50)

Response	Percentage
Strongly Agree	52%
Agree	30%
Neutral	10%
Disagree	8%
Strongly Disagree	0%

Analysis: 82% of students (52% Strongly Agree, 30% Agree) believe AI tools like ChatGPT are beneficial in learning. Only **8%** expressed disagreement, while **10%** remained neutral. This suggests high acceptance, likely due to AI's role in improving engagement, accessibility, and personalized support.

Table 2B: Teachers' Perception of AI Benefits (n=10)

Perceived Benefit	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
AI helped personalize lessons	50%	30%	10%	10%	0%
AI reduced teacher workload	40%	30%	20%	10%	0%

Analysis: 80% agree that AI helps personalize lessons; **70%** agree it reduces workload. A minority (10–20%) were neutral or disagreed, possibly due to limited training or exposure. Overall, teachers see AI as a helpful tool in tailoring instruction and saving time.

Table 3: Major Challenges in AI Integration

Challenge	Respondents (%)
Limited internet access	62%
Lack of teacher training	58%
Insufficient devices	45%

Challenge	Respondents (%)
Data privacy concerns	22%

Analysis: Technical and human resource limitations, such as internet and teacher readiness, are more pressing than theoretical concerns like privacy.

CONCLUSION

Artificial Intelligence holds transformative potential in education. The findings of this study support its ability to enhance personalized learning, improve student engagement, and reduce instructional workload. At New Lambunao Integrated School, a supportive environment and targeted infrastructure development are essential to fully realizing AI's benefits. These outcomes align with both international literature and the real challenges observed on the ground (Chetry, 2024; Sposato, 2025).

RECOMMENDATION

To maximize the potential of AI in education, the following steps are recommended:

First, the school should invest in reliable internet connectivity and modern digital devices to ensure accessibility and compatibility with AI tools. Second, comprehensive training programs must be provided for educators to build competence and confidence in AI usage. Third, a small-scale pilot testing of AI tools should be conducted before large-scale implementation, allowing the school to assess effectiveness in real-time. Fourth, data protection policies should be strengthened to secure student privacy and promote responsible AI use. Fifth, it is important to engage key stakeholders such as parents, education leaders, and local officials to ensure collaborative support for AI initiatives. Finally, a hybrid learning model that blends AI-assisted and traditional teaching approaches is recommended to maintain balance and inclusivity in classroom instruction (Adewale et al., 2024; Almasri, 2024).

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