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ARTIFICIAL INTELLIGENCE AND STUDENT ENGAGEMENT: UNDERSTANDING TEACHERS' AND LEARNERS' EXPERIENCES

[1] Jackilyn P. Fugen
[2] Josefina R. Sarmiento, PhD

Aemilianum College Inc. Piot, Sorsogon City, Sorsogon, Philippines

Abstract

The findings shown and revealed that professional teacher's wants to have a balancing use of This study, titled *"Artificial Intelligence and Student Engagement: Understanding Teachers' and Learners' Experiences,"* investigated the influence of AI on classroom engagement among teachers and senior high school students at Gallanosa National High School. A qualitative research design was employed, involving eight teachers from various departments and twelve Grade 11 students from the CSS and STEM strands. Data were collected through focus group discussions (FGDs) and questionnaires, focusing on how AI tools are used in teaching, the challenges faced, and the necessary training and ethical considerations for responsible integration. The study aimed to understand how AI impacts educational practices and how both teachers and learners perceive its role in modern instruction.

Based on the findings, four major insights emerged: (1) AI significantly enhances student engagement by making learning more interactive, accessible, and personalized; (2) challenges such as over-reliance, distractions, and academic integrity issues arise with frequent AI use; (3) the overall perception of AI in education is positive, with participants recognizing its transformative potential despite ethical concerns; and (4) the most effective AI tools include adaptive learning platforms, AI chatbots, and personalized feedback systems that deepen participation and understanding. Conclusions drawn from the study affirm that AI contributes greatly to engaging learning environments, yet also introduces risks that must be addressed through careful implementation and policy. Furthermore, adaptive and personalized AI strategies were shown to be essential in promoting meaningful student interaction and learning.

Based on these conclusions, the study offers the following recommendations: (1) Integrate AI tools with curriculum goals to support critical thinking and active learning; (2) Promote responsible AI use through training and clear ethical guidelines; (3)

Encourage continuous professional development for educators on adaptive AI technologies; (4) Maintain a balance between AI use and human interaction to foster communication and inquiry-based learning; and (5) Carefully evaluate AI platforms for their ability to support varied learning needs and provide effective feedback. These measures aim to ensure that AI remains a supportive and ethical tool in enhancing student engagement within educational settings.

Keywords

AI engagement, Understanding Teachers and Students experiences, Aemilianum College Inc., Career and Education, Challenges In Higher Education, Graduate Studies, Master's In Information Technology, AI Understanding Experiences, AI Student Engagement, Teachers and Learners Experiences, Artificial Intelligence Engagement in classrooms.

Introduction

Artificial Intelligence (AI) is reshaping education globally, transforming how students engage with learning materials and interact with educators. Various AI-driven technologies, such as video conferencing, smart tutoring systems, and deep learning applications, have demonstrated significant potential in enhancing student engagement. According to Verma (2023), video conferencing has proven to be an effective tool for fostering interaction and collaboration in online learning, particularly during the pandemic. The study highlights how AI-powered video conferencing tools facilitated teaching and learning despite the absence of face-to-face interaction, enhancing students' ability to engage in lessons dynamically. Similarly, Guo (2024) explored AI's role in literature classes, emphasizing its impact on student engagement and emotional experiences. The research revealed that emotions such as excitement or frustration play a significant role in engagement levels, suggesting that AI-driven strategies could help make literature classes more engaging and meaningful. Furthermore, Singh (2025) examined AI's role in higher education, demonstrating how intelligent tutoring systems, AI chatbots, and personalized learning algorithms can create adaptive, student-centered learning experiences. While AI offers numerous advantages, concerns such as over-reliance on technology and ethical considerations must also be addressed to ensure its responsible implementation.

In the Philippines, AI-driven education is gaining momentum, with institutions exploring its effectiveness in enhancing student engagement. A study conducted at Medina College – Ozamiz City focused on using digital technology to improve learning outcomes, aligning with Education 4.0 and the Technology Acceptance Model (LaBad, 2025). The study assessed factors such as learners' academic performance, teachers' digital literacy, and cost-effectiveness, highlighting the need for strategic AI integration in education. Findings emphasized that while AI-powered tools have the potential to personalize learning experiences and improve engagement, the success of such technologies depends on teachers' readiness and students' adaptability. Additionally, AI adoption in Philippine schools requires consideration of digital literacy levels among educators, as well as infrastructure readiness to support AI-enhanced learning environments. These insights underscore the importance of

providing adequate training for educators and ensuring accessibility for students to maximize AI's benefits in the classroom.

At the local level, in the province of Sorsogon, AI implementation in education remains an emerging area of study. While schools and universities in the region are gradually integrating digital learning tools, research on AI's direct impact on student engagement is still limited. Teachers and students have started utilizing AI-driven platforms for online discussions, assessments, and personalized learning experiences. However, challenges such as limited access to AI tools, internet connectivity issues, and a lack of digital training for educators pose barriers to fully leveraging AI's potential. The integration of AI-powered learning management systems and intelligent tutoring platforms could provide opportunities to enhance engagement, particularly in rural schools where access to quality education remains a concern. By exploring the experiences of students and teachers in Sorsogon, this study seeks to bridge the gap in understanding AI's effectiveness in improving engagement at the local level.

The primary motivation for conducting this research is to evaluate how AI influences student engagement in education, considering both its advantages and challenges. AI has the potential to create more interactive, personalized, and effective learning environments, but its success depends on how teachers and students perceive and utilize these tools. Understanding their experiences will help identify best practices for AI integration, ensuring that technology supports rather than replaces traditional teaching methods. This study aims to contribute valuable insights for educators, policymakers, and institutions, providing recommendations on how AI can be effectively leveraged to enhance student participation, motivation, and overall learning outcomes. By addressing both the opportunities and challenges of AI in education, this research will help shape future strategies for a more engaging and technology-driven learning experience.

Statement of the Problem

Specifically, this study sought to answer the following questions:

1. How has AI influenced student engagement in your learning or teaching experience?
2. What difficulties have you experienced when using AI-powered tools to enhance engagement in learning?
3. What are your overall perceptions of AI's role in education?
4. What AI tools or teaching strategies have been most effective in keeping students engaged?

Scope and Delimitation

This study explores the influence of Artificial Intelligence (AI) on student engagement by examining the experiences of both teachers and learners. It aims to understand how AI-powered tools impact learning interactions, motivation, and participation in educational settings. Specifically, the study investigates how AI influences student engagement, the challenges encountered in using AI-powered tools, overall perceptions of AI's role in education, and the most effective AI tools or teaching strategies for enhancing student engagement. To gain in-depth insights, the study will involve six (6) teachers and six (6) students selected from Gallanosa National High School, the institution where the researcher is currently teaching. These participants will provide firsthand experiences and perspectives on the integration of AI in teaching and learning. The study will focus on AI-driven technologies such as intelligent tutoring systems, adaptive learning platforms, and AI-enhanced teaching strategies that contribute to a more interactive and personalized educational experience.

This study is delimited to Gallanosa National High School, limiting its scope to six teachers and six students from this specific school, which may not fully represent the broader educational landscape. It does not cover AI implementation in other schools, regions, or different academic levels outside this chosen institution. Additionally, the study will focus only on AI's impact on student engagement rather than broader aspects such as curriculum development, administrative applications, or ethical concerns related to AI in education. The findings will be based on the subjective experiences of the selected participants, which may vary across different educational settings. Despite these limitations, the study aims to provide valuable insights into the practical application of AI in enhancing student engagement within Gallanosa National High School.

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Gap Bridged of the Study

The reviewed studies provide a comprehensive understanding of AI's role in enhancing student engagement across different educational settings. Several studies emphasize the importance of integrating AI to create personalized learning experiences, with AI tools such as chatbots, tutoring systems, and algorithms contributing significantly to student engagement. These studies highlight the universal effectiveness of AI in improving learning outcomes by offering tailored support and real-time feedback, while also acknowledging concerns about its limitations, such as potential biases in content, data privacy issues, and the risk of reducing critical thinking. Additionally, the importance of maintaining human-centered teaching qualities, like empathy and moral guidance, is emphasized, especially as AI tools become more prevalent in education. Several studies also point out the transformative potential of AI in higher education and its ability to support both teaching and administrative functions, as well as the need for institutional policies to guide its ethical implementation.

The gap bridged by the present study lies in its specific focus on understanding the combined perspectives of both teachers and learners regarding AI's influence on student engagement and learning experiences. While previous studies provide insights into the impact of AI on student engagement in specific contexts - such as distance education or higher education institutions in the Philippines - the current study offers a broader exploration of how AI tools affect engagement in diverse educational settings. Moreover, it examines not only the benefits but also the challenges faced by both teachers and students in integrating AI, focusing on both the technical and human elements. By gathering comprehensive insights from both educators and learners, the study fills a gap in understanding how AI adoption can be optimized to promote more inclusive, engaging, and effective learning experiences for all stakeholders.

Research Focus

This study focused on the perceptions of teachers about Artificial Intelligence and Student Engagement: Understanding Teachers' and Learners' Experiences, specifically the perceptions of Senior High School (SHS) teachers at Gallanosa National High School regarding the role of Artificial Intelligence (AI) in student engagement experiences. Specifically, it examined how teachers experienced and perceived AI-driven tools, such as adaptive learning systems, AI chatbots, and automated assessment tools, in enhancing students' participation and academic involvement. The study did not include the perspectives of JHS teachers, students, parents, or school administrators of Gallanosa National High School. In addition, it did not consider the technical design of AI units, but rather checked the subjective experiences, approaches, and challenges of teachers in using these devices

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Only teachers at Gallanosa National High School and Senior High School (SHS) were the subjects of the data collection, which guaranteed that the findings were applicable to the same learning conditions. The report also acknowledged possible limitations, such as the fact that AI equipment varied throughout schools and that AI

technology was still in its infancy, which might have influenced instructors' opinions. However, how teachers and students used and viewed AI tools determined how effective these technologies were. AI had the ability to improve engagement through tailored learning routes, quick feedback, and interactive learning experiences. It was still necessary to investigate ethical issues, technical difficulties, and worries regarding AI's effect on conventional teaching techniques. Knowing how teachers and students had used AI tools was crucial to figuring out their advantages, drawbacks, and optimal ways to use them in the classroom.

Practical Recommendations for Enhancing Student Engagement through Artificial Intelligence

Rationale

The increasing integration of Artificial Intelligence (AI) in education has opened up new opportunities to boost student engagement through personalized, interactive, and adaptive learning experiences. However, while AI offers significant advantages, the study revealed challenges such as over-reliance, reduced critical thinking, and ethical concerns. These practical recommendations aim to support educators and school administrators in effectively utilizing AI tools while ensuring pedagogical integrity and balanced classroom interaction.

Objectives

1. To guide teachers in the ethical and effective use of AI tools that enhance student engagement.
2. To promote awareness of potential pitfalls of AI use and strategies to mitigate them.
3. To provide a framework for selecting and implementing appropriate AI-powered educational tools.

Goals

1. Foster responsible and balanced AI integration in classroom settings.
2. Improve learner outcomes and participation through adaptive learning technologies.
3. Equip educators with strategies to preserve critical thinking and academic honesty amidst AI use.

Strategies

1. Professional Development Training:

   a. Conduct workshops on AI tools, focusing on best practices, benefits, and limitations.
   b. Train educators on how to interpret AI-generated feedback and integrate it with human instruction.

2. Ethical Usage Policies
   a. Develop school-wide guidelines for AI use to address concerns over academic integrity and data privacy.
   b. Encourage the inclusion of critical thinking tasks that require human reflection and analysis alongside AI support.

3. AI Tool Selection Criteria
   a. Adopt AI tools that offer personalized learning paths, interactive activities, and formative feedback.
   b. Evaluate platforms for accessibility, data security, and alignment with curricular goals.

4. Balanced Teaching Approach
   a. Design lessons that combine AI engagement with collaborative discussions, teacher facilitation, and peer learning.
   b. Implement "AI-free" tasks periodically to reinforce independent thinking and creativity.

5. Monitoring and Feedback Mechanisms
   a. Regularly assess the impact of AI tools on student performance, motivation, and behavior.
   b. Gather feedback from both teachers and students to refine AI usage strategies.

Expected Outcomes

1. Increased student engagement and participation through meaningful and contextual AI integration.
2. Heightened teacher confidence in using AI tools effectively and ethically.
3. Sustained critical thinking and independent learning among students, despite technological advancements.

Findings

Based on the results of the study, the following key findings were identified and formulated:

1. AI has significantly enhanced student engagement by making learning more interactive, accessible, and personalized through instant feedback and simplified explanations.

2. Users experienced challenges such as over-reliance, distractions, and academic integrity concerns when using AI-powered tools to boost engagement.

3. Overall perceptions of AI in education were positive, with respondents recognizing its potential to improve learning experiences despite ethical and practical limitations.

4. The most effective AI tools and strategies identified included adaptive learning systems, AI chatbots, and personalized feedback platforms that encouraged participation and deeper understanding.

Conclusions

Based on the findings of this study the following conclusions were formulated:

1. AI plays a vital role in improving student engagement, as it supports more interactive, accessible, and customized learning experiences that cater to diverse student needs.

2. Despite the benefits, AI usage presents notable challenges, particularly the risk of over-dependence, reduced critical thinking, and concerns over academic integrity, which require thoughtful mitigation.

3. The positive perceptions of AI in education indicate its growing acceptance, with stakeholders acknowledging its value in enhancing both teaching and learning processes.

4. Adaptive AI tools and personalized strategies are key contributors to effective engagement, highlighting the importance of selecting and integrating the right technologies in classroom settings.

Recommendations

Based on the conclusions drawn from this study, the following recommendations were formulated:

1. Integrate AI tools strategically by aligning them with curriculum goals and learner needs to ensure that technology enhances-rather than replaces-critical thinking and active learning.

2. Promote responsible AI use by providing training and clear guidelines for both teachers and

students to prevent over-reliance and uphold academic integrity.

3. Encourage professional development for educators to familiarize them with adaptive AI systems and how to effectively implement these tools to increase student engagement.

4. Balance human interaction with AI integration by designing classroom activities that blend technology with collaborative, discussion-based, and inquiry-driven learning experiences.

5. Evaluate and select AI platforms carefully based on their capacity to offer personalized feedback, interactivity, and support for various learning styles to maximize educational benefits.

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