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NAVIGATING AI IN THE CLASSROOM: TEACHERS' INSIGHTS ON AI AS A CO-PILOT AS A COLLABORATIVE TOOL IN TEACHING

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ABSTRACT

Artificial intelligence (AI) is increasingly transforming educational practices worldwide by offering new tools to enhance teaching and learning. In the Philippine context, secondary school classrooms are beginning to integrate AI, yet there is limited understanding of teachers' experiences and perspectives regarding its collaborative use. This study addresses this gap by exploring how secondary teachers in the District of Kadingilan, Bukidnon, perceive and utilize AI as a collaborative tool in their instructional practices. The primary objectives include identifying teachers' motivations for adopting AI, documenting challenges encountered, and examining strategies employed to overcome these barriers, alongside gathering recommendations for responsible AI use. Employing a qualitative research design, data were collected through interviews and focus group discussions with selected secondary teachers during the 2025–2026 school year. Findings reveal that teachers view AI as a valuable partner in fostering collaboration and creativity but face challenges such as ethical concerns, student overreliance, and the need for professional development. Participants emphasize purposeful and ethical integration of AI, supported by continuous training and clear guidelines. This study contributes valuable local insights to the growing body of knowledge on AI in education, highlighting the importance of balancing technological innovation with pedagogical intent and ethical oversight. The results can inform future policies, teacher training programs, and the development of frameworks that promote responsible AI use, ultimately enhancing teaching effectiveness and student engagement in Philippine secondary schools.

Keyword: AI, Personalized Learning, Teaching Efficiency

1. INTRODUCTION

The integration of artificial intelligence (AI) in education is rapidly transforming teaching and learning, with AI increasingly used as a collaborative "co-pilot" to enhance teaching efficiency and personalize learning. This partnership allows teachers to leverage AI's adaptive capabilities for lesson planning, feedback, and differentiated instruction while maintaining their pedagogical expertise. However, challenges persist, including concerns about teacher replacement, algorithmic bias, data privacy, and the need for context-specific adaptation and ethical use.

International literature highlights both the promise and complexity of integrating AI in education. Studies from countries like Singapore, Australia, and Austria show that AI, when used as a collaborative "co-pilot," can enhance teaching efficiency, personalize learning, and support teachers with adaptive lesson planning and real-time feedback (Xu, 2023; U.S. Department of Education, 2023; Muellauer, Ngo, & Liang, 2025).

In the Philippines, research on AI in education is still emerging. Local studies indicate growing interest among teachers in using AI to address diverse student needs and improve instructional delivery, especially after the disruptions caused by the COVID-19 pandemic. However, significant gaps remain in understanding the ethical, infrastructural, and cultural factors that affect AI adoption in Philippine classrooms. This underscores the need for more localized research to inform contextually relevant policies and practices, ensuring that AI integration supports both educators and learners in the Philippine setting.

This study explores secondary school teachers' insights and experiences with using artificial intelligence (AI) as a collaborative tool in classroom teaching. It aims to identify teachers' reasons for using AI, document the challenges they face, and examine the strategies they use to overcome these barriers. Additionally, the research gathers recommendations for responsible and effective AI use to guide educators and inform future policies and professional development. Conducted during the school year 2025–2026 among selected secondary teachers in the District of Kadingilan, Bukidnon, the study offers valuable local perspectives on AI's impact on teaching practices and student engagement in Philippine classrooms.

2. METHODOLOGY

This study used a qualitative research design with a phenomenological approach to explore teachers' insights on using AI as a collaborative tool in teaching. The study was conducted in the Division of Bukidnon, specifically in the District of Kadingilan, and involved ten (10) secondary school teachers who had experience or interest in AI-assisted teaching. Participants were selected through purposive sampling to ensure they could provide relevant and meaningful insights related to the topic. The primary research instrument was semi-structured interviews, which allowed the researcher to gather detailed and descriptive information from the teachers about their perspectives. Data collection involved scheduling and conducting interviews at times convenient for the participants, with the sessions recorded and later transcribed for accuracy. Thematic analysis was used to analyze the data, enabling the identification and interpretation of key themes that reflect teachers' views on AI as a collaborative tool in the classroom. This approach provided a comprehensive understanding of how AI is navigated and utilized by teachers in their teaching practices.

3. RESULTS AND DISCUSSIONS

This section presents the analysis and interpretation of the data obtained from the participants of the study.

3.1 On the Idea of the reasons for using Artificial Intelligence (AI) in the Classroom

Theme: Personalized Engagement and Efficiency

The theme "Personalized Engagement and Efficiency" emerges strongly from the participants' responses, highlighting AI's dual impact on classroom teaching. Teachers describe AI as an effective tool for personalizing learning experiences, enabling them to tailor instruction to the diverse needs of their students. This is supported by several responses from the participants.

For instance, Participant 3 discusses using AI to create differentiated reading materials for mixed-ability learners, which supports both struggling and advanced students. Participant 4 similarly notes that AI platforms provide adaptive tasks that adjust to each student's proficiency, fostering greater motivation and curiosity. Participants 8 and 10 further emphasize AI's role in delivering instant, individualized feedback and customizing quizzes and writing assistance to accommodate different learning speeds and skill levels. These examples illustrate how AI facilitates a more student-centered approach, promoting engagement through relevant and responsive learning activities.

In terms of efficiency, several participants highlight AI's capacity to reduce the time and effort involved in lesson planning and administrative duties. Participant 1 points out that AI helps accelerate lesson preparation and keeps lessons engaging by suggesting relevant activities. Participant 7 echoes this by noting AI's assistance in generating content tailored to various learning styles, which streamlines instructional design. Participant 10 also mentions that AI reduces administrative workload, allowing teachers to dedicate more time to direct student interaction and instructional quality. These responses indicate that AI serves as a practical support system, enabling teachers to manage their workload more effectively without compromising lesson quality.

The participants' insights collectively demonstrate that AI functions as a collaborative tool that simultaneously enhances personalized student engagement and teaching efficiency. The examples provided reflect specific ways teachers leverage AI to address classroom challenges, such as mixed-ability instruction and time constraints, by integrating adaptive technologies and automating routine tasks. This nuanced understanding underscores the importance of viewing AI not merely as a technological addition but as an

integral component of pedagogical practice tailored to the realities of diverse classroom environments.

To maximize AI's benefits in education, professional development should focus on both technical skills and pedagogical strategies that support personalized learning. Improving access to technology and infrastructure, especially in underserved areas, is essential. Additionally, curricula should integrate AI-enabled resources that aid differentiated instruction and real-time feedback, helping teachers create more engaging and efficient learning environments.

Recent studies from the Philippines and international contexts highlight key aspects that align with the findings of this research. Locally, the Department of Education's establishment of the Education Center for AI Research (E-CAIR) in 2025 emphasizes the development of AI-driven tools to enhance teaching efficiency and personalized learning, underscoring the need for professional development and ethical integration (DepEd, 2025). Similarly, the University of the Philippines Open University (UPOU) released guidelines in 2024 to support educators in responsibly using AI in teaching, reflecting the importance of context-specific adaptation and institutional support (UPOU, 2024).

Internationally, UNESCO's 2019 International Conference on Artificial Intelligence and Education highlighted AI's potential to tailor instruction and improve teacher support, while stressing the importance of strategic policy and equitable access (UNESCO, 2019). Additionally, a systematic review by Irfan et al. (2025) found that countries leading in AI education research prioritize infrastructure, teacher training, and adaptive technologies to boost student outcomes and teaching productivity. Together, these studies reinforce the present research's emphasis on AI as a collaborative tool that enhances personalized engagement and teaching efficiency, while highlighting the critical roles of professional development, ethical guidelines, and infrastructure.

3.2 On the Challenges Encountered in Using AI in the Classroom

Theme: Navigating Access, Training, and Ethical Challenges

The theme "Navigating Access, Training, and Ethical Challenges" effectively captures the multifaceted difficulties teachers face in integrating AI into classroom instruction, as reflected in the participants' responses.

Several participants, including P1 and P4, pointed out that unstable internet connections and limited device availability disrupt lessons and reduce student participation. Technical glitches and students' limited digital skills, as noted by P5 and P9, further complicate access to AI tools. In terms of training, many teachers such as P3, P4, P8, and P10 expressed that the lack of formal instruction led to uncertainty in effectively using AI, while P2 emphasized that unclear directions from teachers could confuse students. Ethical concerns were also prominent; participants like P3, P4, P6, and P8 observed that students often over-rely on AI, submitting work without fully understanding the content, which negatively impacts learning quality. Some teachers responded by incorporating lessons on digital responsibility to address this issue, as mentioned by P3 and P4. Additionally, P7 shared that some students initially feared AI might replace teachers, requiring reassurance that AI is a supportive tool rather than a substitute. These challenges appear interconnected, with limited access affecting training opportunities and insufficient training contributing to ethical concerns. The participants' responses reflect their specific experiences and approaches within their classroom contexts. The theme highlights that for AI to be effectively integrated in classrooms, addressing unstable internet access and limited devices is crucial, as these factors directly impact both teaching and student engagement. Equally important is providing teachers with formal training to build confidence and clarity in using AI tools, which can reduce confusion and misuse among students. Additionally, fostering digital responsibility is necessary to prevent overreliance on AI and ensure meaningful learning. These insights suggest that any effort to implement AI in education should consider improving infrastructure, offering targeted professional development, and promoting ethical use tailored to the specific needs and realities of each classroom.

Several recent Philippine studies align with the theme of this research. The 2025 PIDS-UP forum highlighted the need to improve digital

infrastructure to support AI use in education, reflecting participants' concerns about unstable internet and limited devices (PIDS-UP Forum, 2025). Jala et al. (2025) discussed challenges in AI adoption in Philippine higher education, including gaps in digital literacy and ethical issues, which relate to participants' experiences with training deficits and AI misuse. The Department of Education's 2025 initiative to establish an AI research center aims to enhance teacher training and ethical AI use, addressing challenges noted by participants (DepEd, 2025).

Internationally, a 2024 global survey emphasized the importance of comprehensive AI training for educators and students to ensure effective and ethical use, echoing participants' calls for better guidance (UP, 2025). Additionally, research on AI's impact on academic performance warns against overreliance on AI tools without understanding, paralleling participants' concerns about learning quality (MDPI, 2023). These studies collectively support the need to address access, training, and ethical challenges in AI integration, as reflected in the participants' responses.

3.3 On the Ideas and Insights on the Use of AI as a Collaborative Tool in Teaching

Theme: AI Enhancing Collaborative Learning

The theme "AI Enhancing Collaborative Learning" is clearly reflected in the participants' detailed accounts of how AI supports group work and communication in their classrooms. This is evident in participants' views of AI as a tool that supports brainstorming, idea refinement, and group communication.

Participant 3 described AI as a "teaching partner" that encourages active discussion, while P4 saw AI as a "virtual moderator" helping organize projects and enable cross-cultural collaboration. Practical uses include AI simulations for teamwork (Participant 5) and real-time feedback to boost productivity and creativity (Participant 6). Participants also noted AI's role in guiding peer feedback (Participant 7, Participant 10) and supporting shy students (Participant 8). However, they emphasized the need for limits and teacher guidance to prevent overreliance and ensure meaningful interaction. These insights highlight AI's potential to enrich collaborative learning when integrated thoughtfully with human oversight.

This implies that integrating AI tools in classrooms can significantly support and enrich group work, communication, and creativity among students. However, this potential can only be realized if teachers provide clear guidance and establish boundaries to prevent overdependence on AI. Educators need to develop strategies that balance AI's facilitative role with active human interaction, ensuring that AI acts as a partner rather than a crutch. This calls for professional development focused on effective AI integration and ethical use, as well as designing collaborative activities that leverage AI's strengths while fostering student autonomy and critical thinking.

Several recent Philippine studies relate closely to the theme "AI Enhancing Collaborative Learning." The University of the Philippines (2025) emphasizes the need for AI literacy and training to maximize AI's benefits in education, aligning with participants' views on guided AI use. Prestoza and Banatao (2024) found that AI-driven pedagogy improves student engagement and creativity in group settings. A 2025 report on AI in Philippine higher education highlights both opportunities and ethical challenges, reflecting participants' concerns about responsible AI use (Jala et al., 2025).

Internationally, the U.S. Department of Education (2023) underscores AI's role in supporting collaborative learning through personalized feedback and communication tools, echoing participants' experiences. Studies also note AI's potential to help shy students participate more confidently, consistent with participant insights (EducateMe, 2024; PrepAI, 2025). These findings support the importance of combining AI tools with ethical guidance and training to enhance collaboration in classrooms.

3.4 On Recommendations for Responsible AI Use

Theme: Purposeful and Ethical AI Integration

This theme encapsulates the shared advice that AI should be used intentionally to support specific teaching needs, coupled with ongoing learning for teachers and clear ethical guidelines for students.

Supporting statements are reflected in participants' emphasis on using AI tools intentionally to support specific teaching goals,

such as lesson planning and feedback (Participant 3, 4,7,10). They stressed the importance of teaching students responsible AI use and setting clear guidelines to prevent misuse and overreliance (Participant 3, 4, 6, 8, 10). Continuous professional development through training and collaboration was also highlighted as essential for effective and ethical AI use in classrooms (Participant 3, 4, 5, 8, 10).

This only implies that for AI to effectively support teaching and learning, its implementation must be intentional, aligned with clear educational objectives, and accompanied by explicit ethical guidelines. Educators require ongoing professional development to build the necessary skills and confidence to integrate AI tools responsibly. Additionally, establishing clear policies and teaching students about ethical AI use are crucial to prevent misuse and ensure that AI serves as a supportive resource rather than a shortcut. This suggests that successful AI adoption in education depends not only on technology availability but also on deliberate pedagogical planning and ethical oversight.

Recent Philippine studies emphasize the importance of responsible AI use supported by clear guidelines, ethical oversight, and ongoing teacher training to ensure AI enhances rather than replaces human agency (Department of Education, 2025). Research in rural Philippine higher education highlights concerns about misinformation and academic integrity, recommending AI literacy programs and institutional support, which align with calls for ethical oversight and digital literacy (Lacuna, 2025). Additionally, continuing professional development seminars for Filipino educators focus on responsible AI use and digital inclusion, reflecting the need for ongoing teacher training (AIIAS, 2024).

Internationally, studies stress strong ethical frameworks, equity, and bias mitigation, aligning with the emphasis on continuous professional development and clear policies (Zhao, Khan, & Ahmed, 2024; UNESCO, 2021). AI-enabled collaborative learning platforms have shown promise in improving student engagement when paired with teacher facilitation and transparent guidelines, reinforcing the importance of purposeful and ethical AI integration in education (Kurki, Koskela, & Yli-Kaitala, 2024).

4. CONCLUSION

Based on the findings of the study, it can be concluded that the integration of AI in education holds significant potential to enhance collaborative learning and support teaching practices when applied purposefully and ethically. Participants consistently emphasized that AI should be used as a complementary tool aligned with clear instructional goals, rather than as a replacement for human interaction or critical thinking. Responsible AI use requires establishing clear guidelines and boundaries for both teachers and students to prevent misuse and overreliance. Moreover, continuous professional development and training are essential to equip educators with the skills and confidence needed to effectively and ethically incorporate AI into their classrooms. Overall, the study highlights that successful AI integration depends on a balanced approach that combines technological innovation with pedagogical intent and ethical oversight.

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