
**ARTIFICIAL INTELLIGENCE INTEGRATION IN CLASSROOM
INSTRUCTION AND THE PEDAGOGICAL SHIFT AMONG
SECONDARY TEACHERS**

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ABSTRACT

The primary objective of the study was to determine the level of artificial intelligence (AI) integration in classroom instruction among secondary teachers, specifically in terms of their knowledge and skills related to AI, the extent of classroom application of AI tools, and the barriers and concerns associated with AI integration. The study also sought to describe the pedagogical shift among secondary teachers, focusing on changes in teaching methods, teachers' attitudes toward AI in pedagogy, and the challenges encountered in adapting instructional practices with AI. Furthermore, correlational analysis was conducted to examine the significant relationship between AI integration and pedagogical shift in classroom settings.

The respondents consisted of 120 secondary school teachers in the Municipality of Kitaotao, Division of Bukidnon, during School Year 2025–2026. Total enumeration sampling was employed to ensure comprehensive representation of the target population. A researcher-made questionnaire served as the primary data-gathering instrument. It underwent content validation and pilot testing, yielding a Cronbach's alpha of 0.881, which indicates high internal consistency and confirms the reliability of the instrument. The study utilized a descriptive-correlational research design, and quantitative data analysis was applied to ensure objectivity and statistical rigor.

Findings revealed that the level of AI integration in classroom instruction was generally high. Teachers demonstrated strong knowledge and skills in AI and reported substantial classroom application, although moderate barriers such as limited training and accessibility constraints were noted. The pedagogical shift was also high, characterized by increased learner-centered strategies and positive attitudes toward AI. Importantly, a significant positive relationship was found between AI integration and pedagogical shift, indicating that effective AI utilization contributes to meaningful instructional transformation.

KEYWORDS: *Artificial intelligence, integration, classroom instruction.*

INTRODUCTION

In recent years, the rapid advancement of Artificial Intelligence (AI) has significantly influenced various sectors, including education. While developed nations have begun embedding AI tools into their educational systems, the integration of AI in classroom instruction within the Philippine secondary education context remains in its infancy. Secondary school teachers face the growing challenge of aligning their pedagogical approaches with the demands of 21st-century learning, where AI is no longer a futuristic concept but a present necessity. However, the shift toward integrating AI in actual instructional practices is not without resistance, mainly due to limited digital literacy, insufficient training, and a lack of access to AI-ready infrastructure.

Despite the Department of Education's emphasis on ICT-based learning and 21st-century skills development, a noticeable gap exists between policy intent and classroom implementation. Many secondary school teachers continue to rely on traditional teaching methods, with minimal to no use of AI-assisted tools such as intelligent tutoring systems, machine learning applications for assessments, or AI-powered content delivery platforms. The lack of localized studies exploring how Filipino teachers perceive and adapt to AI further compounds the issue, raising concerns about readiness, competence, and willingness to adopt technological pedagogical change.

Another pressing concern is the limited inclusion of AI-related competencies in current teacher training and professional development programs. While there is increasing global discourse on AI in education, there is a dearth of focused research investigating how Filipino secondary teachers experience this technological shift. The absence of in-depth exploration into their pedagogical transformation from content deliverers to AI-assisted facilitators hinders informed decision-making, innovation planning, and contextual policy development.

A major issue confronting the education system is the disconnect between technological advancement and pedagogical readiness. While the Department of Education (DepEd) continues to promote 21st-century learning and ICT literacy through programs like the Digital Rise initiative, a significant number of teachers remain anchored in traditional instruction due to limited exposure and training in AI integration (Francisco & de Mesa, 2023). Moreover, there is a scarcity of support structures and localized frameworks guiding how AI tools should be contextually applied in classroom settings. This leads to a lack of uniformity in AI adoption across schools and districts, further widening the digital and instructional divide among educators.

Additionally, the existing teacher training programs often overlook AI-specific competencies, leaving many secondary teachers underprepared to implement AI tools effectively (Garcia & Umali, 2023). The absence of comprehensive and context-based professional development contributes to teacher apprehension, ethical uncertainty, and resistance to pedagogical transformation (Manlapig & Ventura, 2024). This gap is especially evident in rural and under-resourced schools, where infrastructure constraints and low digital confidence hinder innovation (Bautista & Rolda, 2024). Without an in-depth inquiry into the pedagogical transitions that teachers are undergoing, reforms may risk being superficial or unsustainable. Recent Filipino studies support the urgency of this investigation. Salcedo and Paglinawan (2025) found that while most public-school teachers acknowledge the potential of AI to enhance instruction, only a small fraction feel adequately equipped to use it effectively. In a study conducted by Lopez and Caraan (2024), the authors revealed that secondary teachers expressed concerns about ethical issues, workload increase, and unclear guidelines on AI use, which result in hesitant adoption. Similarly, Mendoza and Rivera (2024) emphasized the crucial need for AI-focused training programs tailored to Philippine classroom contexts, especially as blended and hybrid learning models continue to emerge.

Conceptual Framework

The conceptual framework of this study is anchored by Mishra and Koehler's Technological Pedagogical Content Knowledge (TPACK) Framework (2006) and Rogers' Diffusion of Innovations Theory (2003). Mishra and Koehler emphasized that effective technology integration in education requires an intersection of content knowledge, pedagogical strategies, and technological skills. In this framework, teachers are expected not only to master the subject matter and instructional techniques but also to understand how digital innovations such as Artificial Intelligence (AI) can enhance learning. On the other hand, Rogers' theory

explains how individuals adopt and adapt to new technologies, highlighting the influence of perceived attributes such as relative advantage, complexity, and compatibility, along with social systems and communication channels. This theory underpins the study's assumption that the integration of AI depends on both individual teacher readiness and systemic support.

This framework rests on the premise that the pedagogical shift among secondary teachers from traditional delivery to AI-integrated instruction is driven by a dynamic interaction between teacher competence, innovation acceptance, and institutional environment. The infusion of AI in classroom practice challenges conventional approaches to instruction, requiring educators to rethink roles, classroom structures, and learner engagement strategies. Teachers who possess strong TPACK are more likely to modify their pedagogy to include AI-driven tools such as intelligent tutoring systems, adaptive learning platforms, and automated assessment tools. These technologies, in turn, support personalization of learning and enhance learner performance.

Moreover, as outlined in the SAMR Model (Puentedura, 2010), the level of technology integration can be categorized from substitution to redefinition. This model supports the analysis of how deeply AI is embedded in instruction whether it simply replaces existing methods or transforms the learning process entirely. The model provides a lens for evaluating whether the observed pedagogical shifts represent mere surface-level changes or profound instructional transformation. In this light, the study views AI integration not merely as a tool adoption but as a catalyst for innovation, reshaping teaching practices and redefining teacher-learner interactions.

Furthermore, local policy frameworks such as the Philippine Professional Standards for Teachers (DepEd, 2017) serve as contextual anchors. The PPST highlights the need for 21st-century teaching competencies, including ICT integration and the promotion of innovation in learning environments. Filipino scholars such as Corpuz and Salandanan (2025) and Gregorio (2024) affirm that teaching in the digital era must balance technological fluency with pedagogical soundness. They stress that while AI can enhance instruction, it is the teacher's vision, judgment, and adaptability that determine its effective use. Additionally, Lantajo (2023) and Marasigan (2024) assert that teacher preparedness and openness to innovation significantly impact the success of EdTech initiatives in Philippine secondary schools.

In light of these theoretical and contextual foundations, this study seeks to explore how secondary teachers respond to the pedagogical demands posed by AI integration. It aims to understand the extent to which they shift their teaching methods, the challenges they encounter, and the factors influencing their instructional transformation. The framework

assumes that effective AI integration is not solely technical, but deeply pedagogical and systemic. By examining these shifts, the study hopes to inform policy reforms, teacher training programs, and school leadership strategies that can facilitate the transition to AI-supported instruction, ultimately contributing to more responsive and future-ready education. As shown in the schematic diagram, the independent variable on the left side contains the Artificial Intelligence Integration in Classroom Instruction in terms of Teachers' Knowledge and Skills about AI, Classroom Application of AI Tools, and Barriers and Concerns about AI Integration. On the right side of the diagram is Exploring the Pedagogical Shift of Secondary Teachers in AI Integration in terms of Changes in Teaching Methods, Teacher Attitudes Toward AI in Pedagogy, and Challenges in Adapting Pedagogy with AI. Figure 1 presents the schematic diagram of the study.

Significance of the Study

This study on artificial intelligence integration in classroom instruction and the pedagogical shift among secondary teachers was highly significant to various educational stakeholders. By examining the dynamic transformations in teaching approaches brought about by AI, the findings of this research contributed meaningfully to educational innovation and instructional improvement. The study provided empirical evidence on how AI influenced teaching practices, teacher attitudes, and classroom dynamics. Its significance extended beyond instructional practices to policy development and professional growth. Overall, the study served as a relevant reference for understanding AI-driven pedagogical change in secondary education.

To the Learners. The study helped enhance the learning experience of secondary learners by examining how AI personalized instruction, provided timely feedback, and promoted interactive learning environments. Through AI integration, learners benefited from adaptive learning platforms that addressed individual learning needs, styles, and pacing. These applications supported increased motivation, engagement, and active participation in learning tasks. The findings also demonstrated how AI-assisted instruction contributed to improved academic performance. Thus, the study underscored the role of AI in fostering inclusive and learner-centered education.

To the Teachers. The research provided valuable insights into how secondary teachers leveraged AI tools to transition from traditional teaching methods to more learner-centered and data-informed pedagogical approaches. It helped teachers understand the transformative role of AI in lesson planning, instructional delivery, assessment, and learner support. The

findings encouraged professional growth by highlighting opportunities for instructional innovation and reflective practice. Teachers were guided on how AI could enhance efficiency and instructional effectiveness. Consequently, the study supported the development of more adaptive and responsive teaching practices.

To the School Administrators. The study offered evidence-based guidance for school administrators on supporting AI integration through policy formulation, capacity building, infrastructure investment, and professional development initiatives. Understanding the pedagogical shift enabled administrators to align AI-driven instructional practices with school goals and performance targets. The findings also emphasized the importance of institutional support in sustaining AI integration. Administrators were informed of strategies to strengthen teacher readiness and learner access to AI tools. As a result, the study contributed to improved school management and instructional leadership.

To the Future Researchers. This study contributed to the growing body of literature on educational technology and pedagogy by providing a localized and contextual analysis of AI integration in secondary schools. It served as a foundational reference for future research on AI's role in teaching and learning. The findings opened opportunities for further investigation into issues of educational equity, ethical use of AI, teacher-learner dynamics, and long-term academic outcomes. Researchers were provided with empirical data that could be expanded or replicated in other settings. Thus, the study supported continued scholarly inquiry into AI-driven educational transformation.

Definition of Terms

The following terms were defined in this study to ensure easy understanding.

Barriers and Concerns about AI Integration. Barriers and Concerns about AI Integration refer to the perceived and actual obstacles that hinder the effective implementation of Artificial Intelligence in classroom instruction, such as a lack of resources, limited digital literacy, ethical issues, resistance to change, and concerns about data privacy and security.

Changes in Teaching Methods. Changes in Teaching Methods pertain to the transformation of instructional approaches brought about by the adoption of AI technologies, including shifts from traditional lecture-based teaching to more learner-centered, technology-mediated, and data-informed strategies.

Challenges in Adapting Pedagogy with AI. Challenges in Adapting Pedagogy with AI covers the difficulties faced by teachers in aligning their pedagogical practices with AI-enhanced

instruction, such as designing appropriate learning activities, maintaining learner engagement, and ensuring equitable access to digital tools.

Classroom Application of AI Tools. Classroom Application of AI Tools refers to the actual use of AI-based applications and platforms—such as intelligent tutoring systems, automated grading tools, chatbots, and adaptive learning systems—within the teaching and learning process to support instruction and assessment.

Exploring the Pedagogical Shift of Secondary Teachers in AI Integration. Exploring the Pedagogical Shift of Secondary Teachers in AI Integration This concept involves investigating how secondary school teachers' instructional practices, roles, and professional mindsets are evolving in response to the integration of AI in the classroom setting.

Integrating Artificial Intelligence in Classroom Instruction. Integrating Artificial Intelligence in Classroom Instruction describes the process of incorporating AI technologies into teaching and learning activities to enhance instructional delivery, personalize learner experiences, support assessment, and improve overall educational outcomes.

Teacher Attitudes Toward AI in Pedagogy. Teacher Attitudes Toward AI in Pedagogy pertains to the beliefs, perceptions, and emotional responses of teachers toward the use of AI in instructional contexts, which can influence their willingness to adopt, experiment with, or resist AI-based innovations in education.

Teachers' Knowledge and Skills about AI. Teachers' Knowledge and Skills about AI refers to the level of understanding and technical competence that teachers possess regarding Artificial Intelligence.

The Methodology

Research Design

This research adopted a combination of descriptive-comparative and correlational approaches to investigate how parents' socioeconomic and demographic factors influence the school attendance of Indigenous Peoples (IP) elementary students. The descriptive component focused on outlining the characteristics of parents, including their age, family size, cultural responsibilities, and income levels, to provide a clear profile of the participants and establish baseline data for the study.

The correlational element examined the connections between these parental factors and students' patterns of school attendance, aiming to determine the degree to which socioeconomic and demographic conditions are linked to absenteeism.

Finally, the comparative aspect assessed whether variations in parental characteristics, such as income or family size, result in significant differences in their impact on school attendance. This allowed the study to explore how different socioeconomic and demographic profiles may uniquely affect the consistency of students' participation in school.

Research Locale

This study was conducted among secondary school teachers in the Municipality of Kitaotao, a third-class municipality located in the southern part of the Province of Bukidnon, Philippines. The municipality fell under the administrative jurisdiction of the Department of Education (DepEd) – Division of Bukidnon. The implementation of the study was scheduled during School Year 2025–2026, a period deemed appropriate for gathering relevant and timely data on the instructional practices and professional experiences of secondary school teachers.

The Municipality of Kitaotao was characterized by its rural setting, geographically dispersed barangays, and culturally diverse population. It was home to various ethnolinguistic groups, including Indigenous Peoples, which significantly influenced the social and educational landscape of the area. The municipality's public secondary schools catered to learners from different socio-economic backgrounds, many of whom came from farming families and remote communities. These contextual conditions presented both challenges and opportunities for teachers, particularly in terms of classroom instruction, resource availability, and learner engagement.

This research focused on selected public secondary schools within the municipality, namely Kitaotao National High School, Sinuda National High School, and Kitubo National High School. These schools were purposively chosen to ensure representation of both central and geographically isolated areas, as well as to capture a wide range of teaching contexts and experiences. The selection also considered factors such as learner population, accessibility, and the relevance of each school to the objectives of the study.

Kitaotao National High School was located in Barangay Poblacion and served as the central public secondary school in the municipality. It catered to a large number of learners coming from nearby barangays, including students who commuted daily or resided in boarding houses. The school offered complete Junior High School and Senior High School programs, including academic and technical-vocational tracks. As the main secondary school in the municipality, it often served as a pilot site for division-initiated programs and educational innovations. The teaching staff was composed of both experienced and newly hired teachers

who employed varied instructional strategies, making the school a rich source of data for the study.

Sinuda National High School was situated in Barangay Sinuda, a far-flung area bordering the Province of Davao. The school served learners from geographically isolated communities and reflected the ethnolinguistic diversity of the municipality, including Lumad learners. Teachers in this school often faced challenges related to limited instructional resources, learner attendance, and access to professional development opportunities. Despite these constraints, the school continued to implement strategies aimed at improving teaching and learning outcomes. Including Sinuda National High School in the study provided valuable insights into the experiences of teachers working in remote and underserved areas.

Another research site was Kitubo National High School, located in Barangay Kitubo, an area known for its agricultural livelihood and strong Indigenous cultural heritage. The school served learners from upland and rural communities who often encountered socio-economic and logistical barriers to education. Teachers in Kitubo National High School played multiple roles not only as educators but also as partners in community development. The school implemented contextualized teaching strategies to address the needs of its learners, making it a significant site for examining instructional practices in rural settings.

The inclusion of these three secondary schools ensured that the study captured a comprehensive picture of teaching experiences across various educational contexts within the Municipality of Kitaotao. By examining both central and remote schools, the research explored how geographical location, resource availability, and community context influenced instructional practices, professional growth, and classroom challenges. This diversity also allowed for the identification of common trends as well as school-specific issues encountered by secondary school teachers.

Overall, the Municipality of Kitaotao provided a meaningful and relevant setting for educational research due to its rural character, cultural diversity, and evolving educational environment. The experiences and perspectives of secondary school teachers in this municipality reflected many of the realities faced by educators in similar rural areas in the Philippines. The locale of the study, therefore, offered a suitable foundation for examining instructional practices and generating findings that contributed to improved educational planning, teacher support, and policy development. Figure 1 presents the map of the Municipality of Kitaotao.

Respondents of the Study

The respondents of the study were the 120 secondary school teachers in the Municipality of Kitaotao, Division of Bukidnon, during School Year 2025–2026. Total enumeration sampling was employed in this study. This was a type of purposive sampling technique in which the researcher chose to examine the entire population that possessed a particular set of characteristics. In sampling, units were the elements that made up the population. When using total enumeration sampling, these units were most likely people. Total population sampling was a type of purposive sampling technique in which the researcher examined the entire population that met a specific set of characteristics.

Sampling Procedure

Total enumeration sampling was employed in this study. Total population sampling is a type of purposive sampling technique that involves examining the entire population that possesses a particular set of characteristics. Most of the time, researchers considered this method because the entire population was small and well-defined, and a fraction of it may not have been measured what was required. It could eliminate potential bias arising from sampling techniques; however, beyond this advantage, it was often not justified to consume additional resources and time.

By employing total population sampling in this study, the researchers benefited from its advantages. It provided an opportunity to create generalizations from the data gathered, involved multiple phases that were linked with one another, and helped save time, money, and effort during data collection. It allowed the researchers to achieve a maximum level of variation in the given sample, examine the weighted mean in the data, and observe information from the various extremes of population groups. Everyone was considered a target respondent for the study, the information gathered had a low margin of error, and the approach produced results that were available in real time.

Research Instrument

The research instrument utilized in this study was researcher-made. It was content validated and pilot tested to determine its validity and reliability. The pilot testing involved 35 secondary school teachers who participated in the administration of the research questionnaire. Two questionnaires were used: one on artificial intelligence integration in classroom instruction, and the other on the pedagogical shift among secondary teachers. The questionnaire on artificial intelligence integration in classroom instruction addressed

teachers' knowledge and skills about AI, classroom application of AI tools, and barriers and concerns regarding AI integration. The questionnaire on the pedagogical shift among secondary teachers examined changes in teaching methods, teacher attitudes toward AI in pedagogy, and challenges in adapting pedagogy with AI.

Scoring Procedure

The Likert Scale that were used to answer on the **artificial intelligence integration in classroom instruction** following the scoring procedure:

Numerical Rating	Range	Descriptive Rating	Qualitative Interpretation
5	4.51-5.0	Very High	Fully Integrated
4	3.51-4.50	High	Consistently Integrated
3	2.51-3.50	Moderate	Partially Integrated
2	1.51-2.50	Low	Infrequent Integrated
1	1.0-1.50	Very Low	Not Integrated

The Likert Scale was used to answer the **pedagogical shift among secondary teachers** following the scoring procedure:

Numerical Rating	Range	Descriptive Rating	Qualitative Interpretation
5	4.51-5.0	Very High	Exemplary
4	3.51-4.50	High	Proficient
3	2.51-3.50	Moderate	Developing
2	1.51-2.50	Low	Emerging
1	1.0-1.50	Very Low	Unaware

Data Gathering Procedure

A formal request for data collection was secured from the Schools' Division Superintendent, and subsequently from the Public Schools' District Supervisor and school administrators, to allow the researcher to administer the survey questionnaires. The researcher personally visited the schools to administer and retrieve the questionnaires. Once the research questionnaires were collected, the researcher immediately checked, tallied, tabulated, presented, and analyzed the data as part of the main text of this study.

Validity of the Instrument

To establish the validity and reliability of the research instruments, pilot testing was conducted at Don Carlos National High School. A total of 30 teachers participated in the process, representing the target population of the study. The instruments were designed to

gather data on two key dimensions: (1) artificial intelligence integration in classroom instruction, and (2) the pedagogical shift among secondary teachers. The results of the pilot test were used to refine the questionnaires, ensuring clarity, coherence, and alignment with the study's objectives. The reliability analysis yielded a Cronbach's alpha of 0.881, indicating high internal consistency and confirming that the instruments were reliable for collecting valid and consistent data on the intended constructs. The high Cronbach's alpha value confirms that the items within the questionnaires are cohesive and produce stable responses, ensuring that the data collected from the learners are consistent and dependable for analysis.

Statistical Treatment of Data

The following statistical procedures were employed to answer the specific problems of the study:

Problems 1 and 2: Descriptive statistics, such as the mean and standard deviation, were used to determine the artificial intelligence integration in classroom instruction and the pedagogical shift among secondary teachers.

Problem 3: Pearson Product-Moment Correlation (Pearson r) was used to establish the significant relationship between artificial intelligence integration in classroom instruction and the pedagogical shift among secondary teachers.

FINDINGS

The level of artificial intelligence (AI) integration in classroom instruction among secondary teachers was generally high. In terms of teachers' knowledge and skills about AI, respondents demonstrated a "Very High" level, indicating strong familiarity with AI concepts and confidence in exploring technology-mediated instruction. Classroom application of AI tools also reflected a high level of integration, showing that teachers are actively using AI for lesson preparation, feedback, and instructional delivery. However, barriers and concerns, such as limited training, accessibility issues, and anxiety about AI adoption, were rated moderately, suggesting that some challenges still affect full implementation. Overall, these findings illustrate that while secondary teachers in Kitaotao are knowledgeable and proactive in applying AI, contextual and technical constraints remain.

The pedagogical shift among secondary teachers was found to be high, reflecting a growing transformation in teaching methods and attitudes due to AI integration. Teachers reported adopting more interactive, learner-centered approaches, exploring new teaching methods, and using AI to support differentiated instruction. Positive attitudes toward AI in pedagogy were

observed, with teachers expressing excitement to learn new tools and confidence in integrating them into lessons. Nevertheless, challenges in adapting pedagogy, such as technological difficulties, time constraints, and anxiety about reducing personal connection with learners, were rated as moderate. These results suggest that while AI fosters innovation and positive instructional changes, teachers still navigate hurdles in fully adapting their pedagogical practices.

A significant positive relationship was identified between AI integration in classroom instruction and the pedagogical shift among secondary teachers. Teachers' knowledge and skills about AI, classroom application of AI tools, and the management of barriers and concerns all correlated positively with changes in teaching methods, attitudes toward AI, and adaptation to AI-driven pedagogy. The overall correlation indicates that higher AI integration is associated with greater pedagogical transformation. This finding confirms that AI adoption is both a technological and pedagogical catalyst, facilitating instructional innovation and learner-centered practices. Thus, the degree to which teachers integrate AI directly influences the extent of pedagogical change.

CONCLUSIONS

Secondary teachers exhibited high levels of AI integration in classroom instruction, particularly in terms of knowledge, skills, and practical application. Despite this strong foundation, moderate barriers and concerns such as limited training, unequal learner access, and technological anxiety still persist. These findings suggest that while teachers are capable and proactive in adopting AI, systemic support and targeted capacity-building are necessary to optimize its full potential. Strengthening professional development and providing accessible resources can further enhance AI utilization in teaching. Overall, AI integration is both feasible and impactful but requires ongoing support to maximize its effectiveness.

The pedagogical shift among secondary teachers was evident, with increased adoption of learner-centered approaches, interactive teaching methods, and differentiated instruction facilitated by AI tools. Teachers demonstrated positive attitudes toward AI, expressing enthusiasm to explore new instructional strategies and integrate technology meaningfully. However, challenges in adapting pedagogy, such as time constraints and maintaining personal connections with learners, indicate areas that require attention. This suggests that while AI promotes instructional innovation, teachers' adaptation is an ongoing process influenced by both technical and affective factors. Addressing these challenges is essential to sustaining transformative teaching practices.

A significant positive relationship was observed between AI integration and pedagogical shift, indicating that higher levels of AI adoption correspond to greater instructional innovation and enhanced learner-centered practices. Teachers' knowledge, practical application of AI, and management of barriers collectively influenced the extent of pedagogical transformation. These findings confirm that AI catalyzes both technological and pedagogical change in secondary education. Therefore, effective AI integration is crucial for modernizing instructional practices and fostering meaningful learning experiences.

Recommendations

School administrators may provide ongoing professional development programs focused on AI literacy, practical application, and innovative teaching strategies. Such training will help teachers overcome technological barriers, build confidence, and maximize the pedagogical benefits of AI. Regular workshops, mentoring, and peer collaboration can further support sustained AI integration in classroom instruction.

Teachers are encouraged to adopt a reflective, experimental approach to AI integration, gradually exploring interactive, learner-centered, and differentiated teaching methods. By embracing a culture of continuous learning and collaboration, educators can enhance their instructional creativity and responsiveness to diverse learner needs. Incorporating peer feedback and sharing best practices can strengthen the overall pedagogical shift.

Policy-makers and school management may invest in accessible technological infrastructure, AI resources, and institutional support to ensure equitable implementation for both teachers and learners. Addressing gaps in access, training, and technical guidance will enhance instructional efficiency, learner engagement, and overall teaching effectiveness. Sustained support from the school and community is essential to fully realize the benefits of AI in education.

The researcher strongly recommends that another study be conducted using different variables and increasing the number of respondents to find out the results whether there is a difference.

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