

AI-Integrated English Classroom Practices in Philippine Higher Education

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ABSTRACT

Traditional language instruction presents challenges that Artificial Intelligence (AI) can address, offering adaptive learning experiences that enhance teaching and learning. This descriptive study explored the integration of AI tools into English teaching in Philippine higher education, using both qualitative and quantitative data. Data were gathered from interviews with 11 teachers, seven students, and three administrators, and surveys of 32 teachers and 151 students. Quantitative findings indicate strong agreement on AI's positive impact $M(\text{overall}) = 3.28$, $SD = 0.34$. Educators strongly agreed that tools such as ChatGPT and Grammarly streamline lesson planning ($\text{Mean} = 3.89$, $SD = 0.25$), while Turnitin, Microsoft Copilot, and Canvas LMS enhance assessment efficiency and interactivity. Qualitative results support these findings, emphasizing themes of efficiency, personalized feedback, and interactive learning. The study concludes that effective AI integration promotes adaptive, data-informed, and learner-centered pedagogy, requiring ongoing capacity building, digital literacy, and institutional support to sustain educational innovation.

Keywords: artificial intelligence, digital literacy, English language education, realist evaluation

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Introduction

English Language Education is critical in the global context, given its significance and the growing need for language proficiency worldwide. English has grown into a lingua franca, facilitating communication among people with diverse linguistic backgrounds. (Bierbaumer, 2021). Proficiency in the English language has become essential for international cooperation, commerce, diplomacy, and scholarly endeavors. As a result, those who speak English well are better able to relate with people from different cultures and participate in international initiatives (Solodka et al., 2021).

Traditional methods in English language education often struggle to effectively develop language skills (Short, 2021). The adaptability, subjectivity, and practical application of these methods, which often rely on manual assessments and standardized curricula, can be constrained, particularly in (Aziz et al., 2020). In the Philippine setting, where English is both an official language and a medium of instruction, this is especially pertinent. The Philippines is a major center for teacher training and one of ASEAN's most English-speaking nations, thereby exerting significant influence on regional pedagogical approaches. Its innovations and experiences in teaching English have broader ramifications for neighboring nations seeking to enhance their teacher education systems.

A potential remedy for the drawbacks of conventional language teaching techniques is the incorporation of AI into education (Molenaar, 2022). By offering individualized lessons, activities, and feedback, AI-powered training can meet the specific needs of each student and enhance their language-learning experience (Kang, 2023). AI tools can also assess the four

macro skills (speaking, writing, listening, and reading) to provide a more comprehensive picture of a learner's level of competency. This ground-breaking event speeds up the learning process by enabling students to quickly see and correct errors (Molenaar, 2022).

In the context of Artificial Intelligence (AI) in English language instruction, this descriptive research aims to present an accurate account of how AI tools are utilized to enhance teaching and learning outcomes. It seeks to describe the contextual factors influencing the integration of AI technologies into classroom practices (Graham & McAleer, 2018). The study draws on previous discussions emphasizing how pedagogical approaches, institutional settings, and learner characteristics interact with technology to shape educational outcomes (Wilson et al., 2015). Consistent with emerging perspectives, it also considers how AI tools can influence teaching and learning by promoting adaptive, data-informed instruction (Barcelona, 2024; Dossou et al., 2021). Through systematic description and analysis, the study aims to provide insights into how AI can reshape English-language education and advance innovative pedagogical methods across the ASEAN region.

Literature Review

Education in the 21st Century

With its roots in centuries-old methods, traditional education often used a one-size-fits-all approach to instruction. Students were primarily passive consumers of knowledge in these teacher-centered classrooms, where lectures and textbooks were used to disseminate information. Rigid curricula and standardized testing prioritized memorization over critical

thinking and real-world application (Aslan, 2022). Although these approaches had certain advantages, they often fell short of meeting students' unique learning needs or preparing them for the rapidly changing world .

As the twenty-first century began, it became increasingly clear that conventional methods were insufficient to prepare students for a technologically advanced, dynamic, and interconnected global society (Barcelona et al., 2023). Globalization, digitization, and information sharing have accelerated, prompting educational systems to adopt more adaptable, flexible approaches (Borja, 2018). A revolutionary strategy that acknowledges learner variability and fosters autonomy is student-centered learning. Students actively participate in this paradigm through critical thinking, inquiry, and teamwork (Ghafar, 2020). Teachers serve as facilitators, helping students work through real-world problem-solving exercises. This pedagogical change fosters the lifelong learning skills necessary in a rapidly changing society .

Technology integration has also become central to modern education. Digital platforms and online learning environments facilitate interactive and customized instruction, bridging geographic and socioeconomic barriers (Aziz et al., 2020). By analyzing performance data and tailoring lessons to each student's needs, AI-driven adaptive learning technologies further personalize the educational experience . These developments enable individualized training at scale by improving accessibility and offering real-time feedback and assistance.

Education nowadays emphasizes the development of critical thinking and problem-solving skills (Graham & McAleer, 2018). Project-based learning and inquiry-driven models

allow students to investigate authentic issues, collaborate on interdisciplinary tasks, and propose innovative solutions—skills vital for future workplaces (Barcelona et al., 2023). Education is no longer confined to formal institutions. With the rise of continuous technological disruption, lifelong learning has become a necessity. Today's learners must be equipped with digital literacy, adaptability, intercultural competence, and resilience to navigate evolving career demands (Chaipongpati et al., 2022).

Trends in ASEAN Teacher Education

These global educational transformations bear significant implications for ASEAN teacher education. As member countries strive to harmonize standards through frameworks such as the ASEAN Qualifications Reference Framework (AQRf), there is an increasing demand for teachers who can implement innovative, tech-integrated, and learner-centered pedagogies (Agustin & Montebon, 2018). In this context, the Philippines occupies a vital position. With its high English proficiency, strong teacher training institutions, and active participation in transnational education, the Philippine education system serves as both a model and a resource hub within the ASEAN region.

Philippine teacher education, particularly in English language instruction, reflects many of the 21st-century shifts described above. Its growing emphasis on technology use, learner engagement, and outcome-based practices aligns closely with ASEAN's broader goals of educational inclusivity and mobility (Goh & Tuga, 2023). Equipping future educators with the skills to integrate AI, adapt pedagogy to learner diversity, and foster global competencies, teacher education programs contribute to educators' professional development across ASEAN (Ulla

et al., 2021). This influence not only elevates teaching quality within the Philippines but also strengthens ASEAN's collective educational capacity to meet global challenges.

Emergence of AI in Education

The integration of artificial intelligence (AI) into education has emerged as one of the most transformative trends of the 21st century. While early iterations of computer-assisted instruction appeared in the mid-20th century, AI's full potential is only now being realized in areas such as personalization, automation, and intelligent tutoring (Chu et al., 2022; Yang, 2019). AI-powered systems can customize learning paths based on real-time analytics, providing students with tailored instruction and feedback that significantly improve engagement and retention.

Among the most impactful applications is adaptive learning. By analyzing learners' interactions and performance patterns, AI systems adjust content delivery and pacing to meet each student's needs (Bearman et al., 2023). This helps address learning gaps and promote mastery, while encouraging advanced learners to delve deeper. Such systems increase efficiency and inclusivity by catering to diverse learning profiles, particularly in large classrooms or remote settings (Schiff, 2022).

AI also functions as a virtual mentor, using natural language processing and machine learning to simulate human-like interactions (Aydin et al., 2022). These systems utilize natural language processing and machine learning algorithms to understand students' responses and adapt their teaching strategies in real time (Tapalova & Zhiyenbayeva, 2022). AI's analytical capabilities have enabled educators to make data-driven decisions about instruction and curriculum

design (Bearman et al., 2023). These insights facilitate evidence-based instructional planning, enabling educators to intervene when students are struggling and refine teaching strategies to align with learners' needs.

Ongoing research in AI and education continues to explore ethical considerations, algorithm transparency, and the balance between automation and human agency (Schiff, 2022). Nonetheless, the growing body of evidence suggests that, when thoughtfully implemented, AI can significantly enhance educational equity, efficiency, and learner outcomes. For ASEAN teacher education, understanding and applying these developments is imperative. AI integration offers a means to modernize pedagogy, address diverse learner needs, and ensure that teachers are prepared to lead in increasingly digital and globally connected classrooms.

Research Questions

The general problem of the study is to explore the integration of artificial intelligence (AI) into English language education and to understand its dynamics through a realist evaluation. Specifically, it sought answers to the following questions:

1. What is the program theory underlying the integration of AI tools in teaching English in select higher education institutions?
2. What contexts describe teachers' use of AI tools in teaching English?

Addressing these gaps can offer a deeper understanding of how AI can elevate language education and address potential challenges and ethical considerations. This study strives to

advance English language education within the context of evolving technological landscapes, shaping the future of language learning and instruction.

Methodology

Research Design

This study employed a descriptive research design using a multimethod approach that incorporates both quantitative and qualitative data. This design was informed by insights from a prior Realist Evaluation (RE) conducted by the same author. Given the complexity of higher education institutions, the diversity of stakeholders, and the significance of AI integration in English language teaching, multiple data sources were used to provide a comprehensive description of current practices (Henseler et al., 2015). Surveys, semi-structured interviews, and institutional documents were strategically collected to capture educators' and learners' experiences, perceptions, and contextual factors (Graham & McAleer, 2018; Wilson et al., 2015).

This flexibility enables the researcher to scavenge and triangulate data from multiple sources in order to develop, test, and refine the program theory over time (Verleger & Pembridge, 2018). The combination of survey responses, key informant interviews, and institutional documents was strategically selected to support the identification and validation of these data. These configurations emerged through iterative cycles of data collection and analysis, during which the initial theories about how AI tools influence English language learning were continually revisited and modified in light of new insights (Babu & Manoharan, 2024).

While the original RE focused on developing and testing context-mechanism-outcome configurations (Barcelona, 2024; Dossou et al., 2021; McFaul & FitzGerald, 2020; Setiawan, 2023), this derivative study emphasizes describing patterns and trends in AI usage rather than establishing causal links. The combination of quantitative and qualitative data provides an evidence-based account of AI's role in lesson planning, instruction, and assessment, highlighting key influences such as pedagogical strategies, institutional support, and learner characteristics (Henseler et al., 2015; Verleger & Pembridge, 2018). Through this descriptive approach, the study aims to inform practical strategies for integrating AI tools to enhance teaching and learning in English language education.

Research Instruments and Data Collection

Two instruments were used: interviews and a survey questionnaire. Semi-structured interviews with teachers, students, and administrators gathered qualitative data on AI integration in English instruction. An interview guide with validated open-ended questions enabled informants to share their experiences and perspectives on contextual factors influencing AI use. Following a pilot test with two informants, adjustments were made for clarity. The interview was structured into two parts: Part 1 gathered demographic data; Part 2 included key context-focused questions to explore program theory and the impact of AI integration.

The survey questionnaire, developed for faculty and validated by three experts, was piloted with 30 students and achieved high internal consistency (Cronbach's alpha: .849 for teachers, .854 for students, and .830 for administrators). The survey had three parts: demographic details,

experiences with AI tools, and specific questions about the context of AI tool use in English higher education. The researcher personally administered the surveys after English classes to ensure respondents understood the items.

Participants of the Study

This realist evaluation involved 21 interview participants (11 teachers (ET1–ET11), seven students (EM1–EM7), and three administrators (ADM1–ADM3)) from three higher education institutions in Mega Manila. Participants were purposefully selected for their relevant knowledge and direct experience with AI in English instruction. Teachers had at least one year of experience using AI tools (e.g., Grammarly, ChatGPT) in English classes and were currently teaching English specialization courses. Students had completed at least one semester in AI-integrated English courses. Administrators were involved in program oversight or AI-related initiatives. Additionally, a survey was conducted with 32 teachers (76% of the targeted population) and 151 students (90% of enrolled English majors). All teachers had prior experience with AI teaching.

Participants were selected with assistance from program heads based on inclusion criteria. Informed consent was obtained before participation through signed forms outlining the study's purpose, confidentiality, and voluntary nature. Codes were assigned to protect anonymity, and all data were securely stored. This rigorous selection and consent process ensured ethical compliance and research validity.

Data Analysis

The data analysis began with data preparation, organization, and cleaning. Quantitative data were processed in Excel to calculate descriptive statistics summarizing responses from students and teachers, which were later presented in frequency distributions. Next, data coding involved several phases: an initial coding of interview transcripts that identified major themes related to the study's program theory, such as "AI-driven pedagogy" and "personalized learning." Next, context coding focused on teachers' instructional practices, including AI-assisted lesson planning and instructional adaptations. In the final phase, mechanisms like "AI-driven feedback" and outcomes such as "improved student engagement" were identified to capture how AI influenced the educational process. Through these phases, themes were developed and refined, ensuring alignment with research questions and creating a structured understanding of the theory, instructional context, mechanisms, and outcomes (Stevens & Stevens, 2001).

Quantitative data analysis further supported the study by calculating frequency counts, averages, and standard deviations, helping quantify AI's effect on educational outcomes (Kim et al., 2024). Comparisons across groups allowed insights into how levels of AI tool usage correlated with educational performance. Triangulation was applied to validate findings by comparing qualitative themes with quantitative trends. This process provided complementary insights; qualitative data details narratives and context, while quantitative data highlighted measurable patterns. Discrepancies, such as challenges in AI implementation identified in qualitative data alongside high quantitative success rates,

were examined for underlying factors, such as training or support systems.

Ethical Considerations

This study on integrating artificial intelligence in English language instruction in Philippine higher education adhered to key ethical principles to protect the rights and well-being of all participants. Informed consent was obtained from administrators, teachers and students, providing clear information about the study's purpose, procedures, potential risks, and benefits, with voluntary participation emphasized. Data privacy and confidentiality were strictly maintained, with all collected data securely stored and participants' identities anonymized in the final report. Transparency was upheld throughout the research process, ensuring participants understood how their information would be used and allowing scrutiny of the methodology and findings. These measures reflect the study's commitment to integrity, respect, and responsibility toward all stakeholders.

Findings and Discussion

Program Theory Underlying the Integration of AI Tools in Teaching English

The program theory underlying the integration of AI tools in teaching English emerges from the principles of realist methodology, which asserts that any educational intervention operates differently depending on its contextual conditions (Liang & Wu, 2024). In this study, AI tools such as ChatGPT, Grammarly, Turnitin, Microsoft Copilot, Quizlet, Canva, and Canvas LMS are conceptualized as mechanisms embedded within a broader instructional

system. These mechanisms will only produce these desired outcomes when activated under supportive contexts; mechanisms do not operate in a vacuum, and their effectiveness relies on the interaction between teacher competence, institutional support, student readiness, and pedagogical alignment (Etzkowitz et al., 1998).

Within this program theory, AI tools are assumed to provide multiple pedagogical and administrative functions that contribute to more effective instruction, as shown in the codes and themes in Table 1. Teachers in the study view these tools as mechanisms that can streamline lesson planning, enhance the clarity and quality of instructional materials, and support the cognitive processes involved in English language learning. Several teachers described ChatGPT as an instrumental cognitive partner that helps generate explanations, provide examples, support brainstorming processes, and facilitate student understanding. Grammarly was identified as a mechanism for refining writing and ensuring linguistic accuracy, while Turnitin and Microsoft Copilot function as mechanisms safeguarding academic integrity and supporting efficient feedback through plagiarism checks and automated scoring.

The qualitative findings strongly reinforce this theoretical model. Teachers consistently described AI as accelerating the lesson preparation process, reducing the time required for content development, and supporting accuracy in both instruction and assessment. Codes such as “enhanced understanding,” “cross-check outputs,” “interactive teaching,” “efficiency,” and “personalized feedback” illustrate that teachers perceive AI tools as contributing directly to the cognitive and pedagogical aspects of instruction. Comments reflecting the automated grading features of Turnitin and

Table 1

Codes and Themes in the Context of Using AI Tools

Informant Code	Key Point Codes	Categories	Themes
ET1- ET11	ChatGPT, Enhance Understanding, Plagiarism Detection	C1: The Use of AI Tools in Lesson Planning (Canvas aids and automates lesson planning)	Internal Context: The Use of AI Tools in Lesson Planning
	Canva, Improve Presentation Quality		Integration of AI-assisted assessments
	Efficiency, Cross-check Outputs	C2: Integration of AI-assisted Assessments (ChatGPT facilitates interactive learning)	
	Over-dependence, Challenges	Turnitin ensures integrity	External Context:
	Create Rubrics, Ease Workload, Meet Deadlines	Automates grading	Digital Age and Technological Literacy
		Personalized feedback	Changing Educational Landscape
		Enhanced engagement)	
	Manage Homework Volume, Provide Feedback	C3: Digital Age and Technological Literacy	Pedagogical Considerations
	Manage Workloads, Personalized Learning Support		
	Efficient Lesson Planning, Avoid Mistakes	(Training programs; Prudent use of AI in; Data privacy concerns; Technological literacy)	
	Data Privacy/Security Concerns		
	Engaging Lesson Creation,		
	Manage Workload, Cater to Diverse Needs	C4: Changing Educational Landscape	
EM1-EM9	Quizlet, Schoology, Efficient Feedback, Monitor Performance	(Opportunities in personalized learning;	
	Stress Management, Workload Management	Streamlined administrative tasks;	
	Enhance Lesson Planning, Provide Resources, Integrate Creativity	Improved teaching efficiency; Personalized learning pathways)	
	Efficient Grading, Identify Learning Gaps	C5: Pedagogical Considerations	
	Enhance Creativity, Engage Students		
	Master Content Quickly, Effective Time Management	(Focus on interactive teaching; Addressing content inaccuracies; Enhancing integration of AI tools;	
	Ease Schoolwork, Avoid Backlogs	Reducing administrative burdens to focus on pedagogy)	
	Brainstorming, Structuring Lesson Plans,		
	ChatGPT, Efficient Lesson Planning		

Table 2

The Quantitative Data on the Context of Using AI Tools in Teaching English

Statements	Mean Score (M)	Standard Deviation (SD)	Verbal Interpretation
• AI tools like ChatGPT and Grammarly streamline lesson planning, saving time and enhancing quality in my English class.	3.89	0.25	Strongly Agree
• The integration of AI tools provides quick access to key ideas and resources for efficient lesson planning.	3.72	0.34	Strongly Agree
• AI-assisted assessment tools like Turnitin and Microsoft Copilot enhance evaluation methods in my English class.	3.65	0.31	Strongly Agree
• Canvas LMS facilitates the creation of engaging and interactive assessment content.	3.58	0.29	Strongly Agree
• Institutional support for tech integration is evident through the widespread use of platforms like Canvas LMS.	3.01	0.22	Agree
• Students' proficiency in using technology makes them receptive to AI tools in the classroom.	3.45	0.37	Strongly Agree
• AI-powered tools reflect a broader shift towards personalized and adaptive learning approaches.	3.81	0.18	Strongly Agree
• The prevalence of technology underscores the importance of leveraging AI tools for meaningful learning experiences.	3.63	0.26	Strongly Agree
• AI tools complement educators' pedagogical expertise, enhancing teaching methods effectively.	2.98	0.30	Agree
• The integration of AI tools into teaching practices requires thoughtful consideration and alignment with pedagogical principles.	3.70	0.28	Strongly Agree
Overall (N= 32)	3.28	0.34	Strongly Agree

Legend: 1.00-1.75, Strongly Disagree; 1.76-2.50, Disagree; 2.51-3.25, Agree; 3.26-4.00, Strongly Agree

Copilot, as well as real-time analytics in LMS platforms, show that teachers view AI-assisted assessment as a major support system for managing student work, detecting plagiarism, and providing individualized feedback. This suggests that teachers see AI not merely as a technological supplement but as a mechanism that enhances both instructional effectiveness and administrative efficiency.

Table 2 shows the results of the survey indicate a strong consensus among educators regarding the context of AI tools in various aspects of planning, instruction, and assessment. Firstly, educators strongly agree that AI tools

like ChatGPT and Grammarly significantly streamline the lesson planning process, providing quick access to key ideas and resources while enhancing the overall quality of instructional materials. Additionally, AI assessment tools such as Turnitin and Microsoft Copilot are perceived to enhance evaluation methods by improving efficiency and objectivity. Furthermore, educators view Canvas LMS as a valuable platform for creating engaging, interactive assessment content, thereby facilitating a more dynamic learning experience for students. Overall, the survey results underscore the positive impact of AI integration in education, with educators recognizing its potential to

enhance teaching practices and improve student learning outcomes.

The quantitative results further validate the program theory. Teachers strongly agree that AI tools streamline lesson planning ($M = 3.89$), enhance evaluation methods ($M = 3.65$), support personalized and adaptive learning ($M = 3.81$), and enrich interactive assessment content through platforms such as Canvas ($M = 3.58$). These findings confirm that the mechanisms proposed in the program theory—particularly automation, feedback generation, cognitive scaffolding, and instructional design—are indeed triggered within their current teaching contexts.

Existing scholarship further reinforces this program theory. Studies show that AI enhances clarity, accuracy, and personalization within language-learning environments, helping students access tailored explanations and examples that align with their learning needs (Dousay & Nanda, 2024; Holmes et al., 2024; Zhang & Wang, 2022). Research also demonstrates that AI tools significantly reduce teachers' cognitive load by automating repetitive tasks. This shift allows teachers to allocate more of their time to relational aspects of teaching, higher-order pedagogy, and individualized student support—outcomes that echo the experiences of teacher-participants in this study. Therefore, the mechanisms postulated in the program theory are not merely theoretical assumptions but are empirically observable both locally and internationally.

Contexts of Teachers' Use of AI Tools in Teaching English

The contexts in which teachers use AI tools in English instruction reflect a complex interaction between internal and external conditions that either enable or constrain

the activation of AI mechanisms. Internal contexts include teacher workload, pedagogical preferences, classroom demands, and teachers' technological confidence, while external contexts encompass institutional policies, technological infrastructure, student digital readiness, and broader educational shifts influenced by globalization and digitalization.

Internal contexts are particularly influential in shaping teachers' adoption of AI tools (Ulla et al., 2021). Teachers in the study frequently described how AI assists them in managing lesson planning, instructional preparation, and content development. Codes such as “efficient lesson planning,” “brainstorming,” “structuring lesson plans,” and “quick access to key ideas” show that teachers rely on AI to generate ideas, instructional examples, learning activities, and scaffolded explanations.

AI also plays an important role in supporting assessment practices (Yang, 2019). Teachers explained that tools like Turnitin and Copilot help them check plagiarism, automate grading processes, and monitor student progress. Codes such as “identify learning gaps,” “monitor performance,” and “personalized feedback” indicate that teachers are using AI to track student learning and adjust their instruction accordingly. Teachers also articulated how AI helps manage administrative and workload pressures, noting that tools reduce stress, prevent backlogs, and ensure accuracy in grading and evaluation.

External contexts also play a central role in shaping AI integration. Technological literacy, both among teachers and students, significantly influences the success of AI implementation. Codes in Table 1 such as “training programs,” “technological literacy,” and “students'

receptiveness” indicate that digital competence is an enabling context that supports AI-assisted learning. Survey results further confirm this, with teachers strongly agreeing that students’ technological proficiency makes them receptive to AI tools ($M = 3.45$). Thus, AI tools thrive in environments where users possess the skills to navigate digital platforms and maximize available features.

Institutional support forms another critical external context. The item on institutional support in the survey, with a mean of 3.01, suggests that while support exists, there remains room for improvement, particularly in providing training, resources, and policies that enhance the responsible and effective use of AI.

This broad shift is further captured in the survey results, where teachers strongly agree that technology’s prevalence underscores the need to leverage AI tools for meaningful learning ($M = 3.63$) and that AI supports adaptive and personalized learning approaches ($M = 3.81$). These findings indicate that teachers perceive AI integration not simply as a response to immediate instructional challenges but as part of a broader transformation of educational practice in the digital age. Teachers also emphasize the importance of aligning AI tools with pedagogical principles, with strong agreement that AI integration requires thoughtful consideration to ensure instructional coherence ($M = 3.70$). This reflects a mature understanding of AI’s role in the classroom—not as a shortcut or substitute, but as a pedagogical partner requiring critical evaluation and responsible use (Chaipongpati et al., 2022).

Both internal and external contexts act as key determinants of whether AI mechanisms are successfully activated. When teachers possess

technological confidence, when workloads are high, and when instructional resources are needed quickly, AI mechanisms such as automation, cognitive scaffolding, and feedback generation function effectively. AI mechanisms may be partially activated or inconsistently applied. The triangulation of qualitative codes, quantitative survey findings, and existing scholarly literature demonstrates that the success of AI integration in English teaching relies heavily on the interaction between these contextual conditions.

Implications

The findings of this study underscore the transformative potential of artificial intelligence (AI) to reshape English language education in higher education institutions. The integration of AI tools such as ChatGPT and learning management systems like Canvas, offers concrete benefits in lesson planning, formative assessment, and the provision of individualized feedback. These advancements not only improve instructional efficiency but also support the personalization of learning experiences, particularly in linguistically diverse classrooms. The strong consensus among educators regarding the relevance and efficacy of AI-powered tools points to a growing readiness in the academic community to embrace technology-enhanced pedagogies. Moreover, the realist evaluation framework highlighted the importance of contextual factors—such as institutional support, teacher preparedness, and student digital literacy—in shaping the successful implementation of AI in English language instruction.

Conclusion

The primary objective of this study was to explore the integration of artificial intelligence (AI) into English language education through a realist evaluation, with the aim of understanding how, why, and under what circumstances AI tools contribute to teaching effectiveness in higher education institutions. The findings fill an important gap in existing literature by providing a context–mechanism–outcome (CMO) explanation of AI integration, addressing the scarcity of realist-informed analyses in technology-enhanced language education. This study offers empirical clarity on how AI functions within instructional and institutional ecosystems, adding depth to ongoing debates surrounding digital pedagogy, teacher readiness, and the evolving role of technology in English instruction.

In addressing the first research objective—identifying the program theory underlying the integration of AI tools in teaching English—the study found that AI is primarily conceptualized as a mechanism for enhancing lesson planning, improving assessment integrity, increasing efficiency, and enabling adaptive learning. Tools such as ChatGPT, Grammarly, Turnitin, Microsoft Copilot, and Canvas LMS were seen as mechanisms that streamline instructional tasks and strengthen pedagogical quality when used within conducive contexts. Theoretically, these findings reinforce realist principles by demonstrating that AI tools yield positive outcomes only when triggered by supportive contexts such as digital competence, institutional readiness, and pedagogical alignment. This aligns with socio-technical and constructivist perspectives, which posit that technology amplifies learning when paired with informed human agency and sound instructional design.

For the second research objective, identifying the contexts that shape teachers' use of AI tools in English instruction, the results revealed two broad categories: internal and external. Internal contexts included AI-enhanced lesson planning and AI-assisted assessments, enabling educators to benefit from greater efficiency, rapid resource generation, personalized feedback, and strengthened academic integrity. External contexts encompassed digital literacy, technological training, institutional support, and broader pedagogical considerations. These findings have theoretical implications, supporting constructivist and learner-centered models and emphasizing that AI-driven environments foster interactive, personalized, and adaptive learning experiences. They also affirm socio-technical theories by highlighting that technological innovation is effective only within a supportive institutional and cultural environment.

Overall, the study concludes that AI tools have significant potential to reshape English language instruction by improving pedagogical practices, facilitating personalized learning experiences, and strengthening assessment strategies. The findings underscore the importance of aligning context, mechanism, and outcome—consistent with realist evaluation principles—and carry important implications for teacher education. For ASEAN and Philippine teacher education systems, the results emphasize the need for continuous professional development in AI literacy, the integration of digital competencies in teacher preparation programs, strategic investment in digital infrastructure, and the development of policies that promote ethical, equitable, and pedagogically grounded AI adoption.

Despite its contributions, this study has several limitations. The use of self-reported

data may have introduced response biases, and the focus on select higher education institutions limits the generalizability of the results. Furthermore, the study relied on cross-sectional data, limiting the ability to observe long-term changes in AI adoption and teaching practices. These limitations suggest caution in generalizing the findings and highlight areas requiring further empirical validation.

Future research should consider longitudinal designs that examine the sustained impact of AI integration on teaching and learning outcomes. Studies that more deeply incorporate student perspectives would also enrich understanding of AI's role in shaping learning experiences. Comparative studies across ASEAN countries could provide broader insights into how varying cultural, institutional, and policy environments influence AI adoption in teacher education. Additionally, future work may explore the development of AI competency frameworks for teachers and evaluate the effectiveness of AI-focused professional development programs.



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4. **Ethical Approval:** The research involving human participants in this study complied with all relevant regulations and policies in accordance with the tenets of the Helsinki Declaration. Ethical approval was obtained from the Research Ethics Committee of Bulacan State University under code FQO-GEP-P prior to conducting the interviews and the survey.
5. **Declaration of Generative AI in Scientific Writing.** The author used AI tools only for minor language editing—such as improving grammar, clarity, and style—while all ideas, interpretations, and theoretical contributions were fully developed from the author's doctoral dissertation on technology integration using a realist evaluation framework. Only the context component of the original CMO configuration was included in this article to meet the journal's word-limit requirements. The author independently reviewed, refined, and finalized all content and takes full responsibility for the scholarly integrity of this publication.

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Bionote

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