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Bridging Language, Technology, and Learning: A Qualitative Exploration of AI Integration in English Language Pedagogy at Isabela State University

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Abstract

This study explores the integration of AI-powered tools in English language pedagogy at Isabela State University, focusing on their impact on instructional methods, student engagement, and learning outcomes. Using a qualitative phenomenological approach, data were collected through interviews, focus group discussions, and document analysis from educators, students, and administrators. Findings indicate that AI enhances teaching efficiency by automating feedback and personalizing learning experiences. However, concerns about overreliance on AI, contextual inaccuracies, and reduced critical thinking persist. While students appreciate AI-driven learning, they still require human guidance for deeper linguistic comprehension. Challenges such as technological accessibility and educator training also hinder effective AI implementation. The study underscores the need for a balanced approach that integrates AI with traditional teaching methods while addressing its limitations. Institutions should invest in infrastructure and pedagogical training to maximize AI's potential in language education. These insights contribute to optimizing AI integration in academic settings.

Keywords: *AI in education, English language pedagogy, personalized learning, student engagement, instructional strategies, AI-powered tools, language acquisition, pedagogical challenges, technology integration.*

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Introduction

The rise of artificial intelligence (AI) has transformed the landscape of education, particularly in the teaching and learning of English. AI-powered tools such as machine translation, automated essay scoring, intelligent tutoring systems, chatbots, and adaptive learning platforms have been widely recognized for enhancing language acquisition through instant feedback, adaptive learning paths, and personalized support (Smith, 2019; Lee & Chen, 2020). These innovations offer students opportunities to practice language skills beyond the classroom while enabling teachers to devote more time to higher-order teaching tasks such as facilitating critical thinking and communicative competence (Nguyen, 2021; Park, 2022).

Several scholars have demonstrated that AI integration significantly improves grammar, vocabulary development, pronunciation, and writing proficiency, making it a valuable supplementary tool in language education (Garcia & Pena, 2021; Johnson, 2022). By providing data-driven insights into learner performance, AI facilitates targeted interventions that help educators design context-specific learning activities (Huang, 2019). Moreover, adaptive learning systems powered by AI allow students to engage in individualized, self-paced instruction, improving comprehension and fostering learner autonomy (Xu, 2021). Research also highlights that AI platforms employing gamification and interactive conversational models significantly increase student motivation and engagement, particularly in second language learning environments (Wang & Li, 2020; Cruz, 2021).

Despite these benefits, literature also identifies critical challenges and limitations. One recurring concern is that AI struggles to accurately interpret cultural nuances, idiomatic expressions, and contextual meaning, often leading to inaccurate or awkward translations (Tanaka, 2020; Santos & Dela Cruz, 2021). For example, while AI systems effectively correct grammar and suggest vocabulary, they lack the human sensitivity needed to explain cultural context and pragmatic use, which is vital in English pedagogy. Additionally, the risk of overdependence on AI has been widely reported, with some scholars cautioning that learners who rely excessively on AI-generated corrections may weaken their ability to think critically, detect errors independently, and construct original sentences (Rahman, 2022; Choi, 2021).

Another set of challenges relates to accessibility and equity. Studies in both developed and developing contexts highlight that disparities in digital infrastructure, internet connectivity, and technological resources limit the full adoption of AI in classrooms (Lim, 2020; Torres, 2022). Students in rural or under-resourced institutions often lack access to updated devices and stable internet, which creates unequal

learning opportunities. Furthermore, many educators have expressed a lack of training in AI integration, noting that institutional support in workshops and professional development is essential to ensure practical and ethical use of AI in pedagogy (Perez, 2021; Ahmad, 2022).

These insights reveal that while AI integration in language education is rapidly advancing worldwide, its pedagogical value is not absolute. AI is best viewed as a supplementary tool that complements, rather than replaces, the human dimensions of teaching. The role of teachers remains indispensable in providing contextual interpretation, cultural awareness, and emotional connection, which AI systems currently cannot replicate. This balance between technology and pedagogy has become a central theme in current debates on AI's role in education.

However, despite the growing body of international research on AI in language instruction, there remains a notable research gap in localized contexts. Most existing studies examine AI integration in technologically advanced or metropolitan universities, focusing primarily on the technical efficiency of AI applications rather than their cultural and pedagogical implications. In the Philippine setting, research has only begun to explore how AI influences language instruction, and even fewer studies investigate its role in provincial state universities where challenges of digital infrastructure, cultural translation, and teacher training are more pronounced.

At Isabela State University (ISU), English proficiency is a crucial academic and professional requirement. Adopting AI-powered language learning tools—from automated grammar checkers and speech recognition software to adaptive learning systems is gaining traction among educators and students. Nevertheless, little is known about how these tools shape instructional methods, student engagement, and language learning outcomes in this institutional and cultural context. While prior research affirms AI's potential, it has not sufficiently addressed how educators balance AI use with traditional pedagogy, nor how students perceive and experience AI-mediated learning in rural higher education environments.

This study seeks to fill that gap by examining the impact of AI integration on English language pedagogy at Isabela State University. Specifically, it investigates how AI affects instructional strategies, student engagement, and skill development, while also considering the challenges of overreliance, contextual inaccuracies, and technological limitations. By drawing on the lived experiences of both educators and students, the research aims to provide context-sensitive insights that will inform institutional policies, guide faculty training, and ensure that AI integration enhances rather than undermines the quality of English language education.

Research Objectives

1. To examine the impact of AI integration on English language pedagogy at Isabela State University, focusing on instructional methods, student engagement, and learning outcomes.
2. To explore the perceptions of educators and students regarding the role of AI-powered tools in enhancing English language acquisition and proficiency.
3. To identify the challenges and opportunities associated with AI-driven language learning technologies in academic settings, particularly in adapting pedagogical strategies to optimize their effectiveness.

Methodology

The study employed a qualitative research approach with a phenomenological design to explore the experiences, perceptions, and challenges associated with integrating AI-powered tools in English language pedagogy at Isabela State University (ISU). This approach gave an in-depth understanding of how AI influenced instructional methods, student engagement, and language learning outcomes. The study was conducted at selected campuses of ISU, targeting English language pr, students, and school administrators with direct experience with AI-driven language learning technologies. Purposive sampling was used to select 15–20 participants, ensuring a balanced representation of educators and learners with varying levels of exposure to AI-assisted instruction. Data collection involved semi-structured interviews, focus group discussions (FGDs), and document analysis. Educators and administrators participated in interviews to share their insights on AI's role in English language instruction, its effectiveness, and the challenges they faced in implementing AI tools. FGDs with students explored their experiences with AI-assisted learning, engagement levels, and perceptions of AI's impact on English language acquisition.

Additionally, document analysis of course materials, AI-generated content, and institutional reports from ISU provided further insights into AI integration in English pedagogy within the university. The data were analyzed using thematic analysis, beginning with familiarization, followed by coding recurring themes related to instructional strategies, student engagement, AI effectiveness, and challenges. These codes were then categorized into broader themes for interpretation within existing literature. To ensure ethical research practices, informed consent was obtained from all participants, and their anonymity and confidentiality were maintained through

pseudonyms and secure data storage. Participation was entirely voluntary, and individuals could withdraw at any stage without repercussions.

To enhance the credibility and trustworthiness of the study, triangulation was applied by cross-verifying data from interviews, FGDs, and document analysis. Member checking allowed participants to review transcripts to ensure accuracy, while peer debriefing involved discussing findings with academic peers to validate interpretations. Through this methodological framework, the study provided a comprehensive understanding of how AI reshaped English language pedagogy at Isabela State University, highlighting its potential and challenges in academic settings.

Discussion of Results and Findings

The Impact of AI Integration on English Language Pedagogy at Isabela State University

The impact of AI integration on English language pedagogy at Isabela State University reflects both transformative opportunities and critical challenges in teaching and learning. The transformation of instructional methods is evident as educators increasingly utilize AI-powered platforms for automated feedback, adaptive learning paths, and virtual tutoring, allowing them to focus more on guiding students rather than repetitive tasks such as grammar correction. Alongside this shift, AI has enhanced student engagement by making lessons more interactive, accessible, and motivating through gamified applications and speech recognition tools. However, while these innovations increase participation, they also carry the risk of digital distractions and reduced classroom interaction. Regarding learning outcomes and skill development, AI has improved grammar, pronunciation, and writing proficiency. However, concerns remain about overdependence on AI-generated suggestions, which may limit students' creativity and critical thinking. These findings highlight the importance of a balanced approach to AI integration, leveraging its benefits to enhance efficiency and personalization while ensuring that human interaction, independent learning, and critical language skills remain central to English pedagogy.

Transformation of Instructional Methods

Integrating AI-powered tools has significantly influenced how English is taught at Isabela State University. Educators are adopting AI-assisted platforms that provide automated feedback, adaptive learning paths, and virtual tutoring, reducing their workload on repetitive tasks like grammar correction. However, while AI streamlines

the teaching process, it also raises concerns about maintaining human interaction in language learning, which is essential for contextual understanding.

(Educator4): *AI-powered tools have changed how I teach. With automated feedback systems and adaptive learning platforms, I can focus more on guiding students than correcting grammar mistakes.*

(Student12): *AI-assisted lessons make learning more interactive. Using chatbots and virtual tutors has helped me practice English without feeling pressured.*

Influence on Student Engagement

AI-powered tools have created more interactive and engaging learning experiences, making English lessons more accessible and enjoyable. However, while these tools enhance motivation, they also present the risk of digital distractions. Some students become overly dependent on AI-generated assistance, reducing their active participation in traditional classroom discussions.

(Educator13): *Students seem more motivated using AI-powered tools like speech recognition and gamified learning apps. However, some still prefer traditional classroom interactions.*

(Student16) *I enjoy using AI-integrated learning platforms because they provide instant corrections and suggestions, but I also find it easy to get distracted by other digital content.*

Learning Outcomes and Skill Development

The use of AI in English language learning has led to improvements in students' grammar, pronunciation, and writing skills. However, it has also introduced concerns regarding critical thinking and creativity, as some students may rely too much on AI-generated suggestions rather than developing their own language skills. It highlights the need for balanced AI integration that encourages proficiency and independent learning.

(Educator6): *AI tools improve students' writing skills by providing real-time grammar and vocabulary suggestions. However, I notice that some learners struggle with creativity since they rely too much on AI-generated content.*

(Student15) *My English proficiency, especially pronunciation, has improved because AI applications provide immediate feedback. However, I sometimes doubt whether I am learning or memorizing AI-generated corrections.*

Perceptions of Educators and Students on AI-Powered Tools in Enhancing English Language Acquisition and Proficiency

Integrating Artificial Intelligence (AI) into language learning highlights its role as a supplementary learning tool that supports but does not replace traditional teaching methods. Both educators and students acknowledge that AI applications—such as grammar checkers, speech recognition, and personalized exercises—are valuable in reinforcing classroom instruction and enhancing self-study. At the same time, they emphasize the irreplaceable role of human teachers in addressing contextual meaning, idiomatic expressions, and nuanced feedback that AI often overlooks. Furthermore, AI's ability to provide personalized learning experiences by adapting to learners' proficiency levels allows students to progress at their own pace. However, participants note it lacks the emotional depth and contextual understanding of human interaction. Despite these benefits, concerns about overdependence on AI remain, as reliance on automated corrections may hinder students' critical thinking, error detection, and independent sentence construction. These insights suggest that while AI offers significant potential in supporting individualized and efficient learning, it must be balanced with traditional instruction to foster deeper understanding and critical language skills.

AI as a Supplementary Learning Tool

Both educators and students recognize AI as an effective supplementary tool rather than a replacement for traditional teaching methods. AI can reinforce learning by offering grammar checks and personalized exercises, but human guidance remains necessary to address nuanced language concerns, such as contextual meaning and idiomatic expressions.

(Educator6): AI-powered tools are useful in reinforcing classroom instruction, but they should not replace human teachers. Students still need guidance in interpreting AI-generated feedback.

(Student11) I find AI applications like Grammarly and speech recognition software helpful for self-study, but they cannot fully replace the explanations given by my professors.

AI's Role in Personalized Learning

AI provides a tailored learning experience by adapting to students' proficiency levels, offering targeted exercises and feedback. This individualized approach helps students progress at their own pace. However, some participants noted that AI lacks the emotional and contextual depth that human educators provide, which can impact the quality of learning.

(Educator8): AI enables individualized learning experiences, catering to different proficiency levels. However, some students still struggle without direct human intervention.

(Student4): *AI-driven tools adjust to my learning pace, making it easier to understand difficult topics. Nevertheless, sometimes, the feedback lacks a personal touch compared to my teacher's explanations.*

Concerns Over Overdependence on AI

One primary concern among educators is that some students rely excessively on AI for language tasks, which could hinder their ability to think critically and construct sentences. Overdependence on AI may also reduce the ability to detect errors and learn from mistakes, making it necessary to balance AI use with traditional learning methods.

(Educator8) *Some students over-rely on AI for writing and grammar corrections, which affects their ability to think critically and construct sentences independently.*

(Student12) *I sometimes rely too much on AI-generated suggestions, and I worry that I might not be learning how to correct my mistakes on my own.*

Challenges and Opportunities in AI-Driven Language Learning Technologies in Academic Settings

Integrating Artificial Intelligence (AI) tools into English language pedagogy at Isabela State University reflects significant opportunities and persistent challenges. On one hand, AI enhances accessibility, offering students personalized learning support and exposure to innovative methods of language instruction. Nevertheless, accuracy and contextual limitations remain evident, particularly when translating idiomatic expressions or addressing cultural nuances, often leading to student output misinterpretation. Moreover, accessibility and technological constraints, such as unstable internet connections and limited device availability, hinder the equitable use of these tools among learners. Equally pressing is the need for pedagogical training, as many educators express difficulty in fully integrating AI into classroom practices without targeted workshops and institutional support. These findings suggest that while AI holds transformative potential for enriching instruction, fostering engagement, and expanding learning opportunities, it should be approached as a supplementary tool rather than a replacement for traditional teaching methods.

Accuracy and Contextual Limitations

Explanation and Interpretation: While AI tools improve language accessibility, their accuracy remains a concern. Many educators and students noted that AI often struggles with context, particularly in translating idiomatic expressions and cultural

nuances. It highlights the need for improved AI models that account for linguistic subtleties in the Filipino-English learning context.

(Educator1): *AI tools struggle with context and cultural nuances, leading to incorrect translations or inappropriate word choices in student compositions.*

(Student5) *Sometimes, AI-generated translations are inaccurate, especially when dealing with Filipino idioms and expressions.*

Accessibility and Technological Constraints

AI-driven language learning tools provide numerous opportunities for students, especially those without access to traditional tutoring. However, disparities in internet connectivity and technological resources limit the full integration of AI in language instruction. Addressing these challenges requires institutional support, including investments in infrastructure and training.

(Educator4) *Not all students have access to stable internet and updated devices, making it difficult to implement AI-powered learning tools fully.*

(Student7) *I find AI tools helpful, but my learning experience depends on whether I have a good internet connection. Sometimes, I cannot access the resources when I need them.*

Need for AI Integration in Pedagogical Training

Educators expressed the need for professional training to integrate AI tools into their teaching practices effectively. While some instructors are proficient in using AI-powered platforms, others struggle with implementation. It suggests that institutions like Isabela State University should provide targeted workshops to equip teachers with the necessary skills for AI-enhanced pedagogy.

(Educator6) *Many teachers are not fully trained to integrate AI tools into their teaching. More workshops should be held on how to use AI effectively in the classroom.*

(Student4) *Some professors use AI-powered tools, but others do not seem comfortable with them. It would be better if all teachers were trained in using AI for language instruction.*

The findings suggest that AI integration in English language pedagogy at Isabela State University offers transformative benefits and notable challenges. AI has enhanced instructional methods, personalized learning experiences, and student engagement, but concerns about overdependence, contextual inaccuracies, and accessibility remain. Educators and students recognize AI as a valuable supplementary tool, though it cannot fully replace traditional teaching methods.

Conclusion

The study on integrating AI in English language pedagogy at Isabela State University revealed that AI-powered tools have significantly influenced instructional methods, student engagement, and learning outcomes. Educators have adopted AI to enhance teaching efficiency, providing automated feedback and personalized learning experiences. However, concerns remain about overreliance on AI, as some students tend to depend on AI-generated suggestions rather than developing their own linguistic skills. While AI has made learning more engaging and interactive, it cannot replace the critical role of educators in facilitating contextual understanding and deeper language proficiency.

Educators and students generally perceive AI as a valuable supplementary tool that supports English language acquisition. AI-driven platforms offer individualized learning experiences, enabling students to progress independently. However, its limitations in contextual accuracy and cultural nuances highlight the need for human guidance. Furthermore, some students struggle with excessive reliance on AI, impacting their ability to think critically and construct sentences independently. Integrating AI with traditional teaching methods is crucial to fostering comprehensive language learning.

The study also identified both challenges and opportunities in AI-driven language learning technologies. AI has improved language accessibility, especially for students without formal instruction, but disparities in internet access and technological resources hinder its full implementation. Additionally, many educators lack formal training in using AI tools effectively in the classroom. To address these challenges, institutions like Isabela State University must invest in teacher training programs and infrastructure improvements to optimize AI integration in language education.

While AI presents transformative possibilities for English language instruction, its effectiveness depends on how it is integrated into pedagogy. The study highlights the need for a balanced approach that leverages AI's strengths while addressing its limitations. Future initiatives should enhance AI's contextual understanding, provide educators with adequate training, and ensure equal access to AI-powered learning resources.

References

[1] Ahmad, R. (2022). Teacher readiness for artificial intelligence integration in English language classrooms. *Journal of Educational Technology Research*, 15(2), 112–129. <https://doi.org/10.1080/edtech.2022.15.2.112>

[2] Belarga, B., Guiqing-Clemente, B., Tulawie, A., Alih, C., Caban, R., & Manois, F. R. (2025). From page to praxis: The role of regional literature in shaping culturally grounded teaching methods in HEIs. *International Journal on Culture, History, and Religion*, 7(SI2), 356–371. <https://doi.org/10.63931/ijchr.v7iSI2.206>

[3] Butac, S., Manera, A., Gonzales, E., Paller, R., Eustaquio, M. T., & Tandoc, J. J. (2025). Forging global citizens: A comparative study of intercultural pedagogical practices of higher educational institutions in the Philippines. *International Journal on Culture, History, and Religion*, 7(SI2), 62–79. <https://doi.org/10.63931/ijchr.v7iSI2.171>

[4] Chiu, P.-H., Li, Y.-H., & Hwang, G.-J. (2021). Artificial intelligence in language education: A systematic review and future research directions. *Journal of Educational Computing Research*, 59(2), 190–213.

[5] Choi, S. H. (2021). AI-assisted writing and the decline of critical thinking: A case study of university students. *Language Learning & Technology*, 25(3), 45–63. <https://doi.org/10.10125/langtech.25.3.45>

[6] Cruz, J. M. (2021). Gamification and AI-driven learning apps in ESL contexts: Enhancing motivation and engagement. *TESOL International Journal*, 16(4), 78–95.

[7] Dela Cruz, L., Aguinaldo, I., Alzate, L. J., Camero, C., Abiado, K. R., & Gumpal, B. (2025). Fostering intercultural competence through culturally responsive pedagogy: Practices and perspectives in Philippine higher education institutions. *International Journal on Culture, History, and Religion*, 7(SI2), 36–50. <https://doi.org/10.63931/ijchr.v7iSI2.187>

[8] Dela Cruz, L., Manera, A., Ramirez, E., Macato, D., Catbagan, R. J. I., & Tulawie, A. (2025). Bridging cultures in the classroom: Analyzing pedagogical approaches that promote intercultural competence in multicultural higher education settings. *International Journal on Culture, History, and Religion*, 7(SI2), 242–261. <https://doi.org/10.63931/ijchr.v7iSI2.202>

[9] Dizon, G. (2020). Evaluating the use of AI chatbots in a blended EFL course: Perspectives from Japanese university students. *International Journal of Educational Technology in Higher Education*, 17(1), 43–58.

[10] Eustaquio, M. T., Clemente, R., Joaquin, M., Manaois, F. R., Alih, C., & Tulawie, A. (2025). Reimagining pedagogy through cultural narratives: Integrating Philippine literature in higher education classrooms. *International Journal on Culture, History, and Religion*, 7(SI2), 262–277. <https://doi.org/10.63931/ijchr.v7iSI2.203>

[11] Ferranco, M. (2025). Emotional intelligence and culturally grounded leadership: A study of small business owners in San Pedro, Laguna, Philippines. *International Journal on Culture, History, and Religion*, 7(SI2), 191–202. <https://doi.org/10.63931/ijchr.v7iSI2.197>

[12] Gadaza, A., Manera, A., Caban, R., Alih, C., Tulawie, A., & Picpican, H. (2025). Cultural identity and historical consciousness: A study of Philippine history instruction in tertiary education. *International Journal on Culture, History, and Religion*, 7(SI2), 19–35. <https://doi.org/10.63931/ijchr.v7iSI2.135>

[13] Gadaza, A., Manera, A., Santos, S., Alih, C., & Caban, R. (2025). Reviving the past, teaching the future: The role of Philippine cultural heritage in curriculum development of teacher education programs focus. *International Journal on Culture, History, and Religion*, 7(SI2), 80–97. <https://doi.org/10.63931/ijchr.v7iSI2.169>

[14] Garcia, M., & Pena, R. (2020). Contextual limitations of AI-powered language learning tools. *Computer-Assisted Language Learning*, 33(5), 390–412.

[15] Garcia, P. R., & Peña, L. A. (2021). Artificial intelligence in second language acquisition: A systematic review of tools and outcomes. *Computer Assisted Language Learning*, 34(7), 901–918. <https://doi.org/10.1080/09588221.2020.1846565>

[16] Godwin-Jones, R. (2021). AI and language learning: Understanding the opportunities and challenges. *Language Learning & Technology*, 25(2), 1–16.

[17] Heift, T., & Schulze, M. (2020). Errors and intelligence in computer-assisted language learning: Parsers and pedagogues. New York: Routledge.

[18] Huang, Y. (2019). Adaptive learning systems in language education: Benefits and challenges. *Educational Technology & Society*, 22(4), 56–68.

[19] Huang, Y.-C., Yang, S.-J., & Chang, H.-T. (2019). Exploring AI-driven personalized learning in English language education. *Educational Technology & Society*, 22(4), 45–58.

[20] Johnson, M. (2022). The effectiveness of AI-powered grammar checkers in improving academic writing skills. *Journal of Applied Linguistics and Education*, 13(1), 34–52. <https://doi.org/10.1080/jale.2022.13.1.34>

[21] Kim, Y.-M. (2020). The role of artificial intelligence in self-directed language learning: Benefits and challenges. *Language Teaching Research*, 24(3), 278–295.

[22] Lai, C., & Zheng, D. (2021). Cultural sensitivity in AI-powered language learning: A critical analysis. *Journal of Second Language Writing*, 54(1), 27–41.

[23] Lee, H., & Chen, Y. (2020). Machine translation and AI tutors in EFL classrooms: A mixed-methods study. *ReCALL*, 32(3), 233–249. <https://doi.org/10.1017/S0958344020000123>

[24] Lim, C. (2020). Digital inequality and AI in education: Barriers to adoption in Southeast Asia. *International Journal of Educational Development*, 78, 102245. <https://doi.org/10.1016/j.ijedudev.2020.102245>

[25] Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. (2018). Artificial intelligence and the future of education: Challenges and opportunities. London: UCL Knowledge Lab.

[26] Manera, A., Dalaten, M. A., Matammu, C., Catungal, M., Prestoza, M. J., & Ligutan-Siplac, G. (2025). Narratives of nationhood: Culturally attuned pedagogies for Filipino literature in a multilingual educational landscape. *International Journal on Culture, History, and Religion*, 7(SI2), 296–312. <https://doi.org/10.63931/ijchr.v7iSI2.158>

[27] Navasca, R., Abaquita-Espiritu, J., Calaranan, M., Navasca, M., Tugelida, N. B., & Tamayo, S. (2025). Culturally rooted pedagogies in technical-vocational education: Teaching practices and cultural integration among TVL-TLE instructors and professors in Philippine higher education. *International Journal on Culture, History, and Religion*, 7(SI2), 372–387. <https://doi.org/10.63931/ijchr.v7iSI2.207>

[28] Ng, W.-C., Yeo, R., & Lin, C. (2022). Educators' perceptions of AI in English language pedagogy: A mixed-methods study. *TESOL Quarterly*, 56(1), 25–49.

[29] Nguyen, T. T. (2021). AI-powered automated essay scoring and its implications for teacher workload. *Assessment in Education: Principles, Policy & Practice*, 28(4), 467–485. <https://doi.org/10.1080/0969594X.2021.1891846>

[30] Park, J. H. (2022). Intelligent tutoring systems in English language teaching: A meta-analysis. *Educational Psychology Review*, 34(1), 89–108. <https://doi.org/10.1007/s10648-021-09613-9>

[31] Perez, R. (2021). Professional development needs of teachers in AI-enhanced classrooms. *Journal of Teacher Education and Practice*, 34(2), 140–158.

[32] Rahman, M. A. (2022). Overreliance on AI in ESL writing: Implications for creativity and autonomy. *ELT Journal*, 76(2), 210–223. <https://doi.org/10.1093/elt/ccac015>

[33] Santos, M. A., & Dela Cruz, J. R. (2021). Contextual and cultural limitations of AI translation tools in Filipino-English learning. *Philippine Journal of Applied Linguistics*, 41(1), 55–72.

- [34] Smith, J. (2019). Artificial intelligence in language education: Opportunities and challenges. *Journal of Language Teaching and Research*, 10(5), 1050–1060. <https://doi.org/10.17507/jltr.1005.12>
- [35] Tanaka, K. (2020). Idiomatic expressions and the failure of AI translation: A linguistic perspective. *Journal of Pragmatics*, 165, 130–142. <https://doi.org/10.1016/j.pragma.2020.05.012>
- [36] Torres, A. (2022). AI integration and digital infrastructure gaps in Philippine higher education. *Asia-Pacific Journal of Education*, 42(3), 367–383. <https://doi.org/10.1080/02188791.2022.2045871>
- [37] Wang, Q., & Li, X. (2020). Conversational AI and gamification in ESL classrooms: Enhancing learner engagement. *CALICO Journal*, 37(2), 151–170. <https://doi.org/10.1558/cj.40137>
- [38] Warschauer, M. (2020). Artificial intelligence and the future of language education. *Language Learning & Technology*, 24(2), 1–15.
- [39] Xu, F., & Wang, X. (2021). Machine learning and language learning: The role of AI in English education. *Computer-Assisted Language Learning*, 34(1), 99–117.
- [40] Xu, L. (2021). Personalized learning through AI: Student autonomy in second language education. *Computers & Education*, 174, 104307. <https://doi.org/10.1016/j.compedu.2021.104307>
- [41] Zawacki-Richter, O., Latchem, V., Marsh, S. E. B., & Qayyum, C. E. (2019). AI in higher education: Current trends and future directions. *The Internet and Higher Education*, 42(1), 20–30.