

ORIGINAL RESEARCH ARTICLE

Open Access

A Preliminary Study on AI-Assisted Pedagogical Tools in English and Filipino Language Instruction among Filipino Public Elementary School Teachers

Marielle Justine C. Sumilong*

Department of Speech Communication and Theatre Arts, University of the Philippines Diliman, 1101, Philippines

*Correspondence to: Marielle Justine C. Sumilong, Department of Speech Communication and Theatre Arts, University of the Philippines Diliman, 1101, Philippines; Email: mcsumilong@up.edu.ph

Received: March 19, 2026; Accepted: March 26, 2026; Published Online: July 06, 2026

Abstract: This preliminary study investigated the integration of free Generative AI (GenAI) tools among 30 public elementary school teachers in Quezon City, Philippines. Utilizing a descriptive-survey design and purposive snowball sampling, the research explored how tools like ChatGPT and Canva serve as "force multipliers" in English and Filipino language instruction under the MATATAG Curriculum. Findings revealed that while GenAI democratizes access to localized materials, a steep learning curve and supervisory resistance persist as significant barriers. Conversely, peer support and student engagement act as primary enablers. The study concludes that formalizing AI literacy is essential to aligning grassroots innovation with DepEd Order No. 003, s. 2026.

Keywords: Generative AI (GenAI); MATATAG curriculum; Language pedagogy; Philippine public education

1. Introduction

The rapid evolution of Generative Artificial Intelligence (GenAI) catalyzed a paradigm shift in global education, redefining the boundaries of instructional design and pedagogical delivery. As Large Language Models (LLMs) like ChatGPT, Gemini, and Claude became increasingly sophisticated, they were recognized not merely as novelty tools but as versatile "force multipliers" for educators (Law, 2024; Moorhouse et al., 2025). These GenAI tools possessed the unique capability to generate, refine, and adapt human-like content across various modalities, offering teachers a highly accessible means to create

customized instructional materials that were previously labor-intensive to produce (Castledown, 2025).

Central to the adoption of these technologies was their unprecedented accessibility. Most powerful GenAI platforms, including ChatGPT, Google Gemini, and creative suites like Canva Magic Design, offered robust free tiers that did not require departmental funding or high-level institutional subscriptions. This created a "democratizing" effect for under-resourced schools, providing public school educators with the same advanced digital capabilities as those in well-funded private institutions. By leveraging these free resources, teachers were able to bypass traditional



© The Author(s) 2026. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, sharing, adaptation, distribution and reproduction in any medium or format, for any purpose, even commercially, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

budgetary constraints to deliver high-quality, tech-integrated lessons (UNESCO, 2024).

In the context of language education, the utility of GenAI was particularly pronounced through its pedagogical alignment with modern standards. Rather than merely "doing the work" for the teacher, AI acted as a sophisticated assistant capable of generating localized reading materials, simplifying complex grammar structures, and creating MATATAG-aligned lesson plans in seconds. Previous research indicated that these tools assisted teachers in producing diverse texts and scaffolded exercises tailored to varying learner levels, thereby fostering a more inclusive and personalized learning environment (Shin & Lee, 2023; ERIC, 2025).

Furthermore, the linguistic versatility of modern LLMs addressed a long-standing gap in Philippine education: the scarcity of high-quality materials in the national language. Modern AI models demonstrated proficiency enough to assist in Filipino (Tagalog) and other regional dialects, aiding in the creation of Mother Tongue-based materials and contextualized Filipino literature that were previously difficult to source. This capability ensured that technology-enhanced learning was not restricted to English instruction but equally empowered the Filipino language curriculum (PNA, 2026).

While the Philippines was recognized as an early adopter of generative technologies, the implementation of AI in public schools occurred against a backdrop of systemic challenges. Public school teachers often grappled with heavy administrative workloads and a scarcity of updated instructional materials mandated by recent curriculum reforms (DepEd, 2025). This "resource gap" frequently forced teachers to spend personal time and funds to create materials, a burden that GenAI was uniquely positioned to alleviate.

Acknowledging these factors, the Department of Education (DepEd) officially regulated the use of AI through Department Order No. 003, s. 2026, titled *"Foundational Guidelines on Artificial Intelligence (AI) in Basic Education."* This landmark policy established AI as an auxiliary tool intended to support human judgment and pedagogical expertise (DepEd, 2026). The order explicitly encouraged the use of AI for the "creation and enhancement of instructional materials," provided such use adhered to ethical and pedagogical

standards.

Despite this policy direction, there was a dearth of empirical data regarding the actual "ground-level" utilization of GenAI by public elementary teachers. While mandates existed, the specific tools adopted and the types of materials generated for English and Filipino subjects remained largely undocumented. Understanding these patterns was crucial for the successful implementation of the Project AGAP.AI initiative, which aimed to train over 300,000 teachers in AI literacy (PNA, 2026).

This study, therefore, intended to investigate the landscape of AI integration among public elementary school teachers in the Philippines. By focusing on English and Filipino language teaching, the research asserted that free GenAI tools served as sustainable pedagogical assets. Through a preliminary survey, this study mapped the digital habits of educators and identified the specific AI-assisted tools that permeated the public school system.

The primary objective of this research was to evaluate the extent and nature of GenAI adoption among public elementary teachers for language instruction. Specifically, the study aimed to:

1. Identify the specific free Generative AI tools utilized by teachers for preparing instructional materials in English and Filipino;
2. Describe the perceived effectiveness and frequency of using these tools in enhancing pedagogical delivery; and
3. Determine the primary barriers and enablers that influenced teachers' decisions to integrate AI into their daily language lessons.

2. Methodology

This study employed a descriptive-survey research design to investigate the landscape of AI integration among public elementary school teachers. As a preliminary study, this approach was most appropriate for mapping out the initial adoption patterns, preferences, and challenges encountered by educators in a rapidly evolving technological environment (Creswell & Creswell, 2023). By utilizing a survey-based method, the research provided a "snapshot" of the status quo of AI use in English and Filipino language instruction, providing a foundational evidence base for future studies.

Research Participants

The participants for this preliminary study consisted of 30 public elementary school teachers who taught English and/or Filipino subjects within Quezon City in the Philippines. To identify the respondents, the study utilized a purposive snowball sampling technique, which commenced with the researcher's personal professional contacts within the public school system. These initial participants then referred other eligible colleagues, allowing the researcher to reach educators with firsthand experience in the current digital transition.

Participants were selected based on their active involvement in classroom instruction under the MATATAG Curriculum. The specific criteria for inclusion involved: (1) current employment in a public elementary school within the Division of Quezon City, (2) at least one year of teaching experience, and (3) direct responsibility for delivering language-related content in either English or Filipino. Participation was entirely voluntary, and informed consent was secured prior to data collection to ensure ethical compliance with the privacy and professional standards mandated by DepEd Order No. 003, s. 2026.

Research Instrument

Data were collected through a researcher-developed preliminary survey on AI integration, which was administered via Google Forms for accessibility. To ensure the quality and relevance of the tool, the instrument underwent face validation by two faculty members from the University of the Philippines specializing in Instructional Communication. Their expert feedback ensured that the survey items were pedagogically sound, linguistically appropriate for the local context, and aligned with the study's objectives. The finalized instrument was divided into three primary sections:

- **Section I: Profile and Awareness:** This section identified the respondents' teaching profile and their familiarity with specific free-tier GenAI tools such as ChatGPT, Google Gemini, Canva Magic Design, and MagicSchool.ai.
- **Section II: Usage and Frequency:** A Likert-scale component measured how often teachers utilized these

tools for specific tasks, such as generating short stories in Filipino, simplifying English grammar, or creating MATATAG-aligned lesson plans.

- **Section III: Open-Ended Qualitative Response:** This section allowed teachers to describe their pedagogical strategies and the specific barriers they faced, such as connectivity issues or a lack of prompt engineering skills.

Analysis of Data

The data collected from the survey were analyzed using a dual-method approach:

1. **Quantitative Analysis:** Descriptive statistics, including frequency counts, percentages, and weighted means, were used to analyze Sections I and II. This identified which AI tools were most prevalent and which instructional tasks were most commonly automated or enhanced by AI.

2. **Qualitative Content Analysis:** The responses from the open-ended questions underwent inductive content analysis. This involved a systematic process of coding and categorizing text-based data to identify recurring themes related to pedagogical shifts and barriers (Krippendorff, 2018). The analysis focused on how teachers perceived AI as a "force multiplier" and how they navigated the linguistic nuances of creating materials in Filipino. This qualitative layer provided a nuanced view of the Philippine public school experience.

3. Results and Discussion

The study yielded significant insights into how public elementary educators in the Philippines are navigating the integration of AI within the language classroom. The following sections detail the tools utilized, their perceived efficacy, and the systemic factors influencing their adoption.

Free Generative AI Tools Utilized for Language Instruction

The first objective sought to identify the specific AI-assisted tools currently utilized by teachers. The survey data revealed a diverse ecosystem of applications used to support both English and Filipino subjects. **Figure 1.0** summarizes the primary tools identified by respondents and their corresponding pedagogical use cases.

Figure 1.0 AI Tools Utilized by the Participants

Category	AI Tools	Pedagogical Use Case
Generative Text	ChatGPT, Google Gemini	Creating short stories, poems, and grammar drills in English and Filipino.
Visual/Content	Canva Magic Design	Creating flashcards, posters, and visual aids for vocabulary building.

Continuation Table:

Category	AI Tools	Pedagogical Use Case
Language Support	Grammarly, Quillbot	Assisting with sentence construction, grammar checking, and paraphrasing.

The results indicated that ChatGPT and Canva Magic Design were the most frequently cited tools. Teachers utilized these platforms primarily to overcome the shortage of localized reading materials. By using generative text, educators were able to produce bilingual stories that aligned with the MATATAG Curriculum themes. This confirms the study's assertion that the accessibility of free tiers has allowed these "democratizing" tools to permeate schools, providing high-level digital support without requiring official departmental funding.

The concentration of usage within free-tier platforms validated the accessibility assertion presented earlier in this study. Because these tools required no institutional procurement, teachers bypassed the "digital divide" often found in under-funded public districts. This finding aligns with the observations of Castledown (2025), who noted that the low barrier to entry for GenAI allows for a bottom-up adoption of technology where administrative funding lags behind innovation.

Furthermore, the data highlighted the linguistic versatility of these tools in the Philippine context. Participants specifically noted that LLMs were proficient in generating Filipino (Tagalog) content, which addressed the persistent scarcity of high-quality reading materials in the national language. This localized utility directly supported the goals of DepEd Order No. 003, s. 2026, which encourages the creation of culturally and linguistically relevant instructional materials through auxiliary digital tools (DepEd, 2026).

Perceived Effectiveness and Frequency of Use

The second objective aimed to describe how teachers perceived the effectiveness of these tools and how often they were employed. The data showed a high frequency of use for administrative preparation and a moderate frequency for direct instructional material creation. Overall, respondents expressed a generally positive perception of GenAI, largely driven by the "free" nature of the tools. One Grade 4 teacher shared, "I like using ChatGPT because it's like having a teaching assistant for free; I don't need to wait for a budget or

buy a subscription to get help with my lesson drafts." This sentiment highlights how the accessibility of free-tier AI provided immediate high-level assistance without financial burden.

Teachers reported that AI acted as a "force multiplier," significantly reducing the time required to develop bilingual materials. For many, the ability to generate a story in both English and Filipino simultaneously was a breakthrough in efficiency. As one participant noted, "Before, it took me hours to translate a reading text into Filipino while making sure the level was right for my students. Now, I just tell the AI the topic, and it gives me a draft in seconds that I can just polish." This confirms that the technology is being used not to replace the teacher's voice, but to amplify their output and alleviate the heavy workload associated with material localization.

However, while the tools were deemed highly effective for generating drafts, a significant portion of the participants acknowledged a steep learning curve. Teachers noted that "prompt engineering"—the art of giving specific instructions to the AI—required a level of digital literacy that many were only beginning to master. One respondent remarked, "Sometimes the AI gives me a very long story that is too hard for my pupils. I realized I have to learn how to talk to it properly—to tell it exactly what 'Grade 3 level' means in our context." This indicates that while the tool is powerful, its utility is currently capped by the user's technical proficiency.

This perception of AI as a professional amplifier supports the "Pedagogical Alignment" framework, where AI is viewed as an assistant to human expertise rather than a replacement. As Shin and Lee (2023) argued, when teachers view AI as a time-saving collaborator, they can shift their focus from rote material production to more meaningful student interaction. One teacher echoed this by saying, "Using Canva and ChatGPT saves me so much time in prep that I actually have more energy to focus on my students who are struggling to read during the actual class." By automating the "mechanics" of teaching, AI

allows for a more human-centered classroom.

The frequency of use also suggested that GenAI has become a staple in the "pre-active" phase of teaching—the planning and preparation stages. By automating the creation of grammar drills and flashcards, teachers effectively mitigated the administrative fatigue associated with the MATATAG Curriculum implementation. A participant explained, "The new curriculum requires a lot of new activities that aren't in the old books yet. I use Gemini to help me align my quiz questions with the new learning competencies so I don't get left behind." This proactive use of technology demonstrates how educators are taking initiative to align their teaching with current national standards. Ultimately, these findings underscore the necessity of the Project AGAP.AI initiative, as the perceived effectiveness of these tools appeared to be directly tied to the teacher's ability to navigate technical hurdles (PNA, 2026). As one teacher concluded, "I know I'm only using 10% of what this can do. I want to learn more so I can make my Filipino lessons as exciting as the ones I see online." This collective desire for professional development suggests that while the preliminary adoption of AI is successful, formal training remains the bridge between simple "assistance" and true "pedagogical transformation."

Barriers and Enablers of AI Integration

The final objective investigated the internal and external factors that influenced the decision to use AI in the classroom. The thematic analysis revealed a complex interplay between institutional resistance and peer-to-peer support.

Primary Barriers:

- **The Learning Curve:** Teachers felt overwhelmed by technical nuances and lacked formal training in language-specific AI instruction.
- **Individual Attitudes:** Apprehensions regarding "technological replacement" or ethical concerns tempered enthusiasm.
- **Supervisory Resistance:** Some supervisors and school heads were less accepting of AI, viewing it as a "shortcut" rather than an enhancement.

Primary Enablers:

- **Cofaculty Support:** Informal peer networks and "learning action cells" (LAC) served as major enablers.
- **Student Engagement:** High student engagement with AI-enhanced materials acted as a catalyst for

adoption.

The barrier of supervisory resistance revealed a significant policy-practice gap. Despite the clear mandate of DepEd Order No. 003, s. 2026, which officially sanctions and regulates AI use, the local administrative culture in some schools remained skeptical. This friction suggests that while the "Accessibility" assertion solved the problem of hardware and software, it did not resolve the "second-order barriers" of institutional culture and administrative "buy-in," as described in early technology adoption theories.

Conversely, the role of cofaculty support and student Engagement as enablers highlighted a social-constructivist path to technology adoption. Teachers were more likely to adopt GenAI when they saw its success in a colleague's classroom or witnessed a surge in student interest. This organic, peer-led adoption model confirms that the "democratization" of education through AI is happening at the grassroots level, often moving faster than formal leadership training (Law, 2024). This underscores the assertion that students and peers are currently the most influential drivers of digital transformation in the Philippine public school system. In summary, while institutional barriers such as supervisor skepticism and technical difficulty persisted, the organic support from colleagues and the tangible benefits of free, localized materials provided a strong foundation for continued AI adoption in Philippine public elementary schools. The study concludes that AI serves as a critical pedagogical asset that, when supported by policy and peer networks, can effectively bridge the resource gap in language instruction.

4. Conclusion

This preliminary study investigated the emerging landscape of Generative AI (GenAI) integration among public elementary school teachers in Quezon City, specifically within the context of English and Filipino language instruction. The research successfully identified that accessible, free-tier tools such as ChatGPT, Google Gemini, and Canva Magic Design have become essential pedagogical assets for educators navigating the transition to the MATATAG Curriculum. By leveraging these platforms, teachers have been able to bypass traditional budgetary constraints, effectively "democratizing" access to high-quality digital instructional materials in under-resourced

environments.

The findings underscored the role of GenAI as a powerful "force multiplier" that significantly reduces the administrative and preparatory burden on teachers. Educators reported a high level of perceived effectiveness, particularly in the creation of localized reading texts and bilingual grammar drills that were previously scarce or labor-intensive to produce. The study's qualitative data revealed a shift in the "pre-active" phase of teaching, where AI allows instructors to focus less on rote material generation and more on meaningful student engagement and differentiated instruction.

Despite these pedagogical gains, the transition was not without significant hurdles. The "steep learning curve" associated with prompt engineering and digital literacy remained a primary internal barrier, often leaving the full potential of these tools untapped. Furthermore, the study identified a critical "policy-practice gap," where institutional skepticism from school supervisors clashed with the mandates of DepEd Order No. 003, s. 2026. This administrative resistance created a climate of hesitation, suggesting that hardware and software access alone are insufficient without a corresponding shift in school leadership culture.

Conversely, the study highlighted the vital role of informal enablers in the adoption process. Peer-to-peer support through "learning action cells" (LAC) and the visible enthusiasm of students served as the primary catalysts for teachers to experiment with AI. These organic, grassroots networks proved to be more influential than formal top-down training, demonstrating that the digital transformation of Philippine public schools is currently being driven by a social-constructivist movement among faculty and learners alike.

In conclusion, GenAI represents a sustainable and transformative solution for bridging the resource gap in Philippine language education. However, to move beyond preliminary adoption, there is an urgent need for institutionalized training programs, such as Project AGAP.AI, to formalize AI literacy and align school leadership with national digital policies. By addressing both the technical learning curve and the cultural resistance within school administrations, the Department of Education can ensure that GenAI

serves as a permanent, ethical, and effective pillar of contemporary pedagogical practice.

References

- [1] Castledown, R. (2025). Technology in language teaching & learning: Exploring the use of Generative Artificial Intelligence (GenAI) in English language instruction. *Journal of Digital Pedagogy*, 7(3), 102-116.
<https://doi.org/10.1016/j.caeo.2025.100174>
- [2] Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- [3] Department of Education. (2025, February 20). *DepEd launches Education Center for AI Research (E-CAIR)* [Press release].
<https://www.deped.gov.ph/2025/02/20/deped-launches-ai-center-for-education/>
- [4] Department of Education. (2025, April 29). *DepEd Order No. 013, s. 2025 – Establishment of the Center for Artificial Intelligence Research for the Department of Education*.
https://www.deped.gov.ph/wp-content/uploads/DO_s2025_013.pdf
- [5] Department of Education. (2025, August 1). *DepEd Memorandum No. 059, s. 2025 – Dissemination of Implementing Rules and Regulations (IRR) of Republic Act No. 12027 (Discontinuing the Mandatory Use of Mother Tongue)*.
https://www.deped.gov.ph/wp-content/uploads/DM_s2025_059r.pdf
- [6] Department of Education. (2026, February 20). *DepEd Order No. 003, s. 2026 – Foundational Guidelines on Artificial Intelligence (AI) in Basic Education*.
- [7] Krippendorff, K. (2018). *Content analysis: An introduction to its methodology*. Sage publications
- [8] Law, N. (2024). Application of Generative Artificial Intelligence (GenAI) in language teaching and learning: A scoping literature review. *Technology in Language Teaching & Learning*, 6(1), 42-58.
<https://doi.org/10.377064863>
- [9] Moorhouse, B. L., Kohnke, L., & Zou, D. (2025). Advancing higher education with GenAI: Factors influencing educator AI literacy. *Frontiers in Education*, 10, 153-172.
<https://doi.org/10.3389/feduc.2025.1530721>

- [10] Philippine News Agency. (2026, January 9). *PBBM launches Project AGAP.AI to 'bridge gap between tech, education'*. <https://www.pna.gov.ph/articles/1266530>
- [11] Philippine News Agency. (2026, February 25). *DepEd allows responsible AI use among learners, teachers nationwide*. <https://www.pna.gov.ph/articles/1269776>
- [12] Shin, J., & Lee, K. (2023). Large Language Model-based Artificial Intelligence in the language classroom: Practical ideas for teaching. *ERIC Document Reproduction Service*. (No. EJ1383526). <https://files.eric.ed.gov/fulltext/EJ1383526.pdf>
- [13] UNESCO. (2024). *Guidance for Generative AI in education and research*. United Nations Educational, Scientific and Cultural Organization.