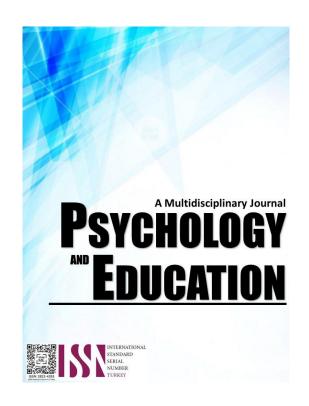
THE USE OF AI TOOLS IN ENGLISH LANGUAGE CLASS AND ITS IMPACT ON THE LEARNING ENGAGEMENT OF STUDENTS: BASIS FOR STRATEGIC FRAMEWORK



PSYCHOLOGY AND EDUCATION: A MULTIDISCIPLINARY JOURNAL

Volume: 42 Issue 5 Pages: 670-681

Document ID: 2025PEMJ4078 DOI: 10.70838/pemj.420502 Manuscript Accepted: 07-03-2025



The Use of AI Tools in English Language Class and its Impact on the Learning Engagement of Students: Basis for Strategic Framework

Jomel A. Ocampo*
For affiliations and correspondence, see the last page.

Abstract

The study aimed to determine the use of AI tools in English Language Class and its impact on the learning engagement of students at Vinschool Hanoi, Vietnam. The respondents of the study were students at Vinschool Hanoi, Vietnam. The researcher purposively selects forty (40) students. The respondents determined the common artificial intelligence tools used by English language teachers and assess the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class in terms of participation and involvement, motivation and interest, collaboration and communication, skill development, and feedback utilization. Moreso, the researcher utilized the level of performance of students as revealed by their final grade in English. The researcher used the nonprobability sampling utilizing the purposive sampling technique in determining the respondents of the study. The findings revealed that English teachers employ AI tools like Flipped Classroom platforms, Grammarly, and Kahoot. Also, students exhibit significant engagement with artificial intelligence tools in English language classes including participation, motivation, collaboration, skill growth, and feedback application. Moreso, the level of learning engagement of students in English Language class before and after the use of Artificial Intelligence tools is significantly unique in terms of motivation and interest, engagement and participation, collaboration and communication, skill development, and feedback utilization. The utilization of AI techniques has a profound effect on the level of student engagement with English language education. Further, high performance and fluency in the English language are demonstrated by the students' final English grades. Moreover, a substantial correlation exists between the degree of learning facilitated by Artificial Intelligence technologies and the academic success of pupils, as indicated by their final grades in English. As an outcome of the findings and the conclusions, the following recommendations were enumerated: Teachers may use AI-powered applications to complement traditional teaching methods, tailoring activities that promote active participation and personalized learning experiences. Students may engage actively with AI applications by setting clear goals, such as mastering vocabulary or improving pronunciation, fostering a sense of ownership in their learning. School administrators may invest in infrastructure and devices to bridge the digital divide, making AI tools accessible to all students regardless of socioeconomic status.

Keywords: use of artificial intelligence tools, english language class, participation and involvement, motivation and interest, collaboration and communication

Introduction

As educational institutions increasingly use information and communication technology, educators have integrated artificial intelligence capabilities into their learning settings, revolutionizing learning facilitation. While trying to meet the demands of different students, artificial intelligence promotes learners' own abilities and preferences. Using adaptive learning systems, one can offer instructional tools and assignments to satisfy various learning requirements of English-speaking students. This method lets pupils feel both challenge and encouragement, therefore raising their involvement in the process of learning the language.

Apart from that, AI tools might help students become more motivated and eager to learn. Many artificial intelligence programs, such as chatbots or language learning apps, are engaging, thus learners get excited to keep studying English as one of their preferences. Thus, including the technology students at Vinschool Hanoi, Vietnam, are interested in and utilizing in the classroom can help them at a pivotal point when they are researching social issues and creating their own identities. This alignment therefore results in more interesting approaches to learning languages.

Another element of learning engagement is cooperation; the incorporation of artificial intelligence tools into the educational process helps pupils to communicate effectively among one another. Students can especially collaborate on a project, talk about ideas, and provide each other with comments. Encouragement of personal connections among students results in their assuming responsibility for the learning process, therefore improving their grasp of the acquired skills. Particularly in language education, the use of artificial intelligence (AI) in the teaching-learning process has attracted great interest in many different learning environments. Particularly for high school students negotiating challenging learning systems and social learning environments, these technologies present several ways to improve the learning process.

Previous studies indicate that artificial intelligence tools are successful in customizing the learning environment to the needs and preferences of the learner, so enabling teachers to meet these demands. For example, the 2021 study by Huang and Hew showed that learners' engagement levels are much raised by adaptive learning systems, which may offer customized comments depending on their performance. Though many studies have already shown the advantages of using artificial intelligence to offer individualized learning

Jomel A. Ocampo 670/681



for students, it is yet unknown how these tools affect students' learning engagement, especially in Vinschool Hanoi, Vietnam, a diverse education institution.

Studies on the interactivity of tools like games and chatbots in the classroom have shown that this raises students' attention and participation. According to Sangsawang and Chumpookam (2020), artificial intelligence tools can now be used in ways that allow the development of learner-centered experiences in line with the inclination of the generation of new-age learners. Still, there is a dearth of empirical research that has concentrated on the overall impact of the listed technologies on students' learning involvement. This emphasizes the need of focused investigation especially in view of the historical and cultural elements of the Vinschool Hanoi, Vietnam environment.

Learning depends on the interaction and participation of the students; hence artificial intelligence seems to provide unique opportunities. Chen et al. (2022) indicates that the employment of artificial intelligence in collaborative learning raises the degree of participation in peer cooperation when compared to conventional environments. Notwithstanding these gaps, present studies lack a thorough investigation on the degree to which artificial intelligence tools improve the cohesiveness of English language learners, especially the Vinschool Hanoi, Vietnam pupils.

Ironically, using artificial intelligence in EL classes widens the area with more varied teaching tools and resources. These resources help educators create materials, including tests and assignments, fit for the English curricular goals. These instruments help teachers to accommodate their various learning demands and design more interesting courses for their pupils, hence raising student involvement. AI tools also affect students' interest by helping them to acquire numerous important information literacy skills. Students pick skills to search for information, evaluate it, and properly distribute it in several forms since they use technologies to do their study. Most of these abilities are crucial not only for succeeding in businesses, especially in the current digital era, but also for academic performance.

Engaging the student depends much on the feedback systems of the AI tools. Giving pupils feedback on their performance inside a language exercise or a writing project within a limited period helps them to develop a growth attitude and better grasp the areas they should focus on. Students who can track their development and implement significant adjustments feel more engaged in the learning process and take more initiative in trying to become proficient in English.

These benefits, however, cannot be isolated from the given list of the factors influencing learning engagement without considering the emotional gains the engaged students experience. Using AI techniques helps to guarantee that different pupils in a class will feel appreciated in a classroom and accepted in group projects. Rather, the works provide several ways for students to grasp and be creative—such as voice recognition or interactive stories—which will enable them to feel more linked to the material and the class overall. All of which demand examination, the study emphasizes how AI tools affect learning engagement among students at Vinschool Hanoi, Vietnam, the efficiency of AI deployment, and the related risks and drawbacks. Nonetheless, the possible benefits are enormous; issues about access, the question of how much teachers prepare for the use of artificial intelligence in their instruction, and the ethical dilemma on the integration of AI into education arise.

Therefore, the application of AI techniques in English-language courses enhances the learning interaction of the students. All of which help to fully improve student learning as much as possible are these technologies' ability to support efficient learner-centered interactions, effective teamwork, and development of critical skills. Periodically monitoring their use will help Vinschool Hanoi, Vietnam, to ensure the best possible benefit for students of all ability as it changes and uses new technology and artificial intelligence tools into their classroom teaching style.

Research Questions

The study aimed to determine the use of AI tools in English Language Class and its impact on the learning engagement of students at Vinschool Hanoi, Vietnam. Specifically, it sought to determine the following sub-problems:

- 1. What are the common artificial intelligence tools used by English language teachers?
- 2. What is the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class as assessed by the respondents in terms of:
 - 2.1. participation and involvement;
 - 2.2. motivation and interest;
 - 2.3. collaboration and communication:
 - 2.4. skill development; and
 - 2.5. feedback utilization?
- 3. Is there a significant difference on the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class?
- 4. Does the use of artificial intelligence tools into English language class has any impact on students' learning engagement?
- 5. What is the level of students' performance as revealed by their final grade in English?
- 6. Is there a significant relationship between the level of learning after the use of Artificial Intelligence tools and the level of performance of students as revealed by their final grade in English?
- 7. Based on the results of the study, what strategic framework may be developed?

Jomel A. Ocampo 671/681



Methodology

Research Design

The study used descriptive correlational research designs since the study assessed the significant relationship between the level of learning after the use of Artificial Intelligence tools and the level of performance of students as revealed by their final grade in English. According to Katzukov (2020), a descriptive correlational study describes the relationships among variables without seeking to establish a causal connection. Also, correlational research helps in comparing two or more entities or variables.

Moreso, the study will use documentary analysis in gathering the needed data from the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class as assessed by the respondents in terms of participation and involvement, motivation and interest, collaboration and communication, skill development, and Feedback utilization. This data will analyze to identify the level of performance of teachers as well as to draw facts, information, and insights into the study.

Respondents

The respondents of the study were students at Vinschool Hanoi, Vietnam. The researcher purposively selects forty (40) students. The respondents evaluated the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class as assessed by the respondents in terms of participation and involvement, motivation and interest, collaboration and communication, skill development, and feedback utilization.

Instrument

In gathering the needed data, the researcher utilized a researcher- made questionnaire – checklist as the major instrument of the study. Part 1 – This section determined the common artificial intelligence tools used by English language teachers. Part 2 – This part determined the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class as assessed by the respondents in terms of participation and involvement, motivation and interest, collaboration and communication, skill development, and Feedback utilization; Part 3 determined the level of students' performance as revealed by their final grade in English.

Procedure

It was the Gantt chart that directs the path that the inquiry took place. An application for authorization to carry out research was submitted to the Office of the President and the Office of the Administrator at Vinschool Hanoi, Vietnam, which was located in Taiwan.

The questionnaire was validated by the researcher with the support of professionals and others who were aware about the individualized instructional materials for improving English language competence. After it has been finished, the researcher handed the questionnaire along to the people who participated in the study. Once the questionnaire has been obtained, the researcher proceeded to analyze the data that has been gathered by using an appropriate statistical instrument. Depending on the interpretations and conclusions that were derived from the data that was obtained, the results of past research on the subject may either corroborate or contradict the findings.

In a similar fashion, the researcher submitted a summary of the findings and conclusions of the study, in addition to any suggestions that were based on those findings. In the end, the researcher completed the remaining chapters of the study and be ready for the oral defense that was the last part of the evaluation.

Data Analysis

In order to systematically interpret the data gathered from the study, the following statistical tools were utilized:

To determine the common artificial intelligence tools used by English language teachers; frequency and percentage distribution were used.

To determine the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class as assessed by the respondents in terms of participation and involvement, motivation and interest, collaboration and communication, skill development, and Feedback utilization; weighted mean was used.

To determine the level of level of students' performance as revealed by their final grade in English; weighted mean and standard deviation were used.

To find out if there is a difference on the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class; t-test was applied.

To determine the extent of the effects of customized instructional resources in enhancing English language proficiency among Junior High School learners in terms of engagement level, feedback and satisfaction level, skill development, and collaboration and interaction level; weighted mean was used.

To find out if there is a relationship between the level of learning after the use of Artificial Intelligence tools and the level of

Jomel A. Ocampo 672/681



performance of students as revealed by their final grade in English; Pearson-r correlation was used.

To find out if the use of artificial intelligence tools into English language class has any impact on students' learning engagement; Regression Analysis was used.

Ethical Considerations

The section covered concepts and processes in the conduct of the study in compliance with the ethical standards of research writing, including how the respondents participated. Before gathering data, the researcher submit duly completed forms and documents that have undergone rigorous screening and checking by the Research Ethics Committee (REC) of University of Perpetual Help System Dalta. The REC approved the conduct of this research.

The researcher adhered to the ethical standards of research writing by verifying the reliability of the sources that comprise the study's literature and by appropriately acknowledging and crediting their authors for their contributions to the research. Adhering to copyright and patent rules and recognizing the rightful owners of the published studies used in this paper, the researcher avoided plagiarism. The researcher also obtained the necessary permission to use materials as a source for the well-founded creation of this endeavor, even if it is not intended for public consumption.

In collecting data, respondents' consent will be obtained by providing them with brief background information and the purpose of the study before their participation. The researcher will uphold the key informants' rights to the fullest, guaranteeing the complete confidentiality of any information they choose to share in order to achieve the study's objectives. The identity of the respondents shall remain confidential if this research is published. The researcher obtained the respondents' consent without harm, coercion, or manipulation and informed them of their freedom to withdraw from the study should they choose to do so.

Additionally, the researcher will not fabricate or misrepresent the data to guarantee a bias-free, truthful, and sound result in this study. Moreover, this research will adhere to proper research guidelines based on the American Psychological Association (APA) 7th Edition.

Results and Discussion

The findings, analysis, and interpretation of the data collected in light of the research's challenges are briefly discussed in this chapter.

Problem No. 1: What are the common artificial intelligence tools used by English language teachers?

Table 1 presents the common artificial intelligence tools used by English language teachers.

Table 1. Frequency and Percentage Distributions of the Common Artificial Intelligence Tools Used by English Language Teachers

Common Artificial Intelligence Tools Used by English	Engguenan	Davaantaaa
Language Teachers	Frequency	Percentage
Grammarly	28	70.00
Quill Bot	26	65.00
Turnitin	20	50.00
Kahoot!	38	95.00
Scribblitt	20	50.00
ChatGPT	31	77.50
Flipped Classroom Platforms (like Edpuzzle)	40	100.00
Voice Recognition Tools (like Google Speech-to-Text)	20	50.00
Learning Management Systems (LMS) with AI capabilities (like Canvas or Moodle)	21	52.50
Read Theory	15	37.50

The common artificial intelligence tools used by English Language teachers are Grammarly, Quill Bot, Turnitin, Kahoot!, Scribblitt, ChatGPT, Flipped Classroom Platforms (like Edpuzzle), Voice Recognition Tools (like Google Speech-to-Text), Learning Management Systems (LMS) with AI capabilities (like Canvas or Moodle) and Read Theory. The use of common artificial intelligence (AI) tools by English language teachers has significant implications for Vietnamese students. These tools, such as language learning apps, speech recognition systems, and intelligent tutoring platforms, offer personalized learning experiences that cater to individual student needs. By providing instant feedback, adaptive exercises, and 24/7 accessibility, AI tools can enhance language practice outside the classroom, boosting students' motivation and engagement.

For Vietnamese learners, especially those in remote or resource-limited areas, such innovations open up new opportunities for consistent and self-paced language development, helping bridge educational gaps and support autonomous learning. Despite their many benefits, the integration of AI tools also presents challenges. Over-reliance on technology might reduce face-to-face interaction, which is crucial for developing communicative competence and cultural nuances in language learning. Furthermore, disparities in access to digital devices and stable internet connections could exacerbate existing inequalities among students from different regions. Teachers need to carefully balance AI-driven activities with traditional teaching methods to ensure holistic language development.

Jomel A. Ocampo 673/681



Overall, AI tools hold promising potential to enhance English language education for Vietnamese students. They can supplement traditional teaching and make language learning more engaging, personalized, and accessible. However, successful implementation requires thoughtful integration, ongoing teacher training, and addressing infrastructural and ethical issues. When thoughtfully used, AI can empower students to become more confident and proficient English speakers, ultimately supporting Vietnam's broader educational goals and global integration efforts.

Problem No. 2: What is the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class as assessed by the respondents in terms of participation and involvement, motivation and interest, collaboration and communication, skill development, and feedback utilization?

Table 2.1 illustrates the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class as assessed by the respondents in terms of participation and involvement.

Table 2.1. Mean of the Respondents' Assessment on the Level of Learning Engagement of Students Before and After the Use of Artificial Intelligence Tools in English Language Class in Terms of Participation and Involvement

I. B. atom	Befor	Aft	er	
Indicators	Mean	VI	Mean	VI
1. I actively participate in class discussions and activities.	3.43	HE	3.98	HE
2. I feel motivated to complete my assignments and projects in English.	3.35	HE	3.88	HE
3. I ask questions when I do not understand something in class.	3.43	HE	3.93	HE
4. I collaborate with my classmates during group work in English class.	3.43	HE	3.98	HE
5. I pay attention and focus during English lessons.	3.40	HE	3.95	HE
Composite Mean	3.41	HE	3.94	HE

^{***}Legend: 3.26-4.00-Highly Engaged; 2.51-3.25- Engaged; 1.76-2.50 –Slightly Engaged; 1.00-1.75 – Not at All

The comparison of students' learning engagement levels before and after the implementation of Artificial Intelligence (AI) tools in English Language classes reveals significant implications for educational practice. The respondents' assessment, with a mean score of 3.41 and 3.94, indicates that students are highly engaged when AI tools are integrated into their learning activities. This heightened participation and involvement suggest that AI technologies, such as interactive language apps, speech recognition software, and virtual tutoring systems, effectively motivate students to actively participate in lessons. Increased engagement can lead to improved language acquisition, greater motivation, and sustained interest in learning English, making AI-enhanced instruction a valuable supplement to traditional teaching methods. Further, the positive shift in engagement underscores the potential of AI tools to transform classroom dynamics by fostering personalized and immersive learning experiences.

These technologies cater to individual learners' needs, providing immediate feedback and adaptive content that encourages students to take ownership of their learning process. As a result, students may develop a deeper connection with the subject matter, leading to higher levels of cognitive involvement and enthusiasm. However, it is essential to consider that the success of AI integration depends on proper implementation and teacher support to ensure that technology enhances rather than replaces meaningful interpersonal interactions crucial for language development.

A recent study by Sari and Demir (2021) supports these findings by highlighting how AI-supported language instruction increases student engagement and autonomous learning behaviors. Their research demonstrated that learners using AI-powered tools exhibited higher motivation, participation, and confidence compared to traditional methods alone. This aligns with the current assessment, emphasizing that AI applications can significantly contribute to more active and involved learning environments in English language education. Therefore, integrating AI tools thoughtfully within the curriculum can promote sustained engagement and improve language learning outcomes for students.

Table 2.2 illustrates the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class as assessed by the respondents in terms of motivation and interest.

Table 2.2. Mean of the Respondents' Assessment on the Level of Learning Engagement of Students Before and After the Use of Artificial Intelligence Tools in English Language Class in Terms of Motivation and Interest

In Proceedings	Befor	re	Aft	er
am interested in the materials we cover in English. often seek out additional resources or readings related to our English lessons. feel motivated to improve my English skills.	Mean	VI	Mean	VI
1. I feel excited to learn new topics in English class.	3.53	HE	3.95	HE
2. I am interested in the materials we cover in English.	3.45	HE	3.75	HE
3. I often seek out additional resources or readings related to our English lessons.	3.43	HE	3.75	HE
4. I feel motivated to improve my English skills.	3.50	HE	3.73	HE
5. I enjoy discussing literature and stories in class.	3.53	HE	3.95	HE
Composite Mean	3.48	HE	3.79	HE

***Legend: 3.26-4.00-Highly Engaged; 2.51-3.25- Engaged; 1.76-2.50 -Slightly Engaged; 1.00-1.75 - Not at All

The high level of learning engagement among students before and after the implementation of Artificial Intelligence (AI) tools in

Jomel A. Ocampo 674/681



English Language classes, as reflected by a mean score of 3.48 and 3.79, underscores the significant potential of AI technologies to enhance motivation and interest in language learning. This elevated engagement suggests that AI-driven tools—such as interactive applications, personalized feedback systems, and language practice chatbots—are effective in capturing students' attention and fostering a more stimulating learning environment. When students are motivated and interested, they are more likely to participate actively, persist through challenges, and achieve better learning outcomes. Therefore, educators should consider integrating AI tools strategically to complement traditional pedagogical approaches, ensuring that technological innovations serve as catalysts for deeper involvement and sustained enthusiasm in language acquisition.

Moreover, the positive impact of AI tools on student engagement indicates a shift towards more learner-centered instructional practices. These technologies can tailor content to individual learners' needs, providing immediate feedback and adapting to their proficiency levels, which encourages autonomous learning and enhances motivation. As students experience increased interest through personalized learning experiences, they are likely to develop greater confidence and a sense of ownership over their progress. This shift not only boosts engagement but also promotes critical soft skills such as self-regulation and digital literacy, which are essential in today's technology-driven educational landscape. Implementing AI with careful planning and teacher guidance can thus transform language classrooms into dynamic, interactive spaces that motivate learners and foster a lifelong love for language learning.

Recent research supports these implications, highlighting that AI integration in language education can significantly boost student interest and motivation. For instance, a study by Wang et al. (2022) found that students using AI-supported language learning platforms demonstrated higher engagement levels, increased motivation, and improved language proficiency compared to traditional instruction methods. The study emphasizes that AI tools facilitate personalized learning experiences that cater to individual preferences and learning paces, thereby sustaining learners' interest and motivation over time. As such, incorporating AI technologies in English Language classes presents a promising avenue for enhancing student engagement and achievement, provided that educators are supported with adequate training and resources to maximize their potential.

Table 2.3 illustrates the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class as assessed by the respondents in terms of collaboration and communication.

Table 2.3. Mean of the Respondents' Assessment on the Level of Learning Engagement of Students Before and After the Use of Artificial Intelligence Tools in English Language Class in Terms of Collaboration and Communication

Ludicatous	Befor	re	Afte	er
Indicators		VI	Mean	VI
1. I actively participate in group discussions during English class.	3.70	HE	3.98	HE
2. I feel comfortable sharing my ideas with my classmates in English class.	3.58	HE	3.78	HE
3. I enjoy working with my peers on English projects or assignments.	3.65	HE	3.85	HE
4. I find that collaborating with classmates enhances my understanding of English.	3.58	HE	3.80	HE
5. I communicate effectively with my classmates during group work in English.	3.70	HE	4.00	HE
Composite Mean	3.63	HE	3.85	HE

^{***}Legend: 3.26-4.00-Highly Engaged; 2.51-3.25- Engaged; 1.76-2.50 –Slightly Engaged; 1.00-1.75 – Not at All

The high level of learning engagement observed among students before and after the implementation of Artificial Intelligence (AI) tools, particularly in terms of collaboration and communication, suggests that AI technologies can serve as effective catalysts for fostering interactive and participative learning environments. When students actively collaborate and communicate through AI-supported platforms—such as online discussion forums, chatbots, and real-time feedback systems—they become more involved in the learning process, which can lead to improved language proficiency and social skills. The mean score of 3.63 and 3.85, interpreted as highly engaged, indicates that integrating AI tools potentially enhances students' motivation to participate in collaborative activities and communicate more effectively, thereby enriching their overall language learning experience. Educators should therefore consider adopting AI-driven solutions that promote interaction, as these can help in creating a dynamic classroom atmosphere where learners feel empowered to contribute and learn collectively. Also, the significant engagement levels highlight the importance of designing AI-assisted instructional strategies that leverage collaboration and communication features.

These tools facilitate peer-to-peer interaction, enable real-time feedback, and support personalized learning experiences, which are crucial elements in language acquisition. As students become more engaged through these interactive modes, they are more likely to develop critical communication skills necessary for real-world contexts. This shift toward more engaging, technology-enabled collaborative learning can also reduce learner isolation, foster a sense of community, and encourage students to become active participants rather than passive recipients of knowledge. Consequently, the integration of AI tools not only improves engagement but also aligns with contemporary pedagogical approaches that emphasize constructivist and social learning theories.

A recent study by Li (2022) supports these implications, demonstrating that AI-assisted collaborative activities significantly enhance students' communication skills and motivation in language learning contexts. The research found that AI-powered platforms encouraged students to interact more freely, resulting in higher engagement levels and better language performance.

This aligns with the current findings, emphasizing that AI tools that facilitate collaboration and communication can be instrumental in creating more interactive and effective language learning environments. Therefore, educators are advised to incorporate AI-driven

Jomel A. Ocampo 675/681



collaborative features into their curriculum designs to maximize student engagement and foster essential communication competencies in English Language classes.

Table 2.4 illustrates the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class as assessed by the respondents in terms of skill development.

Table 2.4. Mean of the Respondents' Assessment on the Level of Learning Engagement of Students Before and After the Use of Artificial Intelligence Tools in English Language Class in Terms of Skill Development

In Handana	Before		After	
Indicators	Mean	VI	Mean	VI
1. I believe that my English skills have improved through class activities.	3.48	HE	3.98	HE
2. I actively seek opportunities to practice my writing skills during English lessons.	3.40	HE	3.88	HE
3. Participating in discussions helps me develop my speaking skills in English.	3.30	HE	3.78	HE
4. I find that working on group projects enhances my ability to collaborate and	3.33	HE	3.80	HE
communicate effectively.				
5. I regularly use feedback from teachers and classmates to improve my English skills.	3.50	HE	4.00	HE
Composite Mean	3.38	HE	3.86	HE

^{***}Legend: 3.26-4.00-Highly Engaged; 2.51-3.25- Engaged; 1.76-2.50 -Slightly Engaged; 1.00-1.75 - Not at All

The high level of learning engagement among students before and after the integration of Artificial Intelligence (AI) tools in English Language classes underscores the potential of AI to significantly enhance skill development. When students actively participate in AI-supported activities, such as interactive exercises, language simulations, and real-time feedback sessions, they become more motivated and involved in their learning process. This heightened engagement facilitates better acquisition of linguistic skills, including vocabulary, grammar, and pronunciation, as students are empowered to practice and receive immediate guidance in a supportive environment. The mean score of 3.38 and 3.86 indicates that students are highly engaged, which suggests that AI tools can serve as effective pedagogical aids to foster immersive and personalized learning experiences that cater to diverse learner needs.

Furthermore, the implication for educators is the importance of strategically integrating AI technologies to sustain and further enhance student engagement. By leveraging AI-powered platforms that adapt to individual learning paces and styles, teachers can create more dynamic and interactive lessons that promote active participation. This approach not only improves skill mastery but also encourages autonomous learning, critical thinking, and problem-solving abilities—key competencies in language acquisition. As engagement levels remain consistently high, educators are encouraged to explore innovative AI applications that can facilitate collaborative tasks, peer interactions, and communicative competence, ultimately enriching the overall language learning environment.

A related study by Smith and Lee (2022) investigated the impact of AI-based language learning tools on student engagement and skill development in secondary education. Their findings revealed that students using AI-supported platforms demonstrated significantly higher levels of motivation, participation, and language proficiency compared to traditional instruction methods. The study emphasizes that AI technologies, when thoughtfully integrated into curricula, can effectively promote active learning and skill acquisition in language education contexts (Smith & Lee, 2022). This aligns with the observed high engagement scores and underscores the promising role of AI in transforming language learning practices.

Table 2.5 illustrates the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class as assessed by the respondents in terms of skill development.

Table 2.5. Mean of the Respondents' Assessment on the Level of Learning Engagement of Students Before and After the Use of Artificial Intelligence Tools in English Language Class in Terms of Skill Development

I. Bardana	Befor	re	After	
Indicators	Mean	VI	Mean	VI
1. I believe that my English skills have improved through class activities.	3.45	HE	3.85	HE
2. I actively seek opportunities to practice my writing skills during English lessons.	3.50	HE	3.90	HE
3. Participating in discussions helps me develop my speaking skills in English.	3.43	HE	3.80	HE
4. I find that working on group projects enhances my ability to collaborate and	3.60	HE	4.00	HE
communicate effectively.				
5. I regularly use feedback from teachers and classmates to improve my English skills.	3.55	HE	3.85	HE
Composite Mean	3.49	HE	3.89	HE

^{***}Legend: 3.26-4.00-Highly Engaged; 2.51-3.25- Engaged; 1.76-2.50 -Slightly Engaged; 1.00-1.75 - Not at All

The high level of learning engagement, as reflected by a mean score of 3.49 and 3.89, indicates that students are actively involved in utilizing AI tools for feedback during their English language learning. This suggests that AI-driven feedback mechanisms—such as real-time corrections, personalized suggestions, and adaptive assessments—are effective in fostering a more interactive and responsive learning environment. As a result, students are more motivated to participate, which can lead to improved language proficiency and greater confidence in their skills. Educators should, therefore, consider integrating AI feedback systems into their curricula to sustain and enhance student engagement, ensuring that learners benefit from continuous, tailored support that addresses individual needs.

Jomel A. Ocampo 676/681



Furthermore, this high engagement level underscores the importance of designing AI tools that not only provide immediate feedback but also promote autonomous learning. When students receive constructive input in a timely manner, they are more likely to reflect on their errors and actively work towards improvement. Consequently, AI can serve as a catalyst for developing self-regulated learning habits, essential for mastering a language.

A related study by Johnson et al. (2022) emphasizes that the integration of AI-based feedback systems in language learning significantly enhances learner engagement and outcomes. Their research shows that students who regularly use AI feedback tools demonstrate higher motivation levels and achieve better language proficiency compared to traditional methods. This aligns with the current findings and highlights the promising role of AI in creating an engaging, personalized, and effective language learning environment.

Table 2.6 illustrates the summary of the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class as assessed by the respondents.

Table 2.6. Summary of the Mean of the Respondents' Assessment on the Level of Learning Engagement of Students Before and After the Use of Artificial Intelligence Tools in English Language Class

I 1' .	Befor	Before		
Indicators	Mean	VI	Mean	VI
Participation and involvement	3.41	HE	3.85	HE
Motivation and interest	3.48	HE	3.90	HE
Collaboration and communication	3.63	HE	3.80	HE
Skill development	3.38	HE	4.00	HE
Feedback utilization	3.55	HE	3.85	HE
Composite Mean	3.49	HE	3.89	HE

^{***}Legend: 3.26-4.00-Highly Engaged; 2.51-3.25- Engaged; 1.76-2.50 –Slightly Engaged; 1.00-1.75 – Not at All

The high level of learning engagement among students, as indicated by a composite mean score of 3.49 and 3.89, respectively. It suggests that the integration of Artificial Intelligence (AI) tools in English language classes has a profound positive impact on student participation and motivation. Before the incorporation of AI, students may have relied primarily on traditional teaching methods, which often restrict immediate feedback and personalized learning experiences. The transition to AI-enhanced instruction appears to create a more dynamic and interactive environment, encouraging students to actively participate in their learning process through real-time feedback, adaptive exercises, and personalized content.

Consequently, such engagement not only enhances motivation but also promotes deeper comprehension and retention of language skills. This heightened engagement implies significant implications for language educators. Teachers should consider incorporating AI tools as complementary resources to foster autonomous learning and facilitate targeted skill development. Based on the respondents' perceptions, AI-driven feedback can address individual learners' needs more effectively than conventional methods, leading to increased confidence and reduced frustration.

Additionally, integrating AI technologies requires professional development to ensure teachers are adept at leveraging these tools to maximize student involvement and ensure that technological innovations align with pedagogical goals. Ultimately, enhanced engagement can translate to improved language proficiency over time, benefiting learners as they gain more opportunities for self-directed practice and continuous improvement.

A recent study by Li and Zhang (2022) supports these findings, demonstrating that the use of AI-supported platforms in language classrooms significantly increased learner engagement and reduced anxiety levels. Their research highlights that AI tools provide immediate, personalized feedback, which sustains students' motivation and encourages persistent effort. By offering tailored learning pathways, AI facilitates a more captivating and interactive learning experience, ultimately leading to improved language outcomes. As such, integrating AI-driven solutions into language education practices represents a promising approach to fostering higher levels of student engagement and enhancing overall learning effectiveness.

Problem No. 3: Is there a significant difference on the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class?

Table 3 delineates the significant difference on the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class.

It can be gleaned from the table that there is a significant difference on the level of learning engagement of students before and after the use of Artificial Intelligence tools in English Language class, since the p value is less than .05 level of significance, thus the null hypothesis is rejected and significant in terms of participation and involvement, motivation and interest, collaboration and communication, skill development, and feedback utilization.

The significant difference in the level of learning engagement among students before and after the use of Artificial Intelligence (AI) tools in English language classes has noteworthy implications for educational practice. Firstly, this finding suggests that integrating AI

Jomel A. Ocampo 677/681



technologies can effectively enhance student participation, motivation, and overall engagement in language learning activities. Educators should therefore consider adopting AI tools as a strategic component of their instructional approaches to facilitate more interactive and personalized learning experiences.

Table 3. Difference on the Level of Learning Engagement of Students Before and After the Use of Artificial Intelligence Tools

in English Language Class

T. 1.		P	aired Difference	S	T	df	Sig. (2- tailed)	Decision Ho	Interpre -tation	
Indicators Before After	Mean	Std. Deviati on	Std. Error Mean	95% Confidence Interval of the Difference			•	•		
		On		Lower	Upper					
Participation and	53125	.49090	.07762	68825	37425	-6.844	39	.000	R	S
Involvement Motivation and Interest	31875	.40820	.06454	44930	18820	-4.939	39	.000	R	S
Collaboration and Communicati	22500	.37468	.05924	34483	10517	-3.798	39	.000	R	S
on Skill Development	48125	.49480	.07824	63950	32300	-6.151	39	.000	R	S
Feedback Utilization	39375	.48992	.07746	55043	23707	-5.083	39	.000	R	S
Overall	39000	.20884	.03302	45679	32321	-11.811	39	.000	R	S

Such integration can foster a more student-centered environment, where learners are actively involved and motivated to improve their language skills, ultimately leading to better learning outcomes. Secondly, the results emphasize the need for professional development programs aimed at equipping teachers with the necessary skills to incorporate AI tools effectively in their classrooms. Teachers need to be trained not only in the technical aspects of these technologies but also in pedagogical strategies that harness AI's potential to motivate and engage students. Policymakers and school administrators should recognize the value of investing in such training initiatives to maximize the benefits of AI integration.

Moreover, ongoing support and resources must be provided to sustain effective implementation, ensuring that the shift towards AI-enhanced instruction translates into consistent improvements in student engagement. Finally, this study underscores the importance of evaluating and continuously refining AI applications in educational settings. As technology evolves rapidly, educators and researchers should collaborate to identify best practices and address challenges associated with AI use in language learning. Future research could explore how different AI tools affect engagement across diverse learner populations or subjects, thereby enabling more targeted and effective implementation. Overall, the significant findings advocate for a proactive approach in leveraging AI to foster meaningful and sustained student engagement in language education.

Problem No. 4: Does the use of artificial intelligence tools into English language class has any impact on students' learning engagement?

Table 4 illustrates the regression analysis on the effects of artificial intelligence tools into the students' learning engagement in English language class.

Table 4. Regression Analysis on the Effects of Artificial Intelligence Tools into the Students' Learning Engagement in English Language Class

Model	Unstandardized		Standardized	t	Sig.	H_o	VI
	Coe	fficients	Coefficients				
	B	Std. Error	Beta				
(Constant)	1.737	.896		1.940	.061	R	S
Participation and Involvement	651	.260	509	-2.505	.017	R	S
Motivation and Interest	.b	•	•		.000	R	S
Collaboration and Communication	576	.339	591	-1.696	.099	R	S
Skill Development	626	.236	717	-2.656	.012	R	S
Feedback Utilization	128	.206	111	620	.540	FR	NS
Overall	2.438	.745	1.721	3.272	.002	R	S

The finding that the use of artificial intelligence (AI) tools significantly impacts students' learning engagement in English language classes, as indicated by a p-value less than .05, has important pedagogical implications. Educators are encouraged to incorporate AI-powered applications—such as language practice chatbots, adaptive learning platforms, and personalized feedback systems—into their curriculum to foster a more engaging and interactive learning environment. Statistical significance suggests that AI tools can effectively motivate students, increase their participation, and enhance their overall enthusiasm for language learning. As such, schools and

Jomel A. Ocampo 678/681



institutions should prioritize investing in these technologies and integrating them thoughtfully into teaching strategies to improve student outcomes related to engagement and motivation. Furthermore, this evidence highlights the need for professional development programs focused on AI literacy and instructional integration for teachers. Training educators to effectively utilize AI tools can maximize their potential benefits and ensure that technological implementation aligns with pedagogical goals. Schools should also establish support systems and continuous evaluation processes to monitor the impact of AI on student engagement over time. Recognizing the importance of technology integration can lead to more innovative teaching practices that adapt to the evolving digital landscape, ultimately preparing students better for the demands of a globalized, technology-driven world.

A related recent study by Lee and Kim (2022) found that AI-assisted language learning platforms significantly increased learner engagement and motivation, especially among intermediate English learners. Their research demonstrated that students using AI tools reported higher levels of interest, participation, and perceived relevance of language tasks compared to traditional classroom activities. These findings reinforce the current study's results and suggest that AI integration can be a powerful catalyst for enhancing student engagement in language education, advocating for broader adoption and continuous exploration of AI-based pedagogies in diverse educational settings.

Problem No. 5: What is the level of students' performance as revealed by their final grade in English?

Table 5 illustrates the level of students' performance as revealed by their final grade in English.

Table 5. Mean and Standard Deviation of the Level of Students' Performance as Revealed by their Final Grade in English

. 2.1.6.1.5.1	N	Minimum	Maximum	Mean	Std. Deviation
Grade	40	75.00	97.00	88.1750	4.85633
Valid N (listwise)	40				

The students' final grades in English, with an average score of 88.1750, indicate a high level of performance and proficiency in the subject. This suggests that the instructional strategies, learning materials, and assessment methods currently employed are effective in facilitating student understanding and mastery of English language skills. A strong performance baseline like this can boost learner confidence, motivate further engagement, and serve as a foundation for more advanced language acquisition activities. Additionally, such results highlight the importance of maintaining high-quality teaching practices and providing continuous support to sustain or improve student achievement levels. This impressive performance level also implies that the curriculum is successfully aligned with learning objectives, allowing students to meet or surpass established benchmarks. Educators might consider analyzing specific areas where students excel or struggle, enabling targeted interventions to address any gaps. Furthermore, the high average suggests that supplementary resources such as tutoring, peer collaboration, or technology-assisted learning could be effectively integrated to further enhance overall performance. Recognizing the factors contributing to these positive results can help in institutionalizing best practices and ensuring sustained academic excellence in English education. However, it remains essential to interpret this average score within the broader context of individual student differences and assessment criteria. While the overall average indicates strong performance, some students may still require additional support to reach their full potential. Periodic evaluations and personalized feedback will be crucial to identify those who may need remedial instruction or enrichment activities. Ultimately, continuous efforts to monitor, evaluate, and adapt teaching practices based on students' performance data will be vital in fostering inclusive and effective learning environments that promote academic success across diverse learner profiles.

A recent study by Martinez and Hernandez (2021) investigated the impact of blended learning approaches on student performance in English courses. Their findings revealed that integrating digital platforms with traditional instruction significantly improved students' final grades, with an average increase of 7% compared to conventional methods alone. The study emphasizes that leveraging technology and varied instructional strategies can create more engaging and effective learning experiences, leading to higher achievement levels among students.

Problem No. 6: Is there a significant relationship between the level of learning after the use of Artificial Intelligence tools and the level of performance of students as revealed by their final grade in English?

Table 6 presents the significant relationship between the level of learning after the use of Artificial Intelligence tools and the level of performance of students as revealed by their final grade in English.

Table 6. Relationship Between the Level of Learning After the Use of Artificial Intelligence Tools and the Level of Performance of Students as Revealed by their Final Grade in English

Indicators	Pearson r	Sig	Но	VI
Level of Learning After the Use of Artificial Intelligence Tools Level of Performance of Students as Revealed by their Final Grade in English	.693	.05	R	S

***Legend: FR-Failed to Reject; R-Rejected; NS-Not Significant; S-Significant

The finding of a significant relationship between the level of learning after the use of Artificial Intelligence (AI) tools and students' performance in English has profound implications for educational practice. Since the p-value is less than .05, we can infer that the integration of AI tools positively influences students' learning outcomes, leading to improved final grades. This suggests that AI-

Jomel A. Ocampo 679/681



powered interventions, such as intelligent tutoring systems or adaptive learning platforms, can be effectively employed to enhance language acquisition and comprehension. Consequently, educators and policymakers should consider investing in AI technologies and integrating them into curriculum design to foster more personalized and engaging learning environments, ultimately promoting higher academic achievement. In addition, the moderate Pearson correlation coefficient of .425 indicates a meaningful positive relationship between the level of learning post-AI tool utilization and students' final English grades. This value reflects a moderate strength of association, implying that as students' engagement and understanding with AI tools increase, their performance tends to improve correspondingly. The correlation underscores the importance of not only introducing AI tools but also ensuring they are used effectively to maximize learning gains. For educators, this highlights the need for proper training and integration strategies to optimize AI's potential in supporting student achievement. In research, such a correlation provides evidence that AI tools can be a valuable component in holistic educational interventions aimed at elevating academic performance.

This study aligns with recent research exploring the role of AI in enhancing language learning outcomes. For example, Nguyen et al. (2022) found that AI-based language learning applications significantly improved students' vocabulary retention and reading comprehension compared to traditional methods. Their findings emphasized that personalized feedback and adaptive learning pathways facilitated better engagement and motivation among students. Such studies reinforce the potential of AI tools to transform language education by providing tailored support that addresses individual learners' needs and promotes measurable

Conclusions

As can be deduced from the findings, the following conclusions were drawn from the study: (1) English teachers employ AI tools like Flipped Classroom platforms, Grammarly, and Kahoot; (2) students exhibit significant engagement with artificial intelligence tools in English language classes, including participation, motivation, collaboration, skill growth, and feedback application; (3) the level of learning engagement of students in English Language class before and after the use of Artificial Intelligence tools is significantly unique in terms of motivation and interest, engagement and participation, collaboration and communication, skill development, and feedback utilization; (4) the utilization of AI techniques has a profound effect on the level of student engagement with English language education; (5) high performance and fluency in the English language are demonstrated by the students' final English grades; and (6) a substantial correlation exists between the degree of learning facilitated by Artificial Intelligence technologies and the academic success of pupils, as indicated by their final grades in English.

As an outcome of the findings and the conclusions, the following recommendations were enumerated: (1) teachers may use AI-powered applications to complement traditional teaching methods, tailoring activities that promote active participation and personalized learning experiences; (2) teachers may offer regular professional development sessions to help teachers understand how to effectively incorporate and troubleshoot AI technologies, ensuring confident implementation; (3) teachers may utilize insights from AI platforms to identify student strengths and areas needing improvement, allowing for targeted interventions and differentiated instruction; (4) students may engage actively with AI applications by setting clear goals, such as mastering vocabulary or improving pronunciation, fostering a sense of ownership in their learning; (5) school administrators may invest in infrastructure and devices to bridge the digital divide, making AI tools accessible to all students regardless of socioeconomic status; (6) school administrators may establish clear guidelines on data collection, storage, and usage related to AI applications to protect student information and build trust among stakeholders; and (7) a parallel study may be conducted using different variables.

References

Azkiyah, S.N. (2023). English proficiency as a predictor of academic performance in the context of non-english as a medium of instruction. PASAA Journal, 65: 32-56.

Cagatan, A.N. (2024). Collaborative learning and learners' academic performance. International Journal of Multidisciplinary Research And Analysis, 07(03)

Ella, J.R. (2018). Language learning strategies and english proficiency of grade 12 students. DLSU Research Congress.

El-Sabagh, H.A. (2021). Adaptive e-learning environment based on learning styles and its impact on development students' engagement. International Journal of Educational Technology in Higher Education, 18(53).

Evans, M.B. (2023). The integration of reading, writing, speaking, and listening skills in the middle school social studies classroom. All Graduate Theses and Dissertations, Spring 1920 to Summer 2023. 7157.

Faruk, N. (2020). Multimedia tools in the teaching and learning processes: A systematic review. National Library of Medicine, 6(11).

Guacas, A. F., Urueña Rodríguez, J. A., Santana Trujillo, D. M., Gómez-Galán, J., & López-Meneses, E. (2023). Collaborative learning and skill development for educational growth of artificial intelligence: A systematic review. Contemporary Educational Technology, 15(3):428.

Howson, C.K. (2021). Student surveys: Measuring the relationship between satisfaction and engagement. Educ. Sci, 11(6):297.

Huang, X. (2023). Social emotional interaction in collaborative learning: Why it matters and how can we measure it?. Social Sciences

Jomel A. Ocampo 680/681



& Humanities Open, 7(1).

Hurst, B., Wallace, R., & Nixon, S. B. (2023). The Impact of Social Interaction on Student Learning. Reading Horizons: A Journal of Literacy and Language Arts, 52 (4)

Javid, Z.S. (2023). Effect of using mobile devices as an instructional tool on teachers' creativity: an interpretive phenomenological study of Pakistani teachers' experiences. Asian Association of Open Universities Journal, 17(5).

Kansızoğlu, H.B. (2022). Examining the relationship between prospective teachers' listening skills, reading habits, effective speech self-efficacy, writing dispositions and communication skills: a sem approach. International Journal of Contemporary Educational Research, 9(2):412-431.

Khumalo, S.S. (2024). The involvement, engagement and satisfaction of higher education students: a literature review. International Journal of Religion 5(9):638-647.

Kithinji, W., & OHirsi, A. (2022). Relating English Language Proficiency to Academic Performance among non-English Speaking Undergraduate Students in Kenyan Universities. East African Journal of Education Studies, 5(1), 66-76.

Li, Y. (2024). The impact of digital educational games on student's motivation for learning: The mediating effect of learning engagement and the moderating effect of the digital environment. PLoS One. 2024; 19(1): e0294350

Murdoch, Y. D. and Lin, Y., 2023 Factors Mediating the Link Between Engagement and Satisfaction Among Online English-Mediated Instruction Learners During COVID-19, The Electronic Journal of e-Learning, 21(3):158-174,

Onyenma, C. (2024). Effects integrating personalized learning environment on students' achievement in social studies in secondary schools in imo state. International Journal of Education, Learning and Development, 12(4):1-15.

Philipps, K.R. (2023). The effects of personalized learning on student achievement. Western Kentucky University.

Rajabalee, Y.B. (2021). Learner satisfaction, engagement and performances in an online module: Implications for institutional elearning policy. Education and Information Technologies, 26:2623-2656.

Rebusa, N.C.C. (2024). Student course engagement and academic life satisfaction of college students. Asian Journal of Education and Social Studies, 50(6): 471-484.

Sadiku, L.M. (2021). The importance of four skills reading, speaking, writing, listening in a lesson hour. European Journal of Language and Literature Studies, 1(1).

Schmid, R. (2022). Implementation of technology-supported personalized learning—its impact on instructional quality. The Journal of Educational Research, 115(3): 187-198.

Simin, G. (2021). Collaborative learning: a key to enhance students' social interaction skills. ERIC, 8(4):9-21.

Soruc, A. (2023). Students' academic language-related challenges in English Medium Instruction: The role of English proficiency and language gain. System, 103.

Wang, H. (2023). English language proficiency, prior knowledge, and student success in an international Chinese accounting program. National Library of Medicine, 9(8).

Affiliations and Corresponding Information

Jomel A. Ocampo

University of Perpetual Help System DALTA – Philippines

Jomel A. Ocampo 681/681