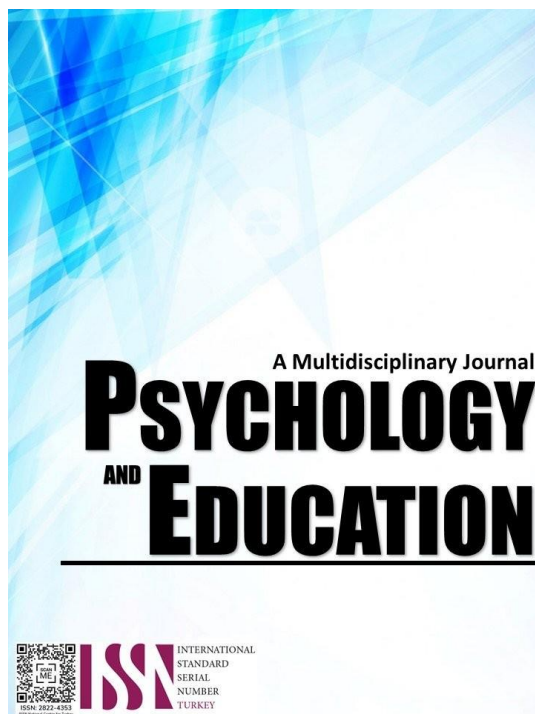


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Improving Reading Motivation Through Gamification In High School English 7 Classes

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Abstract

This study investigates the effectiveness of gamification in enhancing reading motivation and comprehension among Grade 7 students in high school English classes, within the framework of the MATATAG Curriculum. Utilizing a one-group pretest-posttest design, the research analyzed the impact of integrating gamified strategies, particularly using Quizizz, on students' reading performance. The study assessed scores across three competencies: defining biographical and historical approaches, noting historical and biographical data, and relating an author's background to literary elements. Results revealed significant improvements in all areas, with mean scores increasing from 6.36 to 8.76 (Competency 1), 5.21 to 8.29 (Competency 2), and 4.33 to 7.00 (Competency 3), all with p -values < 0.001 . Student feedback, collected through a structured survey, highlighted positive perceptions of gamified learning. Participants noted that gamification reduced boredom, fostered a competitive yet fun environment, and made reading activities more engaging. These findings underscore the potential of gamification to align with curriculum objectives, enhance literacy skills, and support innovative teaching practices in the Philippine educational context. The study recommends the systematic integration of gamified tools like Quizizz into reading instruction to boost student engagement and academic outcomes.

Keywords: *English teaching, reading motivation, literacy skill, gamification, Quizizz, Grade 7, MATATAG curriculum, Cebu, Philippines*

Introduction

Reading motivation is a crucial factor for success in language acquisition, particularly in the English subject, which serves as a foundation for academic performance across various disciplines. However, many high school students face challenges in engaging with traditional reading activities, often finding them dull and disconnected from their personal interests. This disengagement is exacerbated by the rise of digital media and interactive technologies, which are increasingly shaping students' learning preferences (Stout, 2023). As a result, many students struggle to develop the deep reading habits necessary for academic achievement, especially in foundational subjects such as English.

Globally, gamification has gained recognition as an effective educational tool that can significantly enhance motivation and engagement (Navarro-Espinosa et al., 2022). Rooted in Self-Determination Theory (SDT), Ryan and Deci (2023) argue that motivation thrives when students' psychological needs for autonomy, competence, and relatedness are met. Gamification, which incorporates game elements like points, leaderboards, and badges into non-game environments, leverages these principles to create a more engaging and rewarding learning experience. Studies have shown that gamified learning can lead to increased intrinsic motivation and better outcomes in subjects that require sustained effort, such as reading (Li & Chu, 2021; Jones et al., 2023). The integration of gamification into classroom activities helps students feel more involved in their learning process, thereby encouraging greater participation and a sense of achievement.

Despite these promising results, there remains a significant research gap regarding the specific impact of gamification on reading motivation and comprehension within the Philippine educational context. Current studies have largely focused on general applications of gamification, without exploring its alignment with localized curricula and cultural considerations. This gap underscores the need for research that contextualizes gamified learning within the goals of the Department of Education's MATATAG Curriculum, introduced to enhance essential literacy skills and prepare students for the demands of the 21st century (Calungsod, 2024).

Recent assessments of Filipino students' reading proficiency reveal the urgency of addressing this gap. According to the findings of EDCOM II, significant challenges persist in improving reading comprehension among Filipino learners, with recommendations emphasizing the need for innovative teaching strategies tailored to student interests and the local context (Bautista & Aranas, 2023). Similarly, international assessments such as the Programme for International Student Assessment (PISA) have highlighted the below-average performance of Filipino students in reading, further underscoring the necessity for effective interventions (Chi, 2023). Incorporating these findings, the study highlights gamification as a promising approach to enhance reading motivation and comprehension, while aligning with the competencies outlined in the MATATAG Curriculum.

To improve local relevance, this study integrates findings from Philippine-based studies that have explored gamification in the context of English instruction. A study by Durano and Candilas (2023) found that gamified learning activities improved both reading comprehension and student engagement in English classes, suggesting that integrating game-based elements could effectively support the curriculum's objectives. However, there remains a lack of comprehensive research examining how gamified strategies can be systematically aligned with the MATATAG Curriculum to address the challenges of improving reading motivation in Filipino classrooms. Locally, in Cebu, a study by Sanchez et al. (2021) highlighted that gamification helped boost students' enthusiasm and

participation in English reading activities. Students demonstrated greater interest and engagement in tasks that incorporated game-like elements. These studies strengthen the contextual relevance of this research, but also reveal the need for broader investigation into how gamified learning aligns with national educational reforms and literacy goals.

This study aimed to explore how gamification can enhance reading motivation and comprehension among Grade 7 students within the framework of the MATATAG Curriculum. By focusing on Grade 7 English, an area that remains underrepresented in local gamification studies, this research enhances its specificity and relevance. Through the integration of game-based strategies into English 7 classes, the study assessed whether these activities foster a more engaging and interactive learning environment that resonates with students' digital-age interests. The study also evaluated how gamification aligns with the curriculum's goal of enhancing foundational literacy skills, ensuring that students are better equipped for academic success. Through this process, the study assessed current reading motivation levels, implemented gamified learning aligned with curriculum competencies, and measured the impact on reading motivation and comprehension skills. Ultimately, provided insights into how gamification influences learning outcomes and offer practical recommendations for educators on how to effectively incorporate gamified strategies to support the curriculum's objectives, contributing to improved literacy and academic performance.

Research Questions

This study aimed to evaluate the effectiveness of gamification in enhancing reading motivation among Grade 7 students in English classes at Banilad National High School during the 2024-2025 school year. Specifically, it answers the following sub-problems:

1. What is the level of performance of the student's pre-test mean score before using gamification method in teaching reading in the following MATATAG curriculum competency:
 - 1.1. Analyze a literary text as an expression of individual or communal values within biographical and historical contexts.
 - 1.1.1. define the biographical and historical approaches to reading a literary text;
 - 1.1.2. note and discuss historical and biographical data about a given topic, person, author, or experience; and
 - 1.1.3. relate the author's history and biography with the literary elements (i.e., setting, characters, and POV) of his/her text.
2. After using gamification, what is the level of performance of the students' post-test mean scores in teaching reading, according to the MATATAG curriculum competencies?
3. Is there a significant difference between the students' pre-test performance and their post-test performance after the implementation of gamification?
4. What are the students' perceptions towards using gamification as a strategy in teaching reading?
5. Based on the findings, what action plan can be proposed to enhance reading motivation and address the challenges faced by Filipino students in reading?

Literature Review

Gamification has emerged as a promising instructional strategy that leverages game-like elements to improve student motivation and engagement in learning activities. International studies have consistently shown that gamification, when implemented thoughtfully, enhances intrinsic motivation, promotes sustained engagement, and improves academic outcomes across subjects, including reading (Li & Chu, 2021; Navarro-Espinosa et al., 2022). Ryan and Deci's (2023) Self-Determination Theory underpins many of these findings, suggesting that motivation is fostered when students feel autonomous, competent, and connected. Game mechanics such as points, badges, leaderboards, and feedback can meet these psychological needs by creating dynamic and interactive learning environments.

Locally, research exploring the impact of gamification in the context of English reading instruction remains limited. Recent Philippine-based studies offer valuable insights but require further expansion. For instance, Durano and Candilas (2023) found that gamified English reading activities increased comprehension and student participation. Similarly, Sanchez et al. (2021) reported improved enthusiasm and task completion among Grade 7 students when game elements were integrated into reading lessons. These studies support the idea that gamification can address disengagement in language learning, especially in early secondary education.

A study by Bautista and Aranas (2023) highlighted the systemic issue of low reading proficiency among Filipino learners, urging a re-evaluation of traditional strategies in favor of innovative, student-centered methods. This aligns with findings from Chi (2023), who cited the underwhelming performance of Filipino students in international reading assessments like PISA, emphasizing the need for effective interventions.

Despite these positive outcomes, some challenges persist. A key concern in local contexts is aligning gamified tools with curriculum standards, such as the newly introduced MATATAG Curriculum. Calungsod (2024) emphasizes the importance of reinforcing foundational literacy skills, which demands that any instructional innovation such as gamification be clearly mapped to learning competencies. While international studies often focus on generalized outcomes, local educators face constraints like limited access to technology, varying levels of digital literacy among students, and gaps in teacher training. These factors can affect the scalability and effectiveness of gamified approaches in typical public school settings.

Moreover, a study by Matyakhan s et al. (2024) on the implementation of gamification in Thai EFL university students found that gamification significantly improved reading engagement and comprehension. Although this study was conducted in Thailand, its findings are relevant to the Philippine context, highlighting the potential benefits of gamification in enhancing reading skills.

Additional local studies further support the effectiveness of gamification in English instruction. Orejuela et al. (2022) conducted a study on the effects of gamifying instruction on the English language proficiency of Grade 8 Filipino ESL students in Bicol. The study found significant improvements in students' English proficiency and engagement levels. Another study by Caballero et al. (2022) examined the impact of gamification on learning outcomes and motivation in science education, revealing that gamified learning activities significantly enhanced student motivation and academic performance.

The review thus highlights both the potential and the complexity of gamifying reading instruction in the Philippine setting. While preliminary findings are promising, further localized studies are needed to determine how different game elements (e.g., competition, collaboration, storytelling) affect diverse learners. Additionally, strategic teacher support such as professional development and resource sharing is essential to maximize gamification's impact in alignment with the MATATAG Curriculum.

Methodology

Research Design

This study used a One Group Pretest-Posttest Design, a common format in behavioral research that evaluates the impact of a treatment or intervention on a single group. All participants received the same instructional approach, gamified learning using Quizizz, and were assessed before and after the intervention. This design allowed the researcher to observe changes in student performance and motivation attributable to the gamified strategy.

Respondents

The study involved a sample of 40 Grade 7 students enrolled in Reading classes at Banilad National High School for School Year 2024–2025. The participants were selected using a convenience sampling method, as the researcher had access to these students and obtained permission from the school administration. Although not randomly selected, the group was appropriate for exploratory research due to its relevance to the study's focus and ease of accessibility.

Instrument

Questionnaire. Three instruments were used in this study to gather data on students' reading performance and perceptions of gamification. The pre-test was designed to measure the students' initial reading comprehension performance using traditional teaching methods and was aligned with the specific learning competencies outlined in the MATATAG Curriculum. Following the gamification intervention, a post-test was administered to assess any improvement in the same competency area, enabling a direct comparison of performance before and after the treatment. Additionally, a perception questionnaire, adapted from Herawati & Erawati (2023), utilized a 10-item Likert Scale to evaluate students' attitudes and experiences regarding the use of gamification in their reading classes.

The content of both the pre-test and post-test focused on the competency: "Analyzes a literary text as an expression of individual or communal values within a biographical and historical context", a learning competency under the MATATAG Curriculum for Grade 7 English. The questionnaire used to assess student perception also reflected curriculum objectives by focusing on aspects of engagement, motivation, and comprehension, key goals of the MATATAG reform.

Procedure

Quizizz was implemented over a three-week period, with two sessions per week, integrated into regular Reading class instruction. Each session lasted for approximately 50 minutes, where 15–20 minutes were allocated to using Quizizz either for formative assessment or as a review tool. Activities included live quizzes and asynchronous challenges to reinforce key reading concepts and vocabulary. The platform's game-like features (leaderboards, timers, avatars) were used to sustain student interest and encourage participation.

Data Analysis

To measure performance changes, the study used a paired t-test to compare pre-test and post-test scores. Descriptive statistics were used to interpret the perception survey. To ensure validity, the pre- and post-tests underwent expert review to confirm content alignment with curriculum standards. For reliability, the internal consistency of the questionnaire was assessed using Cronbach's alpha, with values above 0.70 considered acceptable. A pilot test was conducted before the actual study to refine the instruments and verify clarity and appropriateness.

Ethical Considerations

Informed consent was obtained from the students and their guardians prior to participation in the study, ensuring adherence to ethical guidelines for research involving minors. The researcher ensured that participation was voluntary, with students allowed to withdraw

at any time without consequence. Additionally, to protect privacy, all student data was kept confidential by assigning unique identifiers and securely storing the data. Efforts were made to prevent bias in participant selection by choosing a convenience sample that was not based on any particular characteristics that could influence the outcomes. The potential influence of gamified tools like Quizizz on student behavior was also considered, as the use of such tools may have affected student motivation or engagement in ways that are not entirely attributable to the learning content itself.

Results and Discussion

This section presents the findings of the study on the effectiveness of gamification in improving students' reading comprehension skills, focusing on three key competencies. It includes the analysis of students' pretest and posttest performance, the results of paired t-tests, and their perceptions of the gamified learning experience. These are followed by a critical discussion that explores performance variation across competencies and among students, the influence of gamification features on motivation, and connections to related literature.

Pretest Performance of Students in Reading Comprehension

Table 1 below presents the students' pretest performance across three reading comprehension competencies: (1) defining biographical and historical approaches, (2) noting and discussing significant literary details, and (3) relating the author's background to specific literary elements. These scores provide a baseline of student understanding before the intervention.

Table 1. Pre-test Performance

Competency*	Frequency (%)				Mean (SD)	Verbal Description
	VG	G	S	NI		
1	5 (11.9)	24 (57.1)	12 (28.6)	1 (2.4)	6.36 (1.86)	Good
2	0 (0)	16 (38.1)	25 (59.5)	1 (2.4)	5.21 (1.68)	Satisfactory
3	0 (0)	10 (23.8)	26 (61.9)	6 (14.3)	4.33 (1.65)	Satisfactory

*Competency 1: define the biographical and historical approaches to reading a literary text; Competency 2: note and discuss historical and biographical data about a given topic, person, author, or experience; Competency 3: relate the author's history and biography with the literary elements (i.e., setting, characters, and POV) of his/her text.

Table 1 shows that students initially demonstrated varied performance across the three competencies, with decreasing scores as the cognitive demand increased. Competency 1 (defining biographical and historical approaches) had a mean score of 6.36 ("Good"), indicating strong foundational understanding. Competency 2 (noting and discussing data) dropped to 5.21 ("Satisfactory"), while Competency 3 (relating author's background to literary elements) was the lowest at 4.33 ("Satisfactory"), with the highest proportion (14.3%) of students needing improvement.

This downward trend aligns with cognitive complexity levels. Competency 1 required mostly recall and understanding, lower-order thinking skills, while Competency 3 required synthesis and evaluative thinking, which are higher-order skills according to Bloom's Taxonomy (Qasrawi & BeniAbdelrahman, 2020). These results echo findings from Hamzah et al. (2022), who observed that students often struggle more with tasks that require making interpretive or inferential connections.

Posttest Performance of Students in Reading Comprehension

Table 2 displays the students' posttest scores after undergoing gamified instruction. The same three competencies are assessed to determine the learning gains following the intervention.

Table 2. Posttest Performance

Competency*	Frequency (%)				Mean (SD)	Verbal Description
	VG	G	S	NI		
1	27 (64.3)	14 (33.3)	1 (2.4)	0 (0)	8.76 (1.36)	Very Good
2	19 (45.2)	22 (52.4)	1 (2.4)	0 (0)	8.29 (1.27)	Good
3	5 (11.9)	30 (71.4)	7 (16.7)	0 (0)	7.00 (1.36)	Good

*Competency 1: define the biographical and historical approaches to reading a literary text; Competency 2: note and discuss historical and biographical data about a given topic, person, author, or experience; Competency 3: relate the author's history and biography with the literary elements (i.e., setting, characters, and POV) of his/her text.

Posttest results revealed significant improvements across all competencies. Competency 1 increased to a mean of 8.76 ("Very Good"), while Competencies 2 and 3 rose to 8.29 and 7.00, respectively (both "Good"). Notably, no student scored under "Satisfactory" in the posttest, and most were in the "Good" to "Very Good" range.

The improvements in Competency 1 can be attributed to gamified strategies that emphasized repeated exposure to key concepts through interactive games and recall-based activities. As Hamid & Barzenji (2024) suggest, gamified learning enhances content retention by transforming passive instruction into active engagement.

Competency 2 showed the largest increase in mean score (+3.07), likely due to gamified tools like Quizizz that prompted analytical engagement with historical and biographical content. The immediacy of feedback and use of competition helped reinforce memory and

understanding (Leitão et al., 2022).

Competency 3, although still the most challenging, showed a notable improvement (+2.67). This suggests that even higher-order tasks can benefit from gamification when designed with scaffolding and challenge-based elements. Scenario-based questions and inferential quizzes provided a low-pressure environment that facilitated critical thinking (Pajakko, 2023). However, the slower improvement here also indicates that gamification alone may not suffice for complex analysis. Supplemental strategies like guided literary discussions or peer collaboration could better support this skill.

Comparison of Pretest and Posttest Scores Using Paired *t*-test

Table 3 shows the results of the paired *t*-test comparing students' mean scores before and after the intervention. This statistical analysis evaluates whether the observed improvements are significant.

Table 3. Paired Sample *t*-test Results for Pretest and Posttest Scores

Competency*	Mean Scores (SD)		Mean Difference (SD)	<i>t</i> -statistic	<i>p</i> -value
	Pretest	Posttest			
1	6.36 (1.86)	8.76 (1.36)	2.40 (1.93)	8.09	< 0.001
2	5.21 (1.68)	8.29 (1.27)	3.07 (1.93)	10.31	< 0.001
3	4.33 (1.65)	7.00 (1.36)	2.67 (1.86)	9.31	< 0.001

*Competency 1: define the biographical and historical approaches to reading a literary text; Competency 2: note and discuss historical and biographical data about a given topic, person, author, or experience; Competency 3: relate the author's history and biography with the literary elements (i.e., setting, characters, and POV) of his/ her text.

The results of the paired-samples *t*-test above show that the mean scores increased by an average of 2.40 points for Competency 1, 3.07 points for Competency 2, and 2.67 points for Competency 3. From these, differences, the *t*-statistics were obtained and so the corresponding *p*-values are presented. Since all *p*-values are less than 0.05, the null hypotheses are rejected across all the competencies and conclude that there is a significant difference in the pretest and posttest scores in all three competencies.

These results affirm that gamification had a positive impact on reading comprehension. The cognitive engagement fostered by competition, interactivity, and feedback mechanisms made the learning process more dynamic and meaningful. Similar findings were reported in studies by Partridge (2023), which highlighted how gamified environments promote sustained engagement, particularly when they include competitive and collaborative elements.

Students' Perceptions of Gamified Learning

Table 4 presents the summary of students' responses to a perception survey regarding the use of Quizizz. The table outlines the number and percentage of students who expressed agreement or disagreement with various statements about the gamified learning experience.

Table 4. Students' Perceptions of Gamified Reading Comprehension Activities

Indicator	Frequency (%)				
	SA	A	N	D	SD
Quizizz is interesting and fun	23 (54.8)	18 (42.9)	1 (2.4)	0 (0)	0 (0)
Quizizz is easy to use.	9 (21.4)	16 (38.1)	14 (33.3)	2 (4.8)	1 (2.4)
Quizizz reduces my boredom when learning English.	23 (54.8)	17 (40.5)	1 (2.4)	1 (2.4)	0 (0)
Quizizz helps me to understand the lesson.	20 (47.6)	18 (42.9)	4 (9.5)	0 (0)	0 (0)
I enjoy doing the exercises using Quizizz	20 (47.6)	19 (45.2)	3 (7.1)	0 (0)	0 (0)
Quizizz has an attractive display.	14 (33.3)	16 (38.1)	12 (28.6)	0 (0)	0 (0)
The leaderboard motivates me to be in high position.	18 (42.9)	14 (33.3)	9 (21.4)	0 (0)	1 (2.4)
Quizizz feels like a game.	30 (71.4)	11 (26.2)	1 (2.4)	0 (0)	0 (0)
Quizizz fosters a competitive environment.	17 (40.5)	19 (45.2)	6 (14.3)	0 (0)	0 (0)
Using Quizizz is more helpful in doing exercise than by the paper.	21 (50)	19 (45.2)	2 (4.8)	0 (0)	0 (0)

The students' perceptions of Quizizz as a gamified learning tool reveal overwhelmingly positive feedback, as shown in Table 4. Most students (97.7%) found Quizizz interesting and fun, underscoring its effectiveness in capturing engagement. Additionally, 95.3% agreed that Quizizz reduces boredom, highlighting its potential to maintain student focus and motivation during lessons. The platform was also seen as beneficial for understanding lessons, with 90.5% of students agreeing that it helped them grasp concepts better.

Similarly, 92.8% enjoyed doing exercises using Quizizz, further confirming its appeal as an interactive and enjoyable learning tool.

The game-like features of Quizizz were particularly appreciated. A remarkable 97.6% of students agreed that Quizizz felt like a game, while 85.7% indicated that it fostered a competitive environment. The leaderboard, a key motivator, encouraged 76.2% of students to aim for higher positions. These findings align with those of Philpott & Son (2022), who noted that leaderboards and point systems can increase student motivation and foster goal-setting. While 71.4% of students found Quizizz visually appealing, 28.6% remained neutral, suggesting there may be room for improvement in its design.

Despite the overall positive responses, some limitations were noted. Although 59.5% of students agreed that Quizizz is easy to use, a significant portion (33.3%) remained neutral, and 7.2% expressed difficulty, indicating that some students may need further orientation or assistance with the platform's interface. This suggests that while Quizizz was generally well-received, its usability could be enhanced to accommodate all learners more effectively.

Further analysis did not reveal significant differences in perceptions between high and low performers, though future research could explore whether the competitive aspects of gamification disproportionately benefit high-achieving students or if they also support struggling learners by increasing engagement and providing repeated practice opportunities.

In conclusion, the overwhelmingly positive feedback indicates that Quizizz successfully enhanced motivation, engagement, and comprehension. However, addressing usability concerns and refining the visual elements could further optimize its effectiveness as a learning tool.

Conclusions

This study concludes that the integration of gamified tools, particularly Quizizz, significantly enhances student performance and engagement in reading comprehension activities. The posttest results revealed measurable improvement across all three competencies - literal, interpretative, and analytical comprehension, demonstrating the effectiveness of interactive learning strategies that employ game-like features. Student feedback further affirms the platform's ability to foster motivation, sustain interest, and modernize traditional instruction.

To make these findings more actionable for educators, several practical strategies are recommended. Teachers should provide orientation and technical support for students who may be unfamiliar with digital tools to ensure equitable access and usability. Gamified activities should be carefully aligned with learning objectives so that the game elements support, rather than distract from, instructional goals. It is also important to balance extrinsic and intrinsic motivation. While features like leaderboards and points systems are effective for boosting engagement, they should be paired with reflective tasks such as goal-setting, self-assessment, or personal progress tracking to encourage deeper learning. Differentiated gamification strategies such as recall-based quizzes, scenario-driven challenges, and timed competitions should be employed to accommodate varying student needs and cognitive skills. Regular formative assessments using gamified platforms can also provide immediate feedback and help teachers adjust instruction in real time.

To support successful implementation, schools should consider providing teacher training programs focused on gamification design, digital pedagogy, and the integration of educational technology in the classroom. Additionally, a repository of ready-to-use gamified learning resources could help teachers save time and more easily align activities with specific competencies and learning outcomes.

Future research should explore the long-term effects of gamified instruction on reading comprehension and content retention. It would also be valuable to investigate the differential impact of specific gamification elements, such as badges, levels, and storytelling, on students' motivation and academic performance. Furthermore, future studies may examine whether competitive features benefit all learners equally or if they disproportionately advantage high-achieving students. These directions could help refine gamified strategies to ensure they promote inclusive, meaningful, and lasting learning outcomes for all types of learners.

References

- Anggrainy, F. P. N., Sharizan, S., Sriyanda, R., & Farhan, M. (2024). Gamifying reading motivation in EFL students: Enhancing engagement and language learning through ICT. *Jurnal Simki Pedagogia*, 7(1), 106–118. <https://doi.org/10.29407/jsp.v7i1.547>
- Bautista, M. & Aranas, F. (2023). EDCOM II reading report: Challenges and recommendations in Philippine literacy. Education Development Council of the Philippines.
- Caballero, L. S., Ferrer, M. M., & Tiria, R. A. (2022). The role of gamification in the academic performance of junior high school students in language subject. *International Journal of Scientific Research in Multidisciplinary Studies*, 8(3).
- Calungsod, P. (2024, January 10). MATATAG: Producing a strengthened education system. Medium. <https://medium.com/@calungsod12/matatag-producing-a-strengthened-education-system-2c784ce55d27>

- Chi, C. (2023, December 6). Philippines still lags behind world in math, reading and science — PISA 2022. Philstar.com. <https://www.philstar.com/headlines/2023/12/06/2316732/philippines-still-lags-behind-world-math-reading-and-science-pisa-2022>
- Durano, E. G. B., & Candilas, K. S. (2023). Improving Grade 8 struggling readers' reading comprehension skills through game-based learning and teacher-directed instruction. *BRU ELT Journal*, 1(3), 1–17. <https://doi.org/10.14456/bej.2023.20>
- Herawati, N., & Erawati, T. (2023). Unraveling student insights: Quizizz in English learning at a vocational high school in Cirebon. *Perspective: Language, Education and Literature*, 11(2), 142–156.
- Jones, M., Blanton, J. E., & Williams, R. E. (2023). Science to practice: Does gamification enhance intrinsic motivation? *Active Learning in Higher Education*, 24(3), 273–289. <https://doi.org/10.1177/14697874211066882>
- Li, X., & Chu, S. K. W. (2021). Exploring the effects of gamification pedagogy on children's reading: A mixed-method study on academic performance, reading-related mentality and behaviors, and sustainability. *British Journal of Educational Technology*, 52(1), 160–178. <https://doi.org/10.1111/bjet.1305>
- Matyakhan, T., Chaowanakritsanakul, T., & Santos, J. A. L. (2024). Implementing gamification to enhance reading engagement and reading comprehension of Thai EFL university students. *LEARN Journal: Language Education and Acquisition Research Network*, 17(1), 121-239.
- Navarro-Espinosa, J. A., Vaquero-Abellán, M., Perea-Moreno, A.-J., Pedrós-Pérez, G., Martínez-Jiménez, M. d. P., & Aparicio-Martínez, P. (2022). Gamification as a Promoting Tool of Motivation for Creating Sustainable Higher Education Institutions. *International Journal of Environmental Research and Public Health*, 19(5), 2599. <https://doi.org/10.3390/ijerph19052599>
- Orejuela, J. P., Reyes, M. T., & Villanueva, R. S. (2022). Effects of gamifying instruction on the English language proficiency of Grade 8 Filipino ESL students in Bicol. *Philippine Journal of Language Teaching*, 28(1), 34-50.
- Philpott, A., & Son, J. B. (2022). Leaderboards in an EFL course: Student performance and motivation. *Computers & Education*, 190, 104605. <https://doi.org/10.1016/j.compedu.2022.104605>
- Ryan, R. M., & Deci, E. L. (2019). Brick by brick: The origins, development, and future of self-determination theory. In A. J. Elliot (Ed.), *Advances in motivation science* (Vol. 6, pp. 111–156). Elsevier. <https://doi.org/10.1016/bs.adms.2019.01.001>
- Sanchez, D. T., Duroha, J. H., Manayon, R. M. U., Nocillas, J. B., Mangolari, J. L. R., & Yabo, J. F. (2021). Interactive and conventional teaching approaches to optimizing reading comprehension performance. *Revista Geintec-Gestao Inovacao e Tecnologias*, 11(3), 1848-1858.
- Stout, S. K. (2023). Distracted, bored, and disengaged: How to reengage Gen Z learners in the secondary school classroom (Publication No. 30694432) [Doctoral dissertation, University of North Dakota]. ProQuest Dissertations & Theses Global.

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