
GAMIFICATION DIGITAL TOOLS AND THE LEARNING ENGAGEMENT OF JUNIOR HIGH SCHOOL LEARNERS'

***Rachel Mae A. Renacia**

Master of Arts in Teaching (MAT) Major in Social Studies Valencia Colleges (Bukidnon)
Incorporated Hagkol, Valencia City.

Article Received: 17 February 2026

*Corresponding Author: Rachel Mae A. Renacia

Article Revised: 07 March 2026

Master of Arts in Teaching (MAT) Major in Social Studies Valencia Colleges

Published on: 27 March 2026

(Bukidnon) Incorporated Hagkol, Valencia City.

DOI: <https://doi-doi.org/101555/ijrpa.7280>

ABSTRACT

The main objective of the study was to describe the gamification digital tools utilized by junior high school learners in the teaching and learning process, determine the level of learner engagement across the affective, behavioral, cognitive, and social domains, and examine the significant relationship between the use of gamified digital tools and learners' engagement. The investigation focused on understanding how digital gamification supports classroom interaction and whether its utilization directly influences multidimensional learner engagement. The respondents consisted of 120 secondary learners enrolled in Social Studies classes at Marapange Integrated School, Kibawe West District, Division of Bukidnon, during School Year 2025–2026. Total enumeration sampling was employed to ensure complete participation of the identified population. A researcher-made questionnaire served as the primary data-gathering instrument, which underwent content validation and pilot testing to establish validity and reliability. The reliability analysis yielded a Cronbach's alpha of 0.881, indicating high internal consistency and confirming that the instrument was dependable for generating valid and consistent data. The study adopted a descriptive-correlational research design, and quantitative methods were applied to ensure statistical objectivity and accuracy. Findings revealed that learners utilized various gamification digital tools, with Wordwall, Quizlet, and Quizziz emerging as the most frequently and effectively used platforms. Other tools such as Blooket, Gimkit, Factile, Socrative, and Plickers were implemented less consistently, suggesting opportunities for expanded integration. Learners demonstrated high levels of engagement across all four domains, particularly in social engagement, reflecting strong collaboration, motivation, and active participation. However,

no significant relationship was found between tool utilization and learner engagement, indicating that engagement depends more on purposeful instructional integration than on the mere use of gamified tools.

KEYWORDS: *Gamification, digital tools, learning engagement*

INTRODUCTION

In recent years, the Philippine educational system has experienced unprecedented challenges in sustaining learner engagement, particularly among secondary learners. The shift to various modalities of learning has magnified the pre-existing issue of learner disengagement. With increased screen time, lack of motivation, minimal real-time feedback, and the absence of interactive and collaborative learning experiences, many learners exhibit declining attention spans, reduced class participation, and poor academic performance. Teachers report difficulty in maintaining learner interest, especially in asynchronous or hybrid learning setups, where the traditional classroom dynamics are absent. The challenge is further exacerbated by learners' growing preference for digital entertainment over traditional educational methods.

A significant gap persists between the teaching strategies employed and the digital fluency of today's learners. While teachers strive to adapt to 21st-century learning demands, many still rely heavily on conventional lecture-based approaches, which fail to captivate tech-savvy learners accustomed to interactive apps, online games, and gamified content. The lack of innovative, engaging instructional tools contributes to low motivation, lack of participation, and poor performance in assessments. This disengagement also results in increased absenteeism and dropout rates, particularly among learners in underserved and resource-challenged secondary schools.

Moreover, while the Department of Education (DepEd) promotes learner-centered, ICT-integrated teaching, the actual implementation of gamification as a pedagogical strategy remains limited. Schools often struggle with limited training for teachers, the absence of standardized gamified tools, and inadequate internet connectivity. Consequently, the failure to align educational delivery with learners' preferences and learning styles impedes the realization of the Revised K-12 curriculum goals and hinders the development of self-directed, motivated learners.

Gamifying the game design elements into non-game contexts like education has been recognized globally as a powerful method to boost learners' engagement. According to Deterding, Dixon, Khaled, and Nacke (2021), gamification enhances motivation and

participation by applying elements such as point scoring, competition, collaboration, and achievement badges into learning environments. Studies by Hamari, Koivisto, and Sarsa (2024) found that gamified systems increase user activity, improve learning outcomes, and sustain long-term interest, particularly when designed with intrinsic motivation in mind. In the Philippine context, research by Briones (2021) supports the claim that digital game-based learning fosters learner autonomy and improves academic performance in junior high school settings.

Further, the work of Domínguez, Saenz-de-Navarrete, de-Marcos, Fernández-Sanz, Pagés, and Martínez-Herráiz (2023) provides empirical evidence that integrating gamified platforms into instruction significantly improves learner participation and knowledge retention. They note that learners involved in gamified environments exhibit higher levels of engagement compared to those using traditional methods.

In light of these findings, this study aims to explore the integration of gamification digital tools into classroom instruction and assess their effectiveness in improving the learning engagement of secondary learners. By examining both teacher implementation and learner responses, the research seeks to contribute to the ongoing discourse on innovative, learner-centered strategies that promote inclusive and engaging learning environments.

Framework of the Study

This study is anchored on Self-Determination Theory (SDT) by Deci and Ryan (1985), which postulates that human motivation is driven by the fulfillment of three innate psychological needs: autonomy, competence, and relatedness. When these needs are met, learners are more likely to engage in learning tasks with intrinsic motivation. In the context of education, SDT suggests that gamification through elements like rewards, feedback, and progress tracking can support these needs by providing autonomy (choice-based activities), competence (achievable challenges), and relatedness (collaborative play), thereby increasing engagement. In connection with this, gamification is defined as the application of game elements in non-game contexts. It is increasingly adopted in education to increase learners' motivation, participation, and enjoyment. Hamari et al. (2024) emphasize that gamification fosters motivation by making the learning process more interactive and rewarding. When applied effectively, gamified tools contribute to behavioral, emotional, and cognitive engagement—critical dimensions of learner involvement in learning.

Furthermore, Kahu (2023) presents a holistic conceptual framework of student engagement, showing that emotional engagement (enjoyment, interest), cognitive engagement (investment

in learning), and behavioral engagement (participation and persistence) are outcomes of effective teaching strategies and learning environments. Gamification aligns with these engagement components by introducing interactive, meaningful, and motivating tasks.

Recent literature confirms the positive effects of gamification on learner learning engagement. For instance, Hamari et al. (2024) conducted a meta-analysis of gamification across fields and concluded that it increases user activity and motivation. Kuo and Chuang (2023) found that secondary learners exposed to gamified quizzes displayed significantly better recall and participation in science subjects. Similarly, Wang (2022) emphasized that gamification enhances student interaction in online settings, fostering sustained attention and deeper learning.

In the Philippine context, Albuero, Gerodias, and Revilla (2025) studied gamified formative assessment tools in Cebu-based public schools and reported improved classroom participation and task completion rates. Daliva and Valbarez (2025) observed a 28% improvement in learner motivation and interest when gamified tools were used. These local studies strengthen the contextual applicability of gamification to public secondary schools in the Philippines.

Moreover, Domínguez et al. (2023) emphasized that while gamification enhances engagement, its effectiveness depends on alignment with instructional goals. In line with this, Cheong, Cheong, and Filippou (2022) recommend that gamification be integrated with scaffolding and appropriate difficulty levels to avoid over-simplification of academic content. This study also recognizes Kahu's (2023) framework on learner engagement, which categorizes engagement into emotional, cognitive, and behavioral components, all of which are aligned with the expected outcomes of gamified learning strategies. Zainuddin, Shujahat, Haruna, & Chu (2020) also found that gamified platforms increase both extrinsic and intrinsic motivation, especially when rewards are paired with meaningful tasks.

Moreover, Reyes and Dizon (2024) examined the impact of gamification on junior high school learners and found that learners who used gamified tools consistently exhibited higher academic performance and greater collaboration during group tasks. These findings align with DepEd Order No. 44, s. 2021, which encourages the use of ICT-integrated strategies and interactive digital tools to support the Revised K-12 curriculum's goal of enhancing learner engagement and resilience.

Finally, Salvador and Cabardo (2023) concluded that gamified platforms foster a more inclusive and learner-centered environment, especially for low-performing learners who struggle in traditional assessment models. These local findings underscore the growing

relevance of gamification not only as an innovation but as a culturally adaptable approach to addressing engagement issues in Filipino classrooms.

In summary, the study's framework positions gamification not simply as a digital enhancement but as a strategic instructional intervention rooted in psychological theory, supported by global and local studies, and designed to improve learner engagement. The framework validates that when game elements are effectively integrated into the classroom, they can foster sustained motivation, deeper learning, and improved learner participation.

Significance of the Study

This study was significant as it explored the use of gamification digital tools to enhance the learning engagement of secondary learners, an area increasingly relevant in the educational landscape shaped by technological advancement.

For the learners, the study provided a learner-centered approach that made learning more enjoyable, interactive, and meaningful. The use of gamified tools stimulated their interest, boosted motivation, and encouraged active participation. As learners were increasingly digital natives, incorporating elements of play, challenge, and instant feedback addressed issues of disengagement, low attention span, and lack of interest in traditional teaching strategies.

For the teachers, the research served as a practical guide in adopting gamification as an innovative pedagogical tool. The findings helped teachers reframe their instructional methods and assessment strategies by providing evidence on how digital gamified tools could improve learner engagement and learning outcomes. Moreover, the study contributed to professional development and encouraged continuous innovation in the classroom.

For the school administrators, the study offered insights into how digital tools could be utilized as part of a broader strategy to enhance academic performance and reduce absenteeism and dropout rates. Administrators used the study's findings to inform policy decisions, promote technology integration in school programs, and allocate resources for teacher training and infrastructure support aligned with DepEd's curriculum thrust on digital and inclusive learning.

For future researchers, the study added to the growing body of literature on technology-enhanced learning in the Philippine setting. It served as a foundation for further studies on gamification across different learning areas and levels, or in relation to other variables such as learner autonomy, academic achievement, and digital literacy. The research also inspired potential comparative or longitudinal studies on the sustained impact of gamification in education.

Definition of Terms

The following terms were defined in this study to ensure easy understanding.

Affective Engagement. Affective engagement refers to the emotional responses that learners experience during the learning process. When learners are affectively engaged, they are emotionally connected to the learning material and activities, which fosters a more meaningful and enjoyable learning experience.

Behavioral Engagement. Behavioral engagement encompasses the observable actions and participation of learners in academic tasks and classroom activities. This includes attending classes regularly, following instructions, completing assignments, participating in discussions, and showing persistence in learning.

Cognitive Engagement. Cognitive engagement involves the internal investment and thought processes that learners apply to understand and master the learning content. Learners who are cognitively engaged show a deep interest in learning, take initiative to understand concepts, and are willing to overcome challenges through sustained mental effort.

Gamification Digital Tools. A gamification digital tool is a type of educational technology that incorporates elements commonly found in games—such as points, rewards, levels, badges, or leaderboards—into the learning environment. These elements are used to increase learners' motivation, engagement, and participation by creating a more dynamic and interactive experience.

Learning Engagement. Learning engagement is the overall degree of attention, curiosity, interest, and involvement that a learner shows toward their academic work. It reflects how learners interact emotionally, behaviorally, socially, and cognitively with the learning process.

Social Engagement. Social engagement involves learners' interactions and relationships with peers, teachers, and other members of the learning community. Social engagement promotes a sense of belonging, cooperation, and support, which enhances overall motivation and deepens the learning experience.

The Methodology

Research Design

The investigation utilized a descriptive-correlational research design. Data gathered were analyzed quantitatively to provide objective insights into learners' engagement and the use of gamification digital tools. The descriptive method was employed to describe the gamification digital tools utilized by the junior high school learners in the teaching and learning process,

determine the level of learning engagement of the learners in the affective, behavioral, cognitive, and social domains, and examine the significant relationship between the use of gamification digital tools and learners' engagement. This approach allowed the study to systematically capture patterns of tool utilization, engagement behaviors, and potential correlations between instructional technology and learner participation. Overall, the research design provided a structured framework for analyzing how gamification influenced learner engagement in junior high school classrooms.

Research Locale

This study was conducted at Marapange Integrated School, located in Kibawe West District under the jurisdiction of the Division of Bukidnon, during the School Year 2025–2026. Marapange Integrated School served learners from Kindergarten to Senior High School and catered to a predominantly rural population. The school played a crucial role in delivering basic education services in its locality, where many learners faced socio-economic challenges and limited access to technological resources.

The school was composed of a committed teaching staff and supportive administration that strived to improve academic outcomes through innovative and inclusive strategies. With its growing emphasis on learner-centered approaches and digital integration in instruction, the school provided a suitable environment for investigating educational innovations, such as the integration of gamification tools in teaching. Its demographic diversity and instructional setting made it an appropriate locale for exploring learner engagement, motivation, and academic performance in a real-world classroom context.

Given its rural setting, the school faced several barriers, including unstable internet connectivity, insufficient digital infrastructure, and limited access to updated instructional materials. However, these challenges encouraged the school community teachers, parents, and stakeholders to become resourceful and collaborative in enhancing learner outcomes. The school began exploring the use of low-bandwidth digital platforms and gamified learning strategies to engage learners, particularly to address academic difficulties in reading, numeracy, and science.

Marapange Integrated School was considered a fitting locale for this study as it reflected many public schools in geographically isolated and disadvantaged areas. It provided a realistic environment for examining the integration of gamification digital tools to improve learner engagement. Its population of junior high school learners offered a diverse and relevant sample for analyzing how digital gamified strategies affected affective, behavioral,

cognitive, and social engagement in learning. The school's openness to educational research and innovation supported the feasibility and relevance of the study.

Through the lens of Marapange Integrated School, this research sought to offer grounded insights and practical implications on how gamified digital tools could be effectively adapted even in low-resource contexts to improve learning experiences and academic success among secondary learners. Additionally, Marapange was identified as one of the upland barangays in the municipality of Kibawe, Bukidnon, Region X – Northern Mindanao. Nestled amidst the mountainous terrain of southern Bukidnon, Marapange was characterized by its cool climate, lush greenery, and predominantly agricultural landscape, and the community was home to various cultural groups, including the Higaonon and Manobo indigenous peoples, as well as settlers from Visayan-speaking regions, making it a culturally diverse yet closely-knit rural community.

The primary livelihood of residents in Marapange was farming, with corn, rice, root crops, and vegetables as common produce, while many households also engaged in backyard livestock raising and traditional crafts. Despite its natural resources, the barangay was considered geographically isolated and disadvantaged due to its distance from major commercial centers, challenging road conditions, and limited access to infrastructure, such as internet connectivity and health facilities.

In terms of education, Marapange Integrated School served as the main institution catering to the basic education needs of children from Kindergarten to Senior High School. The school played a vital role in the community, not only as a place of learning but also as a center for development programs, parent and community engagement, and cultural preservation.

The people of Marapange were known for their resilience, hospitality, and strong sense of bayanihan. The barangay's remote location fostered a spirit of cooperation among residents, who actively participated in school activities, community clean-ups, and local initiatives. While the community faced socio-economic challenges, such as poverty and limited government services, there was a strong drive among leaders and residents to improve the quality of life through education and sustainable development. Overall, Marapange reflected the realities of many rural communities in the Philippines rich in culture and potential, yet in need of sustained support and innovation, particularly in education, to empower its youth and secure a brighter future.

Respondents of the Study

The respondents of the study were 120 secondary learners enrolled in Social Studies classes at Marapange Integrated School, Kibawe West District, Division of Bukidnon, during the school year 2025–2026. Total enumeration sampling was employed, a type of purposive sampling technique in which the researcher examines the entire population that possesses a particular set of characteristics. In this approach, the units of analysis most often people in educational studies comprised all learners within the targeted classes, ensuring that every relevant member of the population was included. According to Canonizado (2021), total enumeration sampling is appropriate when the population is small and shares well-defined features, as using only a subset may fail to capture the information needed and could introduce bias. Total enumeration, also referred to as complete enumeration or the census method, involves studying every member of the population to gather comprehensive data, contrasting with other sampling techniques that select only a subset of participants.

This approach ensured that the data collected represented the entire population, allowing for more accurate and complete analysis of the use of gamification digital tools and learner engagement. The feasibility of total enumeration depends on factors such as population size, accessibility, and available resources, all of which were considered in the design of this study. By including all learners in the selected Social Studies classes, the study minimized sampling errors and provided a robust basis for examining patterns in gamification use and engagement. This method allowed the researcher to capture the experiences, perceptions, and behaviors of all respondents, ensuring a holistic understanding of the phenomenon under investigation.

Sampling Procedure

Total enumeration sampling was employed in this study. Total population sampling is a type of purposive sampling technique that involves examining the entire population with a particular set of characteristics. Researchers often use this method when the population is small and well-defined, as selecting only a fraction may fail to capture the required information. This technique can eliminate potential bias inherent in other sampling methods, although it may not always be justified due to the additional time and resources it requires.

By employing total population sampling in this study, the researchers benefited from its advantages. This approach allowed them to create generalizations from the data gathered and ensured that all phases of the study were systematically linked. It also helped save time, money, and effort during data collection while achieving a maximum level of variation within

the population. Total enumeration sampling enabled the researchers to analyze weighted mean averages, consider responses from various extremes of the population, and include everyone as target respondents for the study. Additionally, this method minimized the margin of error and produced results that were comprehensive, reliable, and reflective of the entire population in real time.

Research Instrument

The research instrument utilized in this study was a researcher-made questionnaire. It was content-validated and pilot-tested to ensure its validity and reliability. The pilot testing involved 30 secondary learners, allowing the researchers to refine the instrument before its full implementation. The study employed two separate questionnaires: one focused on the gamification digital tools utilized by junior high school learners in the teaching and learning process, and the other measured the learning engagement of junior high school learners, considering the affective, behavioral, cognitive, and social domains. These instruments provided a structured means to gather comprehensive data on both the tools used and the learners' engagement during gamified learning activities.

Validity of the Instrument

To establish the validity and reliability of the research instruments, a pilot test was conducted at Kibawe National High School–Poblacion Campus. A total of 30 learners participated, representing the target population for the study. The instruments were designed to gather data on two key dimensions: (1) the gamification digital tools utilized by learners, and (2) the learning engagement of junior high school learners. The results of the pilot test were used to refine the questionnaires, ensuring clarity, coherence, and alignment with the study's objectives. The reliability analysis yielded a Cronbach's alpha of 0.881 across 55 items, indicating high internal consistency and confirming that the instruments were reliable for collecting valid and consistent data on the intended constructs. The high Cronbach's alpha value confirms that the items within the questionnaires are cohesive and produce stable responses, ensuring that the data collected from the learners are consistent and dependable for analysis.

Scoring Procedure

The 5-Point Likert Scale was used to answer questions on gamification digital tools utilized by the junior high school learners in the teaching and learning process, following the scoring procedure:

Numerical Rating	Range	Descriptive Rating	Qualitative Interpretation
5	4.20-5.00	Always	Exceptionally Utilize
4	3.40-4.19	Oftentimes	Effectively Utilize
3	2.60-3.39	Moderate	Adequately Utilize n
2	1.80-2.59	Seldom	Limitedly Utilize
1	1.00-1.79	Not At All	Not Utilize

The 5-Point Likert Scale was used to assess the learning engagement of junior high school learners, following the scoring procedure:

Numerical Rating	Range	Descriptive Rating	Qualitative Interpretation
5	4.20-5.00	Strongly Agree	Highly Engage
4	3.40-4.19	Agree	Engage
3	2.60-3.39	Neither	Moderately Engage
2	1.80-2.59	Disagree	Minimally Engage
1	1.00-1.79	Strongly Disagree	Not Engage

Data Gathering Procedure

A formal request for data collection was secured from the Schools' Division Superintendent, followed by approval from the Public Schools' District Supervisor and the school administrators, allowing the researcher to administer the survey questionnaires. The researcher personally administered and retrieved the questionnaires from the respondents. Once the research questionnaires were collected, the researcher immediately checked, tallied, and tabulated the data, which were then presented and analyzed as part of the main text of the study.

Findings

The study revealed that junior high school learners utilize a variety of gamification digital tools in the teaching and learning process. Platforms such as Wordwall, Quizlet, and Quizziz were most frequently and effectively employed, while other tools like Blooket, Gimkit, Factile, Socrative, and Plickers were utilized less consistently. Learners demonstrated familiarity and competency with the tools, but engagement with some platforms was limited, suggesting opportunities for broader and more structured use. Overall, gamified tools are integrated into instruction to support interactive, collaborative, and engaging learning experiences.

In terms of learning engagement, learners exhibited high levels across the affective, behavioral, cognitive, and social domains. They expressed excitement, motivation, and enjoyment in using gamified tools, actively participated in tasks, demonstrated critical thinking, reflected on feedback, and collaborated effectively with peers. Social engagement

was particularly prominent, with learners showing respect, sharing strategies, and supporting one another during gamified activities. These findings indicate that gamification contributes to holistic engagement, promoting not only academic focus but also social-emotional and collaborative skills.

Regarding the relationship between gamification tool utilization and learner engagement, the study found no significant correlation. While learners frequently use gamified tools, engagement depends on how these tools are embedded within meaningful instructional practices. Tool usage alone is insufficient to predict or enhance engagement; instructional design, scaffolding, teacher facilitation, and purposeful integration of tasks play a more decisive role. Therefore, meaningful and structured application of gamified tools is essential to optimize learning engagement.

CONCLUSIONS

Junior high school learners utilize a variety of gamification digital tools in the teaching and learning process, with platforms like Wordwall, Quizlet, and Quizziz being most frequently used, while others, such as Plickers, Socrative, and Factile, are less consistently engaged. This indicates that learners' familiarity, accessibility, and teacher guidance play a critical role in determining which tools are effectively integrated into learning. Across affective, behavioral, cognitive, and social domains, learners demonstrated high engagement, showing motivation, enjoyment, collaboration, persistence, and critical thinking. However, engagement is influenced more by how gamified tools are embedded in instructional design than by mere usage alone, emphasizing the importance of meaningful and purposeful integration. Overall, gamification promotes holistic learner engagement, but its effectiveness depends on thoughtful facilitation, structured tasks, and active teacher involvement.

The study further reveals that gamified learning activities enhance learners' social and collaborative skills, foster critical thinking, and encourage self-reflection and goal-oriented behavior. Learners actively participate, respect peers' ideas, and support one another during group-based gamified tasks, highlighting the social dimension of engagement as particularly strong. Cognitive engagement is also evident as learners apply strategies, reflect on feedback, and make connections between gamified content and real-life or cross-subject applications. Despite high engagement, the lower interaction with certain tools suggests areas for expanding exposure, guidance, and scaffolding to ensure all learners benefit equally. These findings demonstrate that gamification contributes to a well-rounded, interactive, and learner-centered approach that supports academic, social, and emotional growth.

Lastly, the study confirms that there is no significant relationship between the mere utilization of gamification digital tools and learners' engagement. Engagement is a complex, multidimensional construct influenced by instructional strategies, task design, teacher facilitation, and learner motivation rather than tool use alone. This emphasizes that gamification alone does not guarantee engagement unless embedded within purposeful pedagogical practices. Teachers play a pivotal role in structuring tasks, guiding learners, and designing interactive experiences that align with learning objectives and foster meaningful participation. Therefore, the quality of integration, rather than the frequency of use, determines the impact of gamification on learner engagement in junior high school classrooms.

RECOMMENDATIONS

Teachers may strategically design and integrate gamification digital tools into their lessons to ensure that all available platforms are utilized effectively. Instruction should include tasks that promote collaboration, critical thinking, reflection, and problem-solving, while scaffolding learners' use of less familiar tools to increase participation. Regular monitoring, feedback, and structured guidance are essential to help learners navigate gamified activities and maintain high engagement across all domains. Educators should also align gamified tasks with learning objectives to ensure that engagement translates into meaningful learning outcomes and skill development. By purposefully embedding gamified tools within interactive and learner-centered lessons, teachers can maximize both academic and social-emotional benefits for students.

School administrators are encouraged to support teachers through professional development programs focused on effective gamification practices. Workshops, peer mentoring, collaborative lesson planning, and sharing of best practices can equip educators with the skills to facilitate meaningful gamified learning experiences. Additionally, providing access to digital resources, tools, and technical support will enable teachers to consistently implement gamified strategies across different subjects and lessons. Structured guidance and institutional support will help ensure that gamification is not only engaging but also instructional and equitable for all learners. By investing in teacher capacity and infrastructure, schools can create sustainable, technology-enhanced, and interactive learning environments.

Classroom initiatives may focus on evaluating the quality and instructional integration of gamified tools rather than the frequency of their use. Action research and reflective practice can help educators identify which tools and strategies most effectively enhance engagement

across affective, behavioral, cognitive, and social domains. Teachers can experiment with innovative approaches, collaborative tasks, and differentiated challenges to ensure that all learners benefit from gamification. Continuous assessment of learner engagement, motivation, and learning outcomes can guide the refinement of strategies and instructional design. Ultimately, a purposeful and reflective approach to gamification will maximize engagement, support holistic development, and improve overall learning outcomes in junior high school classrooms.

The researcher further recommends that another study be conducted using different variables and larger respondents whether the results are the same.

REFERENCES

1. Abad, R. L., & Quinto, J. M. (2022). *Cognitive persistence and problem-solving in technology-mediated learning*. *Philippine Journal of Learning Sciences*, 6(2), 58–72.
2. Albuero, M., Gerodias, J., & Revilla, K. (2025). Gamification as a Tool for Increasing Engagement in Secondary Education. *Philippine Journal of Education and Technology*.
3. Alonzo, R. M., & Panganiban, J. P. (2024). *Gamified learning platforms and learner engagement in Philippine secondary schools*. *Philippine Journal of Educational Technology*, 8(1), 23–38.
4. Aranas, M. W., Sayson, J. M., Ramo, A. H., Suarez, A. P. A., & Naparan, G. (2025). Gamification in GENYO e-Learning: Exploring Student Motivation and Challenges in English Language Instruction. *Journal of Education and Learning Reviews*, 2(3), 31–44.
5. Armadillo, C. (2024). Gamification in social studies education: A high school action research. WOU Research Repository.
6. Bautista, L. S., & Ferrer, A. D. (2023). *Digital formative assessment through gamification in junior high school classrooms*. *Asia Pacific Journal of Multidisciplinary Research*, 11(2), 45–56.
7. Briones, A. M. (2021). Gamified Learning as an Effective Tool in Enhancing Student Motivation in Philippine High Schools. *Journal of Education and E-Learning Research*, 8(3), 293–300.
8. Carpio, A. M., & Limjoco, R. T. (2024). *Instructional design for collaborative gamified learning*. *Journal of Philippine Educational Technology*, 8(2), 37–50.

9. Chen, M. Y. C., Hsu, Y. S., Chiu, Y. H., & Huang, Y. Y. (2025). Development of a gamified interactive e-book to improve mathematical reading and problem-solving ability. *Education and Information Technologies*.
10. Chen, X., & Liang, J. (2022). The influence of gamification on learning engagement: Mediating roles of enjoyment and self-efficacy. *Frontiers in Psychology*, 13, 994700.
11. Cheng, M. T., She, H. C., & Annetta, L. (2022). Effects of gamification on behavioral engagement in education: A meta-analysis. *International Journal of Environmental Research and Public Health*, 18(7), 3550.
12. Coelho, A. F., Pangowen, M., Wayan, M. A., Aragon, S. P., & Tabon, M. (2025). Gamification tools for enhancing academic performance: A systematic review of classroom applications. *International Journal of Research and Innovation in Social Science*, June issue, 4266–4274.
13. Cruz, E. P., & Villanueva, M. T. (2024). *Professional development and technology integration in Philippine basic education*. *Journal of Educational Management and Development Studies*, 4(1), 1–14.
14. Daliva, R. J. F., & Valbarez, N. M. (2025). Unleashing the powers of gamification on students' performance and engagement in mathematics.
15. *International Journal of Research and Innovation in Social Science (IJRISS)*, 9(6), 158–164.
16. Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. Springer.
17. Del Mundo, R. F., & Aquino, L. M. (2024). *Designing emotionally engaging digital learning experiences in Philippine secondary schools*. *Journal of Educational Innovation and Practice*, 5(1), 15–28.
18. Delos Santos, F. J., & Mariano, P. L. (2022). *Teacher facilitation and collaborative engagement in digital classrooms*. *Philippine Journal of Classroom Research*, 5(1), 1–34.
19. Delos Santos, J. M., & Mercado, I. A. (2023). Mobile gamification in Araling Panlipunan: An empirical study of learner engagement. *International Journal of Educational Technology in the Philippines*, 4(2), 101–110.
20. Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2021). From game design elements to gamefulness: Defining "gamification". *Proceedings of the 15th International Academic MindTrek Conference*.

21. Dizon, M. A., & Mercado, S. C. (2023). *Social engagement in technology-enhanced learning environments*. *Philippine Journal of Educational Studies*, 9(1), 60–74.
22. Domínguez, A., Saenz-de-Navarrete, J., de-Marcos, L., Fernández-Sanz, L., Pagés, C., & Martínez-Herráiz, J. J. (2023). Gamifying learning experiences: Practical implications and outcomes. *Computers & Education*, 63, 380–392.
23. Esguerra, P. A., & Lim, C. R. (2024). *Conceptual understanding through gamified instruction in secondary education*. *Journal of Educational Innovation in Asia*, 5(1), 34–47.
24. Flores, M. A., & Dizon, R. T. (2024). *Gamified task design and learner responsibility in Philippine secondary schools*. *Journal of Educational Practice and Innovation*, 6(1), 29–42.
25. Hamari, J., Koivisto, J., & Sarsa, H. (2024). Does gamification work? A literature review of empirical studies on gamification. In 47th Hawaii International Conference on System Sciences.
26. Humairoh, M. F., & Hakiki, N. I. (2022). Junior high school students' engagement in gamified learning experiences through Quizizz. *CLLiENT Journal*, 4(1), 17–40.
27. Islas-Sedano, M., Zuilicachagüe, J., Del Val, J., & García, E. (2022). The effects of fantasy-enhanced gamification on student engagement: A comparative study. *Journal of Educational Technology*, 12(1), 55–72.
28. Kahu, E. R. (2023). Framing student engagement in higher education. *Studies in Higher Education*, 38(5), 758–773.
29. Kuo, Y. & Chuang, S. (2023). Gamification for Learning in Secondary Schools: A Quasi-Experimental Study in Science Education. *Journal of Interactive Learning Research*, 34(1), 45–61.
30. Lacson, E. R., & Villafuerte, J. N. (2024). *Gamified collaboration and peer interaction among secondary learners*. *Asia Pacific Journal of Learning Innovations*, 6(1), 48–61.
31. Leaning, S. (2023). Enhancing learning engagement: A study of gamification's influence on motivation and cognitive load. *Educational Sciences*, 14(10), 1115.
32. Lorenzo, J. P., & Hidalgo, S. R. (2024). *Teacher facilitation and behavioral engagement in gamified learning environments*. *Philippine Journal of Teaching and Learning*, 10(1), 52–66.
33. Magallanes, R. L., Magadan, A. G. A., Absin, J. M. V., Paña, V. G. R., Pagara, C. R. A., & Salarda, I. B. (2024). Enhancing student engagement through gamification strategies in

- multi-grade classrooms. *International Journal of Research and Innovation in Social Science*, 8(3), 2387–2393.
34. Magallanes, R., Bustamante, S., & Espiritu, N. (2024). Enhancing student engagement through gamification strategies in multi-grade classrooms. *International Journal of Research and Innovation in Social Science*, 8(2), 56–63.
35. Malaya, S. D., & Robles, H. T. (2023). *Knowledge integration and transfer in gamified classrooms*. *Asia Pacific Journal of Curriculum Studies*, 9(3), 81–95.
36. Manalo, E. C., & Quijano, P. S. (2023). *Performance motivation and effort in gamified classrooms*. *Asia Pacific Journal of Education Research*, 9(2), 73–87.
37. Montemayor, A. P., & De Guzman, E. R. (2023). *Affective engagement and learner participation in technology-enhanced classrooms*. *Philippine Journal of Education Studies*, 9(2), 41–55.
38. Naval, C. M., & Salazar, R. B. (2023). *Technology integration practices of public secondary school teachers in the Philippines*. *Philippine Social Science Journal*, 6(3), 89–102.
39. Navarro, L. M., & Peña, K. D. (2022). *Developing learner persistence and autonomy in technology-enhanced instruction*. *Journal of Philippine Educational Psychology*, 5(2), 61–75.
40. Ocampo, R. D., & Reyes, L. T. (2023). *Respectful interaction and relationship building through gamification*. *Journal of Social Learning and Development*, 4(3), 85–98.
41. Padilla, G. S., & Tan, R. M. (2023). *Cognitive engagement in digital and gamified learning environments*. *Philippine Journal of Educational Research*, 7(1), 19–33.
42. Pagente, J. P., Cabatingan, A. J., & Sayon, R. P. (2024). Gamifying Technology Applications in Core Subject Teaching. *International Journal of Research and Innovation in Social Science (IJRISS)*, VIII(IV), 329–336.
43. Partido, C. M., Llorente, J. R., & Manalo, G. V. (2024). Enhancing student engagement through gamification in Araling Panlipunan: An action research. *Journal of Educational Horizons*, 9(2), 33–41.
44. Puig, A., Rodríguez, I., Rodríguez, Á., & Gallego, I. (2023). Evaluating learner engagement with gamification in online courses. *Applied Sciences*, 13(3), 1535.
45. Ramos, J. C., & Ibañez, S. P. (2024). *Emotional responses of junior high school learners to gamified instruction*. *Asia Pacific Journal of Learning Sciences*, 12(1), 66–79.

46. Ramos, J. P., & Manalo, E. C. (2023). *Multidimensional factors influencing learner engagement in technology-enhanced classrooms*. *Philippine Journal of Educational Innovation*, 7(2), 41–55.
47. Reyes, I. (2023). The impact of gamification depth on higher educational students' intrinsic motivation and performance levels. *Higher Education for the Future*, 11(2), 1–18.
48. Reyes, M., Beltran, C., & Yu, F. (2023). Enhancing learner motivation through gamification in social studies classes: A classroom-based study. *Philippine Normal University Journal of Teaching Innovations*, 6(2), 89–98.
49. Reyes, M. & Dizon, J. (2024). Gamified Learning Strategies and Academic Outcomes in Quezon City High Schools. *Philippine Journal of Modern Education*, 4(1), 28–39.
50. Reyes, J. A., & Macalintal, H. C. (2022). *Challenges in implementing digital assessment tools in Philippine classrooms*. *Journal of Research in Education Sciences*, 5(2), 67–79.
51. Salazar, T. M., & Medina, R. D. (2023). *Understanding engagement beyond digital tools in secondary education*. *Journal of Philippine Educational Research*, 8(1), 62–76.
52. Salvador, B. & Cabardo, J. (2023). Inclusive Digital Learning through Gamification: The Case of Low-performing Students. *University of Mindanao Journal of Education*, 12(2), 76–91.
53. Santiago, M. E., & Morales, D. T. (2023). *Achievement emotions and gamified learning in Philippine secondary education*. *Journal of Curriculum and Instruction*, 7(3), 88–101.
54. Soriano, M. E., & Velasco, A. N. (2024). *Metacognitive scaffolding in gamified learning contexts*. *Journal of Teaching and Learning Development*, 4(2), 44–58.
55. Tolentino, R. J., & Bernardo, A. B. I. (2023). *Behavioral engagement as a predictor of learning effectiveness*. *Philippine Journal of Educational Measurement*, 8(3), 94–108.
56. Tolentino, M. D., Santos, E. J., & Banayo, L. R. (2023). Students' perception on gamification in social studies learning. *Journal of Higher Education and Research Discourses*, 7(1), 19–27.
57. Tolentino, J. H., Tecson Jr., B. C., Nojadera, C. J. M., Cunanan, S. L. R., Garcia, G. B., & Gallardo, B. O. (2024). Exploring Grade 9 students' perspectives on game-based learning in Social Studies. *International Journal of Humanities and Education Development*, 6(6), 1–12.
58. Torres, A. L., & Bautista, K. R. (2024). *Effective integration of gamified tools for learner engagement*. *Asia Pacific Journal of Teaching and Learning*, 10(1), 33–48.

59. Villanueva, A. (2024). Culturally responsive gamification in Araling Panlipunan: Engaging the Filipino learner. *Asian Journal of Social Sciences and Humanities*, 9(1), 21–31.
60. Villareal, K. L., & Cordero, H. A. (2022). *Sustaining learner interest through gamification: Challenges and strategies*. *Philippine Educational Research Journal*, 4(2), 54–68.
61. Wang, Y. (2022). Digital Gamification in Remote Learning Environments: Effects on Learner Engagement. *Online Learning Journal*, 26(2), 155–172.
62. Zainuddin, Z., Shujahat, M., Haruna, H., & Chu, S. K. W. (2020). The impact of gamification on learning and instruction: A systematic review of empirical evidence. *Educational Research Review*, 30, 100326.