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Teachers' Gamification Skills and its Effects on Learners' Academic Performance

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Abstract — This research determined the level of teachers' gamification competencies and its relationship to learners' academic performance in public elementary schools. Standing on the heels of modern trends to lean toward more learner-centered and innovative pedagogies, this study attempted to establish how the attitudes, knowledge, and skills of the teachers in using game elements are related to actual classroom performance. Descriptive–correlational research design was employed for this study where data were gathered from all teachers in the selected district using a researcher-developed questionnaire that was subject to expert validation and had excellent reliability during pilot testing. The instrument was used to collect data regarding teachers' profile variables, their gamification competencies across attitude, knowledge, and skills, and learners' academic performance as recorded in official school records. It was revealed that teachers exhibited gamification competencies to a considerable extent, and they are comparatively strong in sustaining motivation and creating collaborative activities but still face challenges in customizing gamified tasks and integrating technology into it. It was also found that learners generally performed from satisfactory to very satisfactory. Results showed that there is no significant relationship between teachers' demographic profile and their gamification competencies but a significant positive relationship between teachers' gamification competencies and learners' academic performance, suggesting that the higher the level of gamification practices, the better the learning outcomes. This study concludes that enhancing teachers' pedagogical and digital competencies in gamified instructions can meaningfully support the achievement of learners, calling for structured professional learning toward both dimensions of gamification skills.

Keywords: Gamification, Academic Performance, Instructional Strategy, Learner Engagement, Teacher Competence.

I. INTRODUCTION

This study investigated the extent of teachers' competencies in gamification and their relationship to students' academic performance amidst the growing interest in learner-centered and innovative pedagogies. Gamification has emerged as a potentially sound approach to meeting national policies promoting creativity, engaging all students, and using flexible instructional modalities; however, its effectiveness highly depends on the capability of teachers to design it and implement it consistently in the classroom. While global evidence suggests that gamification motivates and brings learning benefits to students, studies remain limited in basic education where the usual concerns related to teacher training, resources, and integrating game-based elements recur. Using a descriptive-correlational design, data were gathered from all elementary teachers in the selected district using a validated and highly reliable instrument developed by the researchers. The said instrument gauged the teacher profiles, attitudes, knowledge, and skills in gamification, together with the learners' academic performance based on the official records. The result showed that teachers were competent in gamification skills up to a considerable extent, particularly in terms of nurturing collaboration and maintaining motivation, whereas the challenges remained on the customization of activities and integration of digital tools. Performance-wise, learners obtained generally satisfactory to very satisfactory ratings. Teachers' profiles did not relate to their gamification skills, but their gamification skills correlated significantly and positively to that of the learners' performance. It is, therefore, concluded that the development of teachers' gamification competencies can lead to meaningful academic gains, which call for structured professional development to build on the pedagogical and technological dimensions of gamified instruction.

Literature Review

It is understood as the intentional incorporation of elements game-like in nature, such as points, badges, levels, leaderboards, quests, narratives, and rewards, in ways that enhance learning by increasing engagement, perceived significance, and motivation of learners (Kapp, 2017; Gee, 2018; Lee & Hammer, 2019). Well-designed gamified learning environments are put forward as cultivating autonomy, competence, and relatedness; encouraging critical thinking and creativity;

and promoting self-regulation, resilience, and collaboration-consequently, meeting 21st-century learning expectations (Johnson & Johnson, 2020; Miller, 2024; Lim, 2022; Garcia, 2018a; Reyes, 2021). Accordingly, empirical studies dealing with language, science, mathematics, environmental education, physical education, and classroom management consistently report increased motivation, participation, and often achievement when gameplay mechanics are brought thoughtfully into practice (Cruz, 2016; Garcia, 2018b; Rivera, 2019; Martinez, 2020; Alvarez, 2022; Chen, 2020; Rivera & Santos, 2023). At the same time, scholars caution that gamification is not a magic bullet. Superficial, reward-heavy, or culturally at-odds designs risk trivializing learning, lessening intrinsic motivation, or creating stress and exclusion (Smith, 2021; Davis, 2016; Garcia, 2018a; Intang Sappaile, 2024). These warnings raise the importance of alignment to curricular objectives, inclusive principles, and deeper learning rather than mere novelty in implementation.

A growing body of research underlines teacher competence as central to effective gamification. Researchers such as Rodriguez (2022), Santos (2017), and Brown and Green (2023) point out that successful implementations depend essentially on teachers' pedagogical competence, design expertise, creativity, and support through professional development and resources. Systematic reviews and meta-analyses also point out that the impact of gamification on motivation and performance is moderated by teacher preparedness and contextual adaptation, emphasizing institutional support and integration within policies (Jaramillo-Mediavilla et al., 2024; Sylvester, 2024; Ruiz et al., 2024; Yadav, 2024). Design frameworks and taxonomies go one step further by showing that educators must intentionally align game mechanics with targeted cognitive, motivational, and social outcomes beyond the ad hoc use of points and badges (Toda et al., 2019; Lavoué et al., 2018). Empirical evidence in higher education, MOOCs, blended, and online contexts has shown that gamification enhances persistence, preparation, and course completion but also reveals challenges like novelty effects, superficial engagement, and increases in workload when teacher capacity in designing is constrained (Smiderle et al., 2020; Jack et al., 2024; Moldez et al., 2024; Duterte, 2024).

However, contemporary studies within basic education contexts still suggest that gamified interventions in numeracy, social studies, and their allied subjects can reduce anxiety, elevate

participation, and improve assessment outcomes, although they also document several barriers such as limited training, infrastructure, and administrative support (Pacturan et al., 2024; Abbacan et al., 2025; Panga et al., 2025; Amjad, 2025; Hilvano & Ocampo, 2022; Belhaj et al., 2025). Meta-analytic evidence suggests that gamification produces modest yet statistically significant gains in achievement, particularly when the mechanics are closely aligned with learning objectives and implemented over longer periods of time (Zeng et al., 2024). At both the conceptual and empirical levels, however, there is a consistent gap: while many studies acknowledge the significance of teacher readiness or competence, few explicitly operationalize and measure teachers' gamification skills-that is, the attitudinal, knowledge, and design/application skills-and their direct link with learners' academic performance, particularly in elementary-level classrooms. Therefore, this gap provides both the conceptual and empirical foil for the present study, focusing on teachers' gamification skills as a major explanatory variable for variation in learner achievement.

II. METHODOLOGY

This investigation adopted a descriptive–correlational design to explore the association between teachers' gamification competencies and students' academic achievement. The target population comprised 152 public elementary school teachers distributed across nine institutions. From this population, a sample of 110 respondents was selected via stratified random sampling, with each school serving as a stratum to ensure proportional representation according to faculty size. Data were gathered using a researcher-developed structured questionnaire consisting of three sections: (a) teachers' profile variables (age, sex, civil status, highest educational attainment, length of teaching experience, and number of relevant seminars and trainings); (b) gamification skills across the domains of attitude, knowledge, and skills, including indicators such as points and badges, leaderboards, progression systems, quests, storytelling, feedback, and collaborative or competitive activities, rated on a five-point Likert scale; and (c) learners' academic performance, measured by the General Weighted Average (GWA) derived from official school records. Instrument validity was established through expert review by three specialists using the Good and

Scates criteria, yielding a validity index of 4.59 (Excellent). Pilot testing with 30 teachers produced a Cronbach's alpha of .978, indicating excellent internal consistency. After obtaining ethical clearance, the researcher secured permissions from educational authorities, coordinated with school principals, conducted respondent orientation, obtained informed consent, and administered the survey via both printed and secure digital formats. Learner performance data were subsequently retrieved and matched with corresponding teacher records. Data were encoded and analyzed using frequency counts and percentages for profile variables, and means and standard deviations for gamification skills and performance. Normality testing using Kolmogorov–Smirnov and Shapiro–Wilk tests indicated a non-normal distribution; consequently, Spearman's rho was employed to examine relationships among teachers' gamification skills, selected profile variables, and learners' academic performance at the 0.05 significance level.

Research Design

This research had adopted a descriptive–correlational design to investigate the gamification skills of teachers in relation to the learners' academic performance. This design was chosen because it could provide a means to systematically describe variables in their natural setting and allow identification of associations among such variables without experimental manipulation. The descriptive component characterized teachers' demographic attributes, including age, sex, civil status, highest level of educational attainment, teaching experience, and participation in relevant seminars and trainings, and measured the extent of their gamification skills across attitude, knowledge, and skills. Learners' academic performance was characterized through indicators related to task completion and quality, participation and collaboration, time management, and overall achievement ratings. The correlational component gauged the level at which teachers' gamification skills were associated with learners' academic performance and, if the gamification skills differed across teacher profile groups. The approach allows analysis of existing instructional practices and their possible impact on learning outcomes to come up with empirical evidence for the creation of an instructional support framework that will enhance the competence of teachers in the implementation of gamified and learner-centered strategies.

Sample of the Study

The target population comprised 152 public elementary school teachers; from here, a sample size of 110 respondents was determined using stratified random sampling. Stratification was implemented by school affiliation for adequate proportional representation across participating schools. The sample allocation to each school corresponded to the share that the number of teachers in each school represented in the total population. This design minimizes sampling bias, enhances representativeness, and provides reliable subgroup analyses. The strata sampled teachers proportionate to the nine schools, where each stratum contributed its share of the quota to the sample in proportion to the number of teachers within that stratum. Given this diversity in demographic and professional backgrounds of teachers, the sampling procedure truly captures the variation in teacher backgrounds and instructional settings. This representative sample serves as a robust basis for testing differences in and relationships between gamification skills and profile variables among teachers and learners' academic performance.

Measures

It utilized a researcher-developed structured questionnaire, anchored on relevant literature, validated instruments, and variables as specified in the research framework. It had three parts: a) a respondent profile covering age, sex, civil status, educational attainment, teaching experience, and relevant training; b) teachers' gamification skills covering attitude, knowledge, and skills concerning points and badges, leaderboards, progression systems, quests, storytelling, feedback, and collaborative or competitive activities, rated on a five-point Likert scale; and c) academic performance of learners as reflected in their General Weighted Average obtained from official records. Content validity was subjected to expert validation, resulting in a validity index of 4.59 (described as "Excellent"). In addition, the instrument had pilot testing with 30 teachers. Reliability analysis yielded a Cronbach's alpha of .978, indicating excellent internal consistency and establishing that the items were conceptually analogous and reliably captured the intended

constructs. These steps guaranteed that the questionnaire had conceptual validity and statistical reliability to be used in the main study.

Procedure

The data collection was performed with a structured and ethically guided framework. After the proper approval from the institutional body concerned, the researcher coordinated with the school administrators to determine a proper schedule for instrument administration. Prior to actual data collection, participants were given comprehensive briefings regarding the purpose of the study, the procedures involved, and the ethical safeguards enforced, and informed consent was sought to ensure voluntary participation, anonymity, and confidentiality. The self-developed questionnaire underwent expert review to establish clarity, relevance, and appropriateness for the study at hand; then, a pilot test was conducted to refine item wording, resolve ambiguous terms, and enhance general organization. The refined survey was administered in both printed and secure digital formats to accommodate varying levels of participant access; systematic follow-ups were implemented to maximize response rates despite scheduling constraints and intermittent connectivity. At the end of data collection, the learners' General Weighted Averages were pulled from authorized academic records and matched with the corresponding teacher responses. All data were then encoded, organized, and prepared for analysis, with careful attention to accuracy, ethical integrity, and thorough documentation throughout the research process.

Data Processing

The data were analyzed using descriptive and inferential statistical techniques that fit the purposes of each study. Frequency count and percentage were used to describe the respondents' profile in terms of age, sex, civil status, highest educational attainment, length of teaching experience, and number of relevant seminars and trainings attended. The mean and standard deviation were computed to assess the extent of teachers' gamification skills across attitude,

knowledge, and skills domains. Learners' academic performance was described in terms of frequency and percentage distributions based on their GWA from official school records.

Normality testing was done on the distributions of the datasets before correlation analyses were performed. The significance values on the indicators of the study variables were below the 0.05 threshold, thus assuming that the distribution deviated from normality. Since the normality assumption was violated, non-parametric procedures had to be applied. Spearman's rho investigated the association between teachers' gamification skills and learners' academic performance and the relationship between gamification skills and selected profile variables. Since data were found to be skewed and not normally distributed, the Mann–Whitney U and Kruskal–Wallis H tests were used for group comparisons. All statistical decisions were made with a 0.05 significance level.

III. RESULTS AND DISCUSSION

Extent of Teachers' Gamification Skills

These section presents the extent of teachers' gamification skills. It describes how well teachers apply gamified strategies in their teaching and what level of practice they have achieved.

TABLE 1
EXTENT OF TEACHERS' GAMIFICATION SKILLS IN TERMS OF ATTITUDE

Item	Mean	Interpretation
1. Demonstrating commitment to learner-centered gamified instruction.	3.50	Great Extent
2. Valuing learners' diverse needs through inclusive game activities.	4.10	Great Extent
3. Upholding fairness when applying rules and rewards in gamification.	3.25	Moderately Extent
4. Encouraging perseverance and resilience through challenging tasks.	3.27	Moderately Extent
5. Showing openness to innovation by integrating new gamification tools.	2.75	Moderately Extent
6. Promoting collaboration by fostering teamwork in game-based learning.	4.50	Very Great Extent
7. Maintaining professional reflection on the outcomes of gamified teaching.	4.00	Great Extent
8. Modeling enthusiasm for learning by engaging actively in game elements.	3.52	Great Extent
9. Recognizing learners' efforts through positive reinforcement in gamification.	2.78	Moderately Extent
10. Supporting continuous improvement of gamification practices.	3.75	Great Extent
Overall Mean	**3.54**	**Great Extent**

Legend: *4.21-5.00= Very Great Extent; 3.41-4.20= Great Extent; 2.61-3.40= Moderately Extent; 1.81-2.60= Low Extent; 1.00-1.80= Very Low Extent*

Table 1 presents teachers' attitudes toward gamification and gives a mean of 3.54, which corresponds to Great Extent. This implies that teachers generally view gamified learning approaches as beneficial in enhancing engagement and inclusiveness in the classroom. The highest-ranking item is "Promoting collaboration by encouraging teamwork in game-based learning" with a mean of 4.50 for Very Great Extent, meaning that teachers strongly perceive gamification to enhance peer-to-peer cooperation. This may be because the nature of gamification itself supplies learners with mutual objectives and collective challenges. The implication is that collaboration brought forth by gamified activities not only increases learner motivation but also enhances the ability of learners to develop essential 21st-century skills, such as teamwork, communication, and problem-solving.

On the contrary, the item which has the lowest score is "Showing openness to innovation by integrating new gamification tools," since the mean is 2.75, or Moderately Extent. This means that even though teachers are comfortable with a well-established gamification practice, they have difficulty adapting newer technologies or tools. Possible reasons include inadequate training, access to limited digital resources, and concerns over long-term sustainability with the integration of a new platform into the curriculum. The implication is that, without institutional support and continuous professional development, teachers will continue to be cautious and thereby hamper the potential for innovation in gamification that can enhance learning experiences.

This finding is in line with Yildirim (2021), who reported that teachers' intention to innovate with gamification tools depends primarily on their digital competence, the support of their schools, and perceptions of the usefulness of technology. On the same note, Al-Azawi et al. (2022) indicated that insufficient digital readiness hinders educators from embracing emergent gamification applications. All this evidence thus points to a conclusion that, although attitudes towards gamification are generally positive, new tools require systemic support and training opportunities for their integration.

TABLE 2
EXTENT OF TEACHERS' GAMIFICATION SKILLS IN TERMS OF KNOWLEDGE

Item	Mean	Interpretation
1. Applying foundational concepts of gamification in lesson planning.	4.25	Very Great Extent
2. Understanding the role of game mechanics in motivating learners.	3.20	Moderately Extent
3. Identifying appropriate digital platforms for gamification.	2.50	Low Extent
4. Integrating subject content with relevant gamified strategies.	3.73	Great Extent
5. Analyzing the effects of gamification on learner engagement and performance.	4.13	Great Extent
6. Distinguishing between gamification and game-based learning approaches.	2.54	Low Extent
7. Evaluating the alignment of gamified activities with curriculum standards.	4.55	Very Great Extent
8. Explaining how rewards and recognition systems enhance participation.	3.23	Moderately Extent
9. Utilizing research findings to inform gamified instructional design.	3.00	Moderately Extent
10. Adapting gamification frameworks to suit learners' developmental levels.	4.08	Great Extent
Overall Mean	**3.52**	**Great Extent**

Legend: *4.21-5.00= Very Great Extent; 3.41-4.20= Great Extent; 2.61-3.40= Moderately Extent; 1.81-2.60= Low Extent; 1.00-1.80= Very Low Extent*

Table 2 shows teachers' knowledge pertaining to gamification concepts, with an overall mean of 3.52 (Great Extent). The result means that while teachers have considerable knowledge about gamification, they continue to experience gaps in particular areas. The highest rated item is "Evaluating the alignment of gamified activities with curriculum standards" with a mean of 4.55 (Very Great Extent. From this, it appears that teachers are highly capable of aligning gamified strategies with learning objectives and national standards; thus, they demonstrate significant levels of understanding of curriculum alignment. It would imply that not only are teachers knowledgeable in gamification, but they are also concerned about its educational validity and accountability.

The least rated is "Identifying appropriate digital platforms for gamification," which rates at an average of 2.50 (Low Extent). This indicates that teachers struggle to identify suitable platforms that effectively support gamified learning. Possible reasons could be limited experiences with varied platforms, insufficient institutional support to explore digital resources, and limited training in the integration of technology in education. This will have a big implication because such problems with the selection of platforms hinder the effectiveness and expansion of gamified instruction, eventually reducing the effectiveness of gamification to motivate and engage learners.

These findings are supported by Rodríguez-Aflecht et al. (2021), who established that educators often experience complications with technology integration for gamification because they are not properly trained in choosing a platform and its subsequent implementation. From another standpoint, Pham and Huynh (2022) stated that low digital literacy keeps teachers from exploring platforms which can really support an increase in learning outcomes. These studies collectively point to the need for professional development that would stress pedagogical knowledge along with technical know-how of gamification platforms.

TABLE 3
EXTENT OF TEACHERS' GAMIFICATION SKILLS IN TERMS OF SKILLS

Item	Mean	Interpretation
1. Designing gamified activities aligned with MELCs and competencies.	4.15	Great Extent
2. Implementing classroom management strategies through game rules.	4.12	Great Extent
3. Facilitating group collaboration using gamification techniques.	3.85	Great Extent
4. Creating engaging digital gamified lessons with ICT tools.	3.77	Great Extent
5. Monitoring learner progress through points, badges, and leaderboards.	3.17	Moderately Extent
6. Customizing gamified activities to address learners' readiness and interests.	2.76	Moderately Extent
7. Managing instructional time efficiently during gamified lessons.	3.88	Great Extent
8. Innovating classroom practices by developing new gamification strategies.	4.27	Very Great Extent
9. Assessing learner outcomes using gamified assessment tools.	3.28	Moderately Extent
10. Sustaining learner motivation through consistent gamification practices.	4.53	Very Great Extent
Overall Mean	**3.78**	**Great Extent**

Legend: *4.21-5.00= Very Great Extent; 3.41-4.20= Great Extent; 2.61-3.40= Moderately Extent; 1.81-2.60= Low Extent; 1.00-1.80= Very Low Extent*

Table 3 presents teachers' gamification skills and yields an overall mean of 3.78, which means that teachers possess quite a high extent of skill in implementing gamification strategies to enhance instruction. The highest-rated item is "Sustaining learner motivation through consistent

gamification practices," which yielded a mean of 4.53 (Very Great Extent). This result shows that teachers are highly capable of sustaining learners' interest through continuous gamified practices that no doubt translate into increased engagement and better performance in the classroom. It serves to indicate that the teachers' capacity for sustaining motivation reflects an understanding not only of gamification mechanics but also of their practical adaptability within the classroom.

The lowest-rated item is "Customizing gamified activities to address learners' readiness and interests," with a mean of 2.76 (Moderately Extent). This indicates a significant challenge in personalizing gamification to meet the diverse needs of learners. Possible reasons limiting personalization include lack of time to differentiate instruction, inflexible curricula, and lack of access to gamification tools that support differentiation based on learner needs. The implication is that without personalization, gamification risks becoming generic, hence reducing its effectiveness in closing specific learner gaps and promoting inclusion. This finding indicates that more support is needed for developing differentiated gamified strategies.

Supporting this finding, Balaman and Tüzün (2021) indicated that, whereas teachers are capable of implementing general gamification techniques, very often they fail to adapt these methods to the learners' diverse readiness levels. Köse and Yıldız (2023) also indicated that the personalization of game-like activities not only requires complex digital skills but also additional time for planning, which is often out of reach for most teachers due to increasing workload demands. Together, these studies confirm the fact that customization is one of the lacking skills and points to the need for capacity building in differential gamified practice..

Learners Academic Performance

This section outlines the learners' academic performances as derived from the consolidated results of their assessed competencies. It explains how students demonstrated their knowledge, skills, and overall mastery across the domains evaluated to provide a basis for interpreting the level of achievement demonstrated by students.

TABLE 4
LEARNERS ACADEMIC PERFORMANCE

	Frequency	Percentage
Outstanding	104	2.70
Very Satisfactory	943	24.50
Satisfactory	2799	72.70
Fairly Satisfactory	-	-
Did Not Meet Expectation	-	-
Overall Mean	**3846**	**100.00**

Legend: *90-100= Outstanding; 85-89= Very Satisfactory; 80-84= Satisfactory; 75-79= Fairly Satisfactory; Below 75= Did Not Meet Expectation*

Table 4 reveals the frequency distribution of learners' academic performance categorized into DepEd performance descriptors. Of the 3,846 learners, the highest number, consisting of 2,799 (72.70%), obtained a Satisfactory rating (80–84). This means the greater part of the students are performing at an acceptable and expected level of achievement based on the minimum academic standards set by the curriculum. On the other hand, 943 learners, comprising 24.50%, were rated as Very Satisfactory (85–89), which is an appreciable percentage to have acquired above-average academic prowess. Only 104 learners, or 2.70%, obtained an Outstanding rating (90–100), while no learners fell under Fairly Satisfactory or Did Not Meet Expectation ratings. From these, the consolidated distribution indicates that learners generally pass the required academic standard, while very few reach the highest echelon of academic excellence.

The predominance of the category Satisfactory suggests that instructional and assessment practices tend to result in a moderate rather than high levels of mastery. Inasmuch as this finding signals that learning competencies are widely achieved, it also suggests that instructional strategies may not be reaching learners who could be achieving at higher-order performance levels. The absence of learners in the lower categories acts as a positive marker of base-level instructional effectiveness; however, the small share of Outstanding achievers points to a need for more robust enrichment programs, differentiated instruction, and higher-order cognitive tasks designed to move a larger share of learners toward excellence.

The minuscule proportion of Outstanding performers, at 2.70%, signals that few learners actually achieve peak academic performance. This could be due to various reasons such as lack of enrichment opportunities or advanced learning tasks, lack of individualized feedback, or motivational and self-efficacy constraints of the high-ability learners themselves. Without systematic enrichment and academic acceleration, many learners who could have done better may settle within the Satisfactory range. Therefore, while the school system is adequate in ensuring minimum competency, it needs to further strengthen mechanisms that lead to high achievement and sustained excellence. These findings correspond to the results brought about by Gutiérrez-de-Rozas et al. (2022), who state that metacognitive skills, self-concept, school support, and family involvement make a significant difference in learners' academic performance. Their investigation was on low achievers; the same factors that contributed to low achievement can become constricting for top achievers when more advanced cognitive involvement and external support are needed. Thus, the scarcity of Outstanding learners in the present study may reflect not only learner-related factors but also systemic instructional and environmental constraints that limit the full development of academic excellence.

Significant Relationship Between Teachers' Gamification Skills and Learners' Academic Performance

These section presents the significant relationship between teachers' gamification skills and learners' academic performance. It explains how teachers' ability to use gamified strategies in the classroom relates to the academic outcomes of their students.

TABLE 5
SIGNIFICANT RELATIONSHIP BETWEEN TEACHERS' GAMIFICATION SKILLS AND LEARNERS' ACADEMIC PERFORMANCE

Correlates	N	Rho	Level of Sig	p-value	Interpretation
Teachers Gamification Skills Learners' Academic Performance	110	.914	0.05	.000	Not Significant

Table 5 shows the Spearman's rank-order correlation coefficient (ρ) at $\alpha = 0.05$ used in the measurement of the relationship between teachers' gamification skills and learners' academic performance. The null hypothesis was that there would be no significant relationship between the variables, while the alternative hypothesized a significant relationship. The rule for rejecting and failing to reject the null hypothesis was $p \leq 0.05$ and $p > 0.05$, respectively.

The analysis resulted in a very strong positive correlation: $\rho = .914$, $p = .000$. Since $p < \alpha$, the null hypothesis was rejected; therefore, there was a significant relationship. This suggests that higher levels of teachers' gamification skills are actually related to better learner academic performance. More specifically, those teachers who are capable of designing, implementing, and sustaining gamified instructional strategies are more likely to ensure notable improvements in student outcomes. Therefore, teacher competency in gamification seems not only to motivate students but also ensure measurable gains in academic achievement.

The findings are therefore in line with recent empirical studies. By meta-analysis, Li (2023) showed that overall, gamification significantly improves instructional effectiveness and learning outcomes. The study of Zeng et al. (2024) indicated a strong positive effect of gamification on students' academic achievement and engagement in different contexts. Diaz (2024) also revealed significant increases in student achievement due to gamification. Taken together, these studies support the current finding that investment in teachers' skills regarding gamification pays off in enhanced learner success.

IV. CONCLUSION

This study has revealed that teacher respondents are a professionally diverse cohort of mostly mid-career educators who have accumulated extensive years of teaching experience and moderately engage in seminars and professional trainings. Even though the majority are only bachelor's degree holders, their demographic characteristics have no significant difference in their

level of gamification skills, which means these variables are not predictors of teachers' readiness or capacity to perform gamified instruction. Teachers generally perform highly on gamification competencies in designing collaborative tasks for students, creating learner-centered activities, and infusing gamification techniques into lesson planning. On the other hand, they have relatively lower competencies in terms of selecting, adapting, and using digital platforms and emerging gamification toolkits, showing a need for higher levels of exposure to innovative and technology-enhanced approaches to teaching and learning. Learners' academic performance reportedly ranges from Satisfactory to Very Satisfactory, indicating that learners meet expected learning outcomes and are responsive to instructional strategies at play, including the gamified activities of the teacher participants. There was also a significant relationship between teachers' gamification skills and learners' academic performance, showing that higher levels of gamification result in enhanced motivation, participation, and achievement. Based on this finding, the development of an Instructional Support Plan will be vital to enhancing teachers' digital and pedagogical competencies, establishing consistent gamified practices across grade levels, and providing regular mentoring and capacity-building opportunities. Subtle indications from the findings suggest that schools may need to expand access to digital toolkits and structured professional learning to allow teachers to design gamified experiences with confidence, deepening the interest of learners and their academic growth.

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