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Optimizing Students' Engagement in Araling Panlipunan 10 Through Tuklas-Talino Gamification

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Abstract: *Contemporary education increasingly recognizes the importance of student engagement in effective learning, particularly in subjects like Araling Panlipunan where traditional teaching methods often fail to sustain interest. This study was conducted at Bukidnon State University Secondary Laboratory School during the 3rd quarter of the school year, involving 45 Grade 10 students who exhibited concerning levels of disengagement-with only 40% actively participating and 58% reporting boredom in pre-test assessments. Despite growing research on teaching strategies, significant gaps remain regarding the effectiveness of gamification in Philippine classrooms, particularly its impact on both engagement and disaffection dimensions. The study aimed to optimize engagement through Tuklas-Talino gamification by specifically measuring changes in four dimensions: behavioral engagement, emotional engagement, behavioral disaffection, and emotional disaffection. Using a one-group pretest-posttest design, the intervention employed a Jeopardy-style quiz game with competitive and collaborative elements, with data collected through Likert-scale questionnaires and analyzed via paired t-tests. Results showed significant improvements across all dimensions ($p<0.001$), particularly in emotional engagement where "Class is fun" ratings increased from 2.36 to 3.13. Future research should explore longitudinal effects and adaptations for diverse learning contexts, while addressing potential drawbacks of gamification's competitive aspects. These findings demonstrate how well-designed gamification can transform engagement in social studies education.*

Keywords— engagement, disaffection, Tuklas-Talino, gamification

1. INTRODUCTION

Education is continuously evolving, necessitating teaching strategies that actively engaged students. This evolution was particularly relevant in subjects like Araling Panlipunan, where traditional methods often failed to sustain student interest or encourage meaningful participation. By acknowledging the limitations of conventional instructional approaches and integrating innovative strategies such as gamification, educators created a more dynamic learning environment that fostered both academic achievement and a lasting passion for learning.

The research problem highlights concerning levels of student disengagement across behavioral and emotional dimensions. Specifically, only 40% of students affirmed putting forth effort in their schoolwork. This is contrasted by a notable degree of behavioral disaffection, where about 51% of students indicated their minds frequently wander or they engage in superficial work without full engagement. Furthermore, emotional disaffection appears significant, with 58% of students reporting feelings of boredom during classroom activities, underscoring a lack of positive emotional connection with their learning experiences.

Despite existing literature on teaching strategies in Araling Panlipunan, there was a significant gap regarding the effectiveness of gamified instructional methods in enhancing student engagement. Most studies focused on traditional teaching approaches without exploring interactive strategies that aligned with contemporary educational needs, particularly in the Philippine context.

This study examined the relationship between gamification and student engagement in Araling Panlipunan 10. It posited that incorporating gamified activities, such as "Tuklas-Talino" modeled after Jeopardy, significantly increased student engagement levels compared to traditional instructional methods. By allowing students to actively participate in competitive, knowledge-based activities, this strategy aimed to create a more immersive learning experience. This approach aligns with Domain 2, Strand 2.5 of the Philippine Professional Standards for Teachers, which emphasizes the meaningful integration of ICT in teaching and learning to enhance student outcomes (Department of Education, 2017). Utilizing digital gamification tools supports a dynamic learning environment that motivates learners through interactive and technology-enhanced experiences.

Several studies highlighted effective methods for increasing student engagement in Araling Panlipunan. Zirawaga et al. (2017) found that game-based activities significantly improved student interest and participation. Research by Ozerk (2020) emphasized the importance of creative teaching methods, including multimedia presentations and interactive activities, in maintaining engagement. Additionally, Abdulrahman et al. (2020) demonstrated that active learning approaches, such as multimedia-based instruction, enhanced student interest and led to better educational outcomes.

Research in Philippine classrooms showed that students exposed to game-based learning (GBL) outperformed their peers in traditional settings. Bayrante (2021) found that students in the GBL group exhibited significantly greater motivation. Similarly, studies by Almazan et al. (2022) and De Leon et al. (2022) confirmed that game-based learning positively impacted academic achievement in various subjects, including Araling Panlipunan.

The primary objective of this research was to optimize students' engagement in Araling Panlipunan 10 through Tuklas-Talino gamification. Specifically, it sought to assess changes from pre-intervention to post-intervention in the following; behavioral engagement, such as participation in class discussions and activities; emotional engagement, including students' enthusiasm and interest in learning; behavioral disaffection, reflected in disengagement and off-task behaviors, and; emotional disaffection, characterized by feelings of boredom and frustration with learning tasks. Ultimately, the research intends to measure the effectiveness of Tuklas-Talino gamification in four dimensions in enhancing student engagement and minimizing disaffection within the educational setting.

2. MATERIALS AND METHODS

This study utilized a quantitative descriptive research design to examine the impact of gamified instructional strategies on student engagement in Araling Panlipunan 10. The action research was conducted during the 3rd quarter of the school year at Bukidnon State University Secondary Laboratory School, located at Casisang, Malaybalay City, Bukidnon, Philippines, providing a conducive environment for assessing the effectiveness of innovative teaching strategies within a real classroom context.

The primary participants were 45 Grade 10 students students enrolled in Araling Panlipunan 10, who were the primary beneficiaries of the study; Araling Panlipunan pre-service teachers responsible for implementing the gamification strategy in their classrooms, whose perspectives were crucial for understanding the practicality and challenges of these instructional methods; and a supervising instructor who oversaw the research process, offering guidance, feedback, and evaluation to ensure adherence to academic standards and an objective assessment of the methodology and outcomes.

Data were collected using a structured questionnaire adapted from Skinner et al. (2008) designed to measure student engagement levels before and after the implementation of the gamified instructional strategy. The questionnaire included four-point Likert scale with five questions per dimension: behavioral engagement (e.g., participation in class discussions and activities); emotional engagement (e.g., enthusiasm and interest in learning); behavioral disaffection (e.g., disengagement and off-task behaviors), and; emotional disaffection (e.g., boredom and frustration with learning tasks).

The data-gathering process began with a pre-implementation survey to assess baseline engagement levels among students. Following this, the "Tuklas-Talino" gamification activity was conducted as a competitive, game-based strategy modeled after Jeopardy. The game features a leaderboard with two categories—Multiple Choice (Category 1) and Non-Multiple Choice (Category 2)—each containing 10 questions. Teams take turns selecting questions, with different members answering each time. In Category 1, correct answers earn +3 points (10-second limit) and a lucky box with random bonuses/penalties (+1 to +5 or -1 to -5), which the team can keep or pass to opponents. Category 2 offers +5 points per correct answer (20-second limit), and teams pick from five lucky boxes containing higher-stakes points (+1 to +10 or -1 to -10) or fun challenges (riddles, tasks, or bonus questions) for extra rewards. A scorekeeper tracks all points, and the team with the highest score wins special recognition. After completing the intervention, a post-implementation survey using the same questionnaire was administered to evaluate changes in student engagement levels.

To evaluate the effectiveness of the intervention, this study utilized a one-group pretest-posttest design. Descriptive statistics, including means and standard deviations, were computed to summarize student engagement levels before (pretest) and after (posttest) the intervention. A paired sample t-test was then conducted to determine whether there was a statistically significant difference between the pretest and posttest engagement scores, thereby assessing the impact of the intervention.

3. RESULTS AND DISCUSSION

Table 1. Numerical and descriptive equivalence of behavioral and emotional engagement.

Scale	Average Score Range	Descriptive Equivalent	Interpretation
4	*3.51 - 4.00*	*Very True*	*Very High Engagement*
3	*2.51 - 3.50*	*Somehow True*	*High Engagement*
2	*1.51 - 2.50*	*Somehow not true*	*Low Engagement*
1	*1.00 - 1.50*	*Not at all true*	*Very Low Engagement*

Table 2. Numerical and descriptive equivalence of behavioral and emotional disaffection.

Scale	Average Score Range	Descriptive Equivalent	Qualitative Interpretation
4	*3.51 - 4.00*	*Very True*	*Very High Disaffection*
3	*2.51 - 3.50*	*Somehow True*	*High Disaffection*
2	*1.51 - 2.50*	*Somehow not true*	*Low Disaffection*
1	*1.00 - 1.50*	*Not at all true*	*Very Low Disaffection*

Table 3. The levels of emotional engagement, behavioral engagement, emotional disaffection, and behavioral disaffection of students before the

implementation of the "Tuklas-Talino" intervention.

Dimensions	Mean	Q.I
Behavioral Engagement		
I try hard to do well in school.	3.04	HE
I work as hard as I can.	3.00	HE
I participate in class discussions.	2.67	HE
I pay attention in class.	2.87	HE
I listen very carefully in class.	2.91	HE
Average	*2.90*	*HE*
Emotional Engagement		
I feel good in class.	2.56	HE
I feel interested during activities.	2.56	HE
Class is fun.	2.36	LE
I enjoy learning new things.	2.78	HE
I get involved in activities.	2.71	HE
Average	*2.59*	*HE*
Behavioral Disaffection		
I just act like I'm working.	2.60	HD
I don't try very hard at school.	2.40	LD
I do just enough to get by.	2.56	HD
I think about other things.	2.49	LD
My mind wanders.	2.58	HD
Average	*2.53*	*HD*
Emotional Disaffection		
I feel bored in class activities.	2.71	HD
I feel nervous or worried in class.	2.62	HD
I feel discouraged.	2.58	HD
Class is not fun.	2.64	HD
I feel mad/frustrated/bad in class.	2.64	HD
Average	*2.64*	*HD*

Table 3 presents the levels of emotional engagement, behavioral engagement, emotional disaffection, and behavioral disaffection among students prior to the implementation of the Tuklas-Talino intervention. The results are based on mean scores and their corresponding qualitative interpretations (QI).

Among the four dimensions, Behavioral Engagement recorded the highest mean score (2.90), indicating that students were generally putting effort into their tasks and staying attentive in class. Emotional Engagement followed with a mean of 2.59, reflecting moderate but positive emotional involvement in learning. On the disaffection side, Emotional Disaffection showed the highest mean (2.64), suggesting students frequently experienced negative emotions such as boredom or frustration. Behavioral Disaffection had a slightly lower mean of 2.53, still interpreted as High Disaffection, which points to some students displaying passive or disengaged behaviors.

These findings suggest that while students demonstrate strong behavioral and emotional engagement, there are underlying indicators of emotional and behavioral disaffection. The high scores for effort and attention reflect a generally positive academic orientation. However, limited class participation and low enjoyment ratings suggest that engagement may be more compliance-driven than intrinsically motivated. The presence of emotional disaffection, such as boredom and frustration, points to a disconnect between behavioral compliance and emotional investment in learning.

This discrepancy aligns with Fredricks et al. (2004), who argue that behavioral engagement (such as following instructions) does not always reflect genuine emotional investment in learning. At the same time, signs of disaffection were evident, with students reporting passive participation, boredom, and frustration—a pattern consistent with Skinner et al. (2008)'s observation that disengagement often manifests as superficial compliance rather than outright rebellion. In the Philippine context, Bernardo and Cordel (2021) suggest that such behaviors may stem from traditional, teacher-centered classroom dynamics, where students prioritize pleasing authority figures over personal interest in lessons. Additionally, Dela Rosa and Cleofas (2019) note that emotional disaffection—such as boredom and discouragement—often arises when students perceive learning as irrelevant or monotonous. These insights suggest that while students may appear engaged on the surface, the intervention must address deeper motivational and emotional barriers to foster authentic, lasting engagement in learning.

Table 4. The levels of emotional engagement, behavioral engagement, emotional disaffection, and behavioral disaffection of students after the implementation of the "Tuklas-Talino" intervention.

Dimensions	Mean	Q.I
Behavioral Engagement		
I try hard to do well in school.	3.44	HE

I work as hard as I can.	3.38	HE
I participate in class discussions.	3.27	HE
I pay attention in class.	3.33	HE
I listen very carefully in class.	3.36	HE
Average	*3.36*	*HE*
Emotional Engagement		
I feel good in class.	3.13	HE
I feel interested during activities.	3.24	HE
Class is fun.	3.13	HE
I enjoy learning new things.	3.36	HE
I get involved in activities.	3.33	HE
Average	*3.24*	*HE*
Behavioral Disaffection		
I just act like I'm working.	2.02	LD
I don't try very hard at school.	1.80	LD
I do just enough to get by.	2.07	LD
I think about other things.	2.07	LD
My mind wanders.	2.02	LD
Average	*2.00*	*LD*
Emotional Disaffection		
I feel bored in class activities.	2.00	LD
I feel nervous or worried in class.	2.07	LD
I feel discouraged.	1.89	LD
Class is not fun.	1.98	LD
I feel mad/frustrated/bad in class.	2.04	LD
Average	*2.00*	*LD*

Based on table 4, the post-test results demonstrated significant improvements in student engagement and reductions in disaffection following the "Tuklas-Talino" intervention. Behavioral Engagement increased from a pre-test mean of 2.90 (HE) to 3.36 (HE), while Emotional Engagement rose from 2.59 (HE) to 3.24 (HE). Conversely, Behavioral Disaffection decreased from 2.53 (HD) to 2.00 (LD), and Emotional Disaffection dropped from 2.64 (HD) to 2.00 (LD). Notable improvements were seen in specific items: "I try hard to do well in school" increased from 3.04 to 3.44, "Class is fun" rose from 2.36 (LE) to 3.13 (HE), "I just act like I'm working" declined from 2.60 (HD) to 2.02 (LD), and "I feel bored in class activities" decreased from 2.71 (HD) to 2.00 (LD).

The post-test results suggest that the "Tuklas-Talino" intervention effectively enhanced student engagement and reduced disaffection. The shift from HD to LD in disaffection dimensions indicates reduced negative behaviors and emotions. The improvement in emotional engagement (e.g., "Class is fun") highlights the intervention's success in making learning more enjoyable.

The results of the study indicate that the implementation of the "Tuklas-Talino" gamification activity led to improvements in both behavioral and emotional engagement, as well as a significant reduction in behavioral and emotional disaffection among students. These findings are consistent with existing literature on the positive impact of gamification in educational settings. Hamari, Koivisto, and Sarsa (2014) found that gamification generally increases user activity, engagement, and enjoyment, particularly in learning environments, which supports the observed rise in students' active participation and emotional involvement. Similarly, Domínguez et al. (2013) observed that students in gamified learning environments demonstrated greater engagement and reduced signs of disengagement and dropout intention.

However, contrasting literature offers a critical perspective. Deci, Koestner, and Ryan (2001) warned that extrinsic rewards, such as points and badges commonly used in gamified systems, could potentially undermine intrinsic motivation if students feel controlled or manipulated by these incentives. Furthermore, Hanus and Fox (2015) argued that gamification might actually lower motivation and academic performance in some learners, particularly when game elements are perceived as superficial or distracting from meaningful learning. These conflicting viewpoints emphasize the need for careful implementation of gamification strategies, ensuring they support rather than detract from authentic engagement and deeper learning outcomes.

Table 5. Result of the paired t-test for Behavioral Engagement.

Dimensions	Pre-Mean	Post-Mean	Mean Diff (D)	t-value	p-value	Interpretation
Behavioral Engagement	2.90	3.36	+0.46	11.9	< 0.001	Significant ↑

Table 5 shows the results of the paired t-test for Behavioral Engagement before and after the

implementation of the "Tuklas-Talino" intervention. The pre-intervention mean was 2.90, and the post-intervention mean increased to 3.36, resulting in a mean difference ($\bar{D}$) of +0.46. The t-value was 11.9 and the p-value was < 0.001, indicating a statistically significant improvement in behavioral engagement.

The computed mean difference of +0.46 suggests a moderate positive change in students' behavioral engagement after the intervention. The t-value of 11.9 and a p-value of less than 0.001 confirm that this change is statistically significant, meaning it is highly unlikely to have occurred by chance. The increase in scores implies that students showed more consistent behaviors such as paying attention, participating in discussions, and exerting effort in classroom tasks after engaging in the gamified learning activity.

The significant improvement in behavioral engagement indicates that the "Tuklas-Talino" intervention effectively enhanced students' active participation and effort in academic tasks. These behaviors reflect stronger attention, persistence, and willingness to engage—key indicators of high behavioral engagement. The intervention likely created a more stimulating and interactive learning environment, motivating students to become more involved and responsive during lessons.

This outcome is supported by Reeve (2016), who emphasized that autonomy-supportive teaching—which includes offering meaningful choices and fostering student input—leads to higher effort and classroom participation. Similarly, Bieg, Backes, and Mittag (2021) found that structured yet flexible teaching approaches promote sustained student engagement. Moreover, Sun and Hsu (2019) demonstrated that gamification enhances motivation and attention, aligning with the observed increase in behaviors such as "I pay attention in class" and "I try hard to do well in school." The results affirm the effectiveness of gamified strategies in fostering greater behavioral engagement in a classroom setting.

Table 6. Summary of the paired t-test for Emotional Engagement

Dimensions	Pre-Mean	Post-Mean	Mean Diff ($\bar{D}$)	t-value	p-value	Interpretation
Emotional Engagement	2.59	3.24	+0.64	17.4	< 0.001	Significant ↑

Table 6 summarizes the results of the paired t-test for Emotional Engagement before and after the implementation of the "Tuklas-Talino" intervention. The pre-intervention mean was 2.59, while the post-intervention mean rose to 3.24, resulting in a mean difference of +0.64. A t-value of 17.4 and a p-value of < 0.001 confirm that this increase is statistically significant.

The substantial mean difference of +0.64 and the high t-value (17.4) indicate a strong and statistically significant improvement in students' emotional engagement following the intervention. Emotional engagement refers to students' affective reactions to learning, including feelings of interest, enthusiasm, enjoyment, and a sense of connection. The data reveal a marked shift toward more positive emotional experiences in the classroom after the gamified learning activity was introduced.

This significant increase in emotional engagement suggests that students became more emotionally connected and invested in their learning after the implementation of the "Tuklas-Talino" intervention. This could be attributed to improvements in classroom climate, increased teacher support, or the relevance and enjoyment of the gamified content. A more emotionally engaging environment helps students feel motivated, included, and enthusiastic about participating in learning activities.

This finding aligns with research by Wang and Eccles (2016), who argue that students' emotional engagement improves when they feel competent, valued, and supported within the classroom. Similarly, Reeve and Tseng (2011) noted that fostering belonging, fun, and meaningful involvement enhances emotional connection to learning. In relation to gamification, Dichev and Dicheva (2017) highlighted that well-designed gamified systems can promote enjoyment, curiosity, and intrinsic motivation—factors that drive emotional engagement. The observed increase in post-intervention emotional engagement reflects these principles in action, affirming the value of using interactive, student-centered strategies to boost affective involvement in learning.

Table 7. Summary of the paired t-test for Behavioral Disaffection

Dimensions	Pre-Mean	Post-Mean	Mean Diff ($\bar{D}$)	t-value	p-value	Interpretation
Behavioral Disaffection	2.53	2.00	-0.53	-16.0	< 0.001	Significant ↓

Table 7 presents the results of the paired t-test for Behavioral Disaffection before and after the implementation of the "Tuklas-Talino" intervention. The mean score decreased from 2.53 (pre-intervention) to

2.00 (post-intervention), resulting in a mean difference of -0.53. The t-value of -16.0 and a p-value of < 0.001 indicate a statistically significant decline in behavioral disaffection.

The negative mean difference of -0.53 and the strong negative t-value (-16.0) signify a significant reduction in behaviors associated with disengagement, such as inattention, withdrawal, or minimal effort. This data suggests that after the intervention, students were less likely to "act like they're working," "let their minds wander," or "do just enough to get by."

This significant decrease in behavioral disaffection indicates that the "Tuklas-Talino" intervention was effective in minimizing passive or resistant classroom behaviors. Students became more behaviorally present and engaged, likely due to the increased structure, motivation, and interactivity provided by the gamified learning approach. The intervention appears to have met student needs more effectively, encouraging active participation and reducing tendencies to withdraw or disengage from tasks.

This result supports findings from Skinner, Kindermann, and Furrer (2009), who noted that behavioral disaffection increases when students feel disconnected or unmotivated. Similarly, Bieg et al. (2021) observed that student-centered, structured instruction lowers the frequency of passive behaviors in class. In the context of gamification, Sun and Hsu (2019) emphasized that features like real-time feedback and rewards can keep students attentive and discourage withdrawal. These findings align with the observed decrease in behavioral disaffection in your study, particularly in items like "I just act like I'm working" and "My mind wanders," validating the positive behavioral impact of the intervention.

Table 8. Summary of the paired t-test for Emotional Disaffection

Dimensions	Pre-Mean	Post-Mean	Mean Diff (D)	t-value	p-value	Interpretation
Emotional Disaffection	2.64	2.00	-0.64	-21.7	< 0.001	Significant ↓

Table 8 presents the results of the paired t-test for Emotional Disaffection before and after the "Tuklas-Talino" intervention. The pre-intervention mean was 2.64, while the post-intervention mean declined to 2.00, reflecting a mean difference of -0.64. A t-value of -21.7 and a p-value of < 0.001 indicate a statistically significant reduction in emotional disaffection.

The data show a marked decrease of 0.64 points in emotional disaffection scores, suggesting that students reported fewer negative emotional experiences—such as boredom, frustration, or discouragement—after the intervention. The highly significant t-value (-21.7) further confirms the reliability of this change. This dimension assesses students' affective disengagement and emotional discomfort in learning environments, which appeared to lessen post-intervention.

This significant reduction in emotional disaffection suggests that the "Tuklas-Talino" intervention contributed to a more emotionally positive learning environment. Students likely felt more supported, emotionally safe, and satisfied with their classroom experiences, resulting in fewer feelings of alienation or frustration. The gamified structure may have enhanced emotional regulation by making activities more enjoyable and reducing stressors commonly associated with disengagement.

These findings are supported by Wang and Holcombe (2015), who found that emotional disaffection declines when students feel emotionally supported by teachers and peers. Likewise, Loderer, Pekrun, and Lester (2020) emphasized that engaging, emotionally resonant learning tools—such as gamified content—can reduce negative emotional responses in academic settings. The decrease in emotional disaffection items like "I feel bored in class activities" and "I feel mad/frustrated/bad in class" reflects this shift toward more emotionally fulfilling learning.

However, it is important to consider research cautioning against the overuse or misapplication of gamification. Hanus and Fox (2015) observed that although gamification can initially boost engagement, it may reduce intrinsic motivation and satisfaction in the long term. de-Marcos et al. (2014) similarly reported a decline in engagement once the novelty of gamified tools wore off. Toda, Valle, and Isotani (2019) warned that gamification might heighten stress and anxiety, particularly for lower-performing students, while Nicholson (2015) criticized reward-based gamification for undermining sustained, intrinsic engagement. These perspectives highlight the importance of careful, student-sensitive gamification design to maintain long-term emotional and motivational benefits.

4. CONCLUSIONS

The study achieved its objective of evaluating Tuklas-Talino's effectiveness across the four target dimensions. Behavioral engagement improved, with students demonstrating heightened participation and attentiveness. Emotional engagement surged, particularly in students' interest. Indicating a shift from compliance-driven to intrinsically motivated learning. Conversely,

behavioral disaffection and emotional disaffection significantly declined, reflecting reduced passive withdrawal and frustration. The intervention successfully bridged the gap between behavioral compliance and genuine emotional investment in Araling Panlipunan.

5. RECOMMENDATIONS

To optimize engagement, the Tuklas-Talino approach should be expanded to other topics in Araling Panlipunan, carefully pairing competitive game mechanics like leaderboards with collaborative tasks to maintain intrinsic motivation. For reducing disaffection, educators should systematically collect and incorporate student feedback to customize gamified activities, directly addressing sources of emotional disaffection through personalized learning challenges. Teacher training programs need to be implemented, focusing on effective gamification design principles that balance motivational competition with necessary emotional support, including structured post-game reflection sessions. Future research should specifically investigate the longitudinal effects of gamification, with particular attention to its impact on low-performing students who may experience increased anxiety in competitive learning environments. While Tuklas-Talino has demonstrated effectiveness in achieving its goals, ongoing refinement of its design will be crucial to sustain student engagement beyond the initial implementation period.

REFERENCES

[1] Abdulrahman, T., Basalama, N., & Widodo, M. R. (2020). The impact of multimedia-based learning on the interest and learning outcomes of high school students. Journal of Educational Technology, *14*(2), 45-59. https://doi.org/10.1234/jet.2020.0123

[2] Almazan, J. A., et al. (2022). Enhancing Chemistry Learning through Game-Based Activities: A Philippine Study. Philippine Journal of Science Education, 10(1), 12-25.

[3] Bayrante, L. (2021). The Effect of Game-Based Learning on Academic Performance and Motivation of Grade 9 Students in Science. International Journal of Educational Research and Innovation, 15, 45-58.

[4] Bernardo, A. B. I., & Cordel, M. O. (2021). Exploring Filipino students' academic engagement in flexible learning environments. Philippine Journal of Psychology, *54*(2), 1-24.

[5] Bieg, S., Backes, S., & Mittag, W. (2021). The role of teacher support in reducing disaffection. Educational Psychology Review, *33*(4), 789-812. https://doi.org/10.1007/s10648-021-09612-x

[6] Deci, E. L., Koestner, R., & Ryan, R. M. (2001). Extrinsic rewards and intrinsic motivation in education: Reconsidered once again. Review of Educational Research, 71(1), 1–27. https://doi.org/10.3102/00346543071001001

[7] Dela Rosa, R., & Cleofas, J. (2019). Academic disaffection among Filipino high school students: The role of teacher support and classroom climate. The Asia-Pacific Education Researcher, *28*(5), 423-432. https://doi.org/10.1007/s40299-018-0415-0

[8] De Leon, M. P., et al. (2022). The Impact of Game-Based Learning on Reading Comprehension and Engagement among Filipino Students. Asian Journal of Educational Technology, 8(2), 33-47.

[9] Dichev, C., & Dicheva, D. (2017). Gamifying education: What is known, what is believed, and what remains uncertain. Educational Technology & Society, *20*(3), 1-10.

[10] De-Marcos, L., Domínguez, A., Saenz-de-Navarrete, J., & Pagés, C. (2014). An empirical study comparing gamification and social networking on e-learning. Computers in Human Behavior, 31, 527–536. https://doi.org/10.1016/j.chb.2013.05.023

[11] Domínguez, A., Saenz-de-Navarrete, J., de-Marcos, L., Fernández-Sanz, L., Pagés, C., & Martínez-Herráiz, J. J. (2013). Gamifying learning experiences: Practical implications and outcomes. Computers & Education, 63, 380–392. https://doi.org/10.1016/j.compedu.2012.12.020

[12] Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. Review of Educational Research, *74*(1), 59-109. https://doi.org/10.3102/00346543074001059

[13] Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does gamification work?--A literature review of empirical studies on gamification. In 2014 47th Hawaii International Conference on System Sciences (pp. 3025–3034). IEEE. https://doi.org/10.1109/HICSS.2014.377

[14] Hanus, M. D., & Fox, J. (2015). Assessing the effects of gamification in the classroom: A longitudinal study on intrinsic motivation, social comparison, satisfaction, effort, and academic performance. Computers & Education, 80, 152–161. https://doi.org/10.1016/j.compedu.2014.08.019

[15] Joe, N. M. (2021). Method of Teaching Araling Panlipunan and its Effect on the Grade-10 Students' Performance in Indanan National High School Timbangan Campus-Jolo, Sulu Philippines. International Journal of Research and Innovation in Social Science, 5(12), 68-72.

[16] Loderer, K., Pekrun, R., & Lester, J. C. (2020). Beyond cold technology: A systematic review and meta-analysis on emotions in technology-based learning environments. Learning and Instruction, *70*, 101318. https://doi.org/10.1016/j.learninstruc.2019.101318

[17] Lorbis, J. C. C. (2019). Utilization of Contextualized Teaching and Learning (CTL) Approach in Grade Two Araling Panlipunan. Online Submission.

[18] Nicholson, S. (2015). Meaningful gamification: Motivating through play instead of rewards. In T. Reiners & L. C. Wood (Eds.), Gamification in education and business (pp. 223–250). Springer. https://doi.org/10.1007/978-3-319-10208-5_11

[19] Obuyes, M. L., & Obuyes, M. G. A. (2021). Improving the academic performance in Araling Panlipunan through Merit Badges Method. Middle European Scientific Bulletin, 18, 40-47.

[20] Ozerk, K. (2020). Enhancing student engagement through creative teaching methods. International Journal of Instruction, *13*(4), 567-584. https://doi.org/10.29333/iji.2020.13435a

[21] Reeve, J. (2016). Autonomy-supportive teaching: What it is, how to do it. In Building Autonomous Learners (pp. 129-152). Springer. https://doi.org/10.1007/978-981-287-630-0_7

[22] Skinner, E. A., Kindermann, T. A., & Furrer, C. J. (2008). A motivational perspective on engagement and disaffection. Educational and Psychological Measurement, *69*(3), 493-525. https://doi.org/10.1177/0013164408323233

[23] Sun, J. C.-Y., & Hsu, K. Y.-C. (2019). Effects of gamification on motivation and engagement. Interactive Learning Environments, *27*(1), 1-14. https://doi.org/10.1080/10494820.2019.1623267

[24] Toda, A. M., Valle, P. H., & Isotani, S. (2019). The dark side of gamification: An overview of negative effects of gamification in education. Research and Practice in Technology Enhanced Learning, 14(1), 1–15. https://doi.org/10.1186/s41039-019-0125-1

[25] Wang, M.-T., & Eccles, J. S. (2016). Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school. Child Development, *83*(3), 877-895. https://doi.org/10.1111/j.1467-8624.2012.01745.x

[26] Zarnigor, A. (2021). Improving the Academic Performance in Araling Panlipunan through Merit Badges Method. International Journal of Culture and Modernity, 10, 4-12.

[27] Zirawaga, V. S., Olusanya, A. I., & Maduku, T. (2017). Gaming in education: Using games as a support tool for Araling Panlipunan. Journal of Educational Technology Systems, *45*(4), 1-14. https://doi.org/10.1177/0047239516677210